


FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES

Cost-effective fire, surveillance, access, and intrusion detection solutions



We are building a world that's safer and more secure, more comfortable and energy efficient, more innovative and productive.

We are Honeywell.

With a history dating back to 1885 Honeywell is a Fortune 100 company that invents and manufactures technologies to address some of the world's toughest challenges.

Our solutions face global macro-trends such as energy efficiency, clean energy generation, safety and security, globalization and customer productivity.

A recognized world leader in energy savings and comfort control with approximately 130,000 employees worldwide, including more than 22,000 engineers and scientists, we have an unrelenting focus on performance, quality, delivery, value and technology in everything we make and do.

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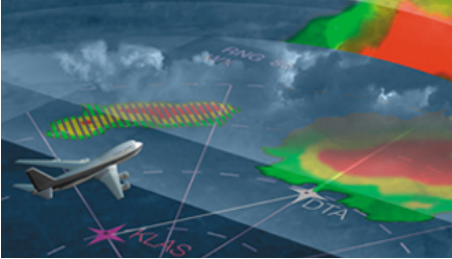
Fire Design Guide

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HONEYWELL OVERVIEW

Aerospace

\$15.2B Sales



Unmatched Scope of Offerings

- Mechanical, Cockpit, and Software Offerings From Nose to Tail
- Apps, Services, Maintenance, Subscriptions
- End-to-End Connectivity Solutions From Hardware to Airtime
- Turbochargers for Fuel Efficiency

Performance Materials and Technologies

\$9.5B Sales



Winning Technology

- Refining and Petrochemical Catalysts
- Gas Processing Modular Offerings
- Solstice® LGWP Materials
- SmartLine Transmitters
- Asset Optimization Software

Home and Building Solutions

Environmental and Combustion Controls

- Residential and commercial building comfort and energy solutions (HVAC, valves, actuators)
- Zone and architectural lighting controls (Ex-Or)
- In-room solutions (DND, thermostat, motion detectors, lighting & curtain controls)
- Air and water filter, solar water heaters
- Combustion controllers
- Electrical devices (sockets, conduits, cable management & underfloor wiring systems)

Honeywell Security & Fire

- Fire panels and detectors
- Smoke and heat detectors
- Public Address System
- Audio Visual System
- Surveillance systems (CCTV, infrared, thermal, etc) with advanced analytics for prevention and pattern detection
- Burglar alarm systems
- Access control & video
- Low Voltage Distribution (ADI)
- Cable and custom electronics

FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES

Cost-effective fire, surveillance, access, and intrusion detection solutions

\$38.6B Global Industrial Company

~53% of Sales Outside U.S.

Home and Building Technologies

\$9.2B Sales



Connecting Homes and Buildings

- Security and Fire
- Connecting Homes With Lyric
- Open Software Connecting "Internet Of Things" in Buildings

Safety and Productivity Solutions

\$4.7B Sales



Connecting Workers

- Wireless, Voice, Mobility, Data Analytic Solutions for Workers
- Warehouse Automation
- Keeping Workers Safe

Safety & Productivity Solutions

Honeywell Industrial Safety

- Portable and fixed gas detectors
- Industrial and Commercial gas detectors
- Safety equipment: Head to toe (Hardhats, eye protection, breathing apparatus, fall protection, safety shoes, fire protection suits, etc.)

Honeywell Sensing & Productivity Solutions

- Bar code scanners & printers
- Rugged mobile computers
- Printer, RFID and voice solutions
- Satellite tracking
- Sensors
- Electromechanical switches
- Safety and limit switches
- Mission critical applications

HONEYWELL SECURITY AND FIRE

\$3.4B Sales

18,900 Employees

- More than 50 years in fire and gas innovation
- Global operation and local execution
- Lowest total cost solutions
- Comprehensive portfolio of innovative products and services
- Leading smoke and gas sensing technology
- Long-term Research and Development investment

Security Solutions



Fire Solutions



Specialist Detection



FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES

Cost-effective fire, surveillance, access, and intrusion detection solutions

Charting a course in the small and medium-sized market

Small and medium-sized Business (SMB) arguably hold the key to the economic development of the Middle East, Africa, and Turkey region. The META SMB Fire and Security market is steadily growing, which is affirmed by favorable market conditions in most parts of the region, including ongoing expansion in the construction industry, growing economies, security threats, increased urbanization trends and the development of middle-class populations. Among all the emerging markets across Globe, META region is currently the biggest for SMB fire and security products.

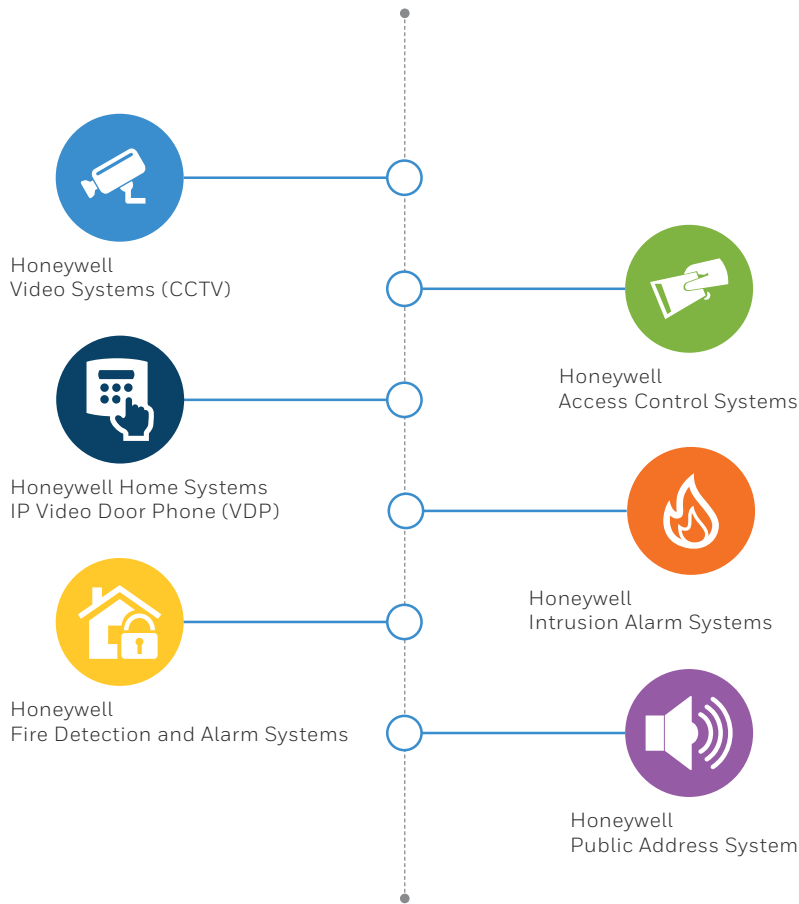
The Honeywell SMB Fire and security products comprise intelligent, flexible, and most importantly, affordable solutions to help protect businesses around the world.



Honeywell Range of Security Solutions

The Honeywell Security & Fire Solutions portfolio features globally reputed brands of fire alarm and detection systems, public address and voice alarm systems (PAVA), IP Video Surveillance systems, Access control systems, IP Video Door phones, Intrusion and Home solutions. Our diverse portfolio caters to Residential, Commercial, Education, Healthcare, Retail and Public Utilities across META region.

The Honeywell SMB Portfolio:



Reliable, Dependable, and flexible

HONEYWELL VIDEO SYSTEMS (CCTV)

The reliability, integrity, and dependability of our video systems ensure that you can meet all of your existing and future security challenges with complete confidence. Our solutions range from IP and analog high definition cameras to digital and network video recorders.

Honeywell's comprehensive analog product range offers a variety of cameras and recording solutions for virtually any application with exceptional image clarity and definition. The range is perfect for all the security solutions with a solid design that is simple to install and operate.

Solutions include:



Honeywell Video Systems (CCTV)



Performance Series IP
Cameras and NVRs



Honeywell Black™ IP
Cameras and NVR's



Honeywell Black™
720P & 1080P AHD
Series Cameras
and DVRs



Honeywell Black™
analog Cameras

So why IP?

IP Video surveillance continues to grow at a fast pace because integrators are seeing the value that it can provide. Driven by their need for higher performance and higher quality video, end users are looking for ways to incorporate fully accessible video surveillance solutions into their business while utilizing their existing IP infrastructure. Honeywell's complete line of IP video products provides the right solution for almost any application all from a single supplier.

Make Quick and Informed Decisions: Superior image quality and full-frame-rate video lets users quickly identify threats or potential issues. Whether up close or zoomed in from afar, users can have a clear picture to make informed decisions.



Expand Business Applications: Video is not just for catching theft or other evidence, but to help customers improve their overall business. Through cloud type services and web-based interfaces, users can access their video information and monitor their businesses from anywhere.

Reduce Total Cost of Ownership: Cost efficiencies and the convenience of leveraging existing network infrastructure helps reduce the overall cost of a system. You can rely on Honeywell for the latest innovations to help you keep up with the IP video market. Because we're your one-stop shop for sales, support, and service, you can rest assured that an IP solution backed by Honeywell will be easier to install and maintain. We make sure the products you choose will work the first time – and work together. Trust us to be the only source you need for everything IP.



A complete IP solution

Improve Accessibility: No longer are users tied to their servers or stations to view their video. Mobility is the key for real-time access to video information. With cloud and web applications driven by mobile apps, users can access their video information anytime, anywhere.

Reduce Installation Time and Costs: IP solutions install quickly and easily with auto-discovery tools. Because IP cameras have a wider field of view than analog cameras, you can install fewer cameras, and therefore reduce costs.

Complete System Scalability: Add one camera at a time or hundreds; from entry to enterprise, IP video solutions are easy to scale no matter the application.

Why Honeywell?

Migration to IP will be successful only if technology drives real, measurable value for security dealers and end users. This value is exactly where Honeywell has focused our R&D efforts – on developing IP products that:

- **Are easy to install and easy to use;**
- **Fit a broad range of applications that provide a real alternative to analog systems on everyday projects;**

Can compete on performance with anything else in the marketplace.

Our Open Technology Alliance forges strategic relationships with third-party manufacturers to give you ultimate flexibility when designing IP security systems. It allows you to capitalize on our open architecture and use the third-party equipment you already have in place to hold down costs and transition to IP with confidence and ease.

Why partner with Honeywell for IP?

It's critical to partner with a leader who can open your world to the power of IP. For a complete IP security solution, open your door to the world's premier security provider. Customers have trusted us for over 80 years, and you can too, with an easy, cost-effective transition from analog to IP. Our IP solutions include:

- A complete selection of recording devices;
- A robust camera offering, including high definition cameras;
- A wide range of system components including compatible software, encoders/decoders, and keyboards.
- The price of IP is falling.
- The performance of IP is astounding.
- The time to migrate is now.



Honeywell Performance Series IP Cameras and NVR'S

Performance Series IP Family includes a new lineup of affordable, high-quality IP cameras and NVR's that are easy to install, use and maintain. The IP camera lineup introduces 1.3, 3 & 4 MP IP cameras in dome, ball, and bullet design, perfect for office buildings, retail stores, and warehouses. Select cameras from the new collection use Motorized Focal Zoom technology, which auto-focuses the lens after zoom operation. This allows the installer to fine-tune camera focus and field-of-view off the ladder, making install easy and saving labor costs. Additionally, each camera captures crisp, clear images with high-resolution pixel detail, and offers correct object-aspect ratio to avoid on-screen distortion. The cameras are Plug & Play with Honeywell's Performance Series Embedded NVRs.



FEATURES & BENEFITS OF PERFORMANCE SERIES IP CAMERA RANGE

- 1.3, 3 & 4 MP resolution images capture crisp, clear accurate detail for evidentiary purposes.
- MFZ technology cameras auto focus from NVR GUI, or Camera Web IU after FOV is set, saving install time and manpower cost.
- Excellent low light performance offers less noise than competition reducing bandwidth consumption and saving storage costs.
- High Codec Efficiency on 3 MP camera models saves > 20% storage space versus competition.
- 3MP in 16:9 resolution (2304x1296), not 4:3 (2048x1536).
- Compact design with small form factor which is easy to hold the unit with one hand during installation.
- Support Micro SD card (few models) (Storage of video locally when the network is interrupted).
- Plug-and-play ease with Performance Series NVRs, and ONVIF compatibility with Performance NVR Series and other 3rd party recorders.
- All models are competitively priced to fit all budgets.
- UL/CE certified.

FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES

Cost-effective fire, surveillance, access, and intrusion detection solutions

Specification

1.3 MP/2 MP/3MP/4MP PERFORMANCE SERIES IP IR MFZ (MOTORIZED FOCUS/ZOOM) BULLET CAMERA RANGE

MODEL	HBW2PR2	HBD3PR2	HBW4PR2
			
CAMERA			
IMAGE SENSOR	1/2.7" 2 megapixel progressive scan CMOS	1/3" 3 megapixel progressive scan CMOS	1/3" 4 megapixel progressive scan CMOS
EFFECTIVE PIXELS	2688(H)x1520(V)	2304 (H) × 1296 (V)	2688(H)x1520(V)
ELECTRONIC SHUTTER SPEED	Auto/Manual, 1/3~1/100000s	Auto/Manual, 1/3(4)~1/100000 s	Auto/Manual, 1/3~1/100000s
MIN. ILLUMINATION	0.1Lux/F1.4(Color); 0Lux/F1.4(IR on)	0.1 lux, F1.4 (Colour); 0 lux (IR LEDs on)	0.1Lux/F1.4(Color); 0Lux/F1.4(IR on)
S/N RATIO	More than 50dB	More than 50dB	More than 50dB
INTRODUCING THE RANGE			
MAX. IR LEDS LENGTH	30m	Up to 30 m	30m
DAY/NIGHT	Auto(ICR)/Color/B/W	Auto(ICR)/Color/B/W	Auto(ICR)/Color/B/W
BACKLIGHT COMPENSATION	BLC / HLC / WDR(120dB)	BLC/HLC/DWDR	BLC / HLC / WDR(120dB)
WHITE BALANCE	Auto/Manual	Auto/Manual	Auto/Manual
GAIN CONTROL	Auto/Manual	Auto/Manual	Auto/Manual
NOISE REDUCTION	3D	3D	3D
PRIVACY MASKING	Up to 4 areas	Up to 4 areas	Up to 4 areas
LENS			
FOCAL LENGTH	MFZ, 2.7-12 mm	MFZ, 2.7-12 mm	MFZ, 2.7-12 mm
LENS TYPE	Motorized	Motorized focus/zoom	Motorized
VIDEO			
COMPRESSION	H.264/H.264B/H.264H/MJPEG	H.264/H.264H/H.264B/MJPEG	H.264/H.264B/H.264H/MJPEG
RESOLUTION	1080P(1920×1080)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240)	3 MP (2304×1296), 1080p (1920×1080), 720p (1280×720), D1 (704×576/704×480), CIF (352×288/352×240)	4M(2688×1520)/4M(2560×1440)/3M(2304×1296)/1080P(1920×1080)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240)
FRAME RATE	1080P/720P(1~25/30fps) D1/CIF(1~25/30fps) 720P(1~13/4fps)	3 MP (1~20 fps), 1080p (1~25/30 fps) D1, CIF (1~25/30 fps)	4M(1~20fps)/3M(1~25/30fps) D1/CIF(1~25/30fps) 720P(1~20fps)
BIT RATE	H.264: 32Kbps~32Mbps	H.264: 4~8192 kbps	H.264: 32Kbps ~ 10Mbps
NETWORK			
COMPATIBILITY	ONVIF PSIA CGI	ONVIF, PSIA, CGI	ONVIF PSIA CGI
MAX. USER ACCESS	20 users	20 users	20 users
SMART PHONE	HonView Touch for iPhone, Android Phone and Tablet	HonView Touch for iPhone, Android Phone and Tablet	HonView Touch for iPhone, Android Phone and Tablet
AUXILIARY INTERFACE			
MEMORY SLOT	microSD, 128 GB max.	microSD, 128 GB max.	microSD, 128 GB max.
GENERAL			
POWER SUPPLY	DC12V, PoE (802.3af)	DC12V, PoE (802.3af)	DC12V, PoE (802.3af)
POWER CONSUMPTION	Max 13W	8.5 W max. (IR LEDs on)	Max 12.5W
WORKING ENVIRONMENT	-30°C~+60°C, Less than 95% RH	-30°C to 60°C (-22°F to 140°F); 10% to 100% RH, condensing	-30°C~+60°C, Less than 95% RH
INGRESS PROTECTION	IP66	IP66	IP66

Specification

1.3 MP/2 MP/3MP/4MP PERFORMANCE SERIES IP IR OUTDOOR FIXED/MFZ ((MOTORIZED FOCUS/ZOOM) DOME CAMERA RANGE

MODEL	H4D3PRV3	H4D3PRV2
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CAMERA		
IMAGE SENSOR	1/3" 3 megapixel progressive scan CMOS	1/3" 3 megapixel progressive scan CMOS
EFFECTIVE PIXELS	2304 (H) × 1296 (V)	2304 (H) × 1296 (V)
ELECTRONIC SHUTTER SPEED	Auto/Manual, 1-1/100000 s	Auto/Manual, 1/3(4)-1/100000 s
MIN. ILLUMINATION	0.1 lux, F2.1 (Colour); 0 lux (IR LEDs on)	0.1 lux, F1.4 (Colour); 0 lux (IR LEDs on)
S/N RATIO	More than 50dB	More than 50dB
CAMERA FEATURES		
MAX. IR LEDS LENGTH	Up to 30 m	Up to 30 m
DAY/NIGHT	Auto(ICR)/Color/B/W	Auto(ICR)/Color/B/W
BACKLIGHT COMPENSATION	BLC / HLC / DWDR	BLC / HLC / DWDR
WHITE BALANCE	Auto/Manual	Auto/Manual
GAIN CONTROL	Auto/Manual	Auto/Manual
NOISE REDUCTION	3D	3D
PRIVACY MASKING	Up to 4 areas	Up to 4 areas
LENS		
FOCAL LENGTH	2.8mm	MFZ, 2.7-12 mm
FOCUS CONTROL	Manual	Manual
LENS TYPE	Fixed lens	Motorized focus/zoom
VIDEO		
COMPRESSION	H.264/H.264H/H.264B/MJPEG	H.264/H.264H/H.264B/MJPEG
RESOLUTION	3 MP (2304×1296), 1080p (1920×1080), 720p (1280×720), D1 (704×576/704×480), CIF (352×288/352×240)	3 MP (2304×1296), 1080p (1920×1080), 720p (1280×720), D1 (704×576/704×480), CIF (352×288/352×240)
FRAME RATE	3 MP (1-20 fps) 1080p (1-25/30 fps) D1, CIF (1-25/30 fps)	3 MP (1-20 fps) 1080p (1-25/30 fps) D1, CIF (1-25/30 fps)
BIT RATE	H.264: 32Kbps~10Mbps	H.264: 32Kbps~32Mbps
NETWORK		
COMPATIBILITY	ONVIF, PSIA, CGI	ONVIF, PSIA, CGI
MAX. USER ACCESS	20 users	20 users
SMART PHONE	HonView Touch for iPhone, Android Phone and Tablet	HonView Touch for iPhone, Android Phone and Tablet
AUXILIARY INTERFACE		
MEMORY SLOT	N/A	microSD, 128 GB max.
GENERAL		
POWER SUPPLY	PoE (802.3af), 12 V DC	PoE (802.3af), 12 V DC
POWER CONSUMPTION	4.7 W max. (IR LEDs on)	8.5 W max. (IR LEDs on)
WORKING ENVIRONMENT	-30°C to 60°C (-22°F to 140°F); 10% to 100% RH, condensing	-30°C to 60°C (-22°F to 140°F); 10% to 100% RH, condensing
INGRESS PROTECTION	IP66	IP66
VANDAL RESISTANCE	IK10	IK10



H4W4PRV3



H4W2PRV2




H4W4PRV2



1/3" 4Megapixel progressive scan CMOS 2688(H)x1520(V) Auto/Manual, 1/3~1/100000s 0.01Lux/F2.0 Color, 0Lux/F2.0(IR on) More than 50dB	1/2.7" 2megapixel progressive scan CMOS 2688(H)x1520(V) Auto/Manual, 1/3~1/100000s 0.1Lux/F1.4(Color); 0Lux/F1.4(IR on) More than 50dB	1/3" 4megapixel progressive scan CMOS 2688(H)x1520(V) Auto/Manual, 1/3~1/100000s 0.1Lux/F1.4(Color); 0Lux/F1.4(IR on) More than 50dB
30m	30m	30m
Auto(ICR)/Color/B/W BLC / HLC / WDR(120dB) Auto/Manual Auto/Manual 3D Up to 4 areas	Auto(ICR)/Color/B/W BLC / HLC / WDR(120dB) Auto/Manual Auto/Manual 3D Up to 4 areas	Auto(ICR)/Color/B/W BLC / HLC / WDR(120dB) Auto/Manual Auto/Manual 3D Up to 4 areas
2.8mm Manual Fixed lens	MFZ, 2.7-12 mm Auto Focus Motorized	MFZ, 2.7-12 mm Auto Focus Motorized
H.264/H.264B/H.264H/MJPEG 4M(2688x1520)/4M(2560x1440)/3M(2304x1296)/1080P(1920x1080)/720P(1280x720)/D1(704x576/704x480)/CIF(352x288/352x240) 4M(1~20fps)/3M(1~25/30fps) D1/CIF(1~25/30fps) 720P(1~20fps) H.264: 32Kbps ~ 10Mbps	H.264/H.264B/H.264H/MJPEG 1080P(1920x1080)/ 720P(1280x720) / D1(704x576/704x480) / CIF(352x288/352x240) 1080P/720P(1~25/30fps) D1/CIF(1~25/30fps) 720P(1~13/4fps) H.264: 32Kbps~32Mbps	H.264/H.264B/H.264H/MJPEG 4M(2688x1520)/4M(2560x1440)/3M(2304x1296)/1080P(1920x1080)/720P(1280x720)/D1(704x576/704x480)/CIF(352x288/352x240) 4M(1~20fps)/3M(1~25/30fps) D1/CIF(1~25/30fps) 720P(1~20fps) H.264: 32Kbps ~ 10Mbps
ONVIF PSIA CGI 20 users HonView Touch for iPhone, Android Phone and Tablet	ONVIF PSIA CGI 20 users HonView Touch for iPhone, Android Phone and Tablet	ONVIF PSIA CGI 20 users HonView Touch for iPhone, Android Phone and Tablet
N/A	microSD, 128 GB max.	microSD, 128 GB max.
DC12V, PoE (802.3af) Max 4W	DC12V, PoE (802.3af) Max 8W	DC12V, PoE (802.3af) Max 8W
-30°C~+60°C, Less than 95% RH	-30°C~+60°C, Less than 95% RH	-30°C~+60°C, Less than 95% RH
IP66 IK10	IP66 IK10	IP66 IK10

Specification

IP IR PERFORMANCE SERIES INDOOR PANCAKE CAMERAS		
MODEL	H2W2PRV3	H2W4PRV3
		
CAMERA		
IMAGE SENSOR	1/2.7"2megapixel progressive scan CMOS	
EFFECTIVE PIXELS	1920(H)x1080(V)	2688(H)x1520(V)
SCANNING SYSTEM	Progressive	Progressive
ELECTRONIC SHUTTER SPEED	Auto/Manual, 1/3~1/100000s	Auto/Manual, 1/3~1/100000s
MIN. ILLUMINATION	0.01Lux/F2.0 Color, 0Lux/F2.0(IR on)	0.01Lux/F2.0 Color, 0Lux/F2.0(IR on)
S/N RATIO	More than 50dB	More than 50dB
CAMERA FEATURES		
MAX. IR LEDS LENGTH	20 m	20 m
DAY/NIGHT	Auto(ICR)/Color/B/W	Auto(ICR)/Color/B/W
BACKLIGHT COMPENSATION	BLC / HLC / WDR(120dB)	BLC / HLC / WDR(120dB)
WHITE BALANCE	Auto/Manual	Auto/Manual
GAIN CONTROL	Auto/Manual	Auto/Manual
NOISE REDUCTION	3D	3D
PRIVACY MASKING	Up to 4 areas	Up to 4 areas
LENS		
FOCAL LENGTH	2.8mm	2.8mm
FOCUS CONTROL	Manual	Manual
LENS TYPE	Fixed lens	Fixed lens
VIDEO		
COMPRESSION	H.264/H.264B/H.264H/MJPEG	H.264/H.264B/H.264H/ MJPEG
RESOLUTION	1080P(1920x1080)/ 720P(1280x720) / D1(704x576/704x480) / CIF(352x288/352x240)	4M(2688x1520)/4M(2560x1440)/3M(2304x1296)/1080P(1920x1080)/720P(1280x720)/ D1(704x576/704x480)/CIF(352x288/352x240)
FRAME RATE	1080P/720P(1~25/30fps) D1/CIF(1~25/30fps) 720P(1~13/4fps)	4M(1~20fps)/3M(1~25/30fps) D1/CIF(1 ~ 25/30fps) 720P(1-20fps)
BIT RATE	H.264: 32Kbps~32Mbps	H.264: 32Kbps ~ 10Mbps
AUDIO		
COMPRESSION	ACC,G.711	ACC,G.711
INTERFACE	Build in Mic	Build in Mic
NETWORK		
ETHERNET	RJ-45 (10/100Base-T)	RJ-45 (10/100Base-T)
COMPATIBILITY	ONVIF PSIA CGI	ONVIF PSIA CGI
MAX. USER ACCESS	20 users	20 users
SMART PHONE	HonView Touch for iPhone, Android Phone and Tablet	HonView Touch for iPhone, Android Phone and Tablet
AUXILIARY INTERFACE		
MEMORY SLOT	microSD, 128 GB max.	microSD, 128 GB max.
GENERAL		
POWER SUPPLY	DC12V, PoE (802.3af)	DC12V, PoE (802.3af)
POWER CONSUMPTION	Max 5W	Max 5W
WORKING ENVIRONMENT	-30°C~+60°C, Less than 95% RH	-30°C~+60°C, Less than 95% RH
INGRESS PROTECTION	IP66	IP66



Specification

1.3 MP/2 MP/3MP/4MP IP IR PERFORMANCE SERIES INDOOR FIXED/MFZ ((MOTORIZED FOCUS/ZOOM) DOME/EYEBALL CAMERA RANGE

MODEL	HED1PR3	HED3PR3	HEW2PR1/HEW2PRW1
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CAMERA			
IMAGE SENSOR	1/3" 1.3 megapixel progressive scan CMOS	1/3" 1.3 megapixel progressive scan CMOS	1/2.7"2Megapixel progressive scan CMOS
EFFECTIVE PIXELS	1280 (H) × 960 (V)	2304 (H) × 1296 (V)	1920(H)×1080(V)
ELECTRONIC SHUTTER SPEED	Auto/Manual, 1/3–1/30000 s	Auto/Manual, 1/3–1/30000 s	Auto/Manual, 1/3~1/100000s
MIN. ILLUMINATION	0.08 lux, F2.1 (Colour); 0 lux (IR LEDs on)	0.045 lux, F2.1 (Colour); 0 lux (IR LEDs on)	0.01Lux/F2.0 (Color), 0Lux/F2.0(IR on)
S/N RATIO	More than 50 dB	More than 50 dB	More than 50dB
CAMERA FEATURES			
MAX. IR LEDS LENGTH	Up to 30 m	Up to 30 m	40m
DAY/NIGHT	Auto(ICR)/Color/B/W	Auto(ICR)/Color/B/W	Auto(ICR)/Color/B/W
BACKLIGHT COMPENSATION	Auto (ICR)/Colour/BW	Auto (ICR)/Colour/BW	BLC / HLC / WDR(120dB)
WHITE BALANCE	Auto/Manual	Auto/Manual	Auto/Sunny/Night/Outdoor/Customized
GAIN CONTROL	Auto/Manual	Auto/Manual	Auto/Manual
NOISE REDUCTION	3D	3D	3D
PRIVACY MASKING	Up to 4 areas	Up to 4 areas	Up to 4 areas
LENS			
FOCAL LENGTH	2.8mm	2.8mm	3.6mm
LENS TYPE	Fixed lens	Fixed lens	Fixed lens
VIDEO			
COMPRESSION	H.264 (Main/High/Baseline Profile)/ MJPEG	H.264/H.264H/H.264B/MJPEG	H.264/H.264H/H.264B/MJPEG
RESOLUTION	"1.3 MP (1280×960), 720p (1280×720), D1 (704×576/704×480), CIF (352×288/352×240)"	"3 MP (2304×1296), 1080p (1920×1080), 720p (1280×720), D1 (704×576/704×480), CIF (352×288/352×240)"	1080P(1920×1080)/ 720P(1280×720) / D1(704×576/704×480) / CIF(352×288/352×240)
FRAME RATE	1.3 MP/720p (1–25/30 fps) D1, CIF (1–25/30 fps)	3 MP (1–20 fps), 1080p (1–25/30 fps) D1, CIF (1–25/30 fps)	1080P/720P(1~25/30fps) D1/CIF(1~25/30fps) 720P(1~13/4fps)
BIT RATE	H.264: 4–8192 kbps	H.264: 4–8192 kbps	H.264: 32Kbps~32Mbps
NETWORK			
MAX. USER ACCESS	20 users	20 users	20 users
SMART PHONE	HonView Touch for iPhone, Android Phone and Tablet	HonView Touch for iPhone, Android Phone and Tablet	HonView Touch for iPhone, Android Phone and Tablet
AUXILIARY INTERFACE			
MEMORY SLOT	N/A	N/A	N/A
GENERAL			
POWER SUPPLY	PoE (802.3af), 12 V DC	PoE (802.3af), 12 V DC	DC12V, PoE (802.3af)
POWER CONSUMPTION	3.8 W max. (IR LEDs on)	3.7 W max. (IR LEDs on)	Max 4W
WORKING ENVIRONMENT	–30°C to 60°C (–22°F to 140°F); 10% to 100% RH, condensing	–30°C to 60°C (–22°F to 140°F); 10% to 100% RH, condensing	–30°C~+60°C, Less than 95% RH
INGRESS PROTECTION	IP66	IP66	IP66



HEW4PR3/HEW4PRW3	HEW2PR2	HEW4PR2
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1/3"4Megapixel progressive scan CMOS	1/2.7"2megapixel progressive scan CMOS	1/3"4megapixel progressive scan CMOS
2688(H)x1520(V)	1920(H)x1080(V)	2688(H)x1520(V)
Auto/Manual, 1/3~1/100000s	Auto/Manual, 1/3~1/100000s	Auto/Manual, 1/3~1/100000s
0.01Lux/F2.0 (Color), 0Lux/F2.0(IR on)	0.1Lux/F1.4(Color); 0Lux/F1.4(IR on)	0.1Lux/F1.4(Color); 0Lux/F1.4(IR on)
More than 50dB	More than 50dB	More than 50dB
40m	60 m	60 m
Auto(ICR)/Color/B/W	Auto(ICR)/Color/B/W	Auto(ICR)/Color/B/W
BLC / HLC / WDR(120dB)	BLC / HLC / WDR(120dB)	BLC / HLC / WDR(120dB)
Auto/Sunny/Night/Outdoor/Customized	Auto/Manual	Auto/Manual
Auto/Manual	Auto/Manual	Auto/Manual
3D	3D	3D
Up to 4 areas	Up to 4 areas	Up to 4 areas
2.8mm	MFZ, 2.7-12 mm	MFZ, 2.7-12 mm
Fixed lens	Motorized	Motorized
H.264/H.264H/H.264B/MJPEG	H.264/H.264B/H.264H/ MJPEG	H.264/H.264B/H.264H/ MJPEG
4M(2688x1520)/4M(2560x1440)/1080P(1920x1080)/720P(1280x720) /D1(704x576/704x480) / CIF(352x288/352x240)	1080P(1920x1080)/ 720P(1280x720) / D1(704x576/704x480) / CIF(352x288/352x240)	4M(2688x1520)/4M(2560x1440)/3M(2304x1296)/1080P(1920x1080)/720P(1280x720)/D1(704x576/704x480)/ CIF(352x288/352x240)
4M(1~20fps)/3M(1~25/30fps)	1080P/720P(1~25/30fps)	4M(1~20fps)/3M(1~25/30fps)
D1/CIF(1~20fps)	D1/CIF(1~25/30fps)	D1/CIF(1~25/30fps)
720P(1~20fps)	720P(1~13/4fps)	720P(1~20fps)
H.264: 32Kbps~10Mbps	H.264: 32Kbps~32Mbps	H.264: 32Kbps ~ 10Mbps
20 users	20 users	20 users
HonView Touch for iPhone, Android Phone and Tablet	HonView Touch for iPhone, Android Phone and Tablet	HonView Touch for iPhone, Android Phone and Tablet
N/A	microSD, 128 GB max.	microSD, 128 GB max.
DC12V, PoE (802.3af)	DC12V, PoE (802.3af)	DC12V, PoE (802.3af)
Max 3.7W	Max 7W	Max 7.5W
-30°C~+60°C, Less than 95% RH	-30°C~+60°C, Less than 95% RH	-30°C~+60°C, Less than 95% RH
IP66	IP66	IP66

Performance Series IP Mounts

Indoor/Outdoor Mounts and Accessories

Honeywell's Performance Series IP mounts and accessories provide a range of installation options for the Honeywell Performance Series IP cameras, including junction box, wall, pole, and corner mounts.

The mounts provide easy cable routing with no exposed wiring, and the cameras can be installed, adjusted, and tested without repositioning the housing. All of the mounts and accessories are suitable for indoor or outdoor use.

The junction boxes and pole mount are constructed of die-cast aluminum. The corner mount adapter is made of SECC steel. The HEJB junction box is made of die-cast aluminum and SECC steel. All of the mounts and accessories are powder coated to match the finish of the camera.

Market Opportunities

Honeywell's Performance Series IP mounts and accessories provide excellent value at an attractive price, featuring simple, clean lines, rugged construction, and a wide range of mounting options.

DESCRIPTION	JUNCTION BOX				WALL MOUNT	POLE MOUNT	CORNER MOUNT
	HQA-BB1	HQA-BB2	HBS2-BB	HEJB	HQA-WK	HQA-PM	HB34S2-CM
LOW PROFILE, CONTEMPORARY DESIGN	•	•	•	•	•	•	•
ECONOMICALLY PRICED	•	•	•	•	•	•	•
EASY CABLE FEED-THROUGH	•	•	•	•	•	•	•
DIE-CAST ALUMINUM	•	•	•	•	•	•	•
SECC STEEL				•			•
OFF-WHITE POWDER FINISH	•	•	•	•	•	•	•
OFF-WHITE POWDER FINISH	•	•	•	•	•	•	•



HQA-BB1 Junction Box



HQA-BB2 Junction Box



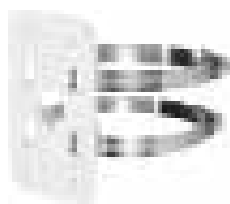
HBS2-BB Junction Box



HEJB Junction Box



HQA-WK Wall Mount



HQA-PM Pole Mount



HB34S2-CM Corner Mount

Performance Series IP NVRs

4, 8 & 16 Channel PoE Embedded NVRs

Introducing Honeywell's Performance Series PoE Embedded NVRs, our newest affordable, fully featured NVRs. Choose a 4-, 8- or 16-channel NVR, with the ability to expand to up to 12 TB of internal storage, for an ideal and flexible solution to fit your surveillance situation.

FEATURES & BENEFITS

- Full PoE channels. The 16 channel NVR has 16 PoE ports (lowers installation cost & saves time).
- H.264/MJPEG dual codec decoding (maximize recording time and reduce file size).
- HDMI/VGA simultaneous video output (view video with enhanced image clarity with crisp images and enables to view the security camera video in HD on HDTV screen).
- Increased Power-over-Ethernet (support more PTZs & outdoor cameras with heaters).
- USB 3.0 (back up clips faster).
- Up to 5MP IP camera support (perfect fit for 3MP/4MP Performance Series IP Cameras).
- Smart Search (enabling you to locate video footage with motion in a selected area) with the new Performance IP Cameras.
- 8ch and 16ch use AC mains power instead of two separate external (12V & 48V DC) power adapters.
- Supports up to 4 alarm input channels and 2 alarm relay output channels (model dependant).
- Configurable to automatically detect and respond to any motion in the scene, alarm inputs, and network failure or tampering.
- Support sending notifications through email, FTP, and/or HTTP.
- Support uploading still images at the time of the event through email and/or FTP.
- Support recording a video clip of the event for distribution.
- Support visual or auditory notifications (a flashlight, a bell or a siren).
- UL listed.



Specification

SYSTEM	
MAIN PROCESSOR	Dual-core embedded processor
OPERATING SYSTEM	Embedded LINUX
VIDEO	
IP CAMERA INPUTS	4/8/16 channels
BI-DIRECTIONAL AUDIO	1 channel input; 1 channel output; RCA
DISPLAY	
INTERFACE	1 HDMI; 1 VGA
RESOLUTION	1920 x 1080; 1280 x 1024; 1280 x 720;
DISPLAY SPLIT	4-channel NVRs: 1/4 8-channel NVRs: 1/4/8 16-channel NVRs: 1/4/8/9/16
OSD	Camera title; Time; Video loss; Camera lock; Motion detection; Recording
RECORDING	
COMPRESSION	H.264 / MJPEG
RESOLUTION	5MP (2560 x 1920); 3MP (2304 x 1296 and 2048 x 1536); 1080p (1920 x 1080); 720p (1280 x 720); D1 (704 x 480); SXGA (800 x 600); 1.3 MP (1280 x 1024)
RECORDING RATE	4-channel NVRs: 100/120 fps @ 1080p (100 fps @ 1080p for PAL, 120 fps @ 1080p for NTSC) 8-channel NVRs: 200/240 fps @ 1080p,(200 fps@1080p for PAL, 240 fps @ 1080p for NSTC) 16-channel NVRs: 400/480 fps @ 1080p,(400 fps @ 1080p for PAL, 480 fps @ 1080p for NSTC)
BIT RATE	48 to 8192 kbps
RECORDING MODE	Manual; Schedule (Regular [Continuous], Motion Detection, Alarm, Motion Detection+Alarm); Stop
RECORDING INTERVAL	1 to 120 minutes (default: 60 minutes); Pre-recording: 1 to 30 seconds.
VIDEO DETECTION AND ALARMS	
TRIGGER EVENTS	Recording; Tour; Alarm; Email; FTP; Buzzer; Screen Tips
VIDEO DETECTION	Motion Detection; Motion Detection Zones (396: 22 x 18); Video Loss and Camera Blank ; Privacy Masking
ALARM INPUT	4 channels
RELAY OUTPUT	2 channels
PLAYBACK AND BACKUP	
SYNC PLAYBACK	4-Channel NVRs: 1/4 8-channel NVRs: 1/4/8 16-channel NVRs: 1/4/8/16
SEARCH MODE	Time/Date; Alarm; Motion Detection; Exact Search (accurate to a second)
PLAYBACK FUNCTION	Play; Pause; Stop; Rewind; Fast play; Slow play; Full Screen; Backup
BACKUP MODE COMPATIBILITY	USB Device; Network

* Actual bitrate is scene and motion dependent with H.264 stream.

** Some development might be required in specific user cases to support some of these protocols in the field as they mature over time.

Specification

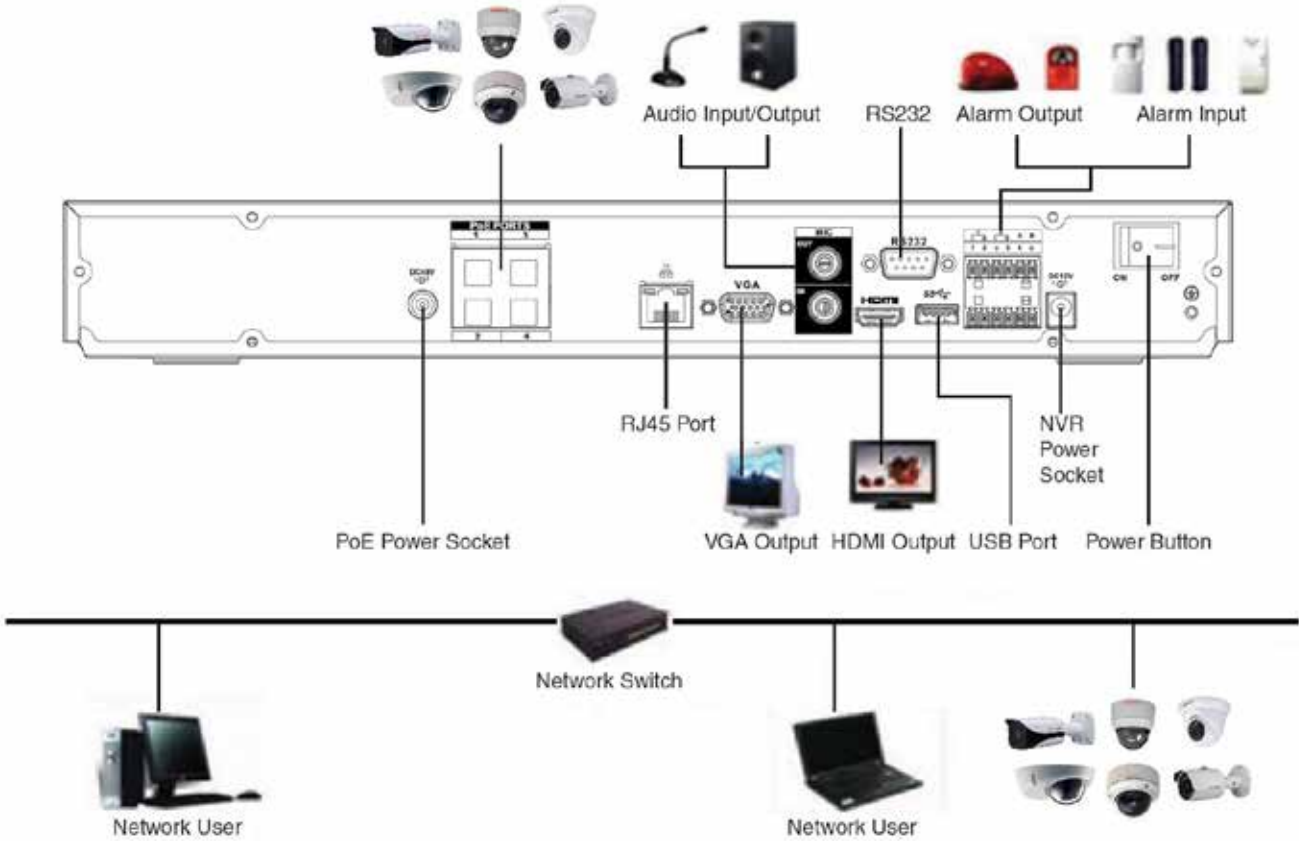
NETWORK	
OPERATING SYSTEM	Windows® XP; Windows Vista; Windows 7
CPU REQUIREMENTS	Pentium M 2.16 GHz or Intel Core 2 Duo 2 GHz
SYSTEM MEMORY	At least 2 GB
NETWORK CARD	RJ-45 (10/100 Base-T)
WEB BROWSER	Microsoft Internet Explorer 6.0 or later; Mozilla Firefox®
SUPPORTED PROTOCOLS	HTTP; TCP/IP; IPv4/IPv6; UPnP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP filter; PPPoE; DDNS; FTP; Alarm server; IP search
MAXIMUM NUMBER OF USERS	20 users
SMART PHONE COMPATIBILITY	IOS; Android™
STORAGE	
INTERNAL STORAGE	2 SATA ports; up to 8 TB; RAID (redundancy)
CONNECTORS	
ETHERNET	1 x RJ-45 port (10/100/1000 Mbps)
POE	IEEE802.3at / IEEE802.3af 4-channel NVRs: 4 ports 8-channel NVRs: 8 ports 16-channel NVRs: 16 ports
USB	2 ports: USB 3.0 on rear panel; USB 2.0 on front panel
RS232	1 port
RS485	1 port
ENVIRONMENTAL	
OPERATING TEMPERATURE	14°F to 131°F (-10°C to 55°C)
STORAGE TEMPERATURE	-4°F to 158°F (-20°C to 70°C)
HUMIDITY	10% to 90%
PHYSICAL	
DIMENSIONS	4-channel NVRs: 14.8 x 11.2 x 2.1 inches (375 x 285 x 53 mm) 8-/16-channel NVRs: 14.8 x 12.6 x 2.1 inches (375 x 320 x 53 mm)
WEIGHT (WITHOUT HDD)	4-channel NVRs: 4.41 pounds (2.0 kg) 8-/16-channel NVRs: 5.51 pounds (2.5 kg)
PHYSICAL	
EMISSIONS	FCC Part 15B, CE EN55022
IMMUNITY	CE EN50130-4
SAFETY	EU: EN60950-1 North America UL listed to UL/CSA 60950-1

* Actual bitrate is scene and motion dependent with H.264 stream.

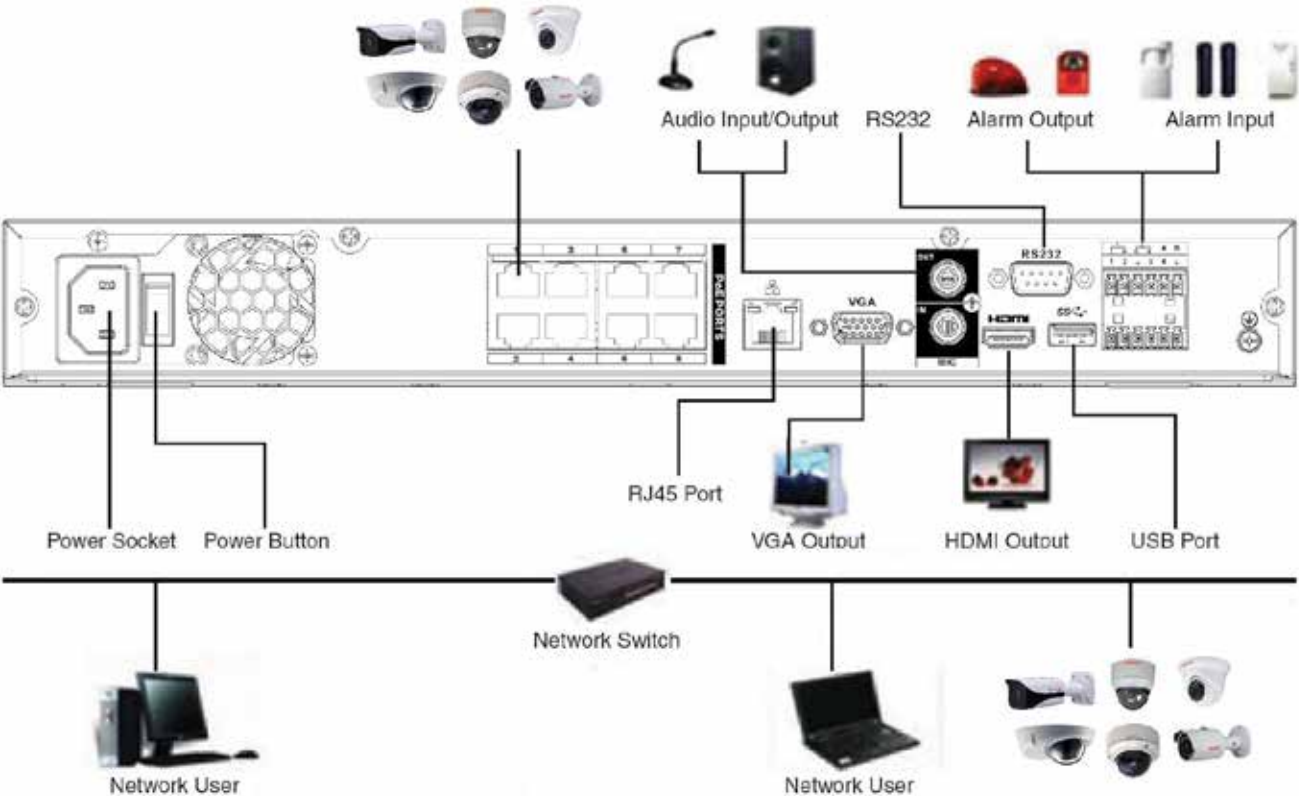
** Some development might be required in specific user cases to support some of these protocols in the field as they mature over time.



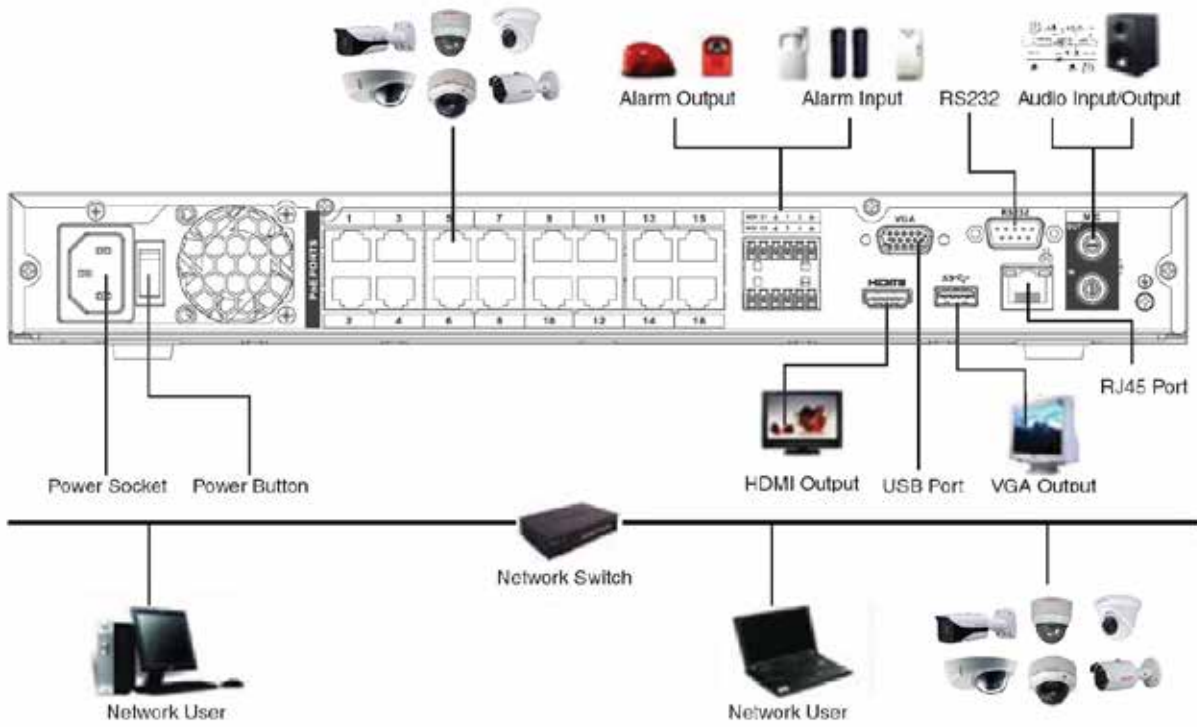
4-channel NVRs



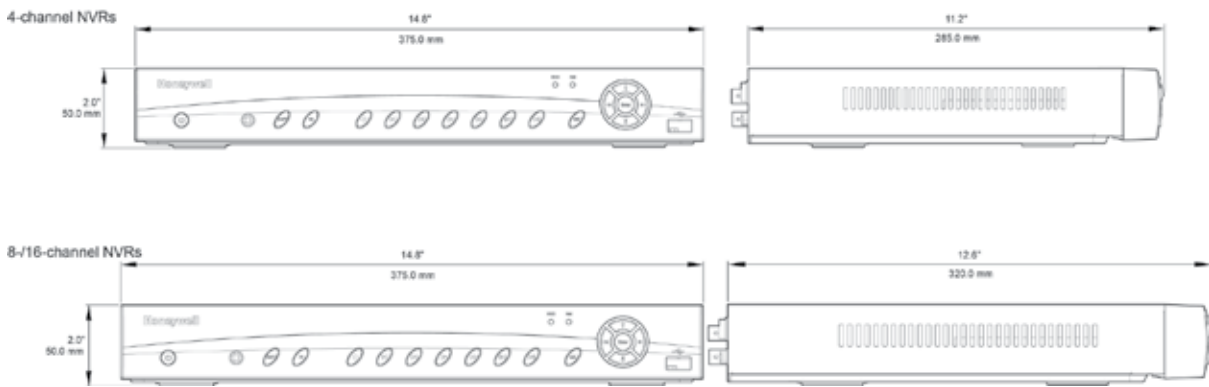
8-channel NVRs



16-channel NVRs



Dimensions



Ordering

NVR PART	NUMBER NVR DESCRIPTION
HEN04102	4CH embedded NVR, no HDD
HEN04112	4CH embedded NVR, 1TB
HEN04122	4CH embedded NVR, 2TB
HEN08102	8CH embedded NVR, no HDD
HEN08112	8CH embedded NVR, 1TB
HEN08122	8CH embedded NVR, 2TB
HEN08142	8CH embedded NVR, 4TB
HEN16102	16CH embedded NVR, no HDD
HEN16122	16 CH embedded NVR, 2TB
HEN16142	16 CH embedded NVR, 4TB
HEN16162	16 CH embedded NVR, 6TB



Keyboards and Controllers

HJC4000 UltraKey Touch

The HJC4000 is an excellent choice for small- to mid-size installations where PTZ domes and DVRs are used together. The HJC4000 offers the ability to manage a system from a single controller that is simple and easy to use. Users can significantly benefit from shorter learning curves and minimal key sequences.



FEATURES & BENEFITS

- Support for PTZ protocols: IntelliBus™, Diamond, VCL, Pelco D, Pelco P.
- Option to cascade multiple controllers.
- Web browser for simple configuration and firmware updates.
- Quick and simple installation with RJ-type connectors.
- Supports RS232 and RS485 control ports.

Ordering

PART NO.	DESCRIPTION
HJC4000	PTZ and DVR controller, cables and 10.8 to 13.2 VDC, 1A power supply



Central management system for performance series NVR/DVRS

Honeywell Security introduces HDCS – a new multi-site DVR/NVR central management system.

HDCS is the central management software designed for the Performance Series-IP Embedded NVR and the Performance Series-HQA (High-Quality Analog) DVR to connect multiple devices for video surveillance. Featuring a user-friendly interface, HDCS can be deployed for device add-on, configuration, status monitoring, alarm event checking, video live view and recording, as well as E-map central management system.

FEATURES & BENEFITS

- Supports Honeywell HD Performance Series DVR/NVRs
 - Embedded NVR (HEN Series)
 - HQA DVR
- Multi-DVR/NVR management, support up to 960 video channel connection
- Support up to 36 live view windows at one single screen and maximum 144 windows extension viewing
- Video recording and playback management
- Local recording
- Devices management, auto search configuration and status monitoring
- Alarm management and inter-linkage control
- PTZ control
- Video Snap-shot
- E-map

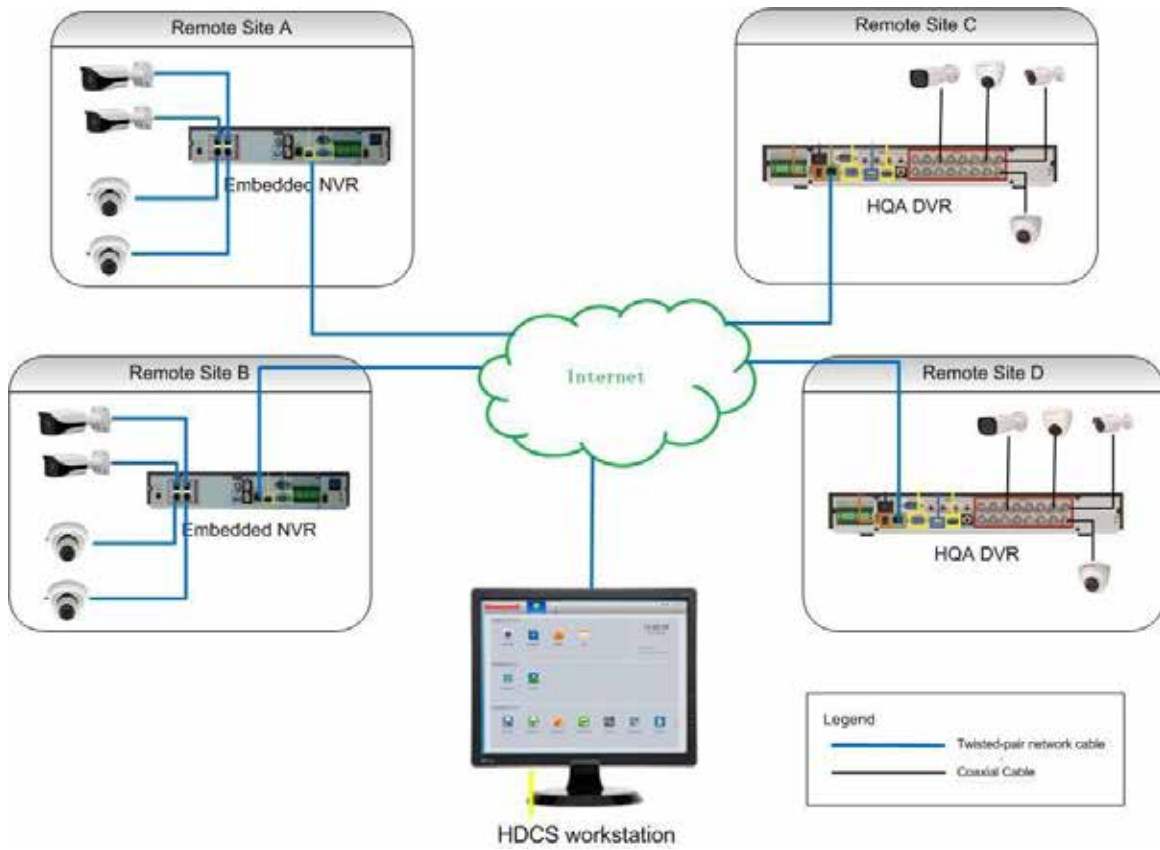


Specification

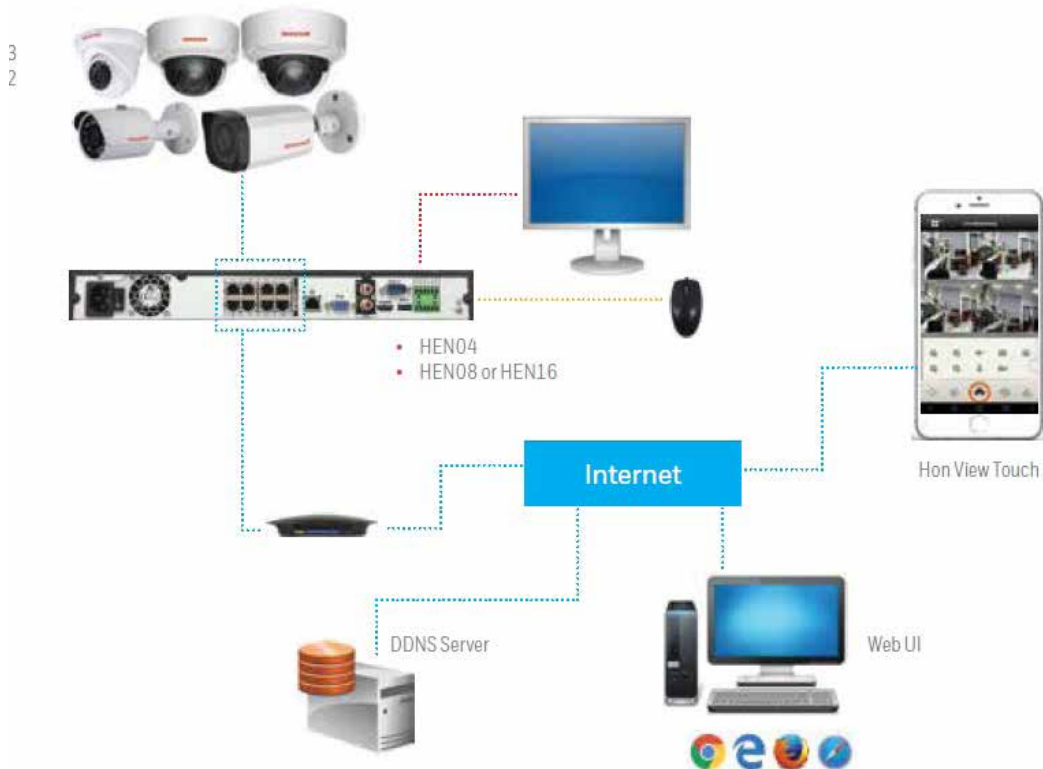
MODEL	HDCS
SYSTEM	
SUPPORTED DEVICE	HEN Series NVR, HRHM/HRHH Series DVR
MAX VIDEO CHANNELS CONNECTION	960 channels
MAX REGISTER DEVICE	256 devices
DEVICE MANAGEMENT	Auto find, add, delete, device group; reboot, setup
USER MANAGEMENT	Privileges set based on user and role, according to module & device
HEALTH REPORT	Device status, alarm info, HDD info
VIDEO DISPLAY SPLIT	1/4/9/16/25/36
MANAGEMENT	
PTZ CONTROL	Pan/Tilt/Zoom/Focus/Iris/Preset/Tour/Pattern
LIVE VIEW OPERATION	Snapshot, record, audio, talk, instant playback, E-PTZ, tour task
VIDEO PLAYBACK	Local PC (Manual record or alarm record), device itself
MAX CHANNELS OF PLAYBACK	36
SEARCH TYPE	Time, motion detection, alarm, Smart search
LOCAL RECORDING	Yes
SOUND MANAGEMENT	Warning audio by alarm
E-MAP	Support with 64 layouts
E-MAP FORMAT	JPEG/BMP
ALARM TYPE	External alarm, video loss, motion, tampering, disk full or error
ALARM TRIGGER	Recording/PTZ control/Relay out
EXPORT	Export as .avi
MINIMUM PC REQUIREMENT	
CPU	Intel Core2Duo E6750, RAM : 2GB above
MEMORY	512MB
HDD	80GB above
OS	Window XP/Vista/7/8, 32/64 bit, DirectX 9.0 above
SCREEN RESOLUTION	1024 x 768 or above



System Diagram



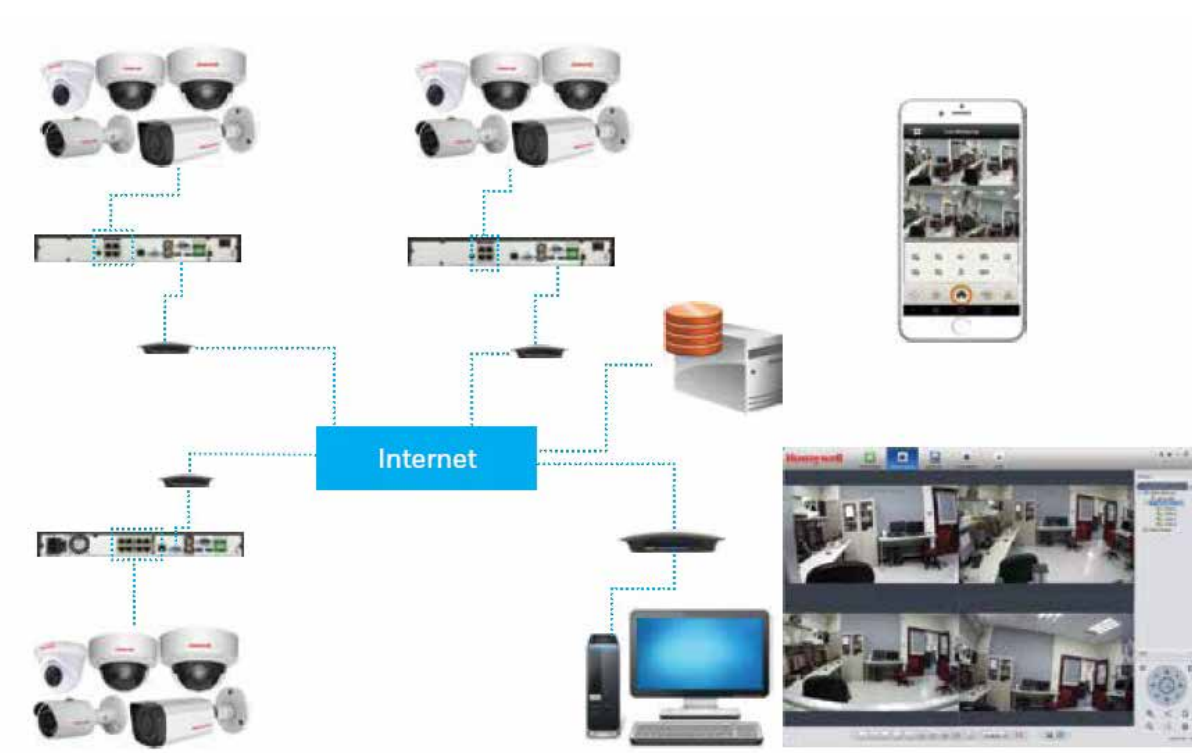
SMB Single Site (under 16ch) Solution



Single Site (over 16ch) Solution



SMB Multi-Site Solution



Honeywell Black™ IP Cameras and NVRs

Honeywell Black CAL IP Series is designed for small-scale surveillance applications at an affordable price. Develop an efficient and easy-to-use surveillance system in just a few steps with CAL series 1.3 Megapixel high definition and IR cameras for both indoor and outdoor applications, high-performing NVRs, 1080P decoder, and a cost-free CAL-CMS200 IP camera central management software. Free DDNS service and mobile app CALNVRView are designed to increase the overall user experience with high operation flexibility.

FEATURES & BENEFITS

- Real-time 2 MP (1920 x 1080), 1080P HD Resolution Video output (deliver Superior Image Quality leaving no detail missed).
- High Profile Dual Stream (enables you to take advantage of two different streams from an IP camera utilizing lower bandwidth and less CPU usage).
- Digital Noise Reduction (results in high-quality clear images in low light conditions, more visually appealing image).
- True Day/Night (deliver superb image clarity and detail for both day and night surveillance).
- High Speed Transmission ensures minimum delay (720p @25fps delay <180ms)
- IP-66 Weather-proof (provides protection under the most extreme outdoor environments, resistant to dust, moisture and salt water installations).
- Free Mobile Application (CALNVRView) for Android, iPhone, iPad (view live camera feed, scroll through recorded images, control PTZ functions, playback recorded video, and take snapshots of images. Live viewing in the palm of your hand).



Specification

1.3 MPHONEYWELL BLACK™ IP FIXED DOME CAMERAS

	1.3 MP Non-IR Fixed Dome	1.3 MP IR Fixed Dome	
	CALIPDF-1A36P	CALIPD-1AI40P	CALIPD-1AI60P



IMAGE SENSOR	1/3" ultra-low illumination CMOS	1/3" ultra-low illumination CMOS	1/3" ultra-low illumination CMOS
EFFECTIVE PIXELS	1280(H) x 960(V)	1280(H) x 960(V)	1280(H) x 960(V)
MINIMUM ILLUMINATION	Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.001Lux (F1.2, AGC ON)	Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.0Lux (IR On)	Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.0Lux (IR On)
IMAGE RESOLUTION & FRAME RATE	Main Stream: 50Hz: 25fps (720P: 1280 x 720), (1.3M: 1280 x 960) 60Hz: 30fps (720P: 1280 x 720), (1.3M: 1280 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 288)	Main Stream: 50Hz: 25fps (720P: 1280 x 720), (1.3M: 1280 x 960) 60Hz: 30fps (720P: 1280 x 720), (1.3M: 1280 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 288)	Main Stream: 50Hz: 25fps (720P: 1280 x 720), (1.3M: 1280 x 960) 60Hz: 30fps (720P: 1280 x 720), (1.3M: 1280 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 288)
SHUTTER SPEED	Auto, 1/50 (1/60) sec, 1/120 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10,000 sec (millisecond adjustable)	Auto, 1/50 (1/60) sec, 1/120 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10,000 sec (millisecond adjustable)	Auto, 1/50 (1/60) sec, 1/120 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10,000 sec (millisecond adjustable)
LENS	Megapixel 3.6mm fixed Lens	Megapixel 4mm fixed Lens	Megapixel 6mm fixed Lens
DAY/ NIGHT	Electronics Day & Night	TDN, IR cut removable	TDN, IR cut removable
BLC	ON/OFF	ON/OFF	ON/OFF
AUTO GAIN CONTROL	ON/OFF 0~100 adjustable	ON/OFF 0~100 adjustable	ON/OFF 0~100 adjustable
IR BEAM DISTANCE		20~30 m	20~30 m
VIDEO COMPRESSION	H.264 High Profile dual-stream	H.264 High Profile dual-stream	H.264 High Profile dual-stream
ALARM TRIGGER	video motion, video blind, video loss, intelligent analysis(line crossing), device disconnect	I/O trigger, video motion, video blind, video loss, intelligent analysis(line crossing), device disconnect	I/O trigger, video motion, video blind, video loss, intelligent analysis(line crossing), device disconnect
NT LEVEL (DNR)	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable
BITE RATE	H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable	H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable	H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable
BITE RATE TYPE	CBR / VBR	CBR / VBR	CBR / VBR
ONVIF	ONVIF 2.0	ONVIF 2.0	ONVIF 2.0
NETWORK INTERFACE	1 RJ45 10M / 100M self adaptive Ethernet port	1 RJ45 10M / 100M self adaptive Ethernet port	1 RJ45 10M / 100M self adaptive Ethernet port
MOTION DETECTION	396 zones	396 zones	396 zones
PRIVACY MASKING	4 zones	4 zones	4 zones
MAX USER ACCESS	5 users	5 users	5 users
CMS	CAL-CMS200	CAL-CMS200	CAL-CMS200
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
POWER SUPPLY	DC12V±10%	DC12V±10%	DC12V±10%
POE	IEEE 802.3af	IEEE 802.3af	IEEE 802.3af
BROWSER	IE6.0 to IE11.0	IE6.0 to IE11.0	IE6.0 to IE11.0
PROTECTION			
CERTIFICATE	CE, FCC, C-Tick	CE, FCC, C-Tick	CE, FCC, C-Tick

1.3 MPHONEYWELL BLACK™ IP FIXED DOME CAMERAS

1.3 MP IR Fixed Dome

CALIPD-1AI36-VP

CALIPD-1AI60-VP



1/3" ultra-low illumination CMOS	1/3" ultra-low illumination CMOS
1280(H) x 960(V)	1280(H) x 960(V)
Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.0Lux (IR On)	Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.0Lux (IR On)
Main Stream: 50Hz: 25fps (720P: 1280 x 720), (1.3M: 1280 x 960) 60Hz: 30fps (720P: 1280 x 720), (1.3M: 1280 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 288)	Main Stream: 50Hz: 25fps (720P: 1280 x 720), (1.3M: 1280 x 960) 60Hz: 30fps (720P: 1280 x 720), (1.3M: 1280 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 288)
Auto, 1/50 (1/60) sec, 1/120 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10,000 sec (millisecond adjustable)	Auto, 1/50 (1/60) sec, 1/120 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10,000 sec (millisecond adjustable)
Megapixel 3.6mm fixed Lens	Megapixel 6mm fixed Lens
TDN, IR cut removable	TDN, IR cut removable
ON/OFF	ON/OFF
ON/OFF 0~100 adjustable	ON/OFF 0~100 adjustable
10~20 m	10~20 m
H.264 High Profile dual-stream	H.264 High Profile dual-stream
I/O trigger, video motion, video blind, video loss, intelligent analysis(line crossing), device disconnect	I/O trigger, video motion, video blind, video loss, intelligent analysis(line crossing), device disconnect
Day / Night 0~5 adjustable	Day / Night 0~5 adjustable
H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable	H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable
CBR / VBR	CBR / VBR
ONVIF 2.0	ONVIF 2.0
1 RJ45 10M / 100M self adaptive Ethernet port	1 RJ45 10M / 100M self adaptive Ethernet port
396 zones	396 zones
4 zones	4 zones
5 users	5 users
CAL-CMS200	CAL-CMS200
CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
DC12V±10%	DC12V±10%
IEEE 802.3af	IEEE 802.3af
IE6.0 to IE11.0	IE6.0 to IE11.0
IP-66 (Vandal-Proof)	IP-66 (Vandal-Proof)
CE, FCC, C-Tick	CE, FCC, C-Tick

1.3 MP HONEYWELL BLACK™ IP BOX CAMERA



CALIPB-1AP

IMAGE SENSOR	1/3" ultra-low illumination CMOS
EFFECTIVE PIXELS	1280(H) x 960(V)
MINIMUM ILLUMINATION	Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.001Lux (F1.2, AGC ON)
IMAGE RESOLUTION & FRAME RATE	Main Stream: 50Hz: 25fps (720P: 1280 x 720), (1.3M: 1280 x 960) 60Hz: 30fps (720P: 1280 x 720), (1.3M: 1280 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 288)
SHUTTER SPEED	Auto, 1/50 (1/60) sec, 1/120 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10,000 sec (millisecond adjustable)
LENS MOUNT	C/CS Mount
LENS	DC drive
DAY/ NIGHT	TDN, IR cut removable
BLC	ON/OFF
AUTO GAIN CONTROL	ON/OFF 0~100 adjustable
VIDEO COMPRESSION	H.264 High Profile dual-stream
ALARM INPUT / OUTPUT	1 CH Input, 2CH Output
AUDIO INPUT / OUTPUT	1 CH 3.5mm jack port
ALARM TRIGGER	I/O trigger, video motion, video blind, video loss, intelligent analysis(line crossing), device disconnect
STORAGE	Network storage / SD card slot (max 32GB)
USB PORT	1 USB Port for Wi-Fi / 3G Extension
NT LEVEL (DNR)	Day / Night 0~5 adjustable
BITE RATE	H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable
BITE RATE TYPE	CBR / VBR
ONVIF	ONVIF 2.0
NETWORK INTERFACE	1 RJ45 10M / 100M self adaptive Ethernet port
MOTION DETECTION	396 zones
PRIVACY MASKING	4 zones
MAX USER ACCESS	5 users
CMS	CAL-CMS200
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android
POWER SUPPLY	DC12V±10%
POE	IEEE 802.3af
BROWSER	IE6.0 to IE11.0
CERTIFICATE	CE, FCC, C-Tick



Specification

1.3 MP LIRIT IP FIXED/VARIFOCAL BULLET CAMERAS

	1.3 MP IR Fixed Bullet cameras		
	CALIPB-1AI36-10P	CALIPB-1AI60-10P	CALIPB-1AI36-20P



IMAGE SENSOR	1/3" ultra-low illumination CMOS	1/3" ultra-low illumination CMOS	1/3" ultra-low illumination CMOS
EFFECTIVE PIXELS	1280(H) x 960(V)	1280(H) x 960(V)	1280(H) x 960(V)
MINIMUM ILLUMINATION	Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.001Lux (F1.2, AGC ON)	Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.001Lux (F1.2, AGC ON)	Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.001Lux (F1.2, AGC ON)
IMAGE RESOLUTION & FRAME RATE	Main Stream: 50Hz: 25fps (720P: 1600 x 720), (1.3M: 1600 x 960) 60Hz: 30fps (720P: 1600 x 720), (1.3M: 1600 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 608) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 608)	Main Stream: 50Hz: 25fps (720P: 1600 x 720), (1.3M: 1600 x 960) 60Hz: 30fps (720P: 1600 x 720), (1.3M: 1600 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 608) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 608)	Main Stream: 50Hz: 25fps (720P: 1600 x 720), (1.3M: 1600 x 960) 60Hz: 30fps (720P: 1600 x 720), (1.3M: 1600 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 608) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 608)
SHUTTER SPEED	Auto, 1/50 (1/60) sec, 1/120 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10,000 sec (millisecond adjustable)	Auto, 1/50 (1/60) sec, 1/120 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10,000 sec (millisecond adjustable)	Auto, 1/50 (1/60) sec, 1/120 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10,000 sec (millisecond adjustable)
LENS	Megapixel 3.6mm fixed Lens	Megapixel 6mm fixed Lens	Megapixel 3.6mm fixed Lens
DAY/ NIGHT	TDN, IR cut removable	TDN, IR cut removable	TDN, IR cut removable
BLC	ON/OFF	ON/OFF	ON/OFF
AUTO GAIN CONTROL	ON/OFF 0~100 adjustable	ON/OFF 0~100 adjustable	ON/OFF 0~100 adjustable
IR BEAM DISTANCE	10~20 m	10~20 m	20~30 m
VIDEO COMPRESSION	H.264 High Profile dual-stream	H.264 High Profile dual-stream	H.264 High Profile dual-stream
ALARM TRIGGER	I/O trigger, video motion, video blind, video loss, intelligent analysis(line crossing), device disconnect	I/O trigger, video motion, video blind, video loss, intelligent analysis(line crossing), device disconnect	I/O trigger, video motion, video blind, video loss, intelligent analysis(line crossing), device disconnect
NT LEVEL (DNR)	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable
BITE RATE	H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable	H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable	H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable
BITE RATE TYPE	CBR / VBR	CBR / VBR	CBR / VBR
ONVIF	ONVIF 2.0	ONVIF 2.0	ONVIF 2.0
NETWORK INTERFACE	1 RJ45 10M / 100M self adaptive Ethernet port	1 RJ45 10M / 100M self adaptive Ethernet port	1 RJ45 10M / 100M self adaptive Ethernet port
MOTION DETECTION	396 zones	396 zones	396 zones
PRIVACY MASKING	4 zones	4 zones	4 zones
MAX USER ACCESS	5 users	5 users	5 users
CMS	CAL-CMS200	CAL-CMS200	CAL-CMS200
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
POWER SUPPLY	DC12V±10%	DC12V±10%	DC12V±10%
POE	IEEE 802.3af	IEEE 802.3af	IEEE 802.3af
BROWSER	IE6.0 to IE11.0	IE6.0 to IE11.0	IE6.0 to IE11.0
PROTECTION	IP-66	IP-66	IP-66
CERTIFICATE	CE, FCC, C-Tick	CE, FCC, C-Tick	CE, FCC, C-Tick

FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES

Cost-effective fire, surveillance, access, and intrusion detection solutions



1.3 MP IR Fixed Bullet cameras	1.3 MP IR/V/F Bullet cameras
CALIPB-1AI60-20P	CALIPB-1AIV-40P



1/3" ultra-low illumination CMOS	1/3" ultra-low illumination CMOS
1280(H) x 960(V)	1280(H) x 960(V)
Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.001Lux (F1.2, AGC ON)	Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.001Lux (F1.2, AGC ON)
Main Stream: 50Hz: 25fps (720P: 1600 x 720), (1.3M: 1600 x 960) 60Hz: 30fps (720P: 1600 x 720), (1.3M: 1600 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 608) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 608)	Main Stream: 50Hz: 25fps (720P: 1600 x 720), (1.3M: 1600 x 960) 60Hz: 30fps (720P: 1600 x 720), (1.3M: 1600 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 608) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 608)
Auto, 1/50 (1/60) sec, 1/120 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10,000 sec (millisecond adjustable)	Auto, 1/50 (1/60) sec, 1/120 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10,000 sec (millisecond adjustable)
Megapixel 6mm fixed Lens	Built-in 2.8~12mm vari-focal Lens
TDN, IR cut removable	TDN, IR cut removable
ON/OFF	ON/OFF
ON/OFF 0~100 adjustable	ON/OFF 0~100 adjustable
20~30 m	20~30 m
H.264 High Profile dual-stream	H.264 High Profile dual-stream
I/O trigger, video motion, video blind, video loss, intelligent analysis(line crossing), device disconnect	I/O trigger, video motion, video blind, video loss, intelligent analysis(line crossing), device disconnect
Day / Night 0~5 adjustable	Day / Night 0~5 adjustable
H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable	H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable
CBR / VBR	CBR / VBR
ONVIF 2.0	ONVIF 2.0
1 RJ45 10M / 100M self adaptive Ethernet port	1 RJ45 10M / 100M self adaptive Ethernet port
396 zones	396 zones
4 zones	4 zones
5 users	5 users
CAL-CMS200	CAL-CMS200
CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
DC12V±10%	DC12V±10%
IEEE 802.3af	IEEE 802.3af
IE6.0 to IE11.0	IE6.0 to IE11.0
IP-66	IP-66
CE, FCC, C-Tick	CE, FCC, C-Tick



FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES

Cost-effective fire, surveillance, access, and intrusion detection solutions

Specification

1.3 MP HONEYWELL BLACK™ IP IR PTZ CAMERA

CALIPSD-1AI18WW


CALIPSD-1AI18WP



IMAGE SENSOR	1/3" CMOS Sensor	1/3" CMOS Sensor
EFFECTIVE PIXELS	1280 x 960	1280 x 960
	Main-stream: 1280 x 960 / 1280 x 720 Sub-stream: D1	Main-stream: 1280 x 960 / 1280 x 720 Sub-stream: D1
DAY / NIGHT	True Day / Night, IR-Cut removable	True Day / Night, IR-Cut removable
FOCAL LENGTH	4.7mm to 84.6mm	4.7mm to 84.6mm
WDR	ON/OFF	ON/OFF
DIGITAL NOISE REDUCTION	ON/OFF	ON/OFF
IR BEAM DISTANCE	Up to 100 meters	Up to 100 meters
IR CONTROL	Auto / Near light / Far light / OFF	Auto / Near light / Far light / OFF
WHITE BALANCE	Auto, auto tracking, indoor, outdoor, automatic outdoor, sodium mode, one-push, manual	Auto, auto tracking, indoor, outdoor, automatic outdoor, sodium mode, one-push, manual
PAN TILT RANGE	Horizontal: 0°~360° continuous rotation Vertical: -2°~90° auto-rotation, 180°continuous monitoring	Horizontal: 0°~360° continuous rotation Vertical: -2°~90° auto-rotation, 180°continuous monitoring
PAN TILT SPEED	Key control: Horizontal 0.1 ° ~ 160 ° / sec; Vertical 0.1 ° ~ 120 ° / sec Preset: Horizontal 240 ° / sec; Vertical 200 ° / sec.	Key control: Horizontal 0.1 ° ~ 160 ° / sec; Vertical 0.1 ° ~ 120 ° / sec Preset: Horizontal 240 ° / sec; Vertical 200 ° / sec.
OPTICAL ZOOM	18x	18x
PRESET	255	255
AUTO CRUISE	Support 8 auto cruise, 5 auto patrol tracks, 5 auto scan	Support 8 auto cruise, 5 auto patrol tracks, 5 auto scan
VIDEO COMPRESSION	H.264	H.264
ONVIF		
ETHERNET	1 RJ45 10 / 100Mbps	1 RJ45 10 / 100Mbps
CMS	CAL-CMS200	CAL-CMS200
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
POWER SUPPLY	AC 12V/5A (±20%)	AC 12V/5A (±20%)
PROTECTION	IP66 weatherproof, 4000V lightning protection, anti-surge protection	IP66 weatherproof, 4000V lightning protection, anti-surge protection
MOUNTING	Wall Mount	Pendant Mount
CERTIFICATE	CE, FCC, C-TICK	CE, FCC, C-TICK



Specification

2 MP HONEYWELL BLACK™ IP FIXED DOME CAMERAS			
	2 MP Non-IR Fixed Dome		2 MP IR Fixed Dome
	CALIPDF-B28P	CALIPDF-B36P	CALIPD-BI36P
			
IMAGE SENSOR	1/2.7" CMOS	1/2.7" CMOS	1/2.8" CMOS
EFFECTIVE PIXELS	1920 x 1080	1920 x 1080	1920 x 1080
MINIMUM ILLUMINATION	Color: 0.6Lux @ (F1.2,AGC ON) B/W: 0.08 Lux @ (F1.2,AGC ON)	Color: 0.6Lux @ (F1.2,AGC ON) B/W: 0.08 Lux @ (F1.2,AGC ON)	Color: 0.01Lux @ (F1.2,AGC ON), 0 Lux (IR ON) B/W: 0.001 Lux @ (F1.2,AGC ON), 0 Lux (IR ON)
IMAGE RESOLUTION & FRAME RATE	Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 2440)	"Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 2440)"	Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 2440)
SHUTTER SPEED	Auto, 1/50 (1/60)s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)	Auto, 1/50 (1/60)s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)	Auto, 1/50 (1/60)s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)
LENS	2.8mm	3.6mm	3.6mm
DAY/ NIGHT	Electronics Day / Night	Electronics Day / Night	TDN, IR cut removable
DWDR			ON/OFF
AUTO GAIN CONTROL	ON/OFF, 0~100 adjustable	ON/OFF, 0~100 adjustable	ON/OFF, 0~100 adjustable
IR BEAM DISTANCE			50-60m
VIDEO COMPRESSION	H.264 dual-stream	H.264 dual-stream	H.264 dual-stream
ALARM TRIGGER	Video motion, video blind, video loss, device disconnect	Video motion, video blind, video loss, device disconnect	Video motion, video blind, video loss, device disconnect
AUDIO COMPRESSION	G.711a	G.711a	G.711a
NT LEVEL (DNR)	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable
BITE RATE	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"
BITE RATE TYPE	CBR / VBR	CBR / VBR	CBR / VBR
WATERMARK	ON/OFF	ON/OFF	
ONVIF	ONVIF 2.0	ONVIF 2.0	ONVIF 2.0
AUDIO INTERFACE			1 CH RCA Audio input
MOTION DETECTION	396 zones	396 zones	396 zones
PRIVACY MASKING	4 zones	4 zones	4 zones
MAX USER ACCESS	5 users	5 users	5 users
CMS	CAL-CMS200	CAL-CMS200	CAL-CMS200
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
POWER SUPPLY	DC12V±10%, PoE	DC12V±10%, PoE	DC12V±10%, PoE
POE	IEEE 802.3af	IEEE 802.3af	IEEE 802.3af
BROWSER	IE6.0 to IE11.0	IE6.0 to IE11.0	IE6.0 to IE11.0
PROTECTION			
CERTIFICATE	CE, FCC, C-Tick	CE, FCC, C-Tick	CE, FCC, C-Tick

2 MP HONEYWELL BLACK™ IP FIXED DOME CAMERAS

2 MP IR Fixed Dome

CALIPD-BI60P



CALIPD-BI80P



CALIPD-BI36-VP



1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
1920 x 1080	1920 x 1080	1920 x 1080
Color: 0.01Lux @ (F1.2,AGC ON), 0 Lux (IR ON) B/W: 0.001 Lux @ (F1.2,AGC ON), 0 Lux (IR ON)	Color: 0.01Lux @ (F1.2,AGC ON), 0 Lux (IR ON) B/W: 0.001 Lux @ (F1.2,AGC ON), 0 Lux (IR ON)	Color: 0.01Lux @ (F1.2,AGC ON), 0 Lux (IR ON) B/W: 0.001 Lux @ (F1.2,AGC ON), 0 Lux (IR ON)
Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 2440)	Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 2440)	Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 2440)
Auto, 1/50 (1/60)s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)	Auto, 1/50 (1/60)s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)	Auto, 1/50 (1/60)s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)
6mm	8mm	3.6mm
TDN, IR cut removable	TDN, IR cut removable	TDN, IR cut removable
ON/OFF	ON/OFF	ON/OFF
ON/OFF, 0~100 adjustable	ON/OFF, 0~100 adjustable	ON/OFF, 0~100 adjustable
50-60m	50-60m	10-20m
H.264 dual-stream	H.264 dual-stream	H.264 dual-stream
Video motion, video blind, video loss, device disconnect	Video motion, video blind, video loss, device disconnect	Video motion, video blind, video loss, device disconnect
G.711a	G.711a	G.711a
Day / Night 0~5 adjustable	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable
"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"
CBR / VBR	CBR / VBR	CBR / VBR
		ON/OFF
ONVIF 2.0	ONVIF 2.0	ONVIF 2.0
1 CH RCA Audio input	1 CH RCA Audio input	1 CH RCA Audio input
396 zones	396 zones	396 zones
4 zones	4 zones	4 zones
5 users	5 users	5 users
CAL-CMS200	CAL-CMS200	CAL-CMS200
CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
DC12V±10%, PoE	DC12V±10%, PoE	DC12V±10%, PoE
IEEE 802.3af	IEEE 802.3af	IEEE 802.3af
IE6.0 to IE11.0	IE6.0 to IE11.0	IE6.0 to IE11.0
		IP66
CE, FCC, C-Tick	CE, FCC, C-Tick	CE, FCC, C-Tick

Specification

2 MP HONEYWELL BLACK™ IP FIXED DOME CAMERAS



		2 MP IR VF Dome
	CALIPD-BI60-VP	CALIPDF-BIVF-VF



IMAGE SENSOR	1/2.8" CMOS	1/2.8" CMOS
EFFECTIVE PIXELS	1920 x 1080	1920 x 1080
MINIMUM ILLUMINATION	Color: 0.01Lux @ (F1.2,AGC ON), 0 Lux (IR ON) B/W: 0.001 Lux @ (F1.2,AGC ON), 0 Lux (IR ON)	Color: 0.01Lux @ (F1.2,AGC ON), 0 Lux (IR ON) B/W: 0.001 Lux @ (F1.2,AGC ON), 0 Lux (IR ON)
IMAGE RESOLUTION & FRAME RATE	Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 2440)	Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 2440)
SHUTTER SPEED	Auto, 1/50 (1/60)s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)	Auto, 1/50 (1/60)s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)
LENS	6mm	Megapixel 2.8-12mm vari-focal lens
DAY/ NIGHT	TDN, IR cut removable	TDN, IR cut removable
DWDR	ON/OFF	ON/OFF
AUTO GAIN CONTROL	ON/OFF, 0~100 adjustable	ON/OFF, 0~100 adjustable
IR BEAM DISTANCE	10~20m	30~40m
VIDEO COMPRESSION	H.264 dual-stream	H.264 dual-stream
ALARM TRIGGER	Video motion, video blind, video loss, device disconnect	Video motion, video blind, video loss, device disconnect
AUDIO COMPRESSION	G.711a	G.711a
NT LEVEL (DNR)	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable
BITE RATE	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"
BITE RATE TYPE	CBR / VBR	CBR / VBR
WATERMARK	ON/OFF	ON/OFF
ONVIF	ONVIF 2.0	ONVIF 2.0
AUDIO INTERFACE	1 CH RCA Audio input	1 CH 3.5mm Audio input
MOTION DETECTION	396 zones	396 zones
PRIVACY MASKING	4 zones	4 zones
MAX USER ACCESS	5 users	5 users
CMS	CAL-CMS200	CAL-CMS200
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
POWER SUPPLY	DC12V±10%, PoE	DC12V±10%, PoE
POE	IEEE 802.3af	IEEE 802.3af
BROWSER	IE6.0 to IE11.0	IE6.0 to IE11.0
PROTECTION	IP66	IP66
CERTIFICATE	CE, FCC, C-Tick	CE, FCC, C-Tick

Specification


2 MP HONEYWELL BLACK™ IP FIXED/VARIFOCAL BULLET CAMERAS

	2 MP IR Fixed Bullet cameras		
	CALIPB-BI36-10P	CALIPB-BI60-10P	CALIPB-BI36-20P
			
IMAGE SENSOR	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
EFFECTIVE PIXELS	1920 x 1080	1920 x 1080	1920 x 1080
MINIMUM ILLUMINATION	"Color: 0.01Lux @ (F1.2, AGC ON); 0 Lux (IR On) B/W: 0.001 Lux @ (F1.2, AGC ON); 0 Lux (IR On)"	"Color: 0.01Lux @ (F1.2, AGC ON); 0 Lux (IR On) B/W: 0.001 Lux @ (F1.2, AGC ON); 0 Lux (IR On)"	"Color: 0.01Lux @ (F1.2, AGC ON); 0 Lux (IR On) B/W: 0.001 Lux @ (F1.2, AGC ON); 0 Lux (IR On)"
IMAGE RESOLUTION & FRAME RATE	"Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 244)"	"Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 244)"	"Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 244)"
SHUTTER SPEED	"Auto, 1/50 (1/60) s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)"	"Auto, 1/50 (1/60) s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)"	"Auto, 1/50 (1/60) s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)"
LENS	3.6mm	6mm	3.6mm
DAY/ NIGHT	TDN, IR cut removable	TDN, IR cut removable	TDN, IR cut removable
AUTO GAIN CONTROL	ON/OFF, 0~100 adjustable	ON/OFF, 0~100 adjustable	ON/OFF, 0~100 adjustable
IR BEAM DISTANCE	10~20m	10~20m	20~30m
VIDEO COMPRESSION	H.264 dual-stream	H.264 dual-stream	H.264 dual-stream
ALARM TRIGGER	Video motion, video blind, video loss, device disconnect	Video motion, video blind, video loss, device disconnect	Video motion, video blind, video loss, device disconnect
NT LEVEL (DNR)	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable
BITE RATE	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"
BITE RATE TYPE	CBR / VBR	CBR / VBR	CBR / VBR
ONVIF	ONVIF 2.0	ONVIF 2.0	ONVIF 2.0
AUDIO INPUT / OUTPUT	1 CH RCA Audio input	1 CH RCA Audio input	1 CH RCA Audio input
MOTION DETECTION	396 zones	396 zones	396 zones
PRIVACY MASKING	4 zones	4 zones	4 zones
MAX USER ACCESS	5 users	5 users	5 users
CMS	CAL-CMS200	CAL-CMS200	CAL-CMS200
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
POWER SUPPLY	DC12V±10%	DC12V±10%	DC12V±10%
POE	IEEE 802.3af	IEEE 802.3af	IEEE 802.3af
BROWSER	IE6.0 to IE11.0	IE6.0 to IE11.0	IE6.0 to IE11.0
PROTECTION	IP-66	IP-66	IP-66
CERTIFICATE	CE, FCC, C-Tick	CE, FCC, C-Tick	CE, FCC, C-Tick



Specification

2 MP HONEYWELL BLACK™ IP FIXED/VARIFOCAL BULLET CAMERAS

	CALIPB-BI60-20P	CALIPB-BI36-50P	CALIPB-BI60-50P
			
IMAGE SENSOR	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
EFFECTIVE PIXELS	1920 x 1080	1920 x 1080	1920 x 1080
MINIMUM ILLUMINATION	"Color: 0.01Lux @ (F1.2, AGC ON) ; 0 Lux (IR On) B/W: 0.001 Lux @ (F1.2, AGC ON) ; 0 Lux (IR On)"	"Color: 0.01Lux @ (F1.2, AGC ON) ; 0 Lux (IR On) B/W: 0.001 Lux @ (F1.2, AGC ON) ; 0 Lux (IR On)"	"Color: 0.01Lux @ (F1.2, AGC ON) ; 0 Lux (IR On) B/W: 0.001 Lux @ (F1.2, AGC ON) ; 0 Lux (IR On)"
IMAGE RESOLUTION & FRAME RATE	"Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 244)"	"Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 244)"	"Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 244)"
SHUTTER SPEED	"Auto, 1/50 (1/60) s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)"	"Auto, 1/50 (1/60) s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)"	"Auto, 1/50 (1/60) s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)"
LENS	6mm	3.6mm	6mm
DAY/ NIGHT	TDN, IR cut removable	TDN, IR cut removable	TDN, IR cut removable
AUTO GAIN CONTROL	ON/OFF, 0~100 adjustable	ON/OFF, 0~100 adjustable	ON/OFF, 0~100 adjustable
IR BEAM DISTANCE	20~30m	50~60m	50~60m
VIDEO COMPRESSION	H.264 dual-stream	H.264 dual-stream	H.264 dual-stream
ALARM TRIGGER	Video motion, video blind, video loss, device disconnect	Video motion, video blind, video loss, device disconnect	Video motion, video blind, video loss, device disconnect
NT LEVEL (DNR)	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable
BITE RATE	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"
BITE RATE TYPE	CBR / VBR	CBR / VBR	CBR / VBR
ONVIF	ONVIF 2.0	ONVIF 2.0	ONVIF 2.0
AUDIO INPUT / OUTPUT	1 CH RCA Audio input	1 CH RCA Audio input	1 CH RCA Audio input
MOTION DETECTION	396 zones	396 zones	396 zones
PRIVACY MASKING	4 zones	4 zones	4 zones
MAX USER ACCESS	5 users	5 users	5 users
CMS	CAL-CMS200	CAL-CMS200	CAL-CMS200
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
POWER SUPPLY	DC12V±10%	DC12V±10%	DC12V±10%
POE	IEEE 802.3af	IEEE 802.3af	IEEE 802.3af
BROWSER	IE6.0 to IE11.0	IE6.0 to IE11.0	IE6.0 to IE11.0
PROTECTION	IP-66	IP-66	IP-66
CERTIFICATE	CE, FCC, C-Tick	CE, FCC, C-Tick	CE, FCC, C-Tick

2 MP HONEYWELL BLACK™ IP FIXED/VARIFOCAL BULLET CAMERAS

CALIPB-BI80-50P	2 MP IR VF Bullet cameras CALIPB-BI120-50P	CALIPB-BIVF-30P
		
1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
1920 x 1080	1920 x 1080	1920 x 1080
"Color: 0.01Lux @ (F1.2, AGC ON); 0 Lux (IR On) B/W: 0.001 Lux @ (F1.2, AGC ON); 0 Lux (IR On)"	"Color: 0.01Lux @ (F1.2, AGC ON); 0 Lux (IR On) B/W: 0.001 Lux @ (F1.2, AGC ON); 0 Lux (IR On)"	"Color: 0.01Lux @ (F1.2, AGC ON); 0 Lux (IR On) B/W: 0.001 Lux @ (F1.2, AGC ON); 0 Lux (IR On)"
"Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 244)"	"Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 244)"	"Main Stream: 50Hz: 25fps (1920 x 1080), (1280 x 720) 60Hz: 30fps (920 x 1080), (1280 x 720) Sub Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 480), (CIF: 352 x 244)"
"Auto, 1/50 (1/60) s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)"	"Auto, 1/50 (1/60) s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)"	"Auto, 1/50 (1/60) s, 1/120s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/10,000s (millisecond adjustable)"
8mm	12mm	Megapixel 2.8-12mm vari-focal lens
TDN, IR cut removable	TDN, IR cut removable	TDN, IR cut removable
ON/OFF, 0~100 adjustable	ON/OFF, 0~100 adjustable	ON/OFF, 0~100 adjustable
50~60m	50~60m	30~40m
H.264 dual-stream	H.264 dual-stream	H.264 dual-stream
Video motion, video blind, video loss, device disconnect	Video motion, video blind, video loss, device disconnect	Video motion, video blind, video loss, device disconnect
Day / Night 0~5 adjustable	Day / Night 0~5 adjustable	Day / Night 0~5 adjustable
"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"	"32Kbps~8Mbps (H.264), Image resolution lowest / lower / general / high / higher / highest selectable"
CBR / VBR	CBR / VBR	CBR / VBR
ONVIF 2.0	ONVIF 2.0	ONVIF 2.0
1 CH RCA Audio input	1 CH RCA Audio input	1 CH RCA Audio input
396 zones	396 zones	396 zones
4 zones	4 zones	4 zones
5 users	5 users	5 users
CAL-CMS200	CAL-CMS200	CAL-CMS200
CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
DC12V±10%	DC12V±10%	DC12V±10%
IEEE 802.3af	IEEE 802.3af	IEEE 802.3af
IE6.0 to IE11.0	IE6.0 to IE11.0	IE6.0 to IE11.0
IP-66	IP-66	IP-66
CE, FCC, C-Tick	CE, FCC, C-Tick	CE, FCC, C-Tick



Specification

2 MP HONEYWELL BLACK™ IP BOX CAMERA





CALIPB-BP



IMAGE SENSOR	1/2.8" CMOS
EFFECTIVE PIXELS	1920 x 1080
MINIMUM ILLUMINATION	"Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.001Lux (F1.2, AGC ON)"
IMAGE RESOLUTION & FRAME RATE	"Main Stream: 50Hz: 25fps (720P: 1280 x 720), (1.3M: 1280 x 960) 60Hz: 30fps (720P: 1280 x 720), (1.3M: 1280 x 960) Sub-Stream: 50Hz: 25fps (D1: 704 x 576), (CIF: 352 x 288) 60Hz: 30fps (D1: 704 x 576), (CIF: 352 x 288)"
SHUTTER SPEED	1/50 (1/60) Sec~1/10,000 Sec
LENS MOUNT	CS interface
LENS	DC drive
DAY/ NIGHT	TDN, IR cut removable
AUTO GAIN CONTROL	ON/OFF 0~100 adjustable
VIDEO COMPRESSION	H.264 dual-stream
DWDR	ON/OFF
ALARM INPUT / OUTPUT	2 CH Input, 1 CH Output
AUDIO INPUT / OUTPUT	1 CH 3.5mm Audio input / output
ALARM TRIGGER	Video motion, video blind, video loss, device disconnect
STORAGE	Network Storage / SD card slot (max 32GB)
USB PORT	1 USB Port for Wi-Fi / 3G Extension
NT LEVEL (DNR)	Day / Night 0~5 adjustable
BITE RATE	H.264: 32Kbps~6Mbps, Image resolution lowest / lower / general / high / higher / highest selectable
BITE RATE TYPE	CBR / VBR
ONVIF	ONVIF 2.0
NETWORK INTERFACE	1 RJ45 10M / 100M self adaptive Ethernet port
MOTION DETECTION	396 zones
PRIVACY MASKING	4 zones
MAX USER ACCESS	5 users
CMS	CAL-CMS200
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android
POWER SUPPLY	DC12V±10%
POE	IEEE 802.3af
BROWSER	IE6.0 to IE11.0
CERTIFICATE	CE, FCC, C-Tick



Specification

2 MP HONEYWELL BLACK™ IP IR PTZ CAMERA				
	CALIPSD-BI18WW	CALIPSD-BI18WP	CALIPSD-BI180P	CALIPSD-BI180W
				
IMAGE SENSOR	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
EFFECTIVE PIXELS	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
IMAGE RESOLUTION	"Main-stream 50Hz: 25fp (2M: 1920 x 1080) 60Hz: 30fps (2M: 1920 x 1080) Sub-stream 50Hz: 25fps (D1: 704 x 576) 60Hz: 30fps (D1: 704 x 480)"	"Main-stream 50Hz: 25fp (2M: 1920 x 1080) 60Hz: 30fps (2M: 1920 x 1080) Sub-stream 50Hz: 25fps (D1: 704 x 576) 60Hz: 30fps (D1: 704 x 480)"	"Main-stream 50Hz: 25fp (2M: 1920 x 1080) 60Hz: 30fps (2M: 1920 x 1080) Sub-stream 50Hz: 25fps (D1: 704 x 576) 60Hz: 30fps (D1: 704 x 480)"	"Main-stream 50Hz: 25fp (2M: 1920 x 1080) 60Hz: 30fps (2M: 1920 x 1080) Sub-stream 50Hz: 25fps (D1: 704 x 576) 60Hz: 30fps (D1: 704 x 480)"
DAY / NIGHT	True Day / Night, IR-Cut removable	True Day / Night, IR-Cut removable	True Day / Night, IR-Cut removable	True Day / Night, IR-Cut removable
FOCAL LENGTH	4.7mm to 84.6mm	4.7mm to 84.6mm	4.7-84.6mm (F1.5-3.6)	4.7-84.6mm (F1.5-3.6)
DWDR	ON/OFF	ON/OFF	ON/OFF	ON/OFF
DIGITAL NOISE REDUCTION	3D Noise Reduction	3D Noise Reduction	3D Noise Reduction	3D Noise Reduction
IR BEAM DISTANCE	Up to 100 meters	Up to 100 meters		
IR CONTROL	Auto / Near light / Far light / OFF	Auto / Near light / Far light / OFF		
WHITE BALANCE	Auto, auto tracking, indoor, outdoor, automatic outdoor, sodium mode, one-push, manual	Auto, auto tracking, indoor, outdoor, automatic outdoor, sodium mode, one-push, manual	Auto	Auto
PAN TILT RANGE	"Horizontal: 0°~360° continuous rotation Vertical: -2°~90° auto-rotation, 180°continuous monitoring"	"Horizontal: 0°~360° continuous rotation Vertical: -2°~90° auto-rotation, 180°continuous monitoring"	Horizontal: 0°~360° Continuous rotation vertical: -2°~ 90° auto-rotation	Horizontal: 0°~360° Continuous rotation vertical: -2°~ 90° auto-rotation
PAN TILT SPEED	"Key control: Horizontal 0.1° ~ 160° / sec; Vertical 0.1° ~ 120° / sec Preset: Horizontal 240° / sec; Vertical 200° / sec."	"Key control: Horizontal 0.1° ~ 160° / sec; Vertical 0.1° ~ 120° / sec Preset: Horizontal 240° / sec; Vertical 200° / sec."	"Key control: Horizontal 0.1° ~ 160° / s; vertical 0.1° ~ 120° / s Preset: Horizontal 240° / s; vertical 200° / s."	"Key control: Horizontal 0.1° ~ 160° / s; vertical 0.1° ~ 120° / s Preset: Horizontal 240° / s; vertical 200° / s."
OPTICAL ZOOM	18x	18x	18x	18x
PRESET	255	255	255	255
AUTO CRUISE	Support 8 auto cruise, 4 auto patrol tracks, 4 auto scan	Support 8 auto cruise, 4 auto patrol tracks, 4 auto scan	Support 8 auto cruise, 4 auto patrol tracks, 4 auto scan	Support 8 auto cruise, 4 auto patrol tracks, 4 auto scan
VIDEO COMPRESSION	H.264	H.264	H.264	H.264
ONVIF	ONVIF.2.0	ONVIF.2.0	ONVIF.2.0	ONVIF.2.0
ETHERNET	1 RJ45 10 / 100Mbps	1 RJ45 10 / 100Mbps	1 RJ45 10M / 100M self adaptive Ethernet interface	1 RJ45 10M / 100M self adaptive Ethernet interface
CMS	CAL-CMS200	CAL-CMS200	CAL-CMS200	CAL-CMS200
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
POWER SUPPLY	AC 12V/5A (±20%)	AC 12V/5A (±20%)	AC 12V/5A (±20%)	AC 12V/5A (±20%)
PROTECTION	IP66 weatherproof, 4000V lightning protection, anti-surge protection	IP66 weatherproof, 4000V lightning protection, anti-surge protection	IP66 weatherproof, 4000V lightning protection, anti-surge protection	IP66 weatherproof, 4000V lightning protection, anti-surge protection
MOUNTING	Wall Mount	Pendant Mount	Pendant Mount	Wall Mount
CERTIFICATE	CE, FCC, C-TICK	CE, FCC, C-TICK	CE, FCC, C-TICK	CE, FCC, C-TICK

Honeywell Black™ IP NVR RANGE

4, 8 & 16, 24 Channel NVRs

Honeywell Black™ series is an easy to use network recording solution designed for small-scale surveillance. Supporting 5M/3M/1080P/960P outstanding real-time recording resolution, 1080P HDMI & VGA output, H.264 video compression, and compatibility with 1.3 Megapixel IP cameras, this NVR series optimizes recording quality to provide outstanding video performance at an economical price.

FEATURES & BENEFITS

- View, Record & Playback at 720p and 1080p on all channels (720P and 1080P recording resolution ensures high quality, high-resolution video for live-viewing and recording. The images look much larger, wider and clearer than at lower resolutions).
- H.264 Video Compression (Maximize recording time and reduce file size).
- HDMI Output (View video with enhanced image clarity with crisp images and enables to view the security camera video in HD on HDTV screen).
- Support Digital Zoom on Live View and Playback.
- Each SATA supports 4 TB HDD (More video storage days).
- Water Marking Feature (ensures original video images will not be altered or modified, and can be used as evidence when required).
- Support DVD Writer to burn External/Internal DVD from DVR.
- 2* USB 2.0 Ports (support mouse and data transfer).
- Support Redundancy and partition setup for 1 HDD (uninterrupted and continued operation in the event of HDD Failure).
- Schedule Recording & Motion Detection (Record only at scheduled times and Record only when motion is detected).
- Audio Input/output (to record audio and video simultaneously).
- PTZ Support and Remote control.
- Multiplex Operation (The operator can Live View, Record, Play back, and remotely control the system simultaneously).
- Alarm Inputs/Outputs (To trigger the third-party devices).
- Alarm Trigger on Video Motion, Video Blind, Video Loss, Device Disconnect
- Bidirectional Audio Communication (Ensure two-way audio communication between IP camera and NVR).
- Automated Email Alerts on Motion, Video Blind, Video Loss, Storage error (The NVR will automatically send an email alert of an image when an event triggered by motion has occurred. This provides a record of the event and enables the customer to quickly take action when an incident occurs).
- Free CMS CAL-CMS200 (The customers can monitor 960H Lirit AHD DVR's and NVR's, cameras for video, audio, and alarm by signaling over networks. It provides convenient and versatile search, playback, and system check for health status).
- Free DDNS Service (It is not needed for the customer to pay for Static IP. The Free DDNS will automatically keep the DVR online and stay connected).

www.calnvrview.net

Specification

	HONEYWELL BLACK™ SERIES 1 SATA NVR			HONEYWELL BLACK™ SERIES 1 & 2 SATA NVR WITH POE	
	CALNVR-1004A	CALNVR-1008A	CALNVR-1016A	CALNVR-1004CP	CALNVR-2008CP



IP VIDEO INPUT	4 Channels @720P and 4 Channels @D1	8 Channels @1080P and 720P	8 Channels @1080P and 16 Channels 720P	4 Channels @720P and 4 Channels @D1	8 Channels @720P and 8 Channels @1080P
VIDEO OUTPUT	1 Ch BNC/VGA/HDMI output	1 Ch BNC/VGA/HDMI output	1 Ch BNC/VGA/HDMI output	1 Ch BNC/VGA/HDMI output	1 Ch BNC/VGA/HDMI output
REALTIME RECORDING RESOLUTION	4 Channels @ 720p,8 Channels @D1	8 Channels @ 720P,8 Channels @1080P	16 Channels @ 720P,8 Channels @1080P	8 Channels @ D1,4 Channels @720P	8 Channels @ 720P,8 Channels @1080P
REALTIME LOCAL PLAYBACK	1 Channels @ 720p,4 Channels @D1	4 Channels @ 720P,2 Channels @1080P	4 Channels @ 720P,2 Channels @1080P	1 Channels @ 720p,4 Channels @D1	4 Channels @ 720P,2 Channels @1080P
MULTIPLEX OPERATION	Simultaneous multi-channel live view, real-time recording, playback, network operation, remote access, backup	Simultaneous multi-channel live view, real-time recording, playback, network operation, remote access, backup	Simultaneous multi-channel live view, real-time recording, playback, network operation, remote access, backup	Simultaneous multi-channel live view, real-time recording, playback, network operation, remote access, backup	Simultaneous multi-channel live view, real-time recording, playback, network operation, remote access, backup
BI-DIRECTIONAL TALK	N/A	N/A	Support	N/A	N/A
ONLINE USER VIEW	6	6	6	6	6
MULTISCREEN DISPLAY	1 / 4 Windows	1 / 4 / 9 (8 channels) Windows	"1 / 4 / 9 (8 channels) / 16 Windows"	1 / 4 Windows	1 / 4 / 9 (8 channels) Windows
AUDIO INPUT	N/A	N/A	1 channel RCA	N/A	N/A
AUDIO OUTPUT	1 channel RCA	1 channel RCA	1 channel RCA	1 channel RCA	1 channel RCA
COMPRESSION FORMAT	H.264 High profile, main profile, baseline	H.264 High profile, main profile, baseline	H.264 High profile, main profile, baseline	H.264 High profile, main profile, baseline	H.264 High profile, main profile, baseline
RECORDING MODE	Manual / Alarm / Video Detection / Timing	Manual / Alarm / Video Detection / Timing	Manual / Alarm / Video Detection / Timing	Manual / Alarm / Video Detection / Timing	Manual / Alarm / Video Detection / Timing
MOTION DETECTION	Support	Support	Support	Support	Support
HDD REDUNDANCY	Support	Support	Support	Support	Support
BACKUP MODE	Network backup, USB HDD, USB writer, SATA writer	Network backup, USB HDD, USB writer, SATA writer	Network backup, USB HDD, USB writer, SATA writer	Network backup, USB HDD, USB writer, SATA writer	Network backup, USB HDD, USB writer, SATA writer
SEARCH MODE	Time / Calendar / Event / Channel search	Time / Calendar / Event / Channel search	Time / Calendar / Event / Channel search	Time / Calendar / Event / Channel search	Time / Calendar / Event / Channel search
PTZ CONTROL	1 RS485, support 18 kinds of PTZ protocols	1 RS485, support 18 kinds of PTZ protocols	1 RS485, support 18 kinds of PTZ protocols	1 RS485, support 18 kinds of PTZ protocols	1 RS485, support 18 kinds of PTZ protocols
NETWORK INTERFACE	1 RJ-45 10M / 100M	1 RJ-45 10M / 100M	1 RJ45 10M / 100M / 1000M	1 RJ45 10M / 100M self-adaptive Ethernet interface	1 RJ-45 10M / 100M
USB PORT	2 USB 2.0 port for mouse, backup, DVD burning and upgrading	2 USB 2.0 port for mouse, backup, DVD burning and upgrading	2 USB 2.0 port for mouse, backup, DVD burning and upgrading	2 USB 2.0 port for mouse, backup, DVD burning and upgrading	2 USB 2.0 port for mouse, backup, DVD burning and upgrading
HDD INTERFACE	1 SATA, max 4TB	1 SATA, max 4TB	1 SATA, max 4TB	1 SATA, max 4TB	2 SATA, max 4TB each
ONVIF	ONVIF 2.0	ONVIF 2.0	ONVIF 2.0	ONVIF 2.0	ONVIF 2.0
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
CMS	CAL-CMS200	CAL-CMS200	CAL-CMS200	CAL-CMS200	CAL-CMS200
FREE DDNS	Yes	Yes	Yes	Yes	Yes
POWER	12V / 2A	12V / 2A	12V / 2A	12V/2A, 48V/1.5A (1-channel~4-channel support PoE)	12V/2A, 48V/1.5A (1-channel~4-channel support PoE)
POE	No	No	No	Yes	Yes
CERTIFICATE	CE, FCC, C-Tick	CE, FCC, C-Tick	CE, FCC, C-Tick	CE, FCC, C-Tick	CE, FCC, C-Tick

Specification

	HONEYWELL BLACK™ Series 2 SATA NVR		HONEYWELL BLACK™ Series 4 &8 SATA NVR
	CALNVR-2016B	CALNVR-2024B	CALNVR-4024B



IP VIDEO INPUT	16 Channels @720P and 4 Channels @ 1080P	24 Channels @1080P and 32 Channels @ 720P	24 Channels @1080P and 32 Channels @ 720P
VIDEO OUTPUT	1 Ch VGA/HDMI output	1 Ch VGA/HDMI output	1 Ch VGA/HDMI output
DISPLAY RESOLUTION	1080P / 720P	1080P / 720P	1080P / 720P
REALTIME RECORDING RESOLUTION	16 Channels @ 720P,8 Channels @1080P	32 Channels @ 720P,24 Channels @1080P	32 Channels @ 720P,24 Channels @1080P
REALTIME LOCAL PLAYBACK	4 Channels @ 720P,2 Channels @1080P	8 Channels @ 720P,4 Channels @1080P	8 Channels @ 720P,4 Channels @1080P
MULTIPLEX OPERATION	Simultaneous multi-channel live view, real-time recording, playback, network operation, remote access, backup	Simultaneous multi-channel live view, real-time recording, playback, network operation, remote access, backup	Simultaneous multi-channel live view, real-time recording, playback, network operation, remote access, backup
BI-DIRECTIONAL TALK	Support	Support	Support
ONLINE USER VIEW	6	6	6
MULTISCREEN DISPLAY	1 / 4 / 8 / 16 Windows	1 / 4 / 8 / 16 / 24 / 32 Windows	1 / 4 / 8 / 16 / 24 / 32 Windows
AUDIO INPUT	1channel RCA	1channel RCA	1channel RCA
AUDIO OUTPUT	1 channel RCA	1 channel RCA	1 channel RCA
ALARM INPUT	N/A	N/A	16 channels
ALARM OUTPUT	N/A	N/A	4 channels
COMPRESSION FORMAT	H.264 High profile, main profile, baseline	H.264 High profile, main profile, baseline	H.264 High profile, main profile, baseline
RECORDING MODE	Manual / Alarm / Video Detection / Timing	Manual / Alarm / Video Detection / Timing	Manual / Alarm / Video Detection / Timing
MOTION DETECTION	Support	Support	Support
HDD REDUNDANCY	Support	Support	Support
BACKUP MODE	Network backup, USB HDD, USB writer, SATA writer	Network backup, USB HDD, USB writer, SATA writer	Network backup, USB HDD, USB writer, SATA writer
SEARCH MODE	Time / Calendar / Event / Channel search	Time / Calendar / Event / Channel search	Time / Calendar / Event / Channel search
PTZ CONTROL	1 RS485, support 18 kinds of PTZ protocols	1 RS485, support 18 kinds of PTZ protocols	1 RS485, support 18 kinds of PTZ protocols
NETWORK INTERFACE	1 RJ45 10M / 100M self-adaptive	"1 RJ45 10M / 100M / 1000M self-adaptive Ethernet interface"	"1 RJ45 10M / 100M / 1000M self-adaptive Ethernet interface"
USB PORT	2 USB 2.0 port for mouse, backup, DVD burning and upgrading	2 USB 2.0 port for mouse, backup, DVD burning and upgrading	2 USB 2.0 port for mouse, backup, DVD burning and upgrading
HDD INTERFACE	2 SATA, max.4T each	2 SATA, max.4T each	4 SATA, max.4TB each, 1 e-SATA
ONVIF	ONVIF 2.0	ONVIF 2.0	ONVIF 2.0
MOBILE VIEW APP	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android	CALNVRView for iPhone, iPad, Android
CMS	CAL-CMS200	CAL-CMS200	CAL-CMS200
FREE DDNS	Yes	Yes	Yes
POWER	12V / 2A	12V / 2A	12V/6A
CERTIFICATE	CE, FCC, C-Tick	CE, FCC, C-Tick	CE, FCC, C-Tick

HONEYWELL BLACK™ Series 4 & 8 SATA NVR

CALNVR-8024B



24 Channels @1080P and 32 Channels @ 720P

1 Ch VGA/HDMI output

1080P / 720P

32 Channels @ 720P, 24 Channels @1080P

8 Channels @ 720P, 4 Channels @1080P

Simultaneous multi-channel live view, real-time recording, playback, network operation, remote access, backup

Support

6

1 / 4 / 8 / 16 / 24 / 32 Windows

1 channel RCA

1 channel RCA

16 channels

4 channels

H.264 High profile, main profile, baseline

Manual / Alarm / Video Detection / Timing

Support

Support

Network backup, USB HDD, USB writer, SATA writer

Time / Calendar / Event / Channel search

1 RS485, support 18 kinds of PTZ protocols

"1 RJ45 10M / 100M / 1000M self-adaptive Ethernet interface"

2 USB 2.0 port for mouse, backup, DVD burning and upgrading

8 SATA, max.4TB each, 1 e-SATA

ONVIF 2.0

CALNVRView for iPhone, iPad, Android

CAL-CMS200

Yes

Built-in ATX power

CE, FCC, C-Tick



IP Megapixel Lens

IP MEGAPIXEL LENS						
	CALA4090F14M13	CALM50150F14M13	CALA80200F14M13	CALA33120F14M2	CALA30105F14M3	CALA70220F14M3

PIXEL	1.3 MP	1.3 MP	1.3 MP	2 MP	3 MP	3 MP
FOCAL-LENGTH	4-9mm	5-15mm	8-20mm	3.3-12mm	3-10.5 mm	7-22 mm
APERTURE(D/F)	1,4	1,4	1,4	1,4	1,4	1,4
MOUNT	CS	CS	CS	CS	CS	CS
FORMAT	1/3"	1/3"	1/3"	1/2.7"	1/2.7"	1/2.7"
IRIS	DC	DC	DC	DC	DC	DC
HORIZONTAL FIELD	60°-30°	41°-19°	33°-14.5°	79.3°-29.8°	100°-28.4°	41°-14.1°



FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES

Cost-effective fire, surveillance, access, and intrusion detection solutions

CAL-CMS200

IP Camera Central Management System

Designed for small-scale surveillance, the CAL-CMS200 is cost-free software that comes with each Honeywell BlackTM CALIP series IP Camera and CALNVR Series NVR. It is a centralized system to record, view live footage, playback, manage via the network or DDNS, which helps to enhance 24/7 surveillance effortlessly. Key functions include device management, user management, log management, alarm trigger, E-map with video verification, PTZ control, and remote device configuration.

FEATURES

Live View

- Multi-screens for main view; Drag the tab to split screen quad; Screen quad splitting 1 / 4 / 9 / 16 / 25 / 36 / 64 channels for live view;
- Support picture capture and real-time recording in live view mode;
- Support digital zoom;
- Easily manage record files and captured pictures;
- Instant playback enables quick switch between live view and playback;
- Two-way audio.

Color Title

- Easy adjustment of brightness, contrast, saturation and hue parameters.

PTZ Control

- Full-functional remote PTZ and lens control;
- Preset setting and calling;
- Cruise and pattern settings.

Device Management

- Support searching on-line device for easy setup;
- Adding device by IP address, domain, ARSP and cloud;
- Support configuration of up to 64 IP address including IP Camera / NVR / Decoder (Total 512 channels).

Local Configuration

- Local record backup configuration for video clip length, alarm record length and disk status;
- Alarm setting for IO Trigger, video motion, video blind, video loss, video analyses and device disconnect;
- Support DDNS configuration.

Remote Configuration

- Remote configure each device's record, alarm, multiple system parameters and settings;
- Support remote setting of remote device alarm (video motion, video blind, video loss), network, RS485, HDD management, data input / output, device upgrade.



User Management

- Access privilege to system resources can be controlled individually by user or user group;
- User authority management: allow or block users from video monitor, playback, record backup, remote configuration, channel permission control, log management, user management, device management, E-map management, local management, etc.

Log Management

- Client operation log and alarm log query;

Playback

- Record files searching by device channel, time and event;
- Slow / fast forward play and pre-frame / next-frame play;
- Resume function for disconnected video channels;
- Filter the search result by record types (Alarm, Detection, General, Hand Record, Picture, etc);
- Locate with processing bar exactly;

Backup Configuration

- Configure record backup schedule by general, detect, and alarm.

Decoder

- Remote decoder configuration and management.

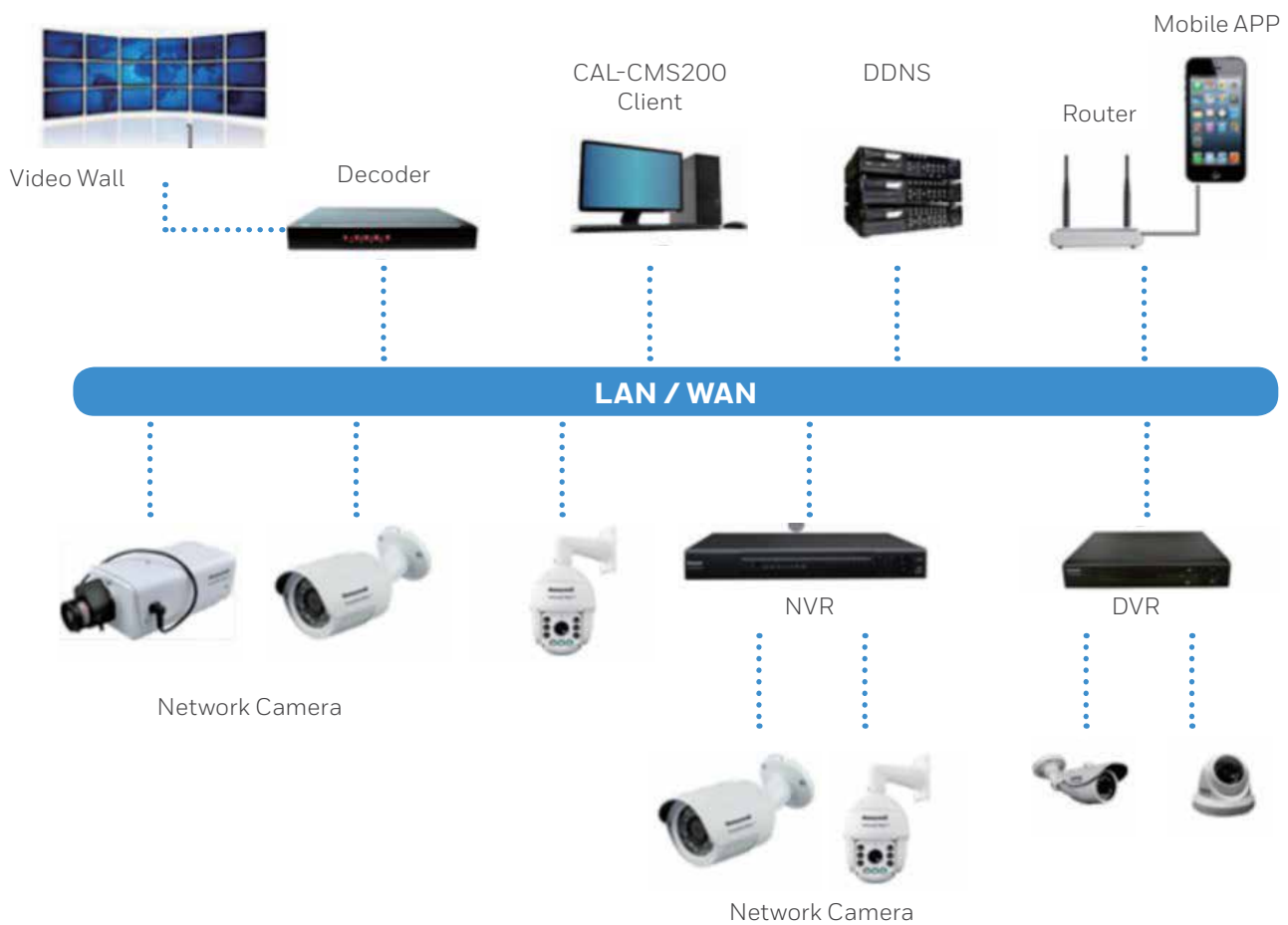
Map Management

- Eagle view for E-map;
- Easily setup camera position by dragging and dropping channel icon;

Tour Management

- Channel cruise management;
- Cycling live view, dwell time before each channel can be defined.

System diagram



RECOMMENDED PC SPECIFICATION

OS	Windows 7 32 bit SP1 (DirectX II)		
CPU	AMD Athlon II X4 640		
MEMORY	DDR3 1333 4G		
DISPLAY CARD	NVIDA GeForce 210, 1024M		
NETWORK	1000Mbps or above		
HDD	5400~7200rpm or above		
LCD DISPLAY	Over 22", above 1920 x 1080		

MAXIMUM INPUT CHANNELS (FOR D1 / 720P / 1080P H.264 @ 25FPS VIDEO MANAGEMENT)

RESOLUTION	1080P@4Mbps	720P@2Mbps	D1@0.5Mkpbs
LIVE VIEW	6 channels	9 channels	20 channels
RECORDING	16 channels	52 channels	92 channels
PLAYBACK SIMULTANEOUSLY	6 channels	8 channels	16 channels
ALARM POP-UP VIDEO	6 channels	9 channels	20 channels

CAL-CMS200 COMPONENTS

CAL-CMS200	Honeywell Black™ Central Management Software
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Honeywell AHD Series Cameras and DVRs

Honeywell Black™ AHD Series Cameras are designed for small to medium scale surveillance applications. This range is ideal for small to medium analog high-resolution surveillance for hotels, retail stores, commercial offices, hospitals, residential areas, educational facilities, and warehouses.

Honeywell Black™ DVRs for small to medium scale applications deliver high-resolution recording. They are compatible with both analog and HD cameras, and optimize recording quality to provide outstanding video performance for hybrid applications. Their user-friendly interface allows customers to view, record, playback, and remotely control the system in real-time.

FEATURES & BENEFITS

- High Definition (AHD technology supports high resolution of 2 Megapixel/720P into a system that uses coaxial cabling.)
- Long Distance Transmission (AHD technology guarantees long-distance and real-time transmission without any signal loss.)
- Seamless Upgrade (AHD system can be seamlessly upgraded from traditional analog systems simply by replacing the old devices with AHD cameras and DVR's, without changing the current environment, and at applicable labor and cost.)
- Easy to Use (AHD technology always keep in mind to bring the simplicity back to products and users. All AHD cameras and DVRs can plug-and-play, requiring no extra settings to realize HD video surveillance.)
- Best Cost Performance (AHD solutions always provide users with the best cost-performance.)
- Real-time (AHD offers no-latency capability for real-time performance. There is no need for compression processing, so vivid, original quality video images are provided.)
- Free CMS CAL-CMS200 (The customers can monitor Black AHD DVR's and NVR's, Cameras for video, audio, and alarm by signaling over networks. It provides convenient and versatile search, playback and system check for health status.)



Specification

720P AHD CAMERAS SERIES			
	720P AHD Dome Cameras		720P AHD Bullet Cameras
	CAHDC720PI-V36	CAHDC720PIV-V	CAHBC720PI25-36
			
IMAGE SENSOR	1/2.8" Sony Exmor 238 CMOS sensor	1/2.8" Sony Exmor 238 CMOS sensor	1/2.8" Sony Exmor 238 CMOS sensor
EFFECTIVE PIXELS	1.3 Megapixel (1280H x 960V)	1.3 Megapixel (1280H x 960V)	1.3 Megapixel (1280H x 960V)
MINIMUM ILLUMINATION	"Color: 0.001Lux B/W: 0 (IR-on)"	"Color: 0.001Lux B/W: 0 (IR-on)"	"Color: 0.001Lux B/W: 0 (IR-on)"
SENSOR RESOLUTION	960P	960P	960P
SHUTTER SPEED	1/50- 1/100,000 sec	1/50- 1/100,000 sec	1/50- 1/100,000 sec
LENS	3.6mm 2 Megapixel lens	2.8-12mm (2 Megapixel lens)	3.6mm 2 Megapixel lens
DAY/ NIGHT	TDN, IR cut removable	TDN, IR cut removable	TDN, IR cut removable
AUTO GAIN CONTROL	ON/OFF	ON/OFF	ON/OFF
WDR	ON/OFF	ON/OFF	ON/OFF
DNR	3D NR	3D NR	3D NR
IR BEAM DISTANCE	20m	40m	25-30m
INFRARED LEDES	8 Superflux Ledes	2 Array ledes+7 superflux ledes.	2 Array Ledes
OSD	DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti-foggy / Privacy Mask / Mirror / DPC	DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti-foggy / Privacy Mask / Mirror / DPC	DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti- foggy / Privacy Mask / Mirror / DPC
CMS	CMS-200	CMS-200	CMS-200
PROTECTION	IP67		IP66
CERTIFICATE	CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick



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720P AHD Bullet Cameras

CAHBC720PI40-80	CAHBC720PI40V	CAHBC720PI60V
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1/2.8" Sony Exmor 238 CMOS sensor	1/2.8" Sony Exmor 238 CMOS sensor	1/2.8" Sony Exmor 238 CMOS sensor
1.3 Megapixel (1280H x 960V)	1.3 Megapixel (1280H x 960V)	1.3 Megapixel (1280H x 960V)
"Color: 0.001Lux B/W: 0 (IR-on)"	"Color: 0.001Lux B/W: 0 (IR-on)"	"Color: 0.001Lux B/W: 0 (IR-on)"
960P	960P	960P
1/50- 1/100,000 sec	1/50- 1/100,000 sec	1/50- 1/100,000 sec
8mm 2 Megapixel fixed lens	2.8-12mm 2 Megapixel lens	2.8-12mm 2 Megapixel lens
TDN, IR cut removable	TDN, IR cut removable	TDN, IR cut removable
ON/OFF	ON/OFF	ON/OFF
ON/OFF	ON/OFF	ON/OFF
3D NR	3D NR	3D NR
40m	40m	60m
4 Array Leds	2 Array Leds + 6pcs Superflux Leds	2 Array Leds + 6pcs Superflux Leds
DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti-foggy / Privacy Mask / Mirror / DPC	DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti-foggy / Privacy Mask / Mirror / DPC	DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti-foggy / Privacy Mask / Mirror / DPC
CMS-200	CMS-200	CMS-200
	IP66	IP66
CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick



Specification

1080P AHD CAMERAS SERIES			
1080P AHD Dome Cameras		1080P AHD Bullet Cameras	
CAHDC1080PI-V36		CAHDC1080PIV-V	CAHBC1080PI25-36



IMAGE SENSOR	1/2.8" Sony Exmor 322 CMOS sensor	1/2.8" Sony Exmor 322 CMOS sensor	1/2.8" Sony Exmor 322 CMOS sensor
EFFECTIVE PIXELS	2.0 Megapixel (1920H x 1080V)	2.0 Megapixel (1920H x 1080V)	2.0 Megapixel (1920H x 1080V)
MINIMUM ILLUMINATION	"Color: 0.001Lux B/W: 0 (IR-on)"	"Color: 0.001Lux B/W: 0 (IR-on)"	"Color: 0.001Lux B/W: 0 (IR-on)"
SENSOR RESOLUTION	1080P	1080P	1080P
SHUTTER SPEED	1/50- 1/100,000 sec	1/50- 1/100,000 sec	1/50- 1/100,000 sec
LENS	3.6mm 3 Megapixel lens	2.8-12mm (3 Megapixel lens)	3.6mm 3 Megapixel lens
DAY/ NIGHT	TDN, IR cut removable	TDN, IR cut removable	TDN, IR cut removable
AUTO GAIN CONTROL	ON/OFF	ON/OFF	ON/OFF
WDR	ON/OFF	ON/OFF	ON/OFF
DNR	3D NR	3D NR	3D NR
IR BEAM DISTANCE	20m	40m	25-30m
INFRARED LEDS	8 Superflux Leds	2 Array leds+7 superflux leds.	2 Array Leds
OSD	DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti-foggy / Privacy Mask / Mirror / DPC	DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti-foggy / Privacy Mask / Mirror / DPC	DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti-foggy / Privacy Mask / Mirror / DPC
CMS	CMS-200	CMS-200	CMS-200
PROTECTION	IP67		IP66
CERTIFICATE	CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick





1080P AHD Bullet Cameras		
CAHBC1080PI40-80	CAHBC1080PI40V	CAHBC1080PI60V
		
1/2.8" Sony Exmor 322 CMOS sensor	1/2.8" Sony Exmor 322 CMOS sensor	1/2.8" Sony Exmor 322 CMOS sensor
2.0 Megapixel (1920H x 1080V)	2.0 Megapixel (1920H x 1080V)	2.0 Megapixel (1920H x 1080V)
"Color: 0.001Lux B/W: 0 (IR-on)"	"Color: 0.001Lux B/W: 0 (IR-on)"	"Color: 0.001Lux B/W: 0 (IR-on)"
1080P	1080P	1080P
1/50- 1/100,000 sec	1/50- 1/100,000 sec	1/50- 1/100,000 sec
8mm 3 Megapixel fixed lens	2.8-12mm 3 Megapixel lens	2.8-12mm 3 Megapixel lens
TDN, IR cut removable	TDN, IR cut removable	TDN, IR cut removable
ON/OFF	ON/OFF	ON/OFF
ON/OFF	ON/OFF	ON/OFF
3D NR	3D NR	3D NR
40m	40m	60m
4 Array Leds	2 Array Leds + 6pcs Superflux Leds	2 Array Leds + 6pcs Superflux Leds
DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti-foggy / Privacy Mask / Mirror / DPC	DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti-foggy / Privacy Mask / Mirror / DPC	DWDR / 3D / 2DNR / AGC / AWB / BLC / Anti-foggy / Privacy Mask / Mirror / DPC
CMS-200	CMS-200	CMS-200
	IP66	IP66
CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick



Specification

	1080P AHD DVR SERIES		
	1 SATA		1 SATA
	CADVR-1004FD	CADVR-1004FD-H	CADVR-1008FD



OPERATING SYSTEM	Huawei Hi 3521	Huawei Hi 3521	Huawei Hi 3521	Huawei Hi 3521
VIDEO COMPRESSION	H.264 (High Profile)	H.264 (High Profile)	H.264 (High Profile)	H.264 (High Profile)
ENCODE	4 channels 1080P@15fps	4 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)	8 channels 1080P@15fps	4 channels 1080P@15fps
DECODE	4 channels 1080P@15fps	4 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)	4 channels 1080P@15fps	4 channels 1080P@15fps
MULTI-MODE INPUT	"Pure Analog: 4 channels 1080P, 4 channels 720P; Mixed: 4 channels 720P (Analog) + 4 channels 720P (Network) Network: 2 channels 1080P + 2 channels 720P; 8 channels 720P"	"Local: 4 channels 1080P; 4 channels 720P; Mixed: 2 channels 1080P (Analog) + 2 channels 1080P (Network); 4 channels 720P (Analog) + 4 channels 720P (Network); Network: 4 channels 1080P; 1 channel 1080P + 8 channels 720P; 20 channels 960H"	"Pure Analog: 8 channels 1080P, 4 channels 1080P, 8 channels 720P; Mixed: 2 channels 1080P (Analog) + 2 channels 1080P (Network); 8 channels 720P (Analog) + 8 channels 720P (Network) Network: 4 channels 1080P, 1 channels 1080P + 8 channels 720P, 20 channels 960H"	"Pure Analog: 4 channels 1080P; 4 channels 720P; Mixed: 4 channels 720P (Analog) + 4 channels 720P (Network) Network: 2 channels 1080P + 2 channels 720P; 8 channels 720P"
RECORD MODE	Manual>alarm>motion detection>timing	Manual>alarm>motion detection>timing	Manual>alarm>motion detection>timing	Manual>alarm>motion detection>timing
PLAYBACK CHANNELS	4 channels 1080P@12fps	4 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)	4 channels 1080P@12fps	4 channels 1080P@12fps
AUDIO COMPRESSION	G.711A	G.711A	G.711A	G.711A
INTERCOM	Support	Support	Support	Support
AUDIO INPUT	4 channels RCA	4 channels RCA	4 channels RCA	4 channels RCA
AUDIO OUTPUT	1 channel RCA	1 channel RCA	1 channel RCA	1 channel RCA
ALARM INPUT	N/A	N/A	N/A	4
ALARM OUTPUT	N/A	N/A	N/A	1
PTZ CONTROL	One RS485; Support multiple PTZ protocols	One RS485; Support multiple PTZ protocols	One RS485; Support multiple PTZ protocols	"One RS485, one RS232; support multiple PTZ protocols"
USB	2 USB ports	2 USB ports	2 USB ports	2 USB ports
HARD DISK	1 SATA (Each maximum support 4TB)	1 SATA (Each maximum support 4TB)	1 SATA (Each maximum support 4TB)	2SATA (Each maximum support 6T)
CERTIFICATE	CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick



1 SATA			
CADVR-2004FD-H	CADVR-2008FD	CADVR-2008FD-H	CADVR-2016FD



Huawei Hi 3521	Huawei Hi 3521	Huawei Hi 3521	Huawei Hi 3521
H.264 (High Profile)	H.264 (High Profile)	H.264 (High Profile)	H.264 (High Profile)
"4 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)"	"8 channels 1080N/8 channels 1080P @15fps"	"8 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)"	16 channels 1080P @15fps
"4 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)"	"8 channels 1080N/4 channels 1080P@15fps"	"8 channels 1080N/4 channels 1080P @15fps"	8 channels 1080P @15fps
"Pure Analog: 4 channels 1080P; 4 channels 720P; Mixed: 2 channels 1080P (analog) + 2 channels 1080P (network); 4 channels 720P(analog)+ 4 channels 720P(network); Pure Network: 4 channels 1080P; 20 channels 960H; 1 channel 1080P + 8 channels 720P"	"Pure Analog: 8 channels 720P; 4 channels 720P; 8 channels AHD-L; Mixed: 2 channels 1080P (analog) +2*1080P (network) 8 channels 720P (analog) +8*720P(network); Pure Network: 8 channels 720P; 2 channels 1080P + 2 channels 720P"	"Pure Analog: 8 channels 1080P; Mixed: 2 channels 1080P (analog) + 2 channels 1080P (network); Pure Network: 4 channels 1080P; 20 channels 960H; 1 channel 1080P + 8 channels 720P"	"PureAnalog:16 channels 1080P; 16 channels 720P; Mixed: 2 channels 1080P (analog)+2 channels 1080P (network); 4 channels 720P (analog)+4*720P(network) Pure Network: 1 channels 1080P+8 channels 720P; 4 channels 1080P; 20 channels 960H;"
Manual>alarm>motion detection>timing	Manual>alarm>motion detection>timing	Manual>alarm>motion detection>timing	Manual>alarm>motion detection>timing
"4 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)"	4 channels 1080P@12fps	"4 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)"	8 channels 1080P@12fps
G.711A	G.711A	G.711A	G.711A
Support	Support	Support	Support
4 channels RCA	8 channels RCA	4 channels RCA	4 channels RCA
1 channel RCA	1 channel RCA	1 channel RCA	1 channel RCA
4	4	8	8
1	1	1	1
"One RS485, one RS232; support multiple PTZ protocols"	"One RS485, one RS232; support multiple PTZ protocols"	"One RS485, one RS232; support multiple PTZ protocols"	"One RS485, one RS232; support multiple PTZ protocols"
2 USB ports	2 USB ports	2 USB ports	2 USB ports
2SATA (Each maximum support 6T)	2SATA (Each maximum support 6T)	2SATA (Each maximum support 6T)	2SATA (Each maximum support 6T)
CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick

Specification

1080P AHD DVR SERIES				
	4 SATA			8 SATA
	CADVR-4008FD	CADVR-4008FD-H	CADVR-4016FD	CADVR-8008FD



OPERATING SYSTEM	Huawei Hi 3521	Huawei Hi 3521	Huawei Hi 3521	Huawei Hi 3521
VIDEO COMPRESSION	H.264 (High Profile)	H.264 (High Profile)	H.264 (High Profile)	H.264 (High Profile)
ENCODE	8 channels 1080P@15fps	"8 channels 1080P@25fps (PAL) or 1080P@30fps (NTSC)"	16 channels 1080P@15fps	8 channels 1080P@15fps
DECODE	4 channels 1080P@15fps	"4 channels 1080P@25fps (PAL) or 1080P@30fps (NTSC)"	8 channels 1080P@15fps	4 channels 1080P@15fps
MULTI-MODE INPUT	"Pure Analog: 8 channels 1080P; 4 channels 1080P; 8 channels 720P; Mixed: 2 channels 720P (Analog) +2 channels 1080P (Network); 8 channels 720P (Analog) +8 channels 720P (Network) Pure Network: 1 channel1080P+8 channels 720P; 4 channels1080P; 20 channels 960H"	"Pure Analog: 8 channels 1080P; 8 channels720P Mixed: 2 channels 1080P (Analog) +2 channels 1080P (Network); 4 channels 720P (Analog) +4*720P (Network) Pure Network: 1 channel1080P+8 channels 720P; 4 channels1080P; 20 channels 960H"	"Pure Analog: 16 channels 1080P; 16 channels720P; Mixed: 2 channels1080P (Analog)+2 channels 1080P (Network) 4 channels 720P (Analog) +4 channels 720P (Network) Pure Network: 1 channels 1080P+8 channels 720P; 4 channels 1080P; 20 channels 960H"	"Pure Analog: 8 channels 1080P; 4 channels 1080P; 8 channels 720P; Mixed: 2 channels 1080P (Analog)+2 channels 1080P (Network); 8 channels 720P (Analog) +8 channels 720P (Network) Pure Network: 1 channel1080P+8 channels 720P; 4 channels1080P; 20 channels 960H"
RECORD MODE	Manual>alarm>motion detection>timing"	"Manual>alarm>motion detection>timing"	"Manual>alarm>motion detection>timing"	Manual>alarm>motion detection>timing"
PLAYBACK CHANNELS	4 channels 1080P@12fps	"4 channels 1080P@ @25fps (PAL) or 1080P@30fps (NTSC)"	8 channels 1080P@12fps	4 channels 1080P@12fps
AUDIO COMPRESSION	G.711A	G.711A	G.711A	G.711A
INTERCOM	Support	Support	Support	Support
AUDIO INPUT	8 channels RCA	8 channels RCA	16 channels RCA	8 channels RCA
AUDIO OUTPUT	1 channel RCA	1 channel RCA	1 channel RCA	1 channel RCA
ALARM INPUT	16	16	16	16
ALARM OUTPUT	4	4	4	4
PTZ CONTROL	"One RS485, one RS232; support multiple PTZ protocols"	"One RS485, one RS232; support multiple PTZ protocols"	"One RS485, one RS232; support multiple PTZ protocols"	"One RS485, one RS232; support multiple PTZ protocols"
USB	2 USB ports	2 USB ports	2 USB ports	2 USB ports
HARD DISK	4 SATA (Each maximum support 6TB)	4 SATA (Each maximum support 6TB)	4 SATA (Each maximum support 6TB)	4 SATA (Each maximum support 6TB)
CERTIFICATE	CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick

8 SATA	
CADVR-8008FD-H	CADVR-8016FD



Huawei Hi 3521	Huawei Hi 3521
H.264 (High Profile)	H.264 (High Profile)
"8 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)"	16 channels 1080P@15fps
"4 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)"	8 channels 1080P@15fps
"Pure Analog: 8 channels 1080P ; 8 channels 720P Mixed: 2 channels 1080P (Analog) + 2 channels 1080P (Network); Pure Network: 8 channel 720P+1 channels 1080P; 4 channels 1080P; 20 channels 960H"	"Pure Analog: 16 channels 1080P; 16 channels 720P; Mixed: 2 channels 1080P (Analog)+ 2 channels 1080P (Network) 4 channels 720P+4 channels 720P (Network) Pure Network: 1 channels 1080P+8 channels 720P; 4 channels 1080P; 20 channels 960H"
"Manual>alarm>motion detection>timing"	"Manual>alarm>motion detection>timing"
"4 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)"	"4 channels 1080P @25fps (PAL) or 1080P@30fps (NTSC)"
G.711A	G.711A
Support	Support
8 channels RCA	16 channels RCA
1 channel RCA	1 channel RCA
16	16
4	4
"One RS485, one RS232; support multiple PTZ protocols"	"One RS485, one RS232; support multiple PTZ protocols"
2 USB ports	2 USB ports
4 SATA (Each maximum support 6TB)	4 SATA (Each maximum support 6TB)
CE, FCC, C-tick	CE, FCC, C-tick







Honeywell black – analog cameras

The Cosmo 750TVL IR analog camera series is designed for small-to-medium surveillance applications at a very affordable price. This portfolio includes IR dome cameras and weather-proof bullet cameras embedded with fixed/varifocal lens. Use with the Honeywell Black WDR / 960H DVRs for best performance. Cosmo 750TVL IR is ideal for hotels, chain stores, commercial offices, hospitals, residential areas, warehouses, and education facilities.

FEATURES & BENEFITS OF IR 750 TVL COSMOS RANGE

- 750TV lines High Resolution
- 1/3" HDS (Deliver superior image quality, without missing any detail.)
- 0Lux (IR LED on), IR distance up to 35m
- IP66

Specification

1080P AHD DVR SERIES				
750TVL CMOS Dome Cameras				
	CADC750MP(N)AI-36/60	CADC750MP(N)AI-36V	CADC750MP(N)AI-60V	CADC750MP(N)AIV-V
				
IMAGE SENSOR	1/3" HDS	1/3" HDS	1/3" HDS	1/3" HDS
PICTURE ELEMENTS	PAL: 976(H) x 582(V), NTSC 976(H) x 494(V)	PAL: 976(H) x 582(V), NTSC 976(H) x 494(V)	PAL: 976(H) x 582(V), NTSC 976(H) x 494(V)	PAL: 976(H) x 582(V), NTSC 976(H) x 494(V)
MINIMUM ILLUMINATION	0.001Lux / F1.2, 0Lux (IR On)	0.001Lux / F1.2, 0Lux (IR On)	0.001Lux / F1.2, 0Lux (IR On)	0.001Lux / F1.2, 0Lux (IR On)
SENSOR RESOLUTION	Color: 750TVL, B/W: 760TVL	Color: 750TVL, B/W: 760TVL	Color: 750TVL, B/W: 760TVL	Color: 750TVL, B/W: 760TVL
SHUTTER SPEED	1/50- 1/100,000 sec	1/50- 1/100,000 sec	1/50- 1/100,000 sec	1/50- 1/100,000 sec
LENS	3.6mm, 6mm	3.6mm	6mm	2.8mm-12mm vari-focal lens
DAY/ NIGHT	TDN (With IR-Cut filter)	TDN (With IR-Cut filter)	TDN (With IR-Cut filter)	TDN (With IR-Cut filter)
AUTO GAIN CONTROL	AUTO	AUTO	AUTO	AUTO
BLC	AUTO	AUTO	AUTO	AUTO
IR BEAM DISTANCE	15m	15m	15m	15m
INFRA-RED WAVELENGTH	850nm	850nm	850nm	850nm
PROTECTION		IP65, vandal-proof	IP65, vandal-proof	
CERTIFICATE	CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick



750TVL CMOS Bullet Cameras

CABC750MP(N)AI-36/60

CABC750MP(N)AI-120

CABC750MP(N)AIV



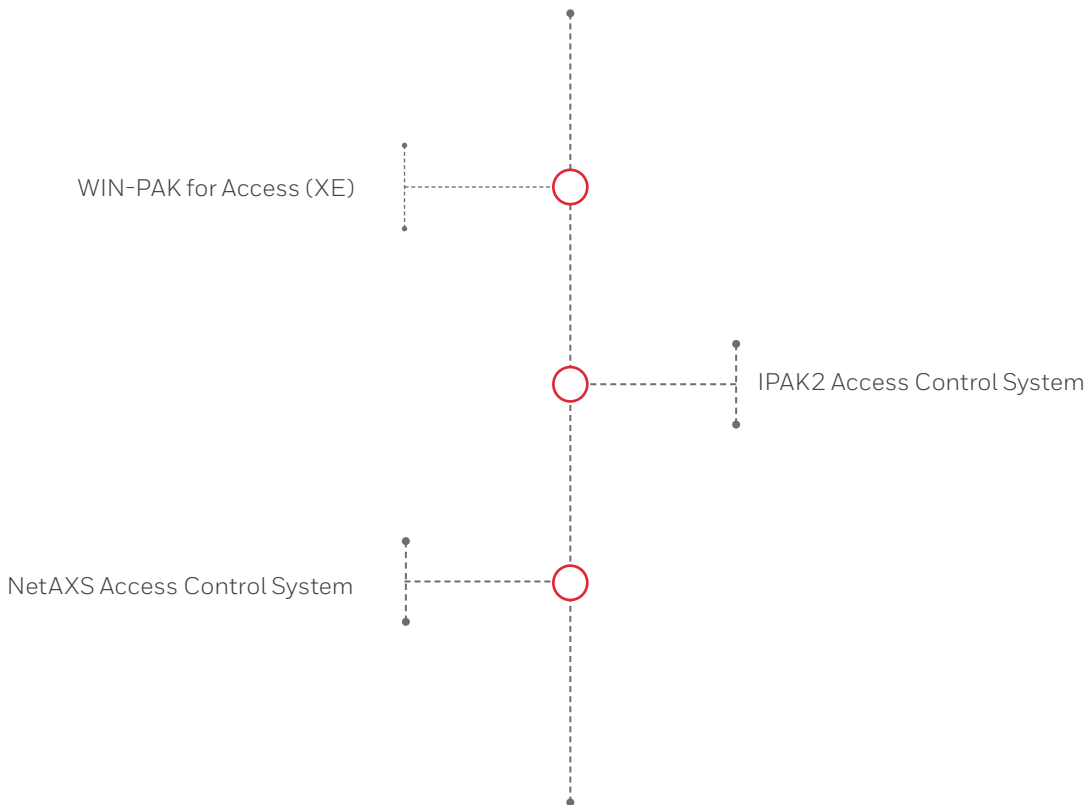
1/3" HDS	1/3" HDS	1/3" HDS
PAL: 976(H) x 582(V),NTSC 976(H) x 494(V)	PAL: 976(H) x 582(V),NTSC 976(H) x 494(V)	PAL: 976(H) x 582(V),NTSC 976(H) x 494(V)
0.001Lux / F1.2, 0Lux (IR On)	0.001Lux / F1.2, 0Lux (IR On)	0.001Lux / F1.2, 0Lux (IR On)
Color: 750TVL, B/W: 760TVL	Color: 750TVL, B/W: 760TVL	Color: 750TVL, B/W: 760TVL
1/50- 1/100,000 sec	1/50- 1/100,000 sec	1/50- 1/100,000 sec
3.6mm, 6mm	12mm	2.8~12mm vari-focal lens
TDN (With IR-Cut filter)	TDN (With IR-Cut filter)	TDN (With IR-Cut filter)
AUTO	AUTO	AUTO
AUTO	AUTO	AUTO
15m	50m	35m
850nm	850nm	850nm
	IP65	IP65
CE, FCC, C-tick	CE, FCC, C-tick	CE, FCC, C-tick

Seamless Security

HONEYWELL ACCESS CONTROL SYSTEM

Honeywell Access Control products provide you with the technology you need to deliver sophisticated security solutions in a wide range of applications. As a global leader in access control, the innovative, flexible product line of Honeywell Access Control Systems meets and exceeds the needs of even the most demanding customers worldwide.

HONEYWELL ACCESS CONTROL SYSTEMS SOLUTIONS INCLUDE:



Honeywell IP AK2

The new generation Honeywell IP-AK2 is a 2-door web-based access control panel designed to provide an easy-to-use and cost-effective solution to meet the requirements of all entry-level applications. The system's built-in web server allows users to use a standard web browser to manage, control, and monitor the access control system from anywhere an Internet connection is available. Users gain simplicity, flexibility, and cost-effectiveness without sacrificing the performance of access control.

FEATURES & BENEFITS OF IP AK2

- **Easy-to-Install:** No software to install, just connect a TCP/IP network cable from IP-AK2 control panel for access control.
- **Easy-to-Operate:** Built-in web server enables system control from anywhere.
- **Easy-to-Maintain:** No software-related issues to troubleshoot. Internet connection allows installers to perform remote diagnostics.
- **Reliable:** Powerful 32-bit processor, 128-bit SSL browser login encryption and built-in SQLite database ensure fast and reliable processing unusual for an entry-level product.
- **Cost Effective:** No need to purchase additional IT infrastructure and no additional software upgrade fee.
- **Certification and Approvals:** CE/FCC/C-Tick/KCC.

SPECIFICATIONS

System Overview

- 2-doors controller, expandable up to 20 doors over RS485 network
- Embedded web server
- 32-bit ARM9 processor
- Onboard I/O: 2 readers; 8 supervised inputs; and 4 relay outputs
- Flash programming for firmware revision updates
- Anti-passback capability, hard and soft
- Two-door interlock supported
- Real-time clock

Database and Database Maintenance

- Built-in SQL Lite database
- Manual backup of system database to local client PC
- Alarm & Event database auto backup

Communication

- Onboard Ethernet port connected to TCP/IP network as master panel
- Onboard RS485 connection for downstream panels
- Certification and Approvals
- CE/FCC/C-Tick/KCC

Language

- Multi-languages supported
- Currently available in English, Simplified Chinese, Traditional Chinese, and Korean

Web Brower

- Standard web browser e.g. Internet Explorer or Mozilla Firefox

- Complete system configuration from web interface
- Live event and alarm monitoring
- Visualized viewing of door status and real-time manual control of locks and other devices
- Card report
- Alarm & event report
- Detailed report generator
- 128-bit SSL browser login encryption
- Up to 6 users to log in simultaneously

System Capacities

- Cardholders: 10,000
- Transaction storage: 25,000 alarms and events
- 127 Time Zones and 255 Holidays
- 128 Access Level
- Card format compatibility: 128 Wiegand format support
- Credential facility codes: 8

Dimensions

- Boards: 152mm W x 229mm H
- Enclosure: 340mm H X 290mm W X 78mm D

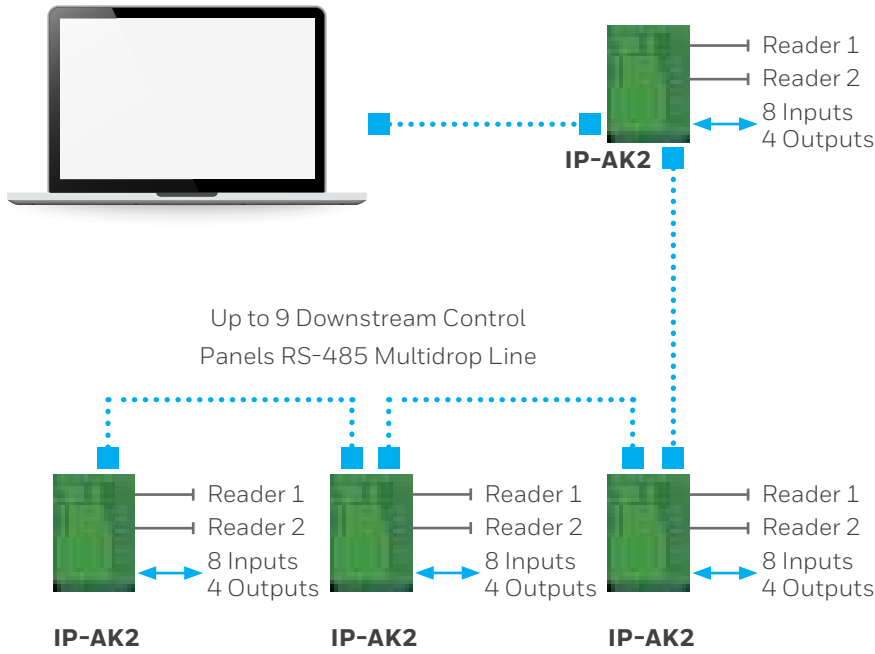
Power Requirements

- Power Supply: 220VAC (110VAC) to 12 VDC transformer
- Battery Backup: 12 VDC, 3.2 AHr sealed lead-acid battery

Environment

- Temperature: 0oC to 50oC for operating, -55oC to +85oC for storage
- Humidity: 5% to 85% RHNC

System configuration



Ordering

PART NUMBER	DESCRIPTIONS
IP-AK2	IP-AK2 Control Panel only
IP-AK2ENC	IP-AK2 Control Panel Enclosure with 220VAC (110VAC)/12VDC transformer and 12VDC 3.2 AH Backup Battery
IP-AK2KIT	IP-AK2 kit with single Control Panel, one 220VAC (110VAC)/12VDC transformer and one 12VDC 3.2 AH Backup Battery

NetAXS Access Control System

NetAXS® is a fully featured, compact stand-alone access control solution that can be easily installed and managed via a web browser without the need to be connected to a network or the internet. The NetAXS-123 is applicable in small access solutions for 1, 2 or 3 doors or in medium solutions connecting multiple panels via TCP/IP Ethernet (EVL) or RS485. The NetAXS family also includes a 4 door controller version which seamlessly integrates with Honeywell's WIN-PAK software to enable more sophisticated installations. Access control has never been this easy.

FEATURES & BENEFITS

- Web-based system enables you to easily manage your access control anywhere with an Internet connection.
- Modular design makes adding doors easy and affordable.
- Compatible with 4-door NetAXS (NetAXS-4) – add up to 120 doors downstream.
- Choice of enclosures for various installations:
 - compact Plastic Enclosure for mounting right at the door;
 - standard Metal Enclosure for traditional mounting.
- Power over Ethernet (PoE) or built-in power supply reduce wiring requirements to save money on installation.

NET AXS-123



NET AXS-4



PART NUMBER	NUMBER OF DOORS	NUMBER OF READERS	ENCLOSURE	POWER SUPPLY / BATTERY	DIMENSIONS
NX1P	1	2 readers (in/out) using readers with hold wires	Plastic	External 12V / 3A PSU or Power over Ethernet	19.5 x 19.5 x 5.8 cm
NX2P	2	4 readers (in/out) using readers with hold wires		External 12V / 3A PSU	
NX1MPS	1	2 readers (in/out) using readers with hold wires			
NX2MPS	2	4 readers (in/out) using readers with hold wires	Metal	Internal 12V / 4A PSU with 12V / 7AH battery for controller and locks	35.6 x 30.5 x 12.7 cm
NX3MPS	3	6 readers (in/out) using readers with hold wires			
NXD1	Expansion from 1 to 2	2 additional readers (in/out) using readers with hold wires			
NXD2	Expansion from 1 to 3	4 additional readers (in/out) using readers with hold wires	Uses internal power from metal enclosure	Mountable in metal housing only	
NX4S1E	4	4 readers	Metal	Internal transformer with 12V / 7AH battery for controller	45.7 x 36.8 x 11.2 cm

FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES

Cost-effective fire, surveillance, access, and intrusion detection solutions



NetAXS Product Features & Benefits

- Web-based system enables you to easily manage your access control anywhere with an Internet connection.
- Modular design makes adding doors easy and affordable.
- Compatible with 4-door NetAXS (NetAXS-4) – add up to 120 doors downstream.
- Choice of enclosures for various installations:
 - compact Plastic Enclosure for mounting right at the door;
 - standard Metal Enclosure for traditional mounting.
- Power over Ethernet (PoE) or built-in power supply reduce wiring requirements to save money on installation.

WIN-PAK for Access (XE)

The Honeywell WIN-PAK software suite provides a range of solutions from access control to fully integrated security solutions. WIN-PAK’s powerful user interface allows dealers to install single software for all the security needs of their customers.

WIN-PAK XE 4.4 (Express Edition) is an entry-level software package for access control only to manage NetAXS and NS2/NS2P controllers from a single workstation. WIN-PAK XE is ideal for single workstation systems that require access only functionality. WIN-PAK XE optimizes system performance and total cost of ownership by supporting multiple Honeywell access control hardware and reader technologies from a single user interface.

FEATURES & BENEFITS

- Seamless Support with NetAXS-123.
- Elevator Control using NetAXS-4.
- Enhanced Access Control Security with Honeywell NetAXS™.
- Reversed IP Communication.
- Fast and Easy Set-up.
- Legacy NS2 Support.








Proximity Readers

OmniProx is a range of 125 kHz HID compatible proximity readers and credentials. All OmniProx readers (except the OP90) include three bezels: black, charcoal grey and ivory and are suitable for both indoor and outdoor applications.

For locations that require a proximity reader able to withstand vandal-prone environments, the OP90 vandal resistant readers come standard in a zinc die-cast metal housing.









OmniProx Proximity Readers

	PART NUMBER	FORM FACTOR	MAX READ RANGE*	COLOUR	CONNECTION	COMPATIBLE CREDENTIALS	TAMPER
	OP10HONR	Mini Mount reader	7.6 cm	Black, grey and ivory coloured bezels with embossed Honeywell logo	Pigtail	125kHz HID Prox compatible technology	Optical
	OP10GENR			No logo			
	OP30HONR	Mullion mount reader	8.9 cm	Black, grey and ivory coloured bezels with embossed Honeywell logo			
	OP30GENR			No logo			
	OP40HONR	US single-gang back box compatible reader	10.2 cm	Black, grey and ivory coloured bezels with embossed Honeywell logo			
	OP40GENR			No logo			
	OP45HONR	UK / European single-gang back box compatible reader	8.9 cm	Black, grey and ivory coloured bezels with embossed Honeywell logo			
	OP45GENR			No logo			
	OP90HONR	Vandal resistant wall mount reader	5.1 cm	Zinc-diecast metal with embossed Honeywell logo			

* Maximum read range is affected by environmental conditions, surface the reader is mounted on and credential form factor

OmniProx and HID Prox Compatible Cards

	PART NUMBER	FORM FACTOR	SUITABLE FOR PRINTING	COLOUR	MEMORY SIZE	PROGRAMMED NUMBER	NUMBER OF BITS IN CARD FORMAT	CARD NUMBERS VISIBLE	COMPATIBLE READERS				
	OHPON34	PVC Credit card size card		White	HID Prox compatible technology, no memory available	According to your requirements on site code and card number range	34 bit	Card number inkjet printed on the credential for easy identification and enrolment	OmniProx readers OmniClass 2.0 Multi Technology readers OmniAssure Multi Technology readers				
	OHPON26						26 bit						
OHPOM34	PVC Credit card size Card with unprogrammed magnetic stripe	34 bit											
OHPOM26		26 bit											
	OHC0V34	Clamshell card with slot punch		Grey and Black	HID Prox compatible technology, no memory available	According to your requirements on site code and card number range	34 bit						
	OHC0V26						26 bit						
	PXKEY3H	Key fob								Grey and Black	HID Prox compatible technology, no memory available	According to your requirements on site code and card number range	34 bit
	PXKEY3H26												26 bit





Smart Card Readers

OmniClass 2.0 from Honeywell is a range of 13.56 MHz contactless secure smart card readers that offers superb reliability, consistent read range and ease of installation.

They are available in several sizes and each OmniClass reader incorporates smart card technology allowing the user to support biometric profiles and multiple applications on each card simultaneously.



OmniClass 2.0 Smart Card Readers

	PART NUMBER	FORM FACTOR	MAX READ RANGE*	COLOUR	CONNECTION	COMPATIBLE CREDENTIALS	TAMPER	HOLD WIRE
	OM15BHOND	Long mullion mount reader	7.6 cm	Black	Pigtail	13.56 MHz OmniClass, iCLASS, iClass SE, iClass SR, SEOS, SE for Mifare and SE for DESFire EV1	Optical	Available suitable for IN / OUT reader in NetAXS-123
	OM15BHONDT				Terminal block			
	OM30BHOND	Mullion mount reader	7.6 cm		Pigtail			
	OM30BHONDT				Terminal block			
	OM40BHOND	EU, UK and US single-gang back box compatible reader	11.4 cm		Pigtail			
	OM40BHONDT				Terminal block			
	OM55BHOND	EU, UK and US single-gang back box compatible reader with Keypad	12.7 cm		Pigtail			
	OM55BHONDT				Terminal block			







* Maximum read range is affected by environmental conditions, surface the reader is mounted on and credential form factor and technology





Smart Credentials

OmniClass 2.0 compatible smart credentials







The cost-effective OmniClass smart credentials are ideal for the majority of access control applications and are delivered with a programmed card number printed on the surface. As smart cards can also store data for other applications, such as cashless vending and storing biometric data, the 16kb OmniClass credentials become suitable for campuses and other facilities where a single card is issued. Off the shelf pre-programmed Mifare Classic and Mifare DESFire EV1 credentials are also compatible with the OmniClass 2.0 reader range. Custom programmed Mifare Classic and DESFire EV1 is optional, available for both credentials and readers.

	PART NUMBER	FORM FACTOR	SUITABLE FOR PRINTING	COLOUR	MEMORY SIZE	PROGRAMMED NUMBER	NUMBER OF BITS IN CARD FORMAT	CARD NUMBERS VISIBLE	COMPATIBLE READERS
	OKP0N34	PVC Credit card size card		White with Honeywell logo	OmniClass 2k2; 2kb, for 2 partitions	According to your requirements on site code and card number range	34 bit	Card number inkjet printed on the credential for easy identification and enrolment	OmniClass 2.0 Smart Card readers OmniClass 2.0 Multi Technology readers
	OKP0N26						26 bit		
	OKP2N34	PVC Credit card size card		White with Honeywell logo	OmniClass 16k16; 16kb, for 16 partitions	According to your requirements on site code and card number range	34 bit	Card number inkjet printed on the credential for easy identification and enrolment	OmniClass 2.0 Smart Card readers OmniClass 2.0 Multi Technology readers BioClass reader
	OKP2N26						26 bit		
	PXKEYH16K16	Key fob		Purple and Black	OmniClass 16k16; 16kb, for 16 partitions	According to your requirements on site code and card number range	34 bit	Card number inkjet printed on the credential for easy identification and enrolment	OmniClass 2.0 Smart Card readers OmniClass 2.0 Multi Technology readers BioClass reader
	PXKEYH16K1626						26 bit		







Mifare Classic and Mifare DESFire EV1 credentials for OmniClass 2.0

	PART NUMBER	FORM FACTOR	SUITABLE FOR PRINTING	COLOUR	MEMORY SIZE	PROGRAMMED NUMBER	NUMBER OF BITS IN CARD FORMAT	CARD NUMBERS VISIBLE	COMPATIBLE READERS
	PVCHMF1KSE	PVC Credit card size card		White	Mifare Classic 1kb, for 15 sectors	According to your requirements on site code and card number range; programmed in one of the sectors	34 bit	Card number inkjet printed on the credential for easy identification and enrolment	OmniClass 2.0 smart card readers OmniClass 2.0 Multi Technology readers
	PVCHMF1KSE26						26 bit		
	PVCHDF8KSE				DESFire EV1 8kb, multiple applications		34 bit		
	PVCHDF8KSE26						26 bit		

OmniClass Multi Technology Credentials

	PART NUMBER	FORM FACTOR	SUITABLE FOR PRINTING	COLOUR	MEMORY SIZE	PROGRAMMED NUMBER	NUMBER OF BITS IN CARD FORMAT	CARD NUMBERS VISIBLE	COMPATIBLE READERS										
	OKP2M34	PVC Credit card size Card with unprogrammed magnetic stripe		White with Honeywell logo	OmniClass 16k16; 16kb, for 16 partitions	According to your requirements on site code and card number range	34 bit	Card number inkjet printed on the credential for easy identification and enrolment	OmniClass 2.0 Smart Card and Multi Technology readers BioClass reader										
	OKP2M26						26 bit												
	OKH2N34	PVC Credit card size card					White with Honeywell logo			OmniClass 16k16; 16kb, for 16 partitions	According to your requirements on site code and card number range	34 bit	Card number inkjet printed on the credential for easy identification and enrolment	OmniClass 2.0 Smart Card readers OmniProx and HID prox compatible readers BioClass reader					
	OKH2N26											26 bit							
	OKH2M34	PVC Credit card size Card with unprogrammed magnetic stripe										White with Honeywell logo			OmniClass 16k16; 16kb, for 16 partitions	Smart and prox have same number	34 bit	Card number inkjet printed on the credential for easy identification and enrolment	OmniClass 2.0 Smart Card readers OmniProx and HID prox compatible readers BioClass reader
	OKH2M26																26 bit		

OmniAssure Mifare Classic Credentials

	PART NUMBER	FORM FACTOR	SUITABLE FOR PRINTING	COLOUR	MEMORY SIZE	PROGRAMMED NUMBER	NUMBER OF BITS IN CARD FORMAT	CARD NUMBERS VISIBLE	COMPATIBLE READERS								
	OFP1N34	PVC Credit card size card		White with Honeywell logo	Mifare Classic 1kb, for 15 sectors	According to your requirements on site code and card number range;	34 bit	Card number inkjet printed on the credential for easy identification and enrolment	OmniAssure OT3 x HONBM Mifare and Multi Technology readers								
	OFP1N26						26 bit										
	OFK1N34	Key fob				Blue	Mifare Classic 1kb, for 15 sectors			programmed in one of the sectors	34 bit	Card number inkjet printed on the credential for easy identification and enrolment	OmniAssure OT3 x HONBM Mifare and Multi Technology readers				
	OFK1N26										26 bit						
	OFP1N00	PVC Credit card size card								White with Honeywell logo	Mifare Classic 1kb, for 15 sectors			Unprogrammed Mifare			OmniAssure OT3 x HONBS (CSN*) and OmniClass 2.0 (CSN*)
	OFK1N00														Key fob		

* CSN : Card Serial Number

Multi Technology Readers

Honeywell offers a wide range of multi technology readers.

The OmniAssure™ range is based on MIFARE technology reading MIFARE Classic credentials and the more secure DESFire credentials.

The Omniclass 2.0 multi technology portfolio offers a range of sizes and is compatible with smart credentials such as iCLASS® (SE), MIFARE Classic and MIFARE DESFire EV1.

Furthermore the OmniClass 2.0 range can retro-fit any Wiegand output reader, including standard HID or Honeywell proximity readers and is backwards compatible with OmniClass legacy credentials. All readers have Wiegand output for use with Honeywell access panels and intrusion door control modules.







OmniAssure Multi Technology Credentials

	PART NUMBER	FORM FACTOR	SUITABLE FOR PRINTING	COLOUR	MEMORY SIZE	PROGRAMMED NUMBER	NUMBER OF BITS IN CARD FORMAT	CARD NUMBERS VISIBLE	COMPATIBLE READERS
	OFH1N34	PVC Credit card size card		White with Honeywell logo	Mifare Classic 1kb, for 15 sectors	According to your requirements on site code and card number range; Smart and prox have same number	34 bit	Card number inkjet printed on the credential for easy identification and enrolment	OmniAssure OT3xHONBM and OmniProx
	OFH1N26					26 bit			
	OFP1N0034SP					Prox only according to your requirements on site code and card number range; Smart unprogrammed	34 bit (Prox only)		OmniAssure OT3xHONBS (CSN*) and OmniClass 2.0 (CSN*) and OmniProx
	OFP1N0026SP					26 bit (Prox only)			

* CSN : Card Serial Number

OmniAssure Multi Technology Credentials

	PART NUMBER	FORM FACTOR	MAX READ RANGE*	COLOUR	CONNECTION	COMPATIBLE CREDENTIALS	TAMPER	HOLD WIRE
	OM16BHOND	Long Mullion Mount reader	6.4 cm	Black	Pigtail	13.56 MHz OmniClass, iCLASS, iClass SE, iClass SR, SEOS, SE for Mifare and SE for DESFire EV1 125kHz HID Prox compatible technology, EM4102 and AWID	Optical	Available suitable for IN / OUT reader in NetAXS-123
	OM16BHONDT				Terminal block			
	OM31BHOND	Mullion mount reader	6.4 cm		Pigtail			
	OM31BHONDT				Terminal block			
	OM41BHOND	US single-gang back box compatible reader	11.4 cm		Pigtail			
	OM41BHONDT				Terminal block			
	OM56BHOND	US single-gang back box compatible reader with Keypad	11.4 cm		Pigtail			
	OM56BHONDT				Terminal block			

* Maximum read range is affected by environmental conditions, surface the reader is mounted on and credential form factor and technology

OMNICLASS BIOMETRIC READER



PRBIOCLAS-HW000	Wall Mount reader with fingerprint sensor and keypad, for both enrolment and dual verification reader	10.0 cm	Black	Terminal Block	The Fingerprint template can only be stored on a 16k16 version of OmniClass credentials	Optical	Available suitable for IN / OUT reader in NetAXS-123
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* Maximum read range is affected by environmental conditions, surface the reader is mounted on and credential form factor and technology



STAY ALERT AND IN CONTROL

HONEYWELL INTRUSION SYSTEMS

Honeywell offers complete end-to-end solutions for any commercial application, from simple storefront intrusion to Underwriters Laboratories (UL) listed burglary systems. With more than 1,500 products in the portfolio, we protect over 15 million homes, businesses, government agencies, museums, and malls around the world. These flexible innovations can seamlessly integrate video and access control for anything from large retail to complex warehouse environments. Featuring both wired and wireless solutions, our control panels, keypads, and sensors provide the most reliable and cost-effective solutions for complete protection.

Honeywell Intrusion Solutions includes

Galaxy Flex Series
Intrusion Solutions

Vista series Intrusion
Solutions



Galaxy® Flex



Flexible control panel range for small to medium-sized security installations.

Honeywell's Galaxy® Flex control panel series is a fully integrated intruder and door control security solution that brings a new level of ease and flexibility to small to medium-sized, Grade 2 security systems. Galaxy Flex's three feature-rich panel options are based on a modular design that allows full customization to meet specific needs.

Galaxy Flex 20 is feature packed for small systems up to 20 zones; Flex 50 delivers high flexibility for small to mid-sized systems where ease of install and functionality are important and Flex 100 offers a highly competitive system for a greater number of zones and functionality.

Based on the tried and trusted Galaxy® technology, Flex is scalable and compatible with the Galaxy Dimension control panel range so that installers have a single, familiar range of panels to meet the needs of the smallest to the largest security installations. Plus with a common range of peripherals both training and stock are minimized.

FEATURES & BENEFITS

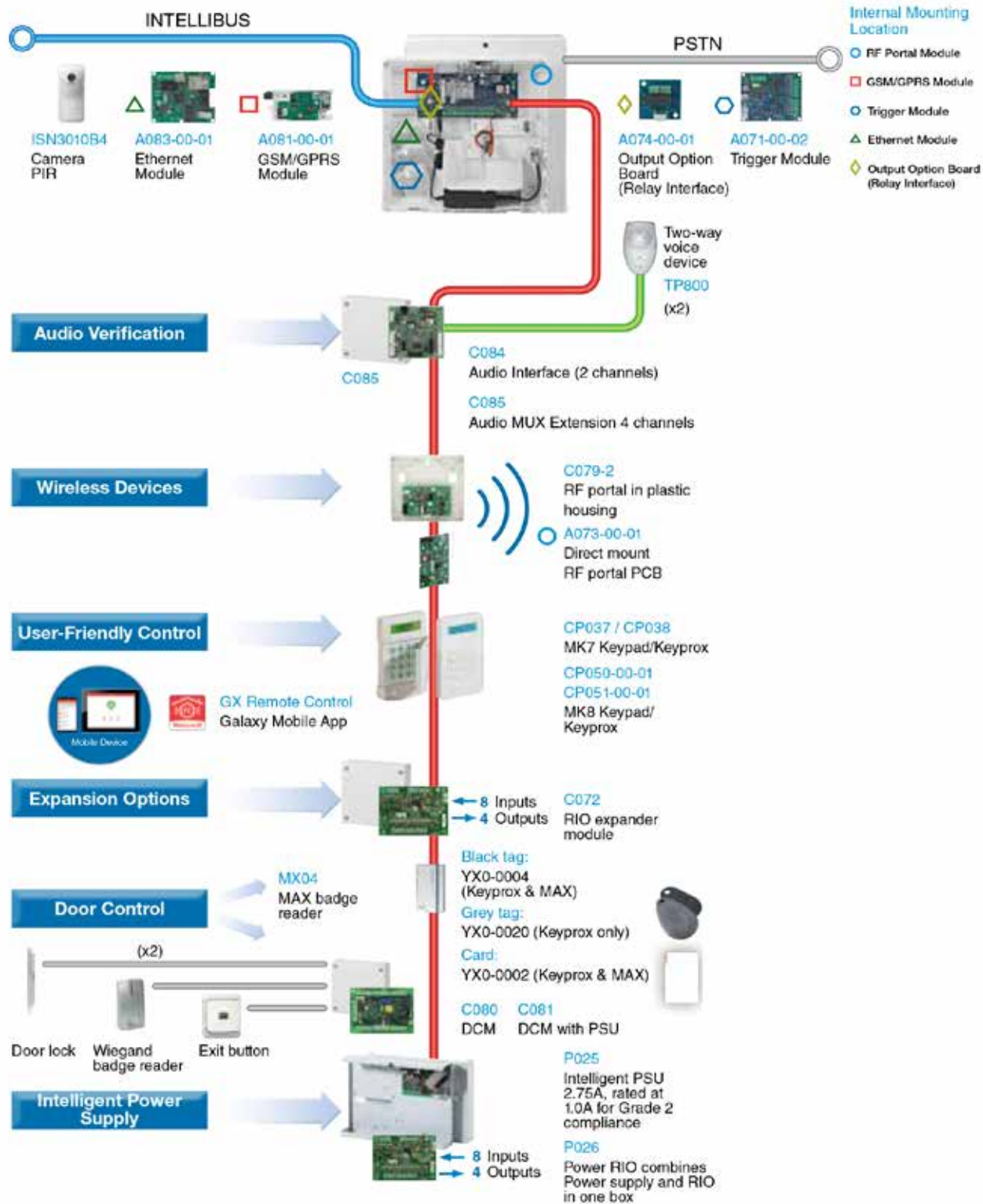
- Robust, custom-moulded housing. Radio, communications, and other features housed inside the panel with convenient hinged/removable lid.
- Flexible expansion. Up to 100 wired or 88 wireless zones. Up to 100 users. Up to 98 wireless key fobs. Protecting up to 8 groups.
- Door control. Up to 4 door controllers (DCMs) controlling up to 8 doors.
- Access event log records up to 1000 events. Compatible with most Wiegand readers.
- Up to 4 annual holiday schedules.
- Up to 4 weekly schedules available.
- Three power connection options. The traditional connection inside panel using optional terminal block wired to a local disconnect point or a plug-in option.
- Multiple communications options. GSM/GPRS, Ethernet, PSTN, USB.
- 3 User interfaces. TouchCenter, new MK8 and traditional MK7 keypads/proxes.
- Back-up battery. Supports efficient, space saving 10Ah battery design from Yuasa (REC10-12).
- Resettable fuses (PTCs). Integrated resettable fuses for auxiliary power supply and battery.
- Auto-detect function for faster installation. The system automatically recognizes when modules are added/removed without the need to leave engineering mode.
- Options for up to 2 audio verification channels.
- One comprehensive range of wired and wireless intrusion and environmental detectors.
- Full compliance with EN50131, PD6662:2004/2010, DD243:2004, BS8243:2010, Security Grade 2 compliant, Environmental Class II.

PART NUMBER	DESCRIPTION	WIRED / WIRELESS ZONES	KEYPADS / KEYPROXES	DOOR CONTROL	WIRELESS PORTALS	GROUPS	LOG
C005-M-E2*	Galaxy Flex FX020	12 - 20	4	4	4	3	500
C006-M-E2*	Galaxy Flex FX050	12 - 52	4	4	8	4	500
C007-M-E2*	Galaxy Flex FX100	12 - 100	8	8	8	8	1000

FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES

Cost-effective fire, surveillance, access, and intrusion detection solutions

Flexible security for small to mid-sized installations



Galaxy Accessories Compatibility Table

PART NUMBER	DESCRIPTION	GALAXY FLEX V1.00	GALAXY FLEX V3.00
A071-00-02	Galaxy Flex trigger module	•	•
A073-00-01	Galaxy Flex Direct mount RF Portal PCB	•	•
A074-00-01	Output option board/Relay module		•
A077-00-02**	Galaxy Flex Mounting kit for Ethernet module	•	
A079-00	Dual Battery Monitor		
A081-00-01	Galaxy Flex GSM/GPRS module. High Speed		•
A083-00-01	Galaxy Flex Ethernet Module. High Speed		•
A235 G2 2	way voice/audio device		
A303-S	Mounting bracket for GT-20/40 & E080-04 modules		
C072	Galaxy RIO (Remote Input/Output)	•	•
C079-2	RF Portal	•	•
C080	Galaxy door control module (DCM)	•	•
C081	Galaxy door control module (DCM) with PSU	•	•
C084	Audio interface module for Galaxy Dimension	•	•
C085	Audio MUX Module		•
C086	Card reader interface	•	•
C087	SPI KEY programmer control system		
CP037-01	Galaxy MK7 LCD keypad	•	•
CP038-01	Galaxy MK7 LCD keyprox with integrated ASK/HID reader	•	•
CP050-00-01	Galaxy MK8 LCD keypad	•	•
CP051-00-01	Galaxy MK8 LCD keyprox with integrated ASK/HID reader	•	•
E080-04	Galaxy ethernet module	•	
GT-620NG	IP Communications Module	•	
GT-640NG	GPRS/IP Communications Module	•	
MX04	MAX4 Prox reader	•	•
P025-01-B	Boxed 2.75A power supply unit (PSU)	•	•
P026-01-B	Boxed 2.75A power supply unit (PSU) with integrated RIO	•	•
R056-CD-L	Galaxy Remote Service Suite (RSS) with licence	•	•
R057-CD-DG	Galaxy Remote Service Suite (RSS) with dongle	•	•
R058-CD-DG	Galaxy User Management Suite (UMS) with dongle	•	•
TP800*	2 Way voice speaker-mic	•	•
YX0-0004	MAX Keytag	•	•
YX0-0020	ASK Proximity keytag (grey)	•	•

* Galaxy Flex and Dimension when used with the Audio Interface (Order Code: C084)

G3-44+ when used with the Audio Terminal Board (Order Code: A233)

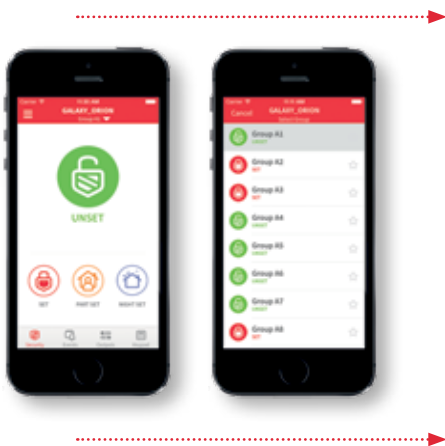
** part number applicable to UK only

GX Remote Control – Free Galaxy Mobile App

Access your Galaxy systems remotely anytime, anywhere for simpler security management.

Home & business automation at your fingertips via the App

- Control any electrical system such as air-conditioning/heating, gate/garage door and lighting with output control
- Manage up to 20 sites effortlessly
- One App for all your systems



FLEXIBLE

- Flexible Set up of groups for different access requirements depending on users and premises
- Single tap switch between groups

FAST AND SIMPLE TO USE

- Fast 10 second login
- Simple, one touch alarm event view

EASY TO LEARN AND OPERATE

- Easy to use interface, with built-in help
- Easy to operate on both smartphones and tablets

CONVENIENT

- Manage up to 20 sites from one smart device
- Conveniently switch to view security on different premises

Three easy download options:

1. Search for 'GX Remote Control' on either Google Play (for Android) or Apple App store (for iPad and iPhone)
2. Click on the app store icon to download the app now to your smart device
3. Scan the QR code with your smart device to link directly to your app store



System requirements





PRODUCT TYPE	PRODUCT REF	PANEL FIRMWARE REQUIREMENTS	ADDITIONAL HARDWARE REQUIRED
GALAXY FLEX V1	C001-xx C002-xx C003-xx	1.17	E080-02 or E080-04 Galaxy Ethernet Mod
GALAXY FLEX V3	C005-xx C006-xx C007-xx	3.17 for full functionality	A083-00-01 Galaxy Ethernet Module
GALAXY DIMENSION	C048-xx C096-xx C264-xx C520-xx	6.92 for full functionality	E080-02 or E080-04 Galaxy Ethernet Module



The Galaxy control panels are supported by a common set of LCD keypads and keyproxes, minimising the inventory installers need to hold. In addition to the tried and trusted Mark 7 keypad design, a contemporary Mark 8 LCD keypad and keyprox design offers an attractive alternative solution for installations where style and aesthetics are particularly important.
























The Mark 8 keypad is fully backward compatible with all Galaxy ranges.

Galaxy keypads and Keyproxes

	PART NUMBER	DESCRIPTION	BUTTONS	CONTROL & DISPLAY	TAMPER PROTECTION	DISTANCES	SET/ UNSET WITH PIN	EASY INSTALLATION	APPROVALS
	CP050-00-01	MK8 Keypad	Tactile backlit buttons	Full system control	<input type="checkbox"/>	Can be mounted directly to the panel up to distances of 1000m	<input type="checkbox"/>	<input type="checkbox"/>	PD6662: 2004/2010 EN50131-1 Security Grade 3, Environmental Class II
	CP051-00-01	MK8 Keyprox with combined LCD Keypad proximity card reader	Tactile backlit buttons	Full system control. 32 alphanumeric backlit display	<input type="checkbox"/>	Can be mounted directly to the panel up to distances of 1000m	<input type="checkbox"/>	<input type="checkbox"/>	PD6662: 2004/2010 EN50131-1 Security Grade 3, Environmental Class II
	CP037-01	MK7 Keypad	Tactile backlit rubber buttons	Full system control. 32 alphanumeric backlit display	<input type="checkbox"/>	Can be mounted directly to the panel up to distances of 1000m	<input type="checkbox"/>	<input type="checkbox"/>	PD6662: 2004/2010 EN50131-1 Security Grade 3, Environmental Class II
	CP038-01	MK7 Keyprox with combined LCD Keypad proximity card reader	Tactile backlit rubber buttons	Full system control. 32 alphanumeric backlit display	<input type="checkbox"/>	Can be mounted directly to the panel up to distances of 1000m	<input type="checkbox"/>	<input type="checkbox"/>	2004/2010 EN50131-1 Security Grade 3, Environmental Class II

Galaxy User Interfaces

Galaxy Keytags and Panic Buttons

	PART NUMBER	DESCRIPTION	ROLLING CODE ENCRYPTION	FEEDBACK ON ALL ACTIONS	INTRUDER WARNING	FUNCTIONS/ SOFTWARE	POWER	DIMENSIONS (MM)	APPROVALS	COMPATIBILITY
	YX0-0004	Black MAX keytag (Keyprox and MAX)	-	-	-	set/unset	N/A	45 x 30 x 2	N/A	  
	YX0-0020	Grey ASK proximity keytag (Keyprox only)	-	-	-	set/unset	N/A	50 x 30 x 7	N/A	  
	TCC8M	-button bi-directional key fob			Warning in event of intruder alarm when unset	Functions: Set/Unset, Partial set, Panic Alert and system status on request	3V CR2032 x 1 Low battery warning	56 x 48 x 9	EN50131 Grade 2, Class II Compliant with DD6662: 2010/BS8243:201	  
	TCC800M	4-button bi-directional keyfob with panic function			Warning in event of intruder alarm when unset	Functions: Set/Unset, Partial set, Panic Alert and system status on request	3V CR2032 x 1 Low battery warning	56 x 48 x 9	EN50131 Grade 2, Class II	  
	TCE800M	Compact 4-button bidirectional key fob with panic function		-	-	Functions: Set/Unset, Partial set, Panic Alert	3V CR2032 x 1	57 x 31.75 x 12.7	EN50131 Grade 2, Class I	  
	TCPA2B	2-button multiaction panic alarm key fob	-	-	-	programmable setting/unsetting	3V CR2032 x 1	40 x 14.5	EN50131 Grade 2, Class II Compliant with DD6662: 2010/BS8243:2010 when configured in panic function	 ³  ³
	TCPA1B	Single button panic alarm key fob with one LED	-	-	-	-	3V CR2032 x 1	40 x 14.5	EN50131 Grade 2, Class II	 ⁴  ⁴


NOTE: (1) with Galaxy Flex using C079-2 RF portal, (2) from firmware V3.13 onwards, (3) from firmware V6.84 onwards, (4) with RF portal Firmware V3 onwards, (5) for G2 from firmware version 1.56 onwards



A wide range of Galaxy modules allow expansion of the Galaxy control panels, providing fully flexible and customisable security solutions to meet specific customer needs.


Module options include access control functionality, wireless expansion, via GSM/GPRS, Ethernet and PSTN communications and audio capabilities.

Wireless Devices

	DESCRIPTION	FREQUENCY	PORTALS	BI-DIRECTIONAL	SENSORS
	RF portal	868MHz	Up to 8 RF portals on Dimension/Flex. Up to 2 RF portals on G2.	Full bi-directional agile routing (patented technology)	Compatible with all Honeywell Alpha protocol sensors
ORDER REFERENCES					
PART NUMBER	DESCRIPTION			COMPATIBILITY CODE	
C079-2	RF portal in standalone enclosure			● ● ●	
A073-00-01	Galaxy Flex direct mount RF portal PCB			●	

Bi-directional wireless interface providing support for the V2 and Alpha protocol with a full range of intrusion and environmental detectors.




Wired Devices

	DESCRIPTION	DESCRIPTION	COMPATIBILITY
	C072	Galaxy RIO (Adds 8 zones and 4 outputs)	● ● ●

This module provides zone and output expansion for Galaxy systems offering 8 fully programmable zones and 4 programmable outputs.

Galaxy Modules and Accessories

Communications

	PART NUMBER	DESCRIPTION
	A081-00-01	Galaxy Flex GSM/GPRS module
	A071-00-012	Galaxy Flex Trigger module (Adds 8 programmable trigger outputs)
	A074-00-01	Output option board (Converts one output to Relay operation)
	PART NUMBER	DESCRIPTION
	E080-04	Galaxy Ethernet module
	A083-00-01	Galaxy Flex direct mount Ethernet module





IP and GPRS communications modules offering fail-safe alarm signalling and remote servicing support for Galaxy.

	PART	NUMBER DESCRIPTION
	A077-00-01	Galaxy Flex mounting kit for the Ethernet Module
	A232	Trigger lead for G2 and Dimension
	A303-S	Mounting bracket Mounting bracket for GT-20/40 and E080-2 modules




Door Control

A combined intrusion and door control system offers the end user a system which retains maximum convenience whilst maintaining the highest level of security at all times. The Door Control Module (DCM) enables Galaxy Dimension and Galaxy Flex's versatile access control facilities to be exploited. Each DCM provides fully integrated security for up to two doors.


	PART NUMBER	DESCRIPTION
	C080 Door Control Module (DCM)	Dual door controller (DCM) in stand-alone box. Compatible with OmniClass and OmniProx proximity and smart card readers
	C081 Door Control Module (DCM)	Dual door controller (DCM) with Power Supply Unit (12V- 2.75A) and RIO in a metallic case. Compatible with OmniClass and OmniProx proximity and smart card readers
	C086 - USB Card reader interface	This reader allows easy learning of new access cards via a PC when used in conjunction with the User Management Suite (UMS)
	MX04 - MAX4 Proximity Reader	Complete door control in a single unit - Can be used as stand-alone or integrated into the Galaxy control system - Connected on RS485 bus. Also compatible with G2

Wireless Sensors




IRPI8M / IR8M WIRELESS PASSIVE INFRARED MOTION SENSOR		
	Detection Range	11 x 12m (at 2.30m mounting height)
	Technology	Patented Look-down Mirror available on IR8M only. 10 minute Auto test with active LED. Advanced dual slope temperature compensation.
	Sensitivity	Selectable pulse count and sensitivity
	Pet Friendly	Selectable pet immunity (0, 18 or 36 kg) available on IRPI8M only

SPECIFICATION					
POWER/BATTERY LIFE*	APPROVALS	ANTI-TAMPER	DIMENSIONS	OPERATING TEMPERATURE RANGE	COMPATIBILITY
1 x CR123 Lithium 3V (LI03V) battery (supplied)/4.5 years Domonial >3 years Galaxy	EN/TS50131-2-2, EN50131-5-3:2005, Grade 2, Environmental Class II	Front & rear cover	112 x 60 x 40 mm	-10°C to 55°C	Galaxy Dimension, Galaxy Flex and G2 with wireless receiver (C079-2), Domonial and Le Sucre

SHK8M / SHKC8M / SHKC8M2 WIRELESS PIEZO SHOCK SENSOR		
	Detection Range	Radius of 2.5 m (depending on the type of mounting surface)
	Technology	State of the art piezo sensing technology
	Sensitivity	By potentiometer and DIP Switch
	Colour options	SHK8M - White; SHKC8M - White, with contact; SHKC8M2 - Brown, with contact

SPECIFICATION					
POWER/BATTERY LIFE*	APPROVALS	ANTI-TAMPER	DIMENSIONS	OPERATING TEMPERATURE RANGE	COMPATIBILITY
1 x CR123A Lithium 3V (LI03V) battery (supplied)/ ALPHA: 5 years V2GY : 4 years	CE: EN50131-5-3:2005, EN50131-2-6, Security Grade 2, EN50131-1, Environmental Class II	Front cover and wall mounting	88.9 x 40.6 x 30 mm	-10°C to 55°C	Galaxy Dimension, Galaxy Flex and G2 with wireless receiver (C079-2), Domonial and Le Sucre

FG8M WIRELESS GLASSBREAK SENSOR		
	Detection Range	Up to 7.6m
	Technology	FlexCore™ and Flexguard™ technologies offer advanced post sensing signal processing capabilities for unequalled false alarm immunity
	Sensitivity	Four levels (7.6m - 4.6m - 3m - 1.5m)

SPECIFICATION					
POWER/BATTERY LIFE*	APPROVALS	ANTI-TAMPER	DIMENSIONS	OPERATING TEMPERATURE RANGE	COMPATIBILITY
2 x CR123A Lithium 3V (LI03V) batteries (supplied)/ V2GY : 6 years ALPHA : 7 years	CE: EN50131-1, EN50131-5-3, Grade, 2 Environmental Class II	Front cover and wall mounting	115 x 720 x 27mm	-10°C to 55°C	Galaxy Dimension, Galaxy Flex and G2 with wireless receiver (C079-2), Domonial and Le Sucre

Wireless Sensors

DET8M WIRELESS FLOOD SENSOR AND TEMPERATURE SENSOR



Detection Range	Built-in temperature sensor: Cold : 8°C (adjustable 2°C to 14°C) Hot : 26°C (adjustable 20°C to 32°C) Alarm signalling within 10 mins Temperature external probe (T280R optional): Freezer : -12°C (adjustable from -18°C to -6°C) Refrigerator : 11°C (adjustable from 2°C to 20°C) Alarm signalling within 10 mins Flood probe (one FP280 supplied): Alarm signalling within 60 secs
Technology	Patented 'Agile Routing', the system works with RF portals to automatically find the strongest bi-directional signal path and will continue to communicate until it gets an acknowledgment
Sensitivity	Precision range: +/- 1.75°C

SPECIFICATION

POWER/BATTERY LIFE*	APPROVALS	ANTI-TAMPER	DIMENSIONS	OPERATING TEMPERATURE RANGE	COMPATIBILITY
1 x CR123 Lithium 3V (L103V) battery (supplied)/V2GY: 6 years ALPHA: 7 years	CE; EN50131-1, EN50131-5-3, Grade, 2 Environmental Class II	Front cover and wall mounting	89 x 40 x 30mm	-10°C to 40°C	Galaxy Dimension, Galaxy Flex and G2 with wireless receiver (C079-2), Domonial and Le Sucre

DO8M COMPACT WIRELESS DOOR/WINDOW MAGNETIC CONTACT



Technology	'Alpha' radio protocol
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SPECIFICATION

POWER/BATTERY LIFE*	APPROVALS	ANTI-TAMPER	DIMENSIONS	OPERATING TEMPERATURE RANGE	COMPATIBILITY
1 x CR123 Lithium 3V (L103V) battery (supplied)/ 5 year	EN50131-1 Security Grade 2, Environmental Class II	Front cover and wall mounting	100 x 22 x 23mm	-10°C to 55°C	Galaxy Dimension, Galaxy Flex and G2 with wireless receiver (C079-2), Domonial and Le Sucre

DFS8M WIRELESS SMOKE SENSOR WITH BUILT IN SOUNDER



Detection Range	Detection 100m ² (coverage area may vary depending on room layout)
Technology	Optical smoke detection
Sensitivity	Built-in siren 85dB(A) @ 3

SPECIFICATION

POWER/BATTERY LIFE*	APPROVALS	ANTI-TAMPER	DIMENSIONS	OPERATING TEMPERATURE RANGE	COMPATIBILITY
1 x sealed Lithium battery (supplied)/10 years	EN14604 - NF292	N/A	Ø120 x 45 mm	0° to 40°C	Le Sucre & Domonial

Wireless Sensors

DET8M WIRELESS FLOOD SENSOR AND TEMPERATURE SENSOR



Technology	Electrochemical sensor
Sounder level	Piezoelectric siren 85dB(A) @ 3m

SPECIFICATION





POWER/BATTERY LIFE*	APPROVALS	ANTI-TAMPER	DIMENSIONS	OPERATING TEMPERATURE RANGE	COMPATIBILITY
1 x sealed Lithium battery (supplied)/ Up to 6 years	BS EN 50291- 1:2010 standard	N/A	120 x 105 x 45 mm	-10°C to 40°C	Galaxy Dimension, Galaxy Flex and G2 with wireless receiver (C079-2), Dornial and Le Sucre



Wired Sensors

The Honeywell range of internal motion detectors offers a simple, reliable and cost effective solution to meet the requirements of most installation needs.

The full range of wired sensors includes Grade 2 and Grade 3 PIR and K-band DUAL TEC® sensors, in wall ceiling or flush mount versions and quad, pet tolerant, anti-masking, and temperature compensation options.

SPECIFICATION								
	PART NUMBER	DESCRIPTION	RANGE	POWER	DUALCORE™& TAMPER	TECHNOLOGY & DIAGNOSTICS	TEMPERATURE	RELAY
	DT900AM-UK	Intellisense DUAL TEC® Dual Technology Detector	27m x 21m - 15m x 12m (selectable to 15m x 12m)	10~15V DC, 50mA @ 12V DC	Advanced DualCore™ Signal Processing Cover and pry-off tamper switch	X-Band technology, frequency: 10,687 Ghz	Operating temperature -10°C to 49°C	Separate trouble relay
	DT906AM-UK	Intellisense DUAL TEC® Dual Technology Detector	61m x 6m - 37m x 3m (selectable to 37m x 3m)	10~15V DC, 50mA @ 12V DC	Advanced DualCore™ Signal Processing Cover and pry-off tamper switch	X-Band technology, frequency: 10,687 Ghz	Operating temperature -10°C to 49°C	Separate trouble relay
	DT8016AF5	Intellisense Anti-Mask DUAL TEC® Dual Technology Detector with MaskAlert™	16 x 22m	9 - 15V DC, 9mA @ 14V DC	Advanced DualCore™ Signal Processing	X-Band technology Concurrent diagnostics, Built in EOL resistors	Operating temperature: -10°C to 55°C	Separate trouble relay
	IS3016A	PIR Motion Sensor with Anti-Mask	16 x 22m	Current 7mA @ 12V DC	Cover and pry-off tamper switch	Built in EOL resistors	Operating temperature: -10°C to 55°C	Separate trouble relay



Security Grade 2 Motion Sensors

Honeywell has a wide range of Security Grade 2 motion sensors including PIR and DUAL TEC® options to complement the Galaxy Flex and G2 ranges of hybrid control panels.

SPECIFICATION								
	PART NUMBER	DESCRIPTION	RANGE	POWER	TECHNOLOGY	TEMPERATURE	TAMPER	OTHERS
	DT7360-UK	Ceiling Mount DUAL TEC® detector	360° - 15m diameter	10 - 14.5V DC, 40mA @ 12V DC	K-Band technology, advanced DualCore™ Signal Processing	Operating temperature: -10°C to 55°C	Cover and pry-off tamper switch	-
	DT8016MF5	DUAL TEC® Dual technology detector	16m x 22m	9 - 15V DC, 9mA @ 12V DC	X-Band technology, advanced DualCore™ Signal Processing, Passive infrared part with Mirror optics	Operating temperature: -10°C to 55°C	Cover and pry-off tamper switch	Adjustable microwave, plug-in electronics and built in EOL resistors
	DT8016F5	DUAL TEC® Dual technology detector	16m x 22m	9 - 15V DC, 9mA @ 12V DC	X-Band technology, advanced DualCore™ Signal Processing	Operating temperature: -10°C to 55°C	Cover and pry-off tamper switch	Adjustable microwave, plug-in electronics and built in EOL resistors
	DT8012F5	DUAL TEC® Dual technology detector with Pet Immunity to 45 kg	12m x 17m	9 - 15V DC, 9mA @ 12V DC	X-Band technology, advanced DualCore™ Signal Processing	Operating temperature: -10°C to 55°C	Cover and pry-off tamper switch	Adjustable microwave, plug-in electronics
	IS3016	PIR Motion Sensor	16m x 22m	9 - 15V DC, 7mA @ 12V DC	Passive infrared Fresnel lens	Operating temperature: -10°C to 55°C	Cover and pry-off tamper switch	Built in EOL resistors, plug-in electronics
	IS3012	PIR Motion Sensor with Pet Immunity to 45 kg	12m x 17m	9 - 15.4V DC, 7mA @ 12V DC	Passive infrared Fresnel lens	Operating temperature: -10°C to 55°C	Cover and pry-off tamper switch	Plug-in electronics
	IS312 / IS312B	PIR Motion Sensor with Pet Immunity up to 36 kg	12m x 17m	9 - 15VDC, 9mA @ 12V DC	Passive infrared Fresnel lens	Operating temperature: -10°C to 55°C	Cover and pry-off tamper switch	Wall and ceiling mount bracket (IS312B)
	IS25100TC	PIR Motion Sensor	30m x 6m	8.5 - 15V DC, 11mA @ 12V DC	Passive infrared Fresnel lens	Operating temperature: -10°C to 55°C	Cover and pry-off tamper switch	-



Full range of wired motion sensors

DT7360-UK



DT906AM-UK



DT900AM-UK



DT8016AF5



DT8016MF5



IS3016A



DT8016F5



IS3016



DT8012F5



IS3012






IS312





IS312B



Wired Sensors

SMOKE SENSORS					
	PART NUMBER	DESCRIPTION	POWER SUPPLY	COMPATIBLE	DIMENSIONS
	ECO1002-A	Combination Optical / Thermal Smoke Sensor (58°C)	8-30V DC	All Honeywell control panels	40 x 9 mm (h x diam)
	ECO1003-A	Optical Smoke Sensor	8-30V DC	All Honeywell control panels	40 x 9 mm (h x diam)
	ECO1005-A	Combination Rate-of-Rise / Thermal (58°C) Smoke Sensor	8-30V DC	All Honeywell control panels	

	PART NUMBER	DESCRIPTION
	ECO1000BREL12L	PIR with dual slope temperature compensation
	ECO1000BREL12NL	PIR with dual slope temperature compensation and built in microphone to facilitate alarm verification









WATER DETECTOR AND TEMPERATURE SENSOR						
	PART NUMBER	DESCRIPTION	TECHNOLOGY	TEMPERATURE	POWER/OUTPUT	DIMENSIONS
	TS300	Dual Temperature Sensor	Monitor the temperature at the unit and at a remote location (using a T280R) simultaneously	- 0° to 60°C - With T280R probe: -40° to +60°C	7 to 16V DC / Form A reed relay	102 x 66 x 23 mm (h x w x d)
	470-12	Water Sensor	Designed to allow water or any conductive non-flammable liquid to be detected (Includes one remote water probe 470PB)	-5° to 55°C	12V DC / Form C Relay	57 x 101 x 70 mm (470-12) 25 x 51 x 13 mm (470PB) (h x w x d)







Wired Sensors

Glassbreak Sensors

Honeywell's trusted and versatile FlexGuard® glassbreak sensors are among the toughest in the industry providing reliable protection for glass areas which are most vulnerable to attack. Seismic and shock sensors complement the range of wired sensors and are compatible across the Galaxy range.

	PART NUMBER	DESCRIPTION	RANGE	SENSITIVITY	GLASS	TECHNOLOGY	POWER	TAMPER
	FG1625TAS	FlexGuard Glassbreak Detector	7.6m - 360° (adjustable range up to 7.6m)	Selectable	All glass types	Mount anywhere, surface mount design	Power requirements: 6~18V DC, 12mA @ 12VDC	
	FG1615T	FlexGuard Glassbreak Detector	4.6m maximum, omnidirectional no minimum range	Selectable	All glass types	Mount anywhere, surface mount design Compatible with the FG701 Glassbreak simulator	Power requirements: 6 ~ 18 VDC, 12mA typical @ 12 VDC	
	FG1025Z	Glassbreak Detector with Exclusion Zone	7.6m range / no minimum range	Four adjustable sensitivity settings	All glass types	Patented Time-of-Arrival processing with dual microphones improves false alarm immunity in its 'Exclusion Zone'	Remote test mode activation 18 VDC, 12mA typical @ 12 VDC	
	FG701	Glassbreak Simulator	Up to 4.6m		All glass types	Compatible for testing all Honeywell glassbreak detectors		

Seismic Sensors

	DESCRIPTION	REMOTE TEST OPTIONS	INTEGRATED TEMPERATURE ALARM	SMALLEST SENSOR ON THE MARKET	TECHNOLOGY	POWER	REMOTE TEST ELECTRONICS
	Universal seismic sensor which can be used to protect vaults, strong rooms, doors, fixed ATMs, safes and other solid structures.				Easy to set with diagnostic LED ATM/vault selection by switch	Low current consumptio	Remote test electronics or test with external test transmitter




ORDER REFERENCES	
PART NUMBER	
SC100	Seismic sensor for safes, vaults, ATMs, night deposit safes
SC105	Seismic sensor for portable ATMs, ticket/vending machines etc
SC110	Mounting plate
SC111	Movable mounting kit
SC112	Keyhole protection kit
SC113	Internal test transmitter
SC114	1.80m armed cable kit (8 wires)
SC115	External test transmitter
SC116	Wall recess mounting kit
SC117	Floor recess mounting kit
SC118	Spacer for SC112



Wired Sensors




Viper Shock Sensors

The Viper perimeter products offer an extensive range of shock sensors tailored to the needs of both the installer and the end user. When it comes to Perimeter Protection, Viper has become a “household name” accepted by all as the market leader with over two million units fitted worldwide.

	PART NUMBER	DESCRIPTION	WALK TEST	SENSITIVITY	5MA QUIESCENT	TECHNOLOGY	FIRST TO ALARM CAPABILITY
	VIPER GLX	ASIC controlled shock sensor	Walk test facility LED can be left to flash for deterrent if desired/held off or controlled remotely	Dual sensitivity control, auto reset of relay contacts		Switch selectable patented Double Knock and Remote LED reset option	




ORDER REFERENCES

PART NUMBER	PART NUMBER
PC.09000.20	Viper GLX White
PC.09000.50	Viper GLX Brown

	VIPER GL	ASIC controlled shock sensor	Walk test facility LED can be left to flash for deterrent if desired/held off or controlled remotel	Dual sensitivity control, auto reset of relay contacts		Switch selectable patented Double Knock and Remote LED reset options via link	
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ORDER REFERENCES

PART NUMBER	PART NUMBER
PC.09003.20	Viper GL White
PC.09003.50	Viper GL Brown




	VIPER GLX + Contact	ASIC controlled shock sensor with integral door contact fitted within the alarm loop	Walk test facility LED can be left to flash for deterrent if desired/held off or controlled remotely	Dual sensitivity control, auto reset of relay contacts		Switch selectable patented Double Knock and Remote LED reset options via link	
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ORDER REFERENCES

PART NUMBER	PART NUMBER
PC.09004.20	Viper GLX White with contact
PC.09004.50	Viper GLX Brown with contact

Wired Sirens

Sirens

	PART NUMBER	DESCRIPTION	SOUNDER LEVEL	LENS COLOUR	POWER SUPPLY	BATTERY LIFE	FRONT & REAR ANTI-TAMPER	DIMENSIONS
	AG6WB	ActiveGuard External Siren	110dB @1m	White/blue White/amber	12-14,5V DC	6.0V, 280 mAhr Nicad	Wall and cover tamper protected	300 x 200 x 55 mm (h x w x d)
	AG8WB	ActiveGuard External Siren	116dB @1m	White/blue White/amber	12-14,5V DC	6.0V, 280 mAhr Nicad	Wall and cover tamper protected	300 x 200 x 55 mm (h x w x d)
	SP20ST	Indoor Siren	94.4dB @1m	No lens	9-18V DC	Not available	Cover tamper protected	110 x 95 x 46 mm (h x w x d)





FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES
Cost-effective fire, surveillance, access, and intrusion detection solutions

VISTA-20P

The high capacity, feature-rich VISTA-20P lets you deliver more value to your customers on each and every sale with up to 48 zones of protection, graphic keypad support, and dual partitions. The panel's installation advantages, innovative end-user benefits, and robust system capacity make the value-priced VISTA-20P an ideal choice for higher-end installations.

FEATURES & BENEFITS

- IP alarm reporting and uploading/downloading capability for Internet and Intranet use via iGSMV4G, 7845i-ENT, GSMV4G or GSMX4G.
- Supports four graphic touch-screen keypads.
- 8 on-board hardwired zones (15 when Zone Doubling feature is used), 40 hardwire expansion zones, and 40 wireless expansion zones.
- Expandable to 48 total zones when used with hardwired and/or wireless expansion modules.
- Automatic System Load Shed – During extended AC power fail, the system battery will be disconnected to prevent irreversible battery failure. Reduces frequency of service alerts to replace batteries.
- Viewable on system keypads – exit countdown, time and date display, and event log.
- Supports a variety of wireless remote controls for single-button operation.
- Supports up to 16 two-wire smoke detectors.



Specifications

Electrical

- Aux. power 12VDC, 600mA maximum
 - Seven hour standby at 400mA aux. load with four amp hour battery
 - 16.5VAC/25VA transformer
 - Alarm output 12VDC, 2.0 amps max.
- For UL installations, combined aux. and alarm output cannot exceed 700mA

Output Control

- Supports up to four relay boards (up to 16 relays)
- Optional X-10 transformer/interface (part no. 4300) may be used to control
- up to 16 X-10 receiving devices

Zones

- Eight hardwired zones (15 with zone doubling)
- Selectable response 10msec,

350msec, 750msec

- Assignable to any partition20 selectable zone types plus four configurable zone types
- Programmable swinger suppression

Expansion Devices

- 4219 – Eight hardwired zones – 16mA
- 4204 – Up to four relays – 15mA standby (each active relay draws an additional 40mA)



- 4229 – Eight hardwired zones and two relays – 36mA (each active relay draws an additional 40mA)

Accessories

- iGSMV4G Internet and Digital Cellular Communicator with Remote Service Capability
- 7845i-ENT Enterprise Internet Communicator
- GSMV4G Digital Cellular Communicator

with Remote Service Capability

- GSMX4G Digital Cellular Communicator for VISTA Control Panels
- 5881ENL RF Receiver supports up to eight zones – 60mA
- 5881ENM supports up to 16 zones – 60mA
- 5881ENH supports up to 48 zones – 60mA
- 5883 Transceiver supports up to 40 zones – 80mA

Keypads

- 6162 Custom Alpha Security Keypad – 40mA/120mA
- 6162V Voice Custom Alpha Security Keypad – 60mA/190mA
- 6162RF Custom Alpha Receiver Security Keypad – 120mA/210mA
- 6152 Fixed-English Security Keypad
- – 40mA/70mA

- 6152V Voice Fixed-English Security Keypad – 60mA/190mA
- 6152RF/6152RFFR Fixed-English/French Receiver/Security Keypad – 80mA/105mA
- 6152ZN/6152ZNFR Fixed-English/French Security Keypad with Hardwired Zone – 35mA/80mA
- 6148 Fixed English LCD – 30mA/55mA
- 6280 Color Graphic Touchscreen Keypad with Voice
- Tuxedo Touch™ (TUXW) Color Graphic Voice Touchscreen Security Keypad and Home/Business Controller (White)
- Tuxedo Touch with Integrated Wi-Fi® (TUXWIFIW) Color Graphic Voice Touchscreen Security Keypad and Home/Business Controller with Integrated Wi-Fi (White)

Agency Listings

ETL listing

- Residential Fire and Burglary:
 - Household Fire Warning System Units – ANSI/UL 985, 2000/05/26 (5th edition) with revisions up to 2004/04/29

Smoke Detectors

- Supports up to 16 two-wire smokedetectors
- Supports four-wire smoke detectors

Communications

- iGSMV4G Internet and Digital Cellular Communicator with Remote Service Capability
- 7845i-ENT Enterprise Internet Communicator
- GSMV4G Digital Cellular Communicator with Remote Service Capability
- GSMX4G Digital Cellular Communicator for VISTA Control Panels
- Touchtone or pulse
- Formats supported
 - ADEMCO® Contact ID
 - ADEMCO 4 + 2 Express
 - ADEMCO low speed
 - Sescoa/Radionics
- 3 + 1, 4 + 1 and 4 + 2 reporting
- Reporting capabilities
 - Split
 - Dual
 - Split/Dual – True dial tone detection
- Low battery reports 11.2 – 11.6VDC
- AC loss and restoral reporting supported

VISTA 50 P

VISTA-50P Control Panel Introduction

Honeywell's VISTA-50P Control Panel provides the flexibility of up to eight independent partitions with the economy of a single control.



FEATURES & BENEFITS

- Nine hardwired zones standard
- Expandable to 87 total zones
- Eight partitions standard
- 75 user codes work in all partitions
- Seven authority levels
- 224 event memory log/printer option
- Four trigger outputs
- 5800 Series wireless compatibility
- Supports two-wire multiplex
- Scheduling of events (real-time clock)
- Keypad macro features
- Master console option for viewing all partitions at a glance
- Common lobby logic
- Fast downloading
- Supports up to 16 relays and/or X-10
- Quick start programming
- False alarm features
- UL Commercial Burglary listed (VISTA-50PUL)

Specifications

Electrical

- Aux power 12VDC, 750mA max
- 16.5 VAC/40 VA transformer
- Alarm output 12VDC, 1.7 Amps max
- For UL installations, combined
- Aux and alarm output cannot exceed 750mA

Output Control

- Supports up to four relay boards (Part No. 4204)
- Each board supports four relays for a total of 16
- Optional X-10 interface (Part No. 4300) may be used to control X-10 receiving devices
- Each X-10 receiver address counts as one relay when computing total relays

- Real time clock can be used for relay/X-10 control

Zones

- Nine hardwired zones
- Selectable response on zone 9: 10MSec or 500MSec
- Assignable to any partition
- 14 zone types to choose from
- Programmable swinger suppression

Communications

- Touchtone or pulse
- Formats supported: ADEMCO Contact ID, ADEMCO 4 + 2 Express, ADEMCO low speed
- 3+1, 4+1 and 4+2 reporting
- Reporting capabilities: Split, Dual, Split/Dual
- Low battery reports 11.2-11.6VDC

- Expanded reporting
- Up to four digit PABX codes supported
- True dial tone detection
- Double pole line seizure
- AC loss and restoral reporting supported

Supported Devices

Hardwired Expansion Devices

- 4208U Eight-Zone Expansion Module
- Keypads
 - 6139 Custom English (required for programming) -100mA
 - 6128 Fixed English LCD - 30mA
- Voice Module 4286 VIP-160mA

- Two-Wire Smoke Detectors
- Duct Detectors
- Serial Printer
- Polling Loop Devices
- Key Switch Devices

Wireless Receiver Systems

- •5800 Series
 - 5881ENL up to 8 zones-50mA
 - 5881ENM up to 16 zones-50mA

– 5881ENH up to 86 zones-50mA

- All Receivers Support:
 - Diversity reception with two antennae
 - Remote mounting for best location
 - Use of second receiver for maximum coverage or tough installations
 - Unique supervision and low battery indications by point

Transmitters

- 5800 Series
 - Three volt Duracell lithium batteries
 - One mile range
 - Tamper standard

Agency Listings

- UL Residential Fire and Burglary and CSFM
- UL Commercial Burglary (VISTA-50PUL)

KEYPADS

6160V

Talking Alpha Display Keypad

The 6160V Talking Alpha Display Keypad is easy to install and simple to use. It takes the guesswork out of operating a security system by speaking system status and zone information in plain English. Homeowners can also use the 6160V to record and playback voice messages.



FEATURES & BENEFITS

- Speaks system status and zone information.
- Zones and system events displayed in plain English.
- Family message center.
- Four programmable function keys.
- Keys continuously back-lit for visibility.

Sensors

Wired

We have a complete line of sensors that cover every installer challenge give a solution. PIR, Glass break detectors, Panic buttons, False alarm immunity, with the easiest to use features. All of them cater to a wide market from low end residential to high end commercial complexes as well.



Ceiling mount PIR (997)



Mag contacts (943WG-WH)



Glass brk detctr FG1625

Wireless

Compact and portable, Honeywell wireless sensors can be easily installed, giving you the flexibility to place them anywhere in the building.



Wireless mag contact (5816MN)



Wireless PIR (5800 PIR)



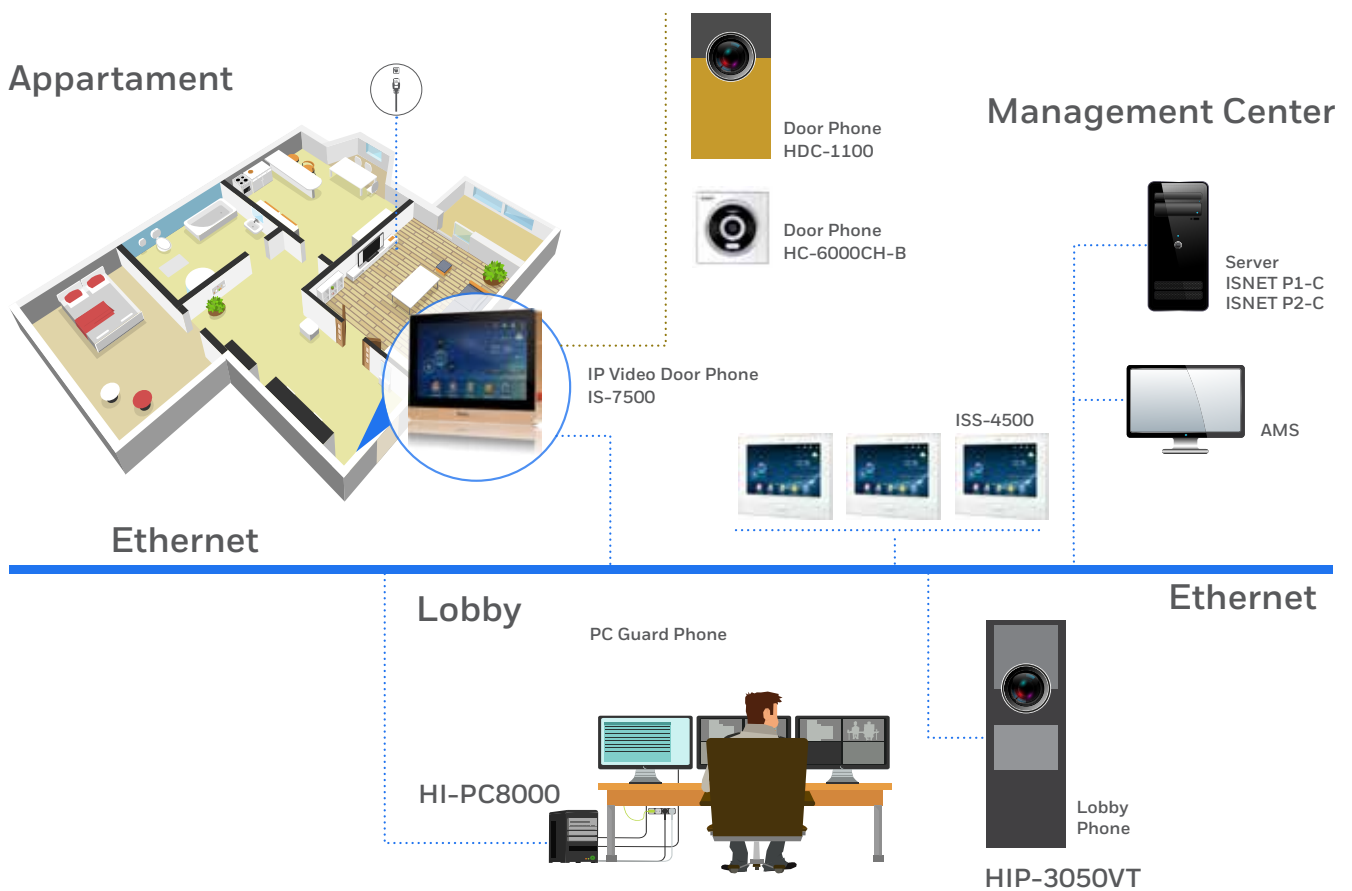
4 buttons keypad (5834)



Property protection with a stylish touch

Honeywell Home Systems

Stylish and sophisticated, the Honeywell MoMas™ smart home system series is an ideal choice for modern living. The IP Video Door Phones are elegantly and exquisitely equipped with a multi-touch screen and a user-friendly interface to simplify complex control processes. The PC Guardphone bridges the lobby/entrances and each apartment/house for efficient visitor management that increases overall security significantly. Honeywell Security – your solutions for a modern, smart and simple lifestyle.



IP Video Door Phones

Stylish and sophisticated, the Honeywell IP Video Door Phones deliver the flexibility and control of visitor management, property protection, intercom, message services and elevator control for luxurious residential sites. Built into an aluminum body with a 7"/10" capacitive multi-touch screen and protected by a flat vandal resistant glass panel, the Honeywell IP Video Door Phone adds a modern, stylish touch to any type of interior design. The user-friendly graphical interface simplifies some complex control processes, giving users an ideal device to pursue a simple lifestyle.

FEATURES & BENEFITS

- Glamorous look, stylish wide range of TCP/IP based Video Door Phone system.
- Quality design.
- Reliable performance.
- Storage.
- Communication.
- Personalization.
- Elevator control.

IS-4500

7" Touchscreen LCD IP Video Door Phone

- Communications between residents and visitors.
- Communications with residents and security guards.
- 3 levels of visitor entry identification (community/building/apartment), supported by lobby phone and door cameras.
- Security scenarios customization: 6 customized security zones, 2 24-hour protection zones (fire/gas), 2 emergency zones (silent and voice alarm).
- Up to most recent 32 color photos storage for residents and management center.
- 3 away messages, 60 seconds each.
- Video Surveillance.
- Information Service.
- Elevator Control.
- Customized ringtone and background (plug-and-play with micro SD card).



SPECIFICATION	
MODEL	IS-4500
INSTALLATION	Wall-mounted Type
CPU	Cortex-A8 ARM Processor
OS	Linux 2.6
MEMORY	256M DDR3 SDRAM on board, 2GB flash for OS and utility
PROTOCOL	SIP/TCP/IP
COMMUNICATION	100Base-TX Ethernet
AUDIO/VIDEO	Digital Video/Audio (H.264/G.711)
DISPLAY	7" Wide Digital TFT LCD (1024x600 resolution, 16.7M color)
TOUCH SCREEN	Capacitor touch panel (1024x600 resolution)
CTP COVER GLASS HARDNESS	7H
CMOS CAMERA	2 Mega
DIMENSIONS	196.5X148X16.5mm
WEIGHT	500g
POWER SUPPLY	12VDC, 3A
POWER CONSUMPTION	Standby 4W, Max. 24W
OPERATING TEMPERATURE	-10°C ~ 40°C
OPERATING HUMIDITY	0 ~ 80% RH
PLATFORM MANAGEMENT SOFTWARE	ISNET-P1-C/ ISNET-P2-C and ISS-AMS
ORDERING	
MODEL	Description
IS-4500	FROG design IP Video Door Phone, 7" TFT LCD, White Silver. Support English/Simple Chinese/Traditional Chinese

IS-6500S

7" Touchscreen LCD IP Video Door Phone

- Communications between residents and visitors.
- Communications with residents and security guards.
- 3 levels of visitor entry identification (community/building/apartment), supported by lobby phone and door cameras.
- Security scenarios customization: 6 customized security zones, 2 24-hour protection zones (fire/gas), 2 emergency zones (silent and voice alarm).
- Up to most recent 32 color photos storage for residents and management center.
- 3 away messages, 60 seconds each.
- Video Surveillance.
- Information Service.
- Elevator Control.
- Customized ringtone and background (plug-and-play with micro SD card).



SPECIFICATIONS	
MODEL	IS-6500S
INSTALLATION	Wall-mounted Type
CPU	Cortex-A8 ARM Processor
OS	Linux 2.6
MEMORY	256MB DDR3 SDRAM on board, 2GB flash for OS and utility
PROTOCOL	SIP/TCP/IP
COMMUNICATION	100Base-TX Ethernet
AUDIO/VIDEO	Digital Video/Audio (H.264/G.711)
DISPLAY	7" Wide Digital TFT LCD (1024x600 resolution, 16.7M color)
TOUCH SCREEN	Capacitor touch panel (1024x600 resolution)
CTP COVER GLASS HARDNESS	>6H
CMOS CAMERA	2Mega
DIMENSIONS	235x160x20mm
WEIGHT	650g
POWER SUPPLY	12VDC, 3A
POWER CONSUMPTION	Standby 4W, Max. 24W
OPERATING TEMPERATURE	--10° C ~ 40° C
OPERATING HUMIDITY	0 ~ 80% RH
PLATFORM MANAGEMENT SOFTWARE	ISNET-P1-C/ ISNET-P2-C and ISS-AMS

ORDERING	
MODEL	DESCRIPTION
IS-6500S-G	IP Video Door Phone, 7" TFT LCD, Celebrity Gold or New Urban Silver. Support English/Simple Chinese/Traditional Chinese. IS-6500S-GE and IS-6500S-SE only support English, IS-6500S-GT and IS-6500S-ST only support Traditional Chinese
IS-6500S-S	
IS-6500S-GE	
IS-6500S-SE	
IS-6500S-GT	
IS-6500S-ST	



IS-7500

10" Touchscreen LCD IP Video Door Phone

- Communications between residents and visitors.
- Communications with residents and security guards.
- 3 levels of visitor entry identification (community/building/apartment), supported by lobby phone and door cameras.
- Security scenarios customization: 6 customized security zones, 2 24-hour protection zones (fire/gas), 2 emergency zones (silent and voice alarm).
- Up to most recent 30 color photos storage for residents and management center.
- 3 away messages, 60 seconds each.
- Video Surveillance.
- Information Service.
- Elevator Control.
- Customized ringtone and background (plug-and-play with micro SD card).



SPECIFICATIONS	
MODEL	IS-7500
INSTALLATION	Wall-mounted Type
CPU	600 MHz Cortex-A8 ARM Processor
OS	Linux 2.6.3
MEMORY	RAM-256M DDR3 on board, 2GB flash for OS and utility
PROTOCOL	TCP/IP
COMMUNICATION	100Mbps Ethernet
AUDIO/VIDEO	Digital Video/Audio (H.264/G.711)
DISPLAY	10.1" Wide Digital TFT LCD (1024x600 resolution)
DIMENSIONS	258W x 183H x 19.2D (mm)
WEIGHT	780g
POWER SUPPLY	12VDC, 3A
POWER CONSUMPTION STANDBY	4W, Max. 24W
OPERATING TEMPERATURE	-10°C ~ 40°C
OPERATING HUMIDITY	0 ~ 80% RH
PLATFORM MANAGEMENT SOFTWARE	ISNET-P1-C/ISNET-P2-C and ISS-AMS

Note: Honeywell reserves the right, without notification, to make changes in product design and/or specifications.

ISS-4500

- Subphone for IS-4500/IS-6500S/IS-7500
- Answer and make calls.
- Panic alarm.
- Security modes – “Away”, “Sleep”, “Home”.
- Customized ringtone and background (plug-and-play with micro SD card).

SPECIFICATIONS	
MODEL	IS-4500
INSTALLATION	Wall-mounted Type
CPU	Cortex-A8 ARM Processor
OS	Linux 2.6
MEMORY	256M DDR3 SDRAM on board, 2GB flash for OS and utility
PROTOCOL	SIP/TCP/IP
COMMUNICATION	100Base-TX Ethernet
AUDIO/VIDEO	Digital Video/Audio (H.264/G.711)
DISPLAY	7" Wide Digital TFT LCD (1024x600 resolution, 16.7M color)
TOUCH SCREEN	Capacitor touch panel (1024x600 resolution)
CTP COVER GLASS HARDNESS	7H
CMOS CAMERA	2Mega
DIMENSIONS	196.5X148X16.5mm
WEIGHT	500g
POWER SUPPLY	12VDC, 3A
POWER CONSUMPTION	Standby 4W, Max. 24W
OPERATING TEMPERATURE	-10° C ~ 40° C
OPERATING HUMIDITY	0 ~ 80% RH
PLATFORM MANAGEMENT SOFTWARE	ISNET-P1-C/ ISNET-P2-C and ISS-AMS

ORDERING	
MODEL	DESCRIPTION
IS-4500	FROG design IP Video Door Phone, 7" TFT LCD, White Silver. Support English/Simple Chinese/Traditional Chinese.



Lobby Phone HLP-6050

- Call to the residence unit and guard/management room.
- Visitor image transmitted to the residence unit.
- Display of apartment complex notices on the LCD.
- Control opening and closing of lobby door.
- Lobby door releasing by password or RF card (optional).
- Monitoring and keeping log data of access in real-time.

SPECIFICATIONS	
MODEL	HLP-6050-B
INSTALLATION	Embedded wall
CPU	600 MHz Cortex-A8 ARM
OS	Linux 2.6
MEMORY	RAM-256MB DDR3, 2GB NAND
PROTOCOL	SIP, TCP/IP
COMMUNICATION	100TX-Base
VIDEO	H.264
AUDIO	G.711
DISPLAY	4.3 inch TFT LCD (480 x 272)
CAMERA	650TVL CCD (Resolution 976 x 596)
CAMERA VIEW ANGLE	90°
CAMERA MIN. ILLUMINATION	0.01 Lux, with LED light compensate
PROTECTION	IP55, IK04
DIMENSIONS	140 (W) x 518 (L) x 50 (D) mm
WEIGHT	2.6kg
POWER SUPPLY	12VDC 3A
POWER DISSIPATION	Max 36W; Standby 11W
OPERATION TEMPERATURE	-20° C ~ 55° C
OPERATION HUMIDITY	0- 90% RH
SERVER	HNS Server / ISNET-P1-C / ISNET-P2-C, ISS-AMS

ORDERING	
MODEL	PRODUCT DESCRIPTION
HLP-6050-B	Lobby Phone, TFT LCD, aluminum alloy frame, black glass panel
HLB-6050	Installation base of HLP-6050 digital public entrance machine

HC-6000EN-A Door Camera

- Call to the residence unit and visitor image transmission.



PC Guardphone

Designed for efficient visitor management, the PC Guardphone features calls to residence units, lobby entry control, real-time receipt of events from each residence unit, bulletin publication and authority management. It also supports bi-directional video communications between property management center, visitors and residents to create a secure and informed living environment with the help of Honeywell cutting edge technologies.

HI-PC8000

PC Guardphone Suite

- Video communication between property management and visitors.
- Bi-directional video communication between property management and home owners with video door phone or its sub-phones.
- Communication between PC Guardphones.
- Support 3 call forwarding functions: forward when the line is busy, forward immediately or forward by operator's own schedule.
- Real-time alarm update & display on main page (for individual building PC Video Guardphones only).
- Alarm status display: Unprocessed, In Process and Processed (for individual building PC Video Guardphones only).
- Real-time phone record update on main page: missed calls, Incoming calls and Outgoing calls.
- Call back function available.
- Support alarm log, phone log, bulletin log and visitors image logs.
- Support to export visitors' images to USB devices.
- Clear connection status on home page.
- Bulletin can be sent to single resident, selected buildings or all home owners within the community.



SPECIFICATION	
MODEL	HI-PC8000
PC MACHINE	Dell OptiPlex 3020 SFF
CAMERA	Logitech C170
MIC	PHILIPS SHM1900
SPEAKER	EARISE AL-202
DIMENSIONS (FOR PC MACHINE)	29.0CM x 9.3CM x 31.2CM
WEIGHT	6.0KG
PLATFORM MANAGEMENT SOFTWARE	ISNET-P1-C/ ISNET-P2-C/HNS Server and ISS-AMS

ORDERING	
MODEL	DESCRIPTION
HI-PC8000	PC Video Property Management Solution

Home System Central Management Software ISNET-P1-C / ISNET-P2-C IP VDP Management Software

ISNET is the central management software designed for integrating Honeywell Smart Home System devices into one single system for efficient management. Key functions include centralized management of up to 9,600 units of Honeywell IP Video Door Phones, simultaneous real-time surveillance of several remote devices, and auto uploading of remote alarm events.

Server

- Server configuration.
- User management.
- Device management.
- Alarm management.

Client

- Real-time surveillance for IP Cameras.
- Device Status Management.
- Alarm location display.
- Message pop-up when alarm triggering.
- SMS notification (ISNET-P2-C only).

Configuration

- IS-4500/IS-6500S/IS-7500 profile updates.



Our Top Priority: Keeping You Safe

Honeywell Fire Alarm and Detection Systems

Honeywell Fire Systems is a proven provider of innovative fire alarm and advanced detection solutions.

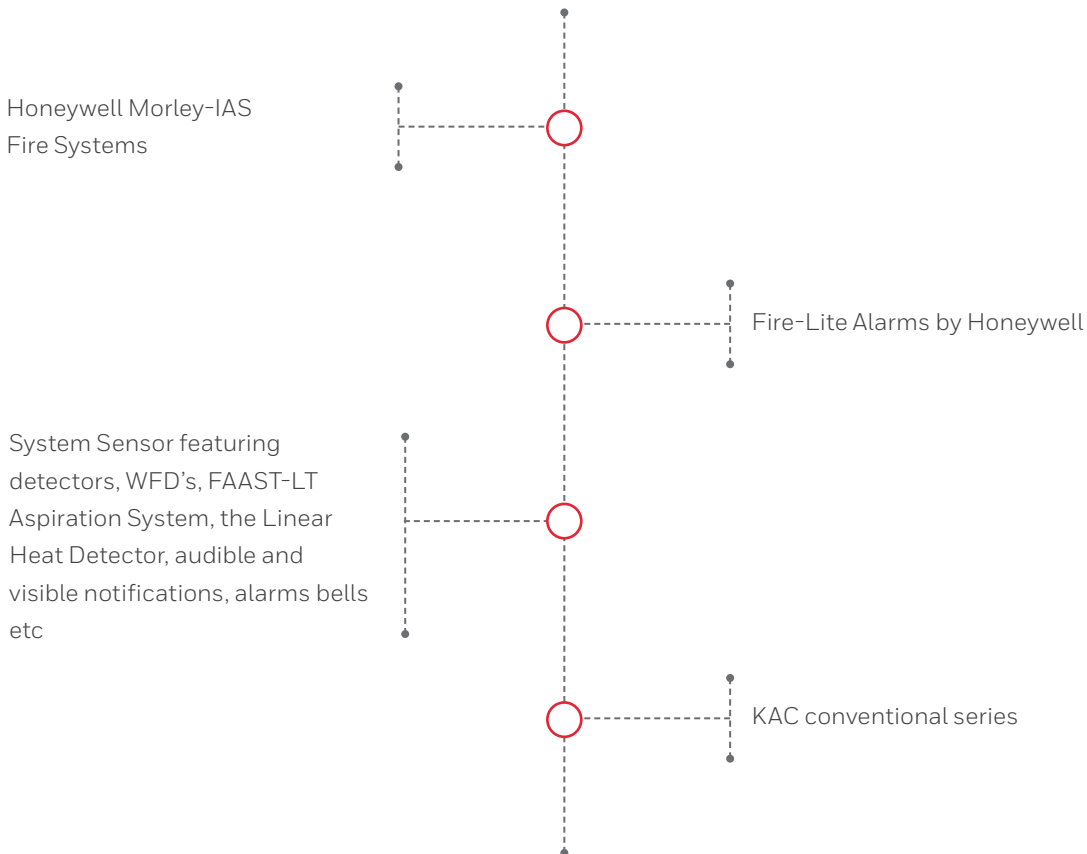
As the global leader in the commercial fire alarm industry, Honeywell Fire Systems supports each local market through a select group of well-recognized and highly-regarded brands that are Honeywell-endorsed. These brands are institutions in the commercial fire alarm industry and enjoy well-earned confidence as a result of their consistent commitment to utmost quality and delivery.

Honeywell Fire Systems is considered a technological leader, and our fully- featured products routinely demonstrate cutting-edge capabilities. We design our products around rigorous Voice-of-the-Customer analyses, followed by extensive engineering research, and then produce them using state-of-the-art manufacturing technologies.

Honeywell Fire Systems distributes through various channels, to ensure that its products are within easy reach of each and every market to integrators, installers, and end users in vast geography including TIER II & TIER III Cities.

We are also bound by an ethic to ensure enduring customer experience. Simplicity of installation and commissioning, user-friendly interface, and easy programming are all hallmarks of Honeywell Fire Systems offerings.

Honeywell Fire Alarm and Detection Systems include



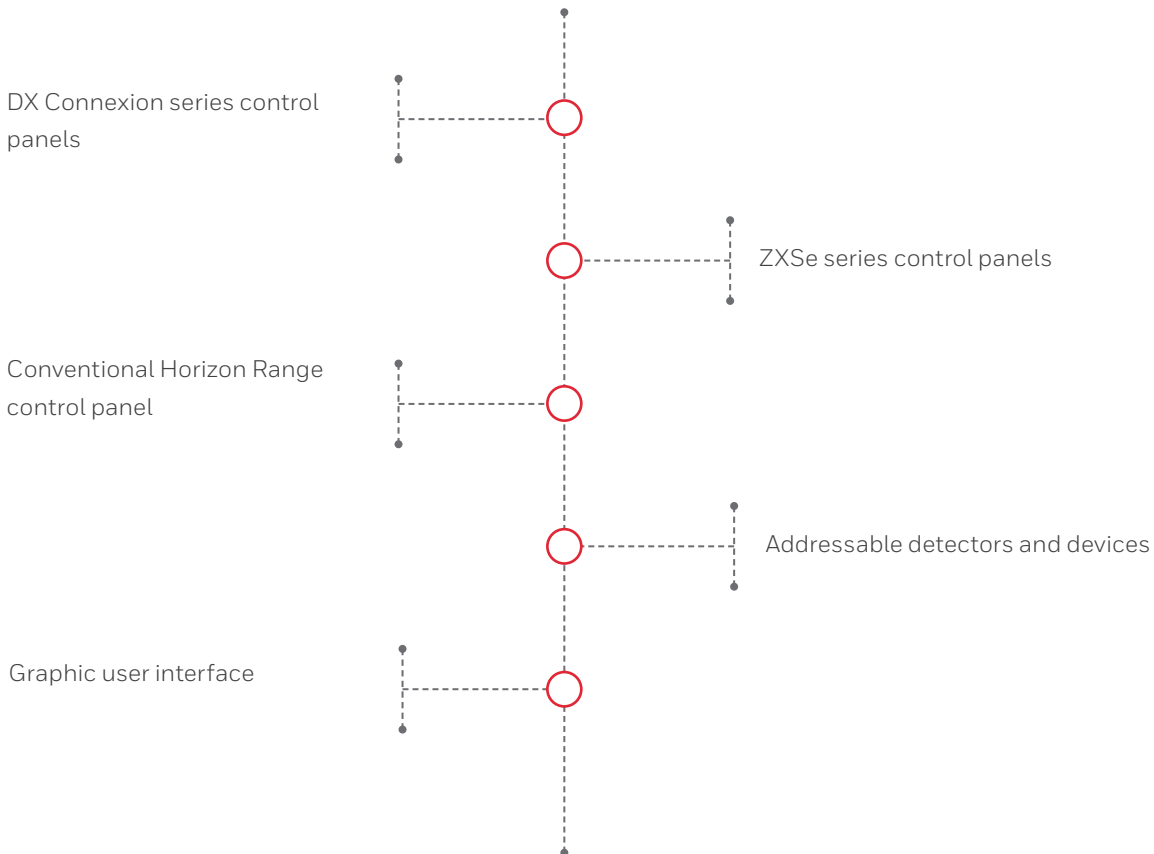
Honeywell Morley-IAS

Honeywell Morley-IAS has a well established reputation for quality products with first-class support. The wide range of products from Honeywell Morley-IAS offers you the freedom to design a system that best suits your needs with the option to create, add, and enhance, whenever and however you wish. Our extensive network of trained distributors and installers gives building owners and managers the freedom to choose the installer and/or maintenance provider that best meets their requirements.

Our ethos is to supply quality products that meet local legislation. All of our fire detection and alarm control panels are independently tested and certified by LPCB to ensure compliance with EN54 Part 2 and Part 4. The carefully planned evolution of our products over many years ensures that a system purchased yesterday meets the needs of today and can easily grow to satisfy the requirements of tomorrow.



Honeywell Morley-IAS includes



Honeywell MORLEY-IAS InfoPoint App

InfoPoint gives you access to a variety of marketing and technical literature including:

- Brochure
- Datasheets
- Approval Certificates
- Specification Guides
- Case Studies
- Video
- Manuals
- Images



Search 'Morley InfoPoint' from
Apple and Google Play



DX CONNEXION RANGE

Multi-Protocol, Analogue Addressable, Networkable Fire Alarm Control Panels.

DXc Series

The Honeywell Morley-IAS DX Connexion panel is ideally suited for use in the protection of small to medium sized systems. It is high performance, feature rich, economical fire alarm control panel designed to help both - the installer and the end user. The DX Connexion brings the traditional Morley-IAS qualities of reliability, flexibility, ease of installation, commissioning and maintenance, value with advanced features, intuitive functionality and a low cost of ownership. Retaining the inherited values of Morley-IAS, DX-Connexion brings additional features like large display with option of company logo, networking option, tactile and fast responsive key-pad, enhanced and robust power supply unit and industry leading aesthetics.

FEATURES & BENEFITS

- Easy set-up: 5 button presses for a working fire alarm system.
- Simple menu structure.
- Large, easy-to-use display.
- Networking options of up to 16 loops.
- Mobile phone style keypad and navigation keys.
- Option to upload your company logo.



714-001-112

DXc1, Single-Loop Control Panel

DXc1 is a single-loop control panel. It can operate as stand-alone or networked system with other DXc series panels up to 16 loops. The system can be expanded up to 16 nos. of DXc1 or 8 nos. of DXc2 or 4 nos. of DXc4 or a mix & match of different variants up to 16 loop networked solution.



FEATURES & BENEFITS

- 1 loop control panel (inbuilt loop card)
- 6x40 characters, blue liquid crystal display with backlight illumination.
- Option to upload company logo.
- Configuration by Keypad and PC.
- 160 Fire Zones (Can be used with or without Zone LEDs)
- RS-485 port for repeater connection.
- 2 programmable output sounder circuits(monitored)
- Fire, Fault and Auxiliary relay (one each)
- Networking up to 16 loops
- Loop-Battery calculator for reliable system design
- 7 day timer
- Onboard diagnostic
- Meets requirements of EN54 part 2 and 4
- LPCB approved

TECHNICAL DATA	
OPERATING VOLTAGE	230V, 50-60HzAC (+15%, -15% tolerance)
MAX PSU RATING	2A / 24Vdc
SOUNDER CKT RATING	1 A
AUXILIARY OUTPUT	24Vdc / 250 mA
LOOP LTOAD	500 mA
AMBIENT TEMPERATURE	0•c to 40•c
HUMIDITY	5% - 95% non condensing
BATTERIES	2x12V / 7AH
DIMENSION (H X W X D)	260 x 390 x 147 mm
WEIGHT	4 Kg
HOUSING MATERIAL	Mild Steel (rear enclosure), ABS plastic front cover complying BS EN60950.
COLOR	RAL 9002 - Grey White
INGRESS PROTECTION	IP30
CABLE ENTRY	25 x 20mm knock-outs at the top 2 x 20mm knock-outs at the bottom

Accessories

- 795-099 Network card for panels
- 795-102 Optional 40 zone LED card kit
- 795-124 Optional 80 zone LED card kit
- 020-891 USB upload/download lead
- 709-601-001 Active Repeater
- 709-701-001 Passive Repeater
- RS-485 Module (795-004-001)
- RS-232 Module (795-005)
- TG Graphics Software

714-001-222

DXc2, Two-Loop Control Panel

DXc2 is a two-loop control panel. It can operate as stand-alone or networked system with other DXc series panels up to 16 loops. The system can be expanded up to 16 nos. of DXc1 or 8 nos. of DXc2 or 4 nos. of DXc4 or a mix & match of different variants up to 16 loop networked solution.



FEATURES & BENEFITS

- 2 loop control panel (inbuilt loop cards) 6x40 characters, blue liquid crystal display with backlight illumination.
- Option to upload company logo. Configuration by Keypad and PC.
- 160 Fire Zones (Can be used with or without Zone LEDs)
- RS-485 port for repeater connection.
- 2 programmable output sounder circuits (monitored)
- Fire, Fault and Auxiliary relay (one each) Networking up to 16 loops
- Loop-Battery calculator for reliable system design
- 7 day timer
- Onboard diagnostic
- Meets requirements of EN54 part 2 and 4
- LPCB approved

TECHNICAL DATA	
OPERATING VOLTAGE	230V, 50-60HzAC (+15%, -15% tolerance)
MAX PSU RATING	4A/ 24Vdc
SOUNDER CKT RATING	1A
AUXILIARY OUTPUT	24Vdc / 250 mA
LOOP LTOAD	500 mA
AMBIENT TEMPERATURE	0° c to 40°C
HUMIDITY	5% - 95% non condensing
BATTERIES	2x12V / 17AH
DIMENSION (H X W X D)	391.5 x 390 x 147 mm
WEIGHT	4.5 Kg
HOUSING MATERIAL	Mild Steel (rear enclosure), ABS plastic front cover complying BS EN60950.
COLOR	RAL 9002 - Grey White
INGRESS PROTECTION	IP30
CABLE ENTRY	25 x 20mm knock-outs at the top 4 x 20mm knock-outs at the bottom

Accessories

- 795-099 Network card for panels
- 795-102 Optional 40 zone LED card kit
- 795-124 Optional 80 zone LED card kit
- 020-891 USB upload/download lead
- 709-601-001 Active Repeater
- 709-701-001 Passive Repeater
- 795-111 2 Loop Expansion Card
- 795-111 - Two loop expansion card
- RS-485 Module (795-004-001)
- RS-232 Module (795-005)
- TG Graphics Software

714-001-242

DXc4, Four-Loop Control Panel

DXc4 is a four-loop control panel. It can operate as stand-alone or networked system with other DXc series panels up to 16 loops. The system can be expanded up to 16 nos. of DXc1 or 8 nos. of DXc2 or 4 nos. of DXc4 or a mix & match of different variants up to 16 loop networked solution.



FEATURES & BENEFITS

- 4 loop control panel (inbuilt loop cards)
- 6x40 characters, blue liquid crystal
- display with back light illumination.
- Option to upload company logo.
- Configuration by Keypad and PC.
- 160 Fire Zones (Can be used with or without Zone LEDs)
- RS-485 port for repeater connection.
- 2 programmable output sounder
- circuits (monitored)
- Fire, Fault and Auxiliary relay (one each)
- Networking up to 16 loops
- Loop-Battery calculator for reliable system design
- 7 day timer
- Onboard diagnostic
- Meets requirements of EN54 part 2 and 4
- LPCB approved

TECHNICAL DATA	
OPERATING VOLTAGE	230V, 50-60HzAC (+15%, -15% tolerance)
MAX PSU RATING	4A/ 24Vdc
SOUNDER CKT RATING	24Vdc/ 1 A
AUXILIARY OUTPUT	24Vdc / 250 mA
LOOP LTOAD	500 mA
AMBIENT TEMPERATURE	0° c to 40°C
HUMIDITY	5% - 95% non condensing
BATTERIES	2x12V / 17AH
DIMENSION (H X W X D)	391.5 x 390 x 147 mm
WEIGHT	4.5 Kg
HOUSING MATERIAL	Mild Steel (rear enclosure), ABS plastic front cover complying BS EN60950.
COLOR	RAL 9002 - Grey White
INGRESS PROTECTION	IP30
CABLE ENTRY	25 x 20mm knock-outs at the top 4 x 20mm knock-outs at the bottom

Accessories

- 795-099 Network card for panels
- 795-102 Optional 40 zone LED card kit
- 795-124 Optional 80 zone LED card kit
- 020-891 USB upload/download lead
- 709-601-001 Active Repeater
- 709-701-001 Passive Repeater
- RS-485 Module (795-004-001)
- RS-232 Module (795-005)
- TG Graphics Software



ZX RANGE

Multi-Protocol, Analogue Addressable, Networkable Fire Alarm Control Panels.

ZXSe Series Control Panels

ZXSe range of analogue addressable fire alarm control panels have been designed and constructed around proven and reliable microprocessor technology. This simple approach has produced a modular, scalable fire alarm platform suitable for protecting all types of premises.

ZXSe series offers absolute flexibility in terms of system expansion, centralized monitoring and control or distributed monitoring and control. It uses various communication channels for networking such as Cu-cable, single-mode optic fiber, multi-mode optic fiber and TCP/IP. The capability of these panels to use different types of communication channels (new or existing infra-structure) makes them suitable for versatile application.

ZXSe series supports entire peripheral range of Morley-IAS like passive repeater, active repeater, mimic panels, mu/ti-channel input/output modules, printer and Mod bus interface. It facilitates seamless integration with 3rd part over Modbus. ZXSe also supports state-of-the-art GUI which facilitates efficient and effective centralized monitoring, control and maintenance of the system. These features along with the option of configuration via key-pad as well as PC make ZXSe user-friendly and ensure operational excellence at a very low cost of ownership.



FEATURES & BENEFITS

- Scalable platform which can support up to 99 panels on a single network.
- Simple integration with voice alarm, public address, and other systems.
- An easy-to-follow menu structure supports all standard maintenance activities.
- A wide range of optional equipment, such as printers, gives maximum flexibility to the system.
- The offline system configuration package makes programming easy.

722-001-301

ZX1Se -Analogue addressable fire alarm control panel

ZX1Se is a single-loop variant of ZXSe family which can operate as stand alone system or a networked system. The control panel supports entire range of peripheral devices in Morley-IAS range, networked solution, GUI and seamless integration with 3rd party system over Mod bus.



FEATURES & BENEFITS

- Single loop control panel (order loop cards separately)
- 4x40 characters display
- Configuration by Keypad and PC
- 20 Zone LED
- 2 serial ports
- 2 programmable output sounder circuits (monitored)
- Fire and Fault relay (one each)
- Networking up to 99 control panels
- Versatile networking (Cu-Cable, Optic Fiber, TCP/IP)
- VisualeyZ GUI compatibility
- Loop-Battery calculator for reliable system design
- 7 day timer
- Onboard diagnostic
- Meets requirements of EN54 part 2 and 4
- LPCB approved

TECHNICAL DATA	
OPERATING VOLTAGE	230V, 50HzAC (+10%, -15% tolerance)
MAX PSU RATING	4.2A total (2.5A for control panel and loop supply, 1.7 A charger current)
LOOP LOAD	460 mA
AMBIENT TEMPERATURE	0° c to 40° C
HUMIDITY	85% non condensing
BATTERIES	Min capacity 2x12V / ?AH Max capacity 2x12V / 12AH (inside control panel) Max capacity 2x12V / 38AH (separate housing)
DIMENSION (H X W X D)	400 x 400 x 135 mm
WEIGHT	10 Kg
HOUSING MATERIAL	Steel
COLOR	RAL 9002 - Grey White
INGRESS PROTECTION	IP30
CABLE ENTRY	14 x 20mm knock-outs at the top 2 x 20mm knock-outs at the bottom

Accessories

- RS-485 Module (795-004-001)
- RS-232 Module (795-005)
- RS485 to RS232 converter (795-045)
- Analogue loop cards (795-072-100)
- Active repeater (709-601-001)
- Passive repeater 709-701-001)
- Internal Printers (795-051-001)
- External Printers (795-060-002)
- Mimic Driver Module (795-065)
- Modbus Module (795-057)
- 4-way sounder module (795-015)
- 4-way relay module (795-014)
- 8-way input module (795-029)
- VisualeyZ Graphics User Interface

720-001-301

ZX2Se -Analogue addressable fire alarm control panel

ZX2Se is a two-loop variant of ZXSe family which can operate as stand alone system or a networked system. The control panel supports entire range of peripheral devices in Morley-IAS range, networked solution, GUI and seamless integration with 3rd party system over Mod bus.



FEATURES & BENEFITS

- 2 loop control panel (order loop cards separately)
- 4x40 characters display
- Configuration by Keypad and PC
- 20 Zone LED
- 2 serial ports
- 2 programmable output sounder circuits (monitored)
- Fire and Fault relay (one each) Networking up to 99 control panels
- Versatile networking (Cu-Cable, Optic Fiber, TCP/IP)
- VisualeyeZ GUI compatibility
- Loop-Battery calculator for reliable system design
- 7 day timer
- Onboard diagnostic
- Meets requirements of EN54 part 2 and 4
- LPCB approved

TECHNICAL DATA	
OPERATING VOLTAGE	230V, 50HzAC (+10%, -15% tolerance)
MAX PSU RATING	4.2A total (2.5A for control panel and loop supply, 1.7 A charger current)
LOOP LOAD	460 mA
AMBIENT TEMPERATURE	0° c to 40°C
HUMIDITY	85% non condensing
BATTERIES	Min capacity 2x12V / 7 AH Max capacity 2x12V / 12AH (inside control panel) Max capacity 2x12V / 38AH (separate housing)
DIMENSION (H X W X D)	400 x 400 x 135 mm
WEIGHT	10kg
HOUSING MATERIAL	Steel
COLOR	RAL 9002 - Grey White
INGRESS PROTECTION	IP30
CABLE ENTRY	14 x 20mm knock-outs at the top 2 x 20mm knock-outs at the bottom

Accessories

- RS-485 Module (795-004-001)
- RS-232 Module (795-005)
- RS485 to RS232 converter (795-045)
- Analogue loop cards (795-072-100)
- Analogue loop cards (795-072-100)
- Passive repeater 709-701-001)
- Internal Printers (795-051-001)
- External Printers (795-060-002)
- Mimic Driver Module (795-065)
- Modbus Module (795-057)
- 4-way sounder module (795-015)
- 4-way relay module (795-014)
- 8-way input module (795-029)
- Visualeyez Graphics User Interface

721-001-301

ZX5Se -Analogue addressable fire alarm control panel

ZX5Se is a five-loop variant of ZXSe family which can operate as stand alone system or a networked system. The control panel supports entire range of peripheral devices in Morley-IAS range, networked solution, GUI and seamless integration with 3rd party system over Modbus .



FEATURES & BENEFITS

- 5 analogue loop control panel (order loop cards separately)
- 4x40 characters display
- Configuration by Keypad and PC
- 20 Zone LED (Available up to 200 on special request)
- 3 serial ports
- 4 programmable output sounder circuits (monitored)
- Fire and Fault relay (one each)
- Networking up to 99 control panels
- Versatile networking (Cu-Cable, Optic Fiber, TCP/IP)
- VisualeyZ GUI compatibility
- Loop-Battery calculator for reliable system design
- 7 day timer
- Onboard diagnostic
- Meets requirements of EN54 part 2 and 4
- LPCB approved

TECHNICAL DATA	
OPERATING VOLTAGE	230V, 50HzAC (+10%, -15% tolerance)
MAX PSU RATING	4.2A total (2.5A for control panel and loop supply, 1.7 A charger current)
LOOP LOAD	460 mA
AMBIENT TEMPERATURE	0° c to 40° C
HUMIDITY	85% non condensing
BATTERIES	Min capacity 2x12V / ?AH Max capacity 2x12V / 12AH (inside control panel) Max capacity 2x12V / 38AH (separate housing)
DIMENSION (H X W X D)	500 x 500 x 195 mm
WEIGHT	20 Kg
HOUSING MATERIAL	Steel
COLOR	RAL 9002 - Grey White
INGRESS PROTECTION	IP30
CABLE ENTRY	24 x 20mm knock-outs at the top 24 x 20mm knock-outs at the bottom

Accessories

- RS-485 Module (795-004-001)
- RS-232 Module (795-005)
- RS485 to RS232 converter (795-045)
- Analogue loop cards (795-072-100)
- Active repeater (709-601-001)
- Passive repeater 709-701-001)
- Internal Printers (795-051-001)
- External Printers (795-060-002)
- Mimic Driver Module (795-065)
- Modbus Module (795-057)
- 4-way sounder module (795-015)
- 4-way relay module (795-014)
- 8-way input module (795-029)
- VisualeyZ Graphics User Interface



709-601-001

Active Repeater Panel

The repeater provides an extension to the operation of the fire alarm control panel. There are two types available - passive with indications only and no controls, or active with both controls and indicators. Both display the operational state of the control panel using the 80 character LCD display and the 7 LED status indicators.

In addition to the general status indicators the Active repeater is fitted with key operated "Access Enable" switch for the control functions. Individual buttons are provided for System Reset, Mute, Accept, Sound Alarms, Silence/Re-sound Alarms and Self test. Thus enabling control functions to be duplicated in strategic locations around the installation.



FEATURES & BENEFITS

- 2x40 characters, liquid crystal display with backlight illumination.
- Backlit adjustable alpha-numeric display.
- General Status LEDs.
- Control for System Reset, Accept, Mute, Silence and Self-Test
- Access enable key-switch.
- Compact metal housing.
- Active Repeater Panel available in stainless steel semi flush (709-752)

TECHNICAL DATA	
OPERATING VOLTAGE	18-32 Vdc
RATED VOLTAGE	24Vdc
QUIESCENT CURRENT	90mA
ALARM CURRENT	120mA
AMBIENT TEMPERATURE	5° C to 45°C
HUMIDITY	10% to 93% (Non condensing)
DIMENSION (H X W X D)	165 x 253.5 x 50mm
WEIGHT	1.7 Kg

Accessories

- 795-004-001 RS-485 Communication Module

709-701-001

Passive Repeater Panel

Same as Active Repeater Panel (709-601-001) but no control option. Passive Repeater Panel facilitates only monitoring of events.



FEATURES & BENEFITS

- 2x40 characters, liquid crystal display with backlight illumination.
- Compact metal housing.
- Backlit adjustable alpha-numeric display.
- General Status LEDs.
- Access enable key-switch.

TECHNICAL DATA	
OPERATING VOLTAGE	18-32 Vdc
RATED VOLTAGE	24Vdc
QUIESCENT CURRENT	90mA
ALARM CURRENT	120mA
AMBIENT TEMPERATURE	5°C to 45°C
HUMIDITY	10% to 93% (Non condensing)
DIMENSION (H X W X D)	165 x 253.5 x 50mm
WEIGHT	1.7 Kg

Accessories

- 795-004-001 RS-485 Communication Module



795-014

4-Way Relay Module

The 4-way relay card consists of 4 relay outputs built on a single printed circuit board. Each output relay provides single pole double throw (SPDT) switching action for other locally powered equipment. The form C relay contacts are designed to switch resistive loads of up to 1 A/24 V ac/dc.



FEATURES & BENEFITS

- Provides 4 individually-programmable relay outputs.
- RS-485 communication.
- Easy DIP switch addressing.
- Normal, Delayed and Double-Knock operation.
- LED status indication.

TECHNICAL DATA	
OPERATING VOLTAGE	18- 32 Vdc
RATED VOLTAGE	24Vdc
QUIESCENT CURRENT	30mA
ALARM CURRENT	200mA
RELAY CONTACT RATING	1A/ 30 V
AMBIENT TEMPERATURE	0° C to 49°C
HUMIDITY	10% to 93% (Non condensing)
DIMENSION (H X W X D)	130 x 180 x 35mm
WEIGHT	200g

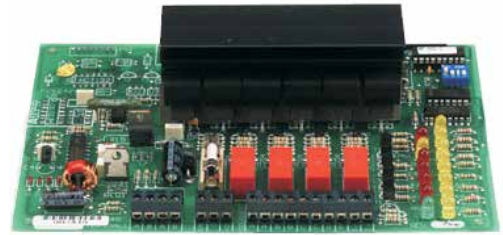
Accessories

- 795-004-001 RS-485 Communication Module

795-015

4-Way Sounder Module

4-Way Sounder Module consists of 4 supervised sounder outputs built on a single printed circuit board. Each sounder output provides a monitored 24Vdc polarity reversal circuit. This output can be used to drive conventional bells, sounders, strobes etc. Each output circuit can provide up to 1 A current with maximum of 3A spread over all four output terminals.



FEATURES & BENEFITS

- Provides 4 individually-programmable monitored sounder outputs.
- RS-485 communication.
- Easy DIP switch addressing.
- Normal, Delayed and Double-Knock operation.
- LED status indication.

TECHNICAL DATA	
OPERATING VOLTAGE	18- 32 Vdc
RATED VOLTAGE	24Vdc
QUIESCENT CURRENT	120mA
ALARM CURRENT	220mA + sounder load.
RELAY CONTACT RATING	1A/ 30 V
AMBIENT TEMPERATURE	0°C to 49°C
HUMIDITY	10% to 93% (Non condensing)
DIMENSION (H X W X D)	125 x 190 x 50mm
WEIGHT	230g

Accessories

- 795-004-001 RS-485 Communication Module



795-029

8-Way Input Module

The 8-way input card consists of 8 non-supervised monitoring circuits built on a single printed circuit board. Each input is equipped with a pair of terminals to accept an input from an external NO clean contact suitable for low voltage/ low current switching. Each input can be individually programmed to generate one of the five input events in the panel: Fire, fault, bomb-alert, class change or security.



FEATURES & BENEFITS

- Provides 8 individually-programmable inputs.
- RS-485 communication.
- Easy DIP switch addressing.
- Normal, Delayed and Double-Knock operation.
- Fire, Fault, Bomb-Alert, Class-Change and Security Event options
- LED status indication.

TECHNICAL DATA	
OPERATING VOLTAGE	18-32 Vdc
RATED VOLTAGE	24Vdc
QUIESCENT CURRENT	65mA
ALARM CURRENT	97mA + sounder load.
AMBIENT TEMPERATURE	0•c to 49•c
HUMIDITY	10% to 93% (Non condensing)
DIMENSION (H X W X D)	113 x 160 x 22mm
WEIGHT	120g

Accessories

- 795-004-001 RS-485 Communication Module

795-065

40-Way Mimic Interface Module

40-Way Mimic Interface Module consists of 40 open collector outputs built on a single printed circuit board. The outputs can provide up to 15mA each to drive mimic LEDs (or other low-current external loads) and can be programmed to follow a zone or an event in the master panel.

The AUTO-LEARN facility in the ZX series control panels automatically determines the number of modules connected to the peripheral bus. Once the mimic driver cards are learnt, each of these cards can be programmed to follow a group of 40 zones or events on the system (e.g. zones 1-40, 41-80, etc., events 1- 40, 41-80, 81-120, etc.).



FEATURES & BENEFITS

- Provides 40 programmable open collector outputs.
- RS-485 communication.
- Easy DIP switch addressing.
- Zone or Event based operation.
- LED status indication.

TECHNICAL DATA	
OPERATING VOLTAGE	18-32 Vdc
RATED VOLTAGE	24Vdc
QUIESCENT CURRENT	29mA@24V
ALARM CURRENT (FULL LOAD)	277mA@24V.
AMBIENT TEMPERATURE	0•c to 49•c
HUMIDITY	10% to 93% (Non condensing)
DIMENSION (H X W X D)	113 x 160 x 29mm
WEIGHT	226g

Accessories

- 795-004-001 RS-485 Communication Module



795-057

Modbus Interface Module

The Mod bus interface unit connects to the RS-485 peripheral bus of the ZX series fire alarm control panels and allows panel interrogation by a Modbus control system. Information on the states of panel outputs, peripherals, detectors and the general operating condition of the panel can be requested.

A DC supply in the range of 18-28 Vdc, typically 24 Vdc, rated at 150 mA, is required to power the interface.

An earth reference should be connected to the Modbus Interface Platforms Earth termination point from the supply earth (i.e. fire control panel entry gland). For a complete listing of the commands supported please refer to the installation guidelines and commissioning instructions.



FEATURES & BENEFITS

- Modbus Protocol Supported.
- RS-485 communication.
- Easy DIP switch addressing.
- IP67 rated enclosure.
- Integrates seamlessly with ZX series control panels.
- Modbus output via RS-232 port.
- LED status indication.

TECHNICAL DATA	
OPERATING VOLTAGE	18- 32 Vdc
RATED VOLTAGE	24Vdc
QUIESCENT CURRENT	120mA@24V
AMBIENT TEMPERATURE	0°C to 49°C
HUMIDITY	10% to 93% (Non condensing)
DIMENSION (H X W X D)	250 x 175 x 75mm
WEIGHT	1.1Kg

Accessories

- 795-004-001 RS-485 Communication Module



Horizon Conventional Fire Alarm Range

Non-Addressable Control Panels Available in 2, 4 or 8 Zones

The Horizon 2, 4 and 8 series of non-addressable control panels is designed for use in small buildings allowing installers to meet the demands of end users quickly and easily.

FEATURES & BENEFITS

- Simple user-friendly design
- Enhanced feature set and advanced programming to meet the demands of the building manager
- Clear, visible indications with easy to operate functions
- Unique keyswitch to enable controls
- Control buttons are simple and unambiguous, ensuring easy operation
- Facility to interface to larger landlord alarm systems



S200A Series Detectors

The new series of Morley-IAS sensors (S200A series) incorporate major hardware and software technology driven developments. A completely new optical chamber design is proven in extensive testing to be more efficient, less liable to false alarm due to dust and insects and less susceptible to fault in high air velocities or back pressure. Extensive hydrodynamic modeling has confirmed the greater efficiency of the new chamber and housing shape combination. Large-scale integration of the all-new electronics, through the fully automated surface mount PCB assembly, coupled with in-line testing through the manufacturing process, laser PCB cutting along with a completely new compound of plastic offers improved quality and reliability

All S200A detectors are environmentally friendly and meet the WEEE and RoHS legislative requirements which minimize the end of life disposal costs.

FEATURES & BENEFITS

- Available with or without short circuit isolation.
- Isolator per device allows faster, more precise fault finding.
- Rotary decade address switches.
- Ivory color to harmonize with the modern built environment.
- 100% mechanical and electrical backwards compatibility.
- New base design to complement the detector and ease installation and wiring.



MI-PSE-S2-IV / MI-PSE-S2I -IV

Optical Smoke Detector

MI-PSE-S2-IV photoelectric smoke detector comes with a completely new detection chamber design, the result of many years of research and development. This delivers improved responsiveness, reduced sensitivity changes caused by settling dust and reduced false alarms resulting from ingress of insect and other debris. The plug-in unit uses sophisticated processing circuitry that incorporates smoothing filters to help eliminate transient environmental noise conditions that can be the cause of unwanted alarms. The devices are managed by embedded software running complex algorithms that further improve resilience to false alarms and improve detection speed. The MI-PSE-S2-IV has two integral red LEDs that provide 360° local visual indication of the device status.



FEATURES & BENEFITS

- New Optical chamber design to facilitate genuine and fast response
- Advanced protocol and smoothing filter to suppress false alarm
- Rotary decade switches
- Optional in-built isolator
- Analogue addressable communications
- Dual Integrated LED for 360° visibility
- Conforms to EN54-7
- LPCB Approved
- Environment friendly - meets WEEE & RoHS legislative requirements

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 32 Vdc
MAXIMUM STANDBY CURRENT	200uA@ 24Vdc (No LED blink) 300uA@ 24Vdc (LED blink enabled)
LED CURRENT	3.5mA@ 24Vdc
REMOTE OUTPUT VOLTAGE	22.5Vdc @ 24Vdc input
REMOTE OUTPUT CURRENT	10.8mA@ 24Vdc
TEMPERATURE RANGE	-30° C to + 70°C
HUMIDITY RANGE	10 to 93% (Non-Condensing)
HEIGHT	52mm installed with B501AP base
DIAMETER	102mm installed in B501AP base
WEIGHT	97g
MAXIMUM WIRE GAUGE	2.5 sqmm
MATERIAL	PC/ABS
COLOR	Ivory

Accessories

- B501AP-IV. Detector base (ivory color)

MI-FHSE-S2-IV/ MI-FHSE-S2I-IV

58°C Thermal Detector

The MI-FHSE-S2-IV is fixed temperature analogue addressable sensors employing low mass thermistors and microprocessor technology for fast response and linear temperature sensing. Its linear response allows the sensor to be used to signal temperatures over 58°C (Class A 1 S).



FEATURES & BENEFITS

- Advanced protocol and smoothing filter to suppress false alarm
- Rotary decade switches
- Optional in-built isolator
- Analogue addressable communications
- Dual Integrated LED for 360° visibility
- Conforms to EN54-5
- LPCB Approved
- Environment friendly - meets WEEE & RoHS legislative requirements

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 32 Vdc
MAXIMUM STANDBY CURRENT	200uA@ 24Vdc (No LED blink) 300uA@ 24Vdc (LED blink enabled)
LED CURRENT	3.5mA@ 24Vdc
REMOTE OUTPUT VOLTAGE	22.5Vdc@ 24Vdc input
REMOTE OUTPUT CURRENT	10.8 mA@ 24Vdc
TEMPERATURE RANGE	-30° C to + 70°C
HUMIDITY RANGE	10 to 93% (Non-Condensing)
HEIGHT	61mm installed with B501AP base
DIAMETER	102mm installed in B501AP base
WEIGHT	88g
MAXIMUM WIRE GAUGE	2.5 sqmm
MATERIAL	PC/ABS
COLOR	Ivory

Accessories

- B501AP-IV. Detector base (ivory color)

MI-HTSE-S2-IV/ MI-HTSE-S2I-IV

78°C Thermal Detector

The MI-HTSE-S2-IV is fixed temperature analogue addressable sensors employing low mass thermistor and microprocessor technology for fast response and linear temperature sensing. Its linear response allows the sensor to be used to signal temperatures over 78°C (Class BS).



FEATURES & BENEFITS

- Advanced protocol and smoothing filter to suppress false alarm
- Rotary decade switches
- Optional in-built isolator
- Analogue addressable communications
- Dual Integrated LED for 360° visibility
- Conforms to EN54-5
- LPCB Approved
- Environment friendly - meets WEEE & RoHS legislative requirements

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 32 Vdc
MAXIMUM STANDBY CURRENT	200uA@ 24Vdc (No LED blink) 300uA@ 24Vdc (LED blink enabled)
LED CURRENT	3.5mA@ 24Vdc
REMOTE OUTPUT VOLTAGE	22.5Vdc@ 24Vdc input
REMOTE OUTPUT CURRENT	10.8 mA@ 24Vdc
TEMPERATURE RANGE	-30° C to + 70°C
HUMIDITY RANGE	10 to 93% (Non-Condensing)
HEIGHT	61mm installed with B501AP base
DIAMETER	102mm installed in B501AP base
WEIGHT	88g
MAXIMUM WIRE GAUGE	2.5 sqmm
MATERIAL	PC/ABS
COLOR	Ivory

Accessories

- B501AP-IV. Detector base (ivory color)



MI-PTSE-S2-IV/ MI-PTSE-S2I-IV

Photo-Thermal Multi-Criteria Detector

M 1-PTSE-S2-IV Photo-Thermal Multi-Sensor uses thermal assistance to the core photoelectric smoke detector to give enhanced false alarm immunity and faster response to a wide range of incipient fires. The plug-in unit combines two separate sensing elements that are managed by embedded software to act as a single unit. The MI-PTSE-S2-IV conforms to EN54-7, a 58°C fixed temperature and rate of rise thermal assistance conforming to EN54-5. The thermal detection function combines thermistor technology with a software corrected linear temperature response. In areas where the normal daytime activities may potentially create unwanted alarms, the detector can be programmed to operate in a “heat only” mode, automatically reverting to full photo-thermal operation

during unoccupied periods. The sensing elements of the MI-PTSE-S2-IV are panel controllable so the sensitivity thresholds of each elements can be changed by the panel offering the ability to customise the device for the changing use of the area it is protecting. The detector has two integral red LEDs that provide 360° local visual indication of the device status.



FEATURES & BENEFITS

- New Optical chamber design to facilitate genuine and fast response
- Advanced protocol and smoothing filter to suppress false alarm
- Rotary decade switches
- Optional in-built isolator
- Analogue addressable communications
- Dual Integrated LED for 360° visibility
- Conforms to EN54-5 & EN54-7
- LPCB Approved
- Environment friendly - meets WEEE & RoHS legislative requirements

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 32 Vdc
MAXIMUM STANDBY CURRENT	200uA@ 24Vdc (No LED blink) 300uA@ 24Vdc (LED blink enabled)
LED CURRENT	3.5mA@ 24Vdc
REMOTE OUTPUT VOLTAGE	22.5Vdc @ 24Vdc input
REMOTE OUTPUT CURRENT	10.8mA@24Vdc
TEMPERATURE RANGE	-30°C to + 70°C
HUMIDITY RANGE	10 to 93% (Non-Condensing)
HEIGHT	61mm installed with B501AP base
DIAMETER	102mm installed in B501AP base
WEIGHT	99g
MAXIMUM WIRE GAUGE	2.5 sqmm
MATERIAL	PC/ABS
COLOR	Ivory

Accessories

- B501AP-IV. Detector base (ivory color)

Sensitivity settings

- Alarm Level 1 1 %/ft smoke
- Alarm Level 2 2%/ft smoke
- Alarm Level 3 3%/ft smoke
- Alarm Level 4 3%/ft smoke
- Alarm Level 5 3%/ft smoke
- Alarm Level 6 ClassA 1 R

MI-RHSE-S2-IV/ MI-RHSE-S2I-1V

Rate of Rise Thermal Detector

The MI-RHSE-S2-1V uses the thermistor and microprocessor technology to provide an alarm when the rate of rise in temperature exceeds 10°C/minute (typical) or if the temperature exceeds a threshold of 58°C (Response Class A 1 R). The detectors have two integral red LEDs that provide 360° local visual indication of the device status.



FEATURES & BENEFITS

- Advanced protocol and smoothing filter to suppress false alarm
- Rotary decade switches
- Optional in-built isolator
- Analogue addressable communications Dual Integrated LED for 360° visibility
- Conforms to EN54-5
- LPCB Approved
- Environment friendly - meets WEEE & RoHS legislative requirements

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 32 Vdc
MAXIMUM STANDBY CURRENT	200uA@ 24Vdc (No LED blink) 300uA@ 24Vdc (LED blink enabled)
LED CURRENT	3.5mA@ 24Vdc
REMOTE OUTPUT VOLTAGE	22.5Vdc @ 24Vdc input
REMOTE OUTPUT CURRENT	10.8mA@ 24Vdc
TEMPERATURE RANGE	-30°C to + 70°C
HUMIDITY RANGE	10 to 93% (Non-Condensing)
HEIGHT	61mm installed with B501AP base
DIAMETER	102mm installed in B501AP base
WEIGHT	88g
MAXIMUM WIRE GAUGE	2.5 sqmm
MATERIAL	PC/ABS
COLOR	Ivory

Accessories

- B501AP-IV. Detector base (ivory color)

MI-PTIR-S2-IV/ MI-PTIR-S2I-IV

Photo-Thermal IR Multi-Criteria Detector

MI-PTIR-S2-IV Photo-Thermal IR Multi-Sensor is the environmentally friendly alternative to the ionisation detector, a technology that is now over sixty years old. The MI-PTIR-82-IV offers comparable speed of response to the ionisation technology for a fast flaming fire and is less susceptible to false alarms. It can be deployed with confidence in locations where the main risk is from fast developing flaming fires. MI-PTIR-82-IV fights against false alarms by delivering enhanced false alarm immunity. The integration of continual monitoring for all three major elements of a fire enables the MI-PTIR-82-IV to respond far more quickly to an actual fire and has the highest immunity to nuisances. Based upon the sensor signals, the program dynamically changes sensor thresholds, sensor gain, time delays, combination, sampling rates, averaging rates and, if any sensor fails, changing sensitivity of the remaining sensors as well as indicating a fault condition. The detector has two integral red LEDs that provide 360° local visual indication of the device status.



FEATURES & BENEFITS

- Versatile detection with Photo, Thermal and IR Sensors.
- New Optical chamber design to facilitate genuine and fast response
- Advanced protocol and smoothing filter to suppress false alarm
- Rotary decade switches
- Optional in-built isolator
- Analogue addressable communications
- Dual Integrated LED for 360° visibility
- Conforms to EN54-5, EN54-7, EN54-10
- LPCB Approved
- Environment friendly - meets WEEE & RoHS legislative requirements

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 32 Vdc
MAXIMUM STANDBY CURRENT	200uA@ 24Vdc (No LED blink) 300uA@ 24Vdc (LED blink enabled)
LED CURRENT	3.5mA@ 24Vdc
REMOTE OUTPUT VOLTAGE	22.5Vdc @ 24Vdc input
REMOTE OUTPUT CURRENT	10.8mA@24Vdc
TEMPERATURE RANGE	-30°C to + 70°C
HUMIDITY RANGE	10 to 93% (Non-Condensing)
HEIGHT	63mm installed with B501AP base
DIAMETER	102mm installed in B501AP base
WEIGHT	102g
MAXIMUM WIRE GAUGE	2.5 sqmm
MATERIAL	PC/ABS
COLOR	Ivory

DNRE

Duct Detector Housing

The Morley-IAS Series duct smoke detectors sense smoke in the most challenging conditions, operating in air flow speeds of 0.5m/s to 20m/sec, temperatures of 0°C to 70°C, and a humidity range of 0 to 95 percent (noncondensing).

An improved cover design isolates the detector head from the low-flow feature for simple maintenance. The unit incorporates cover tamper feature to indicate a trouble signal for a removed or improperly installed sensor cover. The duct detector housing provides a 20mm conduit knockout and ample space to facilitate easy wiring and mounting of relay module. The duct smoke detector can be customised to meet local codes and specifications without additional wiring.



FEATURES & BENEFITS

- Photoelectric, integrated low-flow technology
- Includes detector base
- Air velocity rating from 0.5m/s to 20m/sec
- Versatile mounting options: square or rectangular configuration
- Broad ranges for operating temperature 0°C to 70°C and humidity (0% to 95% non-condensing)
- Patented sampling tube installs from front or back of the detector with no tools required
- Cover tamper signal
- 20mm conduit knockout for easy wiring access
- Available space within housing to accommodate mounting of relay module
- Easily accessible code wheels on sensor head (sold separately)
- Clear cover for convenient visual inspection

TECHNICAL DATA	
POWER SUPPLY VOLTAGE	8.5-35 vdc
INPUT CAPACITANCE	0.1 μ F max.
RESET VOLTAGE	2.5 VDC min
SENSITIVITY TEST	See detector label
PEAK STANDBY CURRENT	120 μ A
SIZE	(Rectangular) 37 cm L; 12.7 cm W; 6.36 cm D (Square) 19.7 cm L; 22.9 cm W; 6.35 cm D
WEIGHT	0.82 kg
OPERATING TEMPERATURE RANGE	0°C to 70°C
STORAGE TEMPERATURE RANGE	0°C to 70°C
OPERATING HUMIDITY RANGE	0% to 95% relative humidity non-condensing
AIR DUCT VELOCITY	0.5 to 20 m/sec

MI-LZR

High Sensitivity smoke detector using LASER

MI-PTIR-S2-IV Photo-Thermal IR Multi-Sensor is the environmentally friendly alternative to the ionisation detector, a technology that is now over sixty years old. The MI-PTIR-82-IV offers comparable speed of response to the ionisation technology for a fast flaming fire and is less susceptible to false alarms. It can be deployed with confidence in locations where the main risk is from fast developing flaming fires. MI-PTIR-82-IV fights against false alarms by delivering enhanced false alarm immunity. The integration of continual monitoring for all three major elements of a fire enables the MI-PTIR-82-IV to respond far more quickly to an actual fire and has the highest immunity to nuisances. Based upon the sensor signals, the program dynamically changes sensor thresholds, sensor gain, time delays, combination, sampling rates, averaging rates and, if any sensor fails, changing sensitivity of the remaining sensors as well as indicating a fault condition. The detector has two integral red LEDs that provide 360° local visual indication of the device status.



FEATURES & BENEFITS

- Extremely high sensitivity 'laser' based smoke sensor
- Superior early warning performance
- Effective response to both fast flaming and slow smouldering fires
- Automatic drift compensation
- Three levels of fault warning for contamination
- Stable communication with high noise immunity
- Nine sensitivity levels (0.02 - 2%/ft)
- Twin LED indicators providing 360° visibility
- Rotary decade address switches
- Tamper resistant
- Built in test switch
- Conforms to EN54-7
- LPCB Approved

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 32 Vdc
MAXIMUM STANDBY CURRENT	230uA@ 24Vdc (No communications) 330uA@ 24Vdc (with communication)
ALARM CURRENT	6.5mA@ 24Vdc
TEMPERATURE RANGE	-10°C to +55°C
HUMIDITY RANGE	10 to 93% (Non-condensing)
HEIGHT	42 mm
DIAMETER	104mm installed in B501AP base
WEIGHT	120g
MAXIMUM WIRE GAUGE	2.5 sqmm
MATERIAL	Bayblend FR110.
COLOR	Pantone Warm Grey 1 C

Alarm level

- Alarm level 1 0.02%/ft. smoke
- Alarm level 2 0.03%/ft. smoke
- Alarm level 3 0.05%/ft. smoke
- Alarm level 4 0.10%/ft. smoke
- Alarm level 5 0.20%/ft. smoke
- Alarm level 6 0.50%/ft. smoke
- Alarm level 7 1.00%/ft. smoke
- Alarm level 8 1.50%/ft. smoke
- Alarm level 9 2.00%/ft. smoke

Accessories

- B501AP-IV. Detector base

MI-LPB2 - S2I

Addressable Beam Detector

The MI-LPB2 is an addressable reflector- type linear optical beam smoke detector, designed to operate as a component of an intelligent fire alarm system. It operates primarily on the principle of light obscuration utilising an Infra-Red beam. Optical beam smoke detectors are particularly appropriate for protecting buildings with large open space such as warehouses, atriums etc.

The MI-LPB2 detector is a combined transmitter/receiver unit that can be directly connected to an analogue loop circuit. The Infra-Red transmitter generates a beam of light towards a high efficiency reflector. The reflector returns the beam to the receiver where an analysis of the received signal is made. The change in the strength of the received signal is used to determine the alarm condition.



FEATURES & BENEFITS

- Addressable loop powered beam detector.
- 10-100m range.
- 4 fixed sensitivity levels.
- 2 automatic variable sensitivity modes.
- Numerical indicators to aid beam alignment.
- Standby, Fault and Alarm LED indicator.
- Automatic Drift compensation.
- Complies to EN54-12
- LPCB Approved

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 32 Vdc
RATED VOLTAGE	24Vdc
TYPICAL STANDBY CURRENT	2mA@24Vdc
MAX ALARM CURRENT	8.5mA
MAXIMUM ALIGNMENT CURRENT	20mA
TEMPERATURE RANGE	-30°C to +55°C
HUMIDITY RANGE	Up to 95% (Non-condensing)
DIMENSION (H X W X D)	254 x 190 x 84mm (T x/Rx Unit) 230 x 200mm (single, 10-70m range)
WEIGHT	1.77Kg
MAXIMUM WIRE GAUGE	2.5 sqmm
MATERIAL	Bayblend FR110 (Trim), Lexan (Lens Cover) Noryl (Back-Box)
COLOR	White (Trim), Black (Back-Box)

Accessories

- BEAM-LRK Long Range reflector kit (70 - 100m range).
- BEAM-SMK Surface Mount accessory.
- BEAM-MMK Multi-mount accessory for ceiling or wall mounting with additional mounting adjustment. BEAMSMK also required.



Modules

MI-MCP-FLEX / MI-MCP-FLEX-I

Manual Call point

MI-MCP Series Manual Call Points are designed to provide a manual alarm interface to Morley IAS's fire alarm control panel.

Installation efficiency, flexibility and compliance with the latest standards are at the heart of the call point range.

The unique 'plug n play' concept is designed specifically to reduce installation time by using a terminal block which can be wired during the initial installation cabling with a link (P102) to provide continuity for testing. During the commissioning phase, the links are removed and the terminal block is simply inserted into the connector at the back of the unit. No re-termination is required.



FEATURES & BENEFITS

- Unique plug and play installation concept
- Resetable, unbreakable flexible element option
- Analogue addressable communications
- Semi-flush and surface mount option Integrated LED
- Integral loop isolation
- Conforms to EN54-11
- LPCB Approved

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 30 Vdc
QUIESCENT CURRENT	260uA@ 24Vdc (without isolator) 360uA@ 24Vdc (with isolator)
ALARM CURRENT	6mA@24Vdc
TEMPERATURE RANGE	-30°C to + 70°C
RELATIVE HUMIDITY	0 - 95% non-condensing
DIMENSIONS (W X H X D)	89 x 93 x 27.5 mm (Semi-Flush)
DIAMETER	89 x 93 x 59.5 mm (Surface Mounted) 102mm installed in B501AP base. 110g (Semi-Flush)
WEIGHT	160g (Surface Mount)
INGRESS PROTECTION	IP24D
MAXIMUM WIRE GAUGE	2.5 sqmm
MATERIAL	ABS plastic.
COLOR	Red

Accessories

- KG1X50 Pack of 50 nos. of EN54-11 Glasses
- PS200 Call point cover
- SR 1T Surface mounting box, red
- SC083 Pack 10 X P056 (Call Point Cover Seal)
- PS230 Pack of 10 resettable elements

MI-DMMI

Single Channel Input Module

MI-DMMI monitor module is used with the Morley-IAS intelligent fire alarm control panels to provide a single input circuit from external devices. Each input is continuously monitored for normal, open circuit and alarm conditions. Changes to the status of the input circuits are communicated to the panel where the appropriate actions may be undertaken.

MI-DMMI requires a single address of the ninety-nine possible module addresses available on a loop. It responds to regular polling from the control panel indicated by a pulsing LED every successful communication.



FEATURES & BENEFITS

- Single input
- DIN rail mounting option
- Rotary decade address switch
- Analogue addressable communications
- Tri-color LED status
- Plug-in connectors
- Built-in short circuit isolators
- Approval - LPCB, GEA GEi 1-082, CEA GEi 1-084

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 30 Vdc
QUIESCENT CURRENT	310uA@ 24Vdc (without isolator) 510uA@ 24Vdc (with isolator)
TEMPERATURE RANGE	-20°C to +60°C
RELATIVE HUMIDITY	0 - 95% non-condensing
DIMENSIONS (W X H X D)	93 x 94 x 23 mm (Semi-Flush)
WEIGHT	100g
INGRESS PROTECTION	IP30 (IP50 in M200E-SMB)
MAXIMUM WIRE GAUGE	2.5 sqmm

Accessories

- M200E-SMB Surface Mounting Box.
- M200E-DIN Surface mounting clip for single module



MI-DMM21

Dual Channel Input Module

MI-DMM21 monitor module is used with the Morley-IAS intelligent fire alarm control panels to provide dual input circuit from external devices. Each input is continuously monitored for normal, open circuit and alarm conditions. Changes to the status of the input circuits are communicated to the panel where the appropriate actions may be undertaken.

MI-DMM21 requires two addresses of the ninety-nine possible module addresses available on a loop. It responds to regular polling from the control panel indicated by a pulsing LED every successful communication.



FEATURES & BENEFITS

- Dual input
- DIN rail mounting option
- Rotary decade address switch
- Analogue addressable communications
- Tri-color LED status
- Plug-in connectors
- Built-in short circuit isolators
- Approval- LPCB, GEAGEI 1-082, CEA GEi 1-084

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 30 Vdc
QUIESCENT CURRENT	340uA@ 24Vdc (No communications) 600uA@ 24Vdc (LED blink enabled)
TEMPERATURE RANGE	-20°C to + 60°C
RELATIVE HUMIDITY	Up to 95% (non-condensing)
DIMENSIONS (W X H X D)	93 x 94 x 23 mm (Semi-Flush)
WEIGHT	110g
INGRESS PROTECTION	IP30 (IP50 in M200E-SMB)
MAXIMUM WIRE GAUGE	2.5 sqmm

Accessories

- M200E-SMB Surface Mounting Box.
- M200E-DIN Surface mounting clip for single module

MI-D21CMO

Dual Input Single Output Module

MI-D21CMO optionally supervises the wiring to the load devices and, upon command from the control panel, switches an external power supply to operate these devices. It also has built-in short circuit isolation capability. In normal supervised mode, the device switches out the load supervision and switches in the external power supply through a double pole relay. The external power supply is monitored and raises an unlatched fault condition if the voltage falls below the fixed threshold. In the unsupervised mode, the device provides neither load nor power supply supervision and can be used to switch a single form C set of changeover contacts.



FEATURES & BENEFITS

- Dual input Single Output
- DIN rail mounting option
- Rotary decade address switch
- Analogue addressable communications
- Tri-color LED status
- Plug-in connectors
- Built-in short circuit isolators
- Approval - LPCB, GEA GEi 1-082, CEAGEi 1-084

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 30 Vdc
QUIESCENT CURRENT	340uA@ 24Vdc (No communications) 660uA@ 24Vdc (LED blink enabled)
RELAY SPECIFICATIONS	2A@ 30Vdc, Resistive Load
TEMPERATURE RANGE	-20°C to + 60°C
RELATIVE HUMIDITY	Up to 95% (non-condensing)
DIMENSIONS (W X H X D)	93 x 94 x 23 mm (Semi-Flush)
WEIGHT	110g
INGRESS PROTECTION	IP30 (IP50 in M200E-SMB)
MAXIMUM WIRE GAUGE	2.5 sqmm

Accessories

- M200E-SMB Surface Mounting Box.
- M200E-DIN Surface mounting clip for single module



MI-DCMO

Single Channel Output Module

MI-DCMO optionally supervises the wiring to the load devices and, upon command from the control panel, switches an external power supply to operate these devices. It also has built-in short circuit isolation capability. In normal supervised mode, the device switches out the load supervision and switches in the external power supply through a double pole relay. The external power supply is monitored and raises an unlatched fault condition if the voltage falls below the fixed threshold. In the unsupervised mode, the device provides neither load nor power supply supervision and can be used to switch a single form C set of changeover contacts.



FEATURES & BENEFITS

- Single output - Relay or Sounder mode
- DIN rail mounting option
- Rotary decade address switch
- Analogue addressable communications
- Tri-color LED status
- Plug-in connectors
- Built-in short circuit isolators
- Approval- LPCB, GEAGEI 1-082, CEA GEi 1-084

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 30 Vdc
QUIESCENT CURRENT	310uA@ 24Vdc (No communications) 510uA@ 24Vdc (LED blink enabled)
RELAY SPECIFICATIONS	2A@ 30Vdc, Resistive Load
TEMPERATURE RANGE	-20°C to +60°C
RELATIVE HUMIDITY	Up to 95% (non-condensing)
DIMENSIONS (W X H X D)	93 x 94 x 23 mm (Semi-Flush)
WEIGHT	62g
INGRESS PROTECTION	IP30 (IP50 in M200E-SMB)
MAXIMUM WIRE GAUGE	2.5 sqmm

Accessories

- M200E-SMB Surface Mounting Box.
- M200E-DIN Surface mounting clip for single module

MI-DISO

Short-Circuit Isolator Module

MI-DISO is intended to be spaced between groups of devices on a communication line to protect the line if a short circuit fault occurs. It automatically opens when the voltage in the communication line falls below a fixed threshold. If a short circuit fault occurs, the two isolators located around the device group where the fault occurred will sense the line voltage drop, open their switches and remove the devices from the rest of the line. When the line voltage rises above the fixed threshold, the isolator module will detect the removal of the fault condition and automatically restore power to the isolated group of devices.



FEATURES & BENEFITS

- Short-Circuit Isolation
- DIN rail mounting option.
- Rotary decade address switch
- Analogue addressable communications
- Tri-color LED status
- Plug-in connectors
- Approval - LPCB, GEA GEi 1-082, CEA GEi 1-084

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 30 Vdc
QUIESCENT CURRENT	200uA@ 24Vdc
FAULT DETECTION DELAY	100-400ms
TEMPERATURE RANGE	-20°C to + 60°C
RELATIVE HUMIDITY	Up to 95% (non-condensing)
DIMENSIONS (W X H X D)	93 x 94 x 23 mm (Semi-Flush)
WEIGHT	62g
INGRESS PROTECTION	IP30 (IP50 in M200E-SMB)
MAXIMUM WIRE GAUGE	2.5 sqmm

Accessories

- M200E-SMB Surface Mounting Box.
- M200E-DIN Surface mounting clip for single module



MI-MM3E - S2

Micro-Monitor Module

MI-MM3E micro monitor module provides an interface between the normally open contact alarm initiating devices. Though the module can be used to monitor an entire zone circuit, it is ideally suited for monitoring single devices. The module is small enough to fit inside a single-gang junction box behind the device being monitored. The small size and lightweight allow it to be installed without the need to be rigidly mounted. It is used to monitor a single device or a zone of 4-wire smoke detectors, manual call points or pull stations, waterflow devices or other normally open dry-contact devices. A 47K Ohm end-of-line resistor (provided) terminates the circuit. It responds to regular polls from the control panel and reports its type and the status (open/normal/ short) of its zone.



FEATURES & BENEFITS

- Small size.
- No separate power requirement.
- Rotary decade address switch.
- Analogue addressable communications.
- High noise immunity.
- LPCB approved.

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 30 Vdc
QUIESCENT CURRENT	375uA@ 24Vdc
ALARM CURRENT	5.1 mA@ 24Vdc
TEMPERATURE RANGE	-20°C to + 60°C
RELATIVE HUMIDITY	10% to 93% (non-condensing)
DIMENSIONS (W x H x D)	48 x 40 x 13 mm
WEIGHT	33g

MI-DCZRM

Conventional Zone Monitor Module

MI-DCZRM addressable zone monitor module allows a zone of non-addressable devices to communicate with Morley-IAS protocol analogue addressable system. As a result existing non-addressable zones can be integrated into a Morley-IAS protocol system. The module monitors a zone of two-wire non-addressable devices. A fault signal will be transmitted to the panel in case of an open circuit or short circuit on the non-addressable zone wiring or when the external fault input is pulled low (can be used for power supply monitoring). A flashing LED indicates that the module is in communication with the control panel. The LED latches steady on alarm (subject to current limitations).



FEATURES & BENEFITS

- Connection of a zone of non-addressable detectors to an analogue addressable fire system
- Built in isolation allowing system installation in stages without loss of protection
- Monitors open circuit and short circuit faults
- TRI-Colour Status LED
- Zone powered from addressable loop wiring or external 24V PSU
- Remote reset of non-addressable zone
- Compatible with most non-addressable detectors, IS non-addressable detectors
- Monitoring of external power supply
- External fault input
- CPD approval to EN54-17 and EN54-18, LPCB
- DIN rail mountable, consistent with all other modules
- Support for an extended power supply range as low as 18Vdc 60mA with an External PSU

TECHNICAL DATA	
OPERATING VOLTAGE	18 to 28.5 Vdc
MAX STANDBY CURRENT	288uA(conventional zone connected to external supply)
QUIESCENT CURRENT	375uA@ 24Vdc
LED CURRENT	2.2.uA@ 24Vdc (Red) 6.6uA@24Vdc (Green) 8.8uA@ 24Vdc (Yellow)
END OF LINE RESISTOR	3.9K
TEMPERATURE RANGE	-20°C to +60°C
RELATIVE HUMIDITY	5% to 95% (non-condensing)
DIMENSIONS (W X H X D)	93 x83 x23 mm
WEIGHT	110g



Addressable AV Range

MI-WSS-P*-*

Wall mounted sounder strobe

The Wall Mount Sounder/Strobe is installed in exactly the same manner as an intelligent fire detector. A separate, common installation base <B501AP-IV> which accepts any product within Morley-IAS audible-visual product family, is installed at first fix. This common base is fitted with a shorting spring, enabling loop continuity to be maintained without having to install any audible-visual product. It also removes the need to separately test the wiring. As the Wall Mount Strobe itself does not have to be installed until final commissioning, there is no risk of damage during first fix.

By utilising the latest developments in piezoelectric transducer and high output LED array technology, the Wall Mount Sounder/Strobe is highly efficient. Current consumption is minimised, enabling the maximum number of devices to be installed on a loop, without compromising on sound and light output levels.



FEATURES & BENEFITS

- 32 built-in tones
- Lower power requirements
- Optional IP65 rating
- Optional built-in isolator
- Anti-Tamper feature
- CPD approved
- LPCB approved in accordance to EN54 part-3, EN54 part-17 & CPD

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 29VDC (Non-isolation) 15 to 29VDC (Isolation)
QUIESCENT CURRENT	120µA (Non-Isolation) 225µA (Isolation)
ALARM CURRENT	14.SmA (High Volume Tone 11 @15V)
MAX SOUND OUTPUT	97dB(A) +/-3dB @1 metre
STROBE FLASH RATE	1Hz
TEMPERATURE RANGE	-25°C to + 70°Ct
RELATIVE HUMIDITY	Up to 95% non-condensing
DIMENSIONS	121 mm Dia 64 mm Height
WEIGHT	238g
INGRESS PROTECTION	IP21C (with low profile base) IP44 (with surface mount base) IP65 (Waterproof base)
MAXIMUM WIRE GAUGE	1.5 - 2.5mm ² max
COLOR	Red and White
LENS COLOR	Red

Accessories

- B501AP-IV Low Profile Base
- BRR, BDD, BPW Surface mount deep base in red, detector white (ivory) or pure white
- WRR, WDD, WPW High IP surface mount deep base in red, detector white (ivory) or pure white

Part Codes

- MI-WSS-PR-N Intelligent Wall Mounted Sounder, strobe, pure white skirt, red lens
- MI-WSS-PR-I Intelligent Wall Mounted Sounder, strobe, pure white skirt, red lens with Isolation
- MI-WSS-PC-N Intelligent Wall Mounted Sounder, strobe, pure white skirt, clear lens
- MI-WSS-PC-I Intelligent Wall Mounted Sounder, strobe, pure white skirt, clear lens with Isolation

MI-WSO-P*-*

Wall mounted sounder, Red

Morley-IAS Wall Mount Sounder is installed in exactly the same manner as an intelligent fire detector. Common installation base B501AP, which accepts any product within Morley-IAS Audible Visual product family, is installed at first fix. This common base B501AP-IV is fitted with a shorting spring, enabling loop continuity to be maintained without having to install any Morley-IAS Audible Visual product. It also removes the need to separately test the wiring. As the Wall Mount Sounder itself does not have to be installed until final commissioning, there is no risk of damage during first fix.

By utilising the latest developments in piezoelectric transducer and high output LED array technology, the Wall Mount Sounder is highly efficient. Current consumption is minimised, enabling the maximum number of devices to be installed on a loop, without compromising on sound and light output levels.



FEATURES & BENEFITS

- 32 built-in tones
- Lower power requirements
- Optional IP65 rating
- Optional built-in isolator
- Anti-Tamper feature
- CPD approved
- LPCB approved in accordance to EN54 part-3, EN54 part-17 & CPD

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 32VDC (Non-isolation) 15 to 28VDC (Isolation)
QUIESCENT CURRENT	120µA (Non-Isolation) 225µA (Isolation)
ALARM CURRENT	11.4 mA (High Volume Tone 11 @15V)
MAX SOUND OUTPUT	97dB(A) +/-3dB @1 metre
TEMPERATURE RANGE	-25°C to + 70°C
RELATIVE HUMIDITY	Up to 95% non-condensing
DIMENSIONS	121 mm Dia 64 mm Height
WEIGHT	238g
INGRESS PROTECTION	IP21C (with low profile base) IP44 (with surface mount base) IP65 (Waterproof base)
MAXIMUM WIRE GAUGE	1.5 - 2.5mm ² max
COLOR	Red and White

Accessories

- B501AP-IV Low Profile Base
- BRR, BDD, BPW Surface mount deep base in red, detector white (ivory) or pure white
- WRR, WDD, WPW High IP surface mount deep base in red, detector white (ivory) or pure white

Part Codes

- MI-WSO-PR-N Intelligent Wall Mounted Sounder, Red with pure white skirt
- MI-WSO-PR-I Intelligent Wall Mounted Sounder, Red with pure white skirt with Isolation
- MI-WSO-PP-N Intelligent Wall Mounted Sounder, pure white with pure white skirt
- MI-WSO-PP-I Intelligent Wall Mounted Sounder, pure white with pure white skirt with Isolation

MI-WST-PR-*

Wall mounted Strobe

The Wall Mount Strobe is installed in exactly the same manner as an intelligent fire detector. A separate, common installation base <B50IAP-1V> which accepts any product within Morley-IAS audible-visual product family, is installed at first fix. This common base is fitted with a shorting spring, enabling loop continuity to be maintained without having to install any audible-visual product. It also removes the need to separately test the wiring. As the Wall Mount Strobe itself does not have to be installed until final commissioning, there is no risk of damage during first fix.



FEATURES & BENEFITS

- High output LED array technology
- Lower power requirements
- Optional IP65 rating
- Optional built-in isolator
- CPD approved
- LPCB approved in accordance to EN54 part-3

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 29VDC (Non-isolation) 15 to 29VDC (Isolation)
QUIESCENT CURRENT	120µA (Non-Isolation) 225µA (Isolation)
ALARM CURRENT	5.21 mA (High Volume Tone 11 @15V)
STROBE FLASH RATE	1Hz
TEMPERATURE RANGE	-25°C to + 70°C
RELATIVE HUMIDITY	Up to 95% non-condensing
DIMENSIONS	121 mm Dia 64 mm Height
WEIGHT	238g
INGRESS PROTECTION	IP21C (with low profile base) IP44 (with surface mount base) IP65 (Waterproof base)
MAXIMUM WIRE GAUGE	1.5 - 2.5mm ² max
LENS COLOR	Red and White

Accessories

- B50IAP-IV Low Profile Base
- BRR, BOD, BPW Surface mount deep base in red, detector white (ivory) or pure white
- WRR, WOO, WPW High IP surface mount deep base in red, detector white (ivory) or pure white

Part Codes

- MI-WST-PR-N Wall strobe with a white skirt and a red lens
- MI-WST-PR-I Wall strobe with a white skirt and a red lens with Isolation

MI-BSS-D*-N

Integrated Detector Base Sounder Strobe

The Integrated Detector Base Sounder/Strobe is installed in exactly the same manner as an intelligent fire detector. A separate, common installation base, which accepts any product within the Morley-IAS Audible-Visual product family, is installed at first fix. This common base is fitted with a shorting spring, ensuring loop continuity even when no Morley-IAS Audible Visual product is installed on the analogue loop. It also removes the need to separately test the wiring. As the Integrated Detector Base Sounder/Strobe itself does not have to be installed until final commissioning, there is no risk of damage during first fix.

The common installation base is available in low profile or surface versions to enable the Integrated Detector Base Sounder/Strobe to be installed either flush or surface mounted.

By utilising the latest developments in piezoelectric transducer and high output LED array technology, the Integrated Detector Base Sounder/Strobe is highly efficient. Current consumption is minimised, enabling the maximum number of devices to be installed on a loop, without compromising on sound and light output levels. When installed with a Morley-IAS detector, the combined unit also provides multiple technologies at a single point of installation

FEATURES & BENEFITS

- 32 built-in tones
- Low power requirements
- Optional IP65 rating
- Optional built-in isolator
- Anti-Tamper feature
- CPD approved
- LPCB approved in accordance to EN54 part-3

TECHNICAL DATA	
OPERATING VOLTAGE	15 to 32VDC (Non-isolation) 15 to 29VDC (Isolation)
QUIESCENT CURRENT	120µA (Non-Isolation) 225µA (Isolation)
ALARM CURRENT	< 10.5mA (High Volume Tone 21 @24V)
MAX SOUND OUTPUT	95dB(A) +/-3dB @1 metre
STROBE FLASH RATE	1Hz
TEMPERATURE RANGE	-25°C to +70°C
RELATIVE HUMIDITY	Up to 95% non-condensing
DIMENSIONS	121 mm Dia 64 mm Height
WEIGHT	238g
INGRESS PROTECTION	IP24 (with low profile base) IP44 (with surface mount base) IP65 (Waterproof base)
MAXIMUM WIRE GAUGE	1.5 - 2.5mm ² max
LENS COLOR	Red
COLOR	White



Accessories

- B501AP-IV Low Profile Base
- BRR, BOD, BPW Surface mount deep base in red, detector white (ivory) or pure white
- WRR, WDD, WPW High IP surface mount deep base in red, detector white (ivory) or pure white

Part Codes

- MI-BSO-DDN Intelligent integrated detector base sounder, detector white
- MI-BSO-DD-I Intelligent integrated detector base sounder, detector white with Isolation
- MI-BSS-DC-N Intelligent integrated detector base sounder strobe detector white skint clear lens
- MI-BSS-DC-I Intelligent integrated detector base sounder strobe detector white skint clear lens with isolation



Graphic User Interface

Visualeyez GUI for ZXSe Control Panels

Visualeyez is a pictorial and textual aid to help you manage an alarm activation within your work place. It can be programmed to suit any application including: Hospitals, Universities, Prisons, Hotels, Industrial and Commercial buildings. Visualeyez is designed to present the information in a simple, clear and user friendly way, allowing rapid comprehension of the situation.

In addition to the basic function of displaying alarms at a common location, the system also offers the ability to record and analyse both alarms and non-alarm events. This provides the building's engineers or management with the tools they need to analyse alarms, faults, review events, assess problems and plan their maintenance and false alarm prevention strategies.



FEATURES & BENEFITS

- Secure System
- Multiple Users
- Multiple PC Workstations
- Image, Plan or Text Displays
- Simple Navigation and Control
- Current Event List
- In-Depth History Analysis
- Integrates with ZXSe Series Control Panels
- Windows™ 7 and 8 Compatible
- Choice of Specification
- Remote System connectivity (additional hardware required)

TECHNICAL DATA	
PROCESSOR	Intel Pentium or equivalent 2 GHz or better 32 or 64 bit
OPERATING SYSTEM	Windows 7 and 8
MEMORY	1 GB min.
DISK SPACE	80 Gb minimum
GRAPHICS	1024x768 - 16 million colours
SOUND CARD	Windows Compatible
LOUDSPEAKERS	Any amplifier and speakers
MONITOR	Any
POINTING DEVICE	A mouse is essential
PRINTER	Optional
RS 232 SERIAL PORTS	1-6 (application dependant)
RS 485 SERIAL PORTS	Subject to system configuration
LAN PORT	Optional
USB PORT	One minimum
CD ROM	Yes
BACKUP DEVICE	External disk or USB memory stick (flash drive)
PCI EXPANSION SLOTS	Only for RS484 interfaces

Accessories

- RS-485 Module (795-004-001)
- RS-232 Module (795-005)
- RS-485 to RS-232 converter (795-045)

Part Codes

- 795-088-600 - Visualeyez 1 software and regular licence enables the display of key information from their analogue addressable fire detection and fire alarm system. Supports one panel and can be upgraded with the features below to extend the software's capabilities.
- 795-088-601 - Visualeyez 3 software and regular licence enables the display of key information from their analogue addressable fire detection and fire alarm system. Supports three panels and can be upgraded with the features below to extend the software's capabilities.
- 795-088-602 - Visualeyez 16 software and regular licence enables the display of key information from their analogue addressable fire detection and fire alarm system. Supports sixteen panels and can be upgraded with the features below to extend the software's capabilities.
- 795-088-603 - Visualeyez 99 software and regular licence enables the display of key information from their analogue addressable fire detection and fire alarm system. Supports ninety nine panels and can be upgraded with the features below to extend the software's capabilities.

TG Graphics Software for DXc Control Panels

TG-DXC is a graphic support software to manage and visualize DXc Fire Alarm control panels events easily, quickly and efficiently.

It is an intuitive software which allows a real knowledge of all the installation events with optimum performance.



Part Codes

- TG-DXC- Graphic software for one DX Connexion (1-4 loop) panel. Multilanguage: English, Spanish, Portuguese and Swedish.
- TGP-DXC- License required for each additional DX Connexion panel that is added to the TG software.

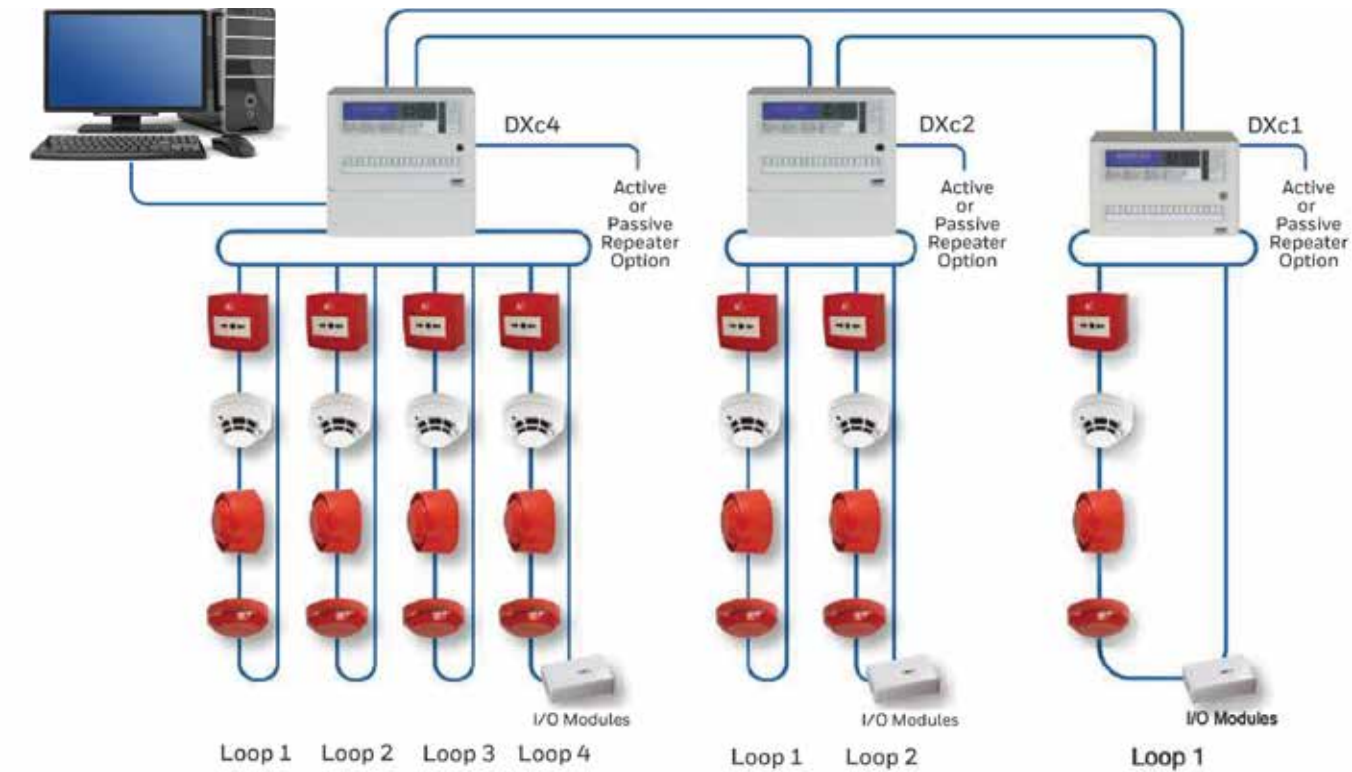
Accessories

- RS-485 Module (795-004-001)
- RS-232 Module (795-005)



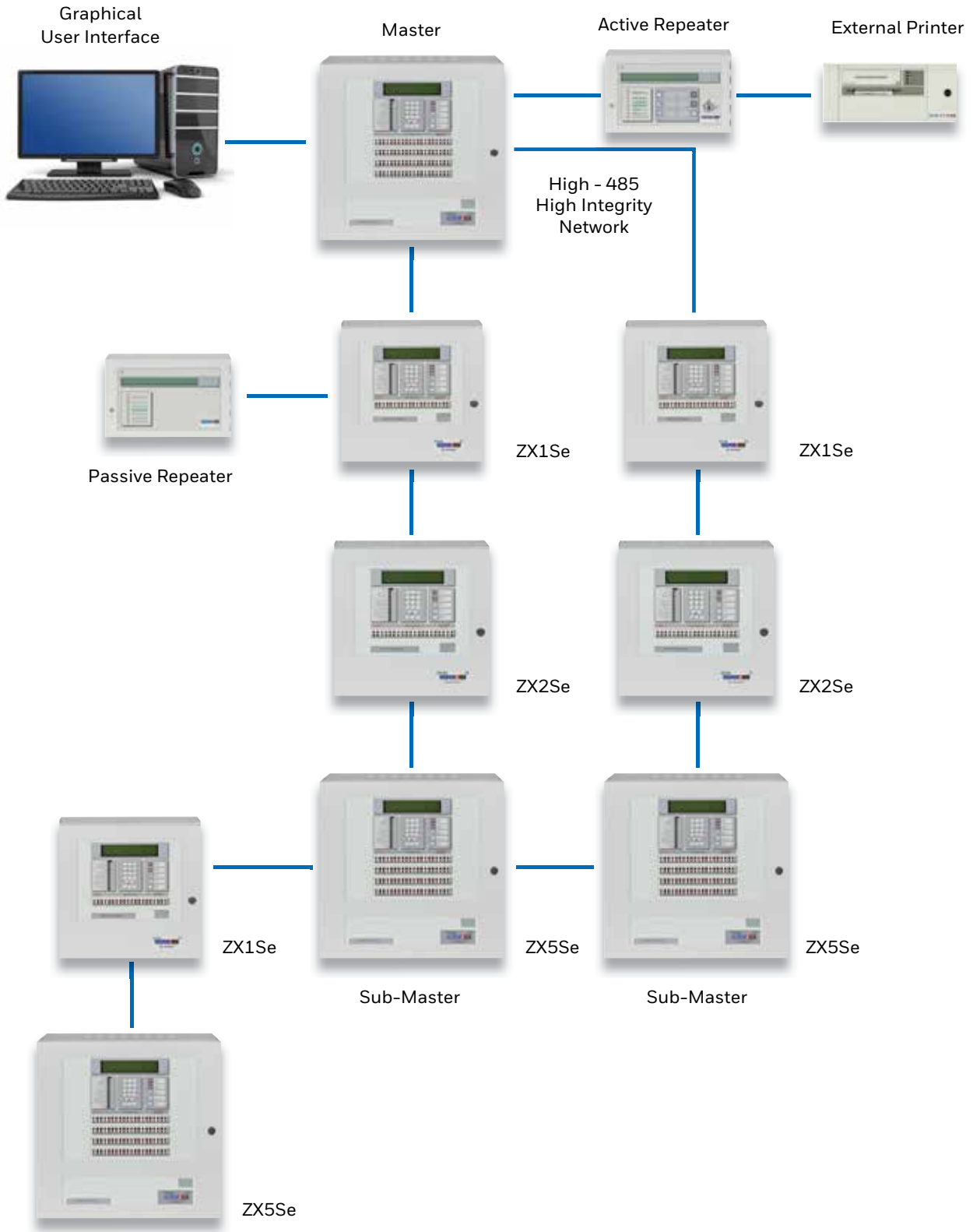
DX Connexion - Networking

Fault Tolerant Peer-Peer Network



ZXSe Networking

Typical Network Schematic



ZXSE DESIGN AND ORDER DIAGRAM					
STEP 1	Select Detectors	Optical Detector MI-I-PSE-S2-IV	Thermal 58 deg C MI-FHSE-S2-IV. Thermal ROR MI-RHSE-S2-IV.	MultiSensor MI-PTSE-S2-IV.	Base B501AP-IV.
STEP 2	Select Manual Call points	Flexible Element MI-MCP-FLEX MI-MCP-FLEX-I	Glass Element MI-MCP-GLASS MI-MCP-GLASS-I		
STEP 3	Select I/O Modules	Input Modules MI-DCZRM MI-D21CMO MI-DMM2I MI-DMMI MI-MM3E Mounting Accessories M200E-D1N M200E-SMB	Output Modules MI-D24CMO MI-DCMO Mounting Accessorie M200E-DIN M200E-SMB		
STEP 4	Select Loop Powered Sounder/ Strobe	Detector Base Sounder MI-BSO-DD-I MI-BSO-DD-N Detector Base sounder Strobe MI-BSS-DC-I MI-BSS-DC-N Base B501AP-IV.	Wall Mounted Sounder MI-WSO-PP-I MI-WSO-PP-N MI-WSO-PR-I MI-WSO-PR-N Base B501AP-IV.	Wall Mounted Sounder Strobe MI-WSS-PC-I MI-WSS-PC-N MI-WSS-PR-I MI-WSS-PR-N Base B501AP-IV.	Wall Mounted Strobe MI-WST-PR-1 MI-WST-PR-N Base B501AP-IV
STEP 5	Choose type of Panel	1 Loop 722-001-301	1-2 Loop 720-001-301	1-5 Loop 721-001-301	
STEP 6	Select Loop Driver Card per loop				
STEP 7	Select 1 Network Card/ panel if networked	RS 485 Card 795-004-001			
STEP 8	Select Repeater if required. Select Additional RS485 Card if Repeater selected	Active Repeater 709-601-001 Passive Repeater 709-701-001 RS 485 Card 795-004-001			
STEP 9	Select GUI if required. Select 1 RS232 Card / network for GUI	Visualeyez GUI RS 232 Card 795-005			

DXc DESIGN AND ORDER DIAGRAM					
STEP 1	Select Detectors	Optical Detector MI-I-PSE-S2-IV	Thermal 58 deg C MI-FHSE-S2-IV. Thermal ROR MI-RHSE-S2-IV.	MultiSensor MI-PTSE-S2-IV.	Base B501AP-IV.
STEP 2	Select Manual Call points	Flexible Element MI-MCP-FLEX MI-MCP-FLEX-I	Glass Element MI-MCP-GLASS MI-MCP-GLASS-I		
STEP 3	Select I/O Modules	Input Modules MI-DCZRM MI-D2ICMO MI-DMM2I MI-DMMI MI-MM3E Mounting Accessories M200E-D1N M200E-SMB	Output Modules MI-D240CMO MI-DCMO Mounting Accessorie M200E-DIN M200E-SMB		
STEP 4	Select Loop Powered Sounder/ Strobe	Detector Base Sounder MI-BSO-DD-I MI-BSO-DD-N Detector Base sounder Strobe MI-BSS-DC-I MI-BSS-DC-N Base B501AP-IV.	Wall Mounted Sounder MI-WSO-PP-I MI-WSO-PP-N MI-WSO-PR-I MI-WSO-PR-N Base B501AP-IV.	Wall Mounted Sounder Strobe MI-WSS-PC-I MI-WSS-PC-N MI-WSS-PR-I MI-WSS-PR-N Base B501AP-IV.	Wall Mounted Strobe MI-WST-PR-1 MI-WST-PR-N Base B501AP-IV.
STEP 5	Choose type of Panel	1 Loop 714-001-112	2 Loop 714-001-222	4Loop 714-001-242	
STEP 6	Select Loop Expansion Card		2 Loop Expansion card 795-111		
STEP 7	Select Zone LED optional	40 Zone 795-102	80 Zone 795-124		
STEP 8	Select 1 Network Card with Panel if networked	795-099			
STEP 9	Select GUI if required. Select 1 RS232 Card Network	TG GUI TG-DXC TGP-DXC RS 232 Card 795-005			



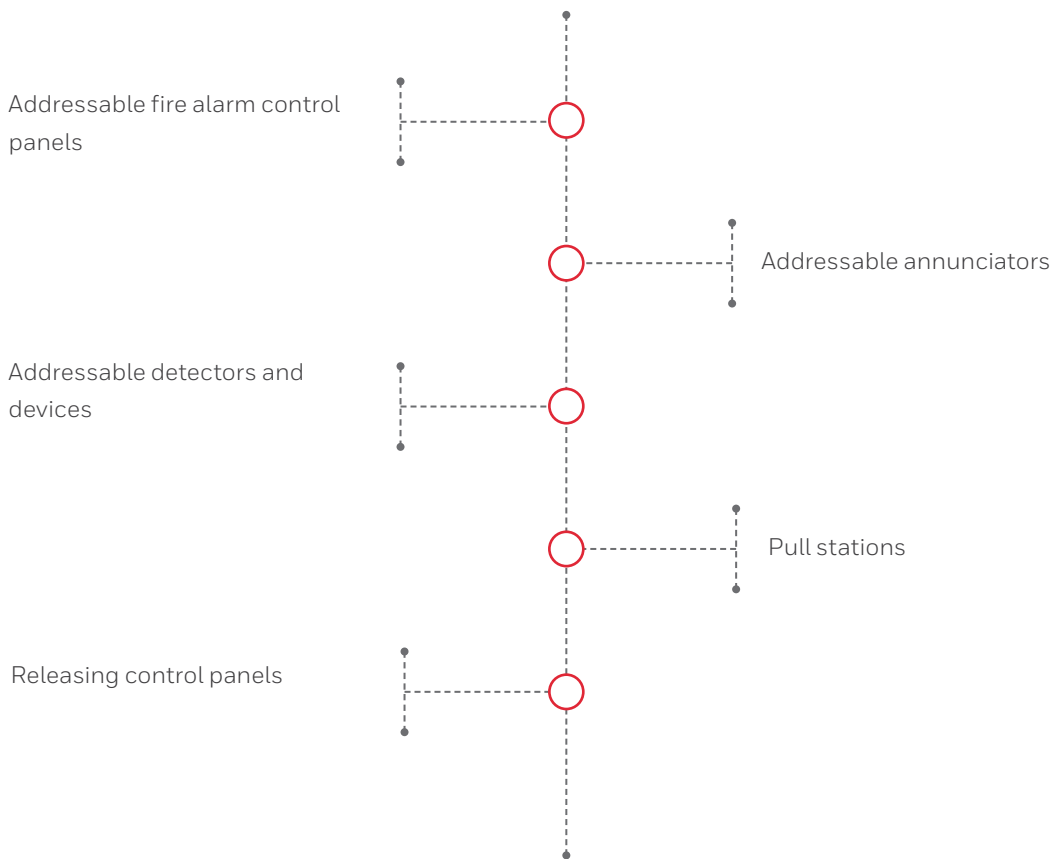
Fire-Lite Alarms by Honeywell

Founded in 1952, Fire-Lite was the first company to introduce addressable fire alarm systems to the market. Today, Fire-Lite manufactures low to mid-sized fire alarm control communicators, remote power supplies, annunciators, and voice evacuation products.

Fire-Lite Alarms is part of the Honeywell Home and Building Technologies business group.



Fire-Lite Alarms



Fire-Lite Fire Alarm System

Fire-Lite Alarms' addressable product offering includes four fire alarm control panels that vary in size and capability to meet a broad range of needs while offering superior value and flexibility. Our addressable product line offers ease of installation and programming, addressable point identification, built-in digital communication, and NAC synchronization. Our super fast LiteSpeed™ protocol ensures that the safety and security of your building and its occupants are always met with the utmost urgency. Fire-Lite's addressable product line sets the benchmark for fire protection with its innovative, non-proprietary, cost effective products.

FEATURES & BENEFITS

- Listed to UL 864, 9th edition.
- Ability to connect devices, via unshielded fire wire, up to 10,000 ft., allowing for easier retrofits and less installation time.
- Auto-program locates and programs the panel for each device and ensures correct addressing and type of device.
- Larger, common backbox enclosure that allows more room to work.
- Real-time clock/calendar with automatic daylight saving control.
- All electronics mounted on chassis, which can be changed by removing only two nuts for faster change-outs and easier upgrades.
- Notification appliance circuits have built-in sync.
- Maintenance alert warns when dust accumulation in the smoke detector is excessive.

FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES

Cost-effective fire, surveillance, access, and intrusion detection solutions

MS-9050UD

MS-9050UD is a 50-point addressable fire alarm control panel ideal for smaller facilities such as apartment complexes, banks, cinemas, child care and elementary schools, department stores, food stores, places of worship, restaurants, small retail outlet stores, and other facilities requiring performance-based, sophisticated technology at reasonable cost.

FEATURES & BENEFITS

- Single SLC that provides support for 50 addressable devices (any combination of addressable detectors and modules).
- Uses PS-Tools programming utility.
- Integrated DACT for off-premises monitoring.
- Built-in NAC synchronization for System Sensor[®], Gentex[®], AND Wheelock[®] devices.
- Annunciator bus supports up to 8 devices, including ANN-80 LCD Remote annunciator, remote serial or parallel printer gateway, and LED graphic annunciator.
- Auto programming feature quickly configures detectors and modules.
- Competes with conventional systems, providing addressable point identification at similar price point.
- UL/FM Approved.

ELECTRICAL SPECIFICATIONS	
AC POWER	MS-9050UD 120 VAC, 60 Hz, 3.0 A.
MS-9050UDE	240 VAC, 50 Hz, 1.5 A. Wire size: minimum 14 AWG (2.00 mm ²) with 600 V insulation. Nonpower-limited, supervised
BATTERY	Two 12 V 18 AH lead-acid batteries. Battery Charger Capacity: 7-18 AH (MS-9050UD cabinet holds maximum of two 18 AH batteries.)
COMMUNICATION LOOP	Supervised and power-limited.
NOTIFICATION APPLIANCE CIRCUITS	Terminal Block provides connections for two NACs, Style Y (Class B) or Style Z (Class A). Special Application power. Power-limited, supervised circuitry.
TWO PROGRAMMABLE RELAYS AND ONE FIXED TROUBLE RELAY:	Maximum signaling current per circuit: 2.5 A. End-of-Line resistor: 4.7k ohm, ½ watt (P/N 71252 UL listed) for Style Y (Class B) NAC. Refer to the Fire•Lite Device Compatibility Document for listed compatible devices. Contact rating: 2.0 A @ 30 VDC (resistive), 0.5 A @ 30 VAC (resistive). Form-C relays, nonpower-limited, nonsupervised.

CABINET SPECIFICATIONS	
DOOR	19.26" (48.92 cm.) high x 16.82" (42.73 cm.) wide x 0.72" (1.82 cm.) deep
BACKBOX	19.00" (48.26 cm.) high x 16.65" (42.29 cm.) wide x 5.25" (13.34 cm.) deep
TRIM RING (TR-CE)	22.00" (55.88 cm.) high x 19.65" (49.91 cm.) wide

SHIPPING SPECIFICATIONS	
WEIGHT	26.9 lbs. (12.20 kg.)
DIMENSIONS	20.00" (50.80 cm.) high x 22.5" (57.15 cm.) wide x 8.5" (21.59 cm.) deep



MS-9200UDLS

MS-9200UDLS (Rev 3) is a 198-point addressable fire alarm control panel and Digital Alarm Communicator/Transmitter all on one circuit board. This latest version of the MS-9200UDLS includes removable terminal blocks, 2.0A of auxiliary power, connection for second ANN BUS, synchronization of up to 16 NAC power supplies and improved protection against electric shock damage.

FEATURES & BENEFITS

- Single SLC provides support for 198 addressable devices on twisted, unshielded fire wire.
- Uses PS-Tools programming utility.
- LiteSpeed protocol for SLC communication polls 10 devices at a time and operates on standard, unshielded wire.
- Built-in digital communicator for off premises monitoring and remote up/download.
- 4 NACs with built-in sync for System Sensor®, Gentex®, and Wheelock®.
- 3 amp total shared power supply expandable to 6 amps of notification power with optional transformer.
- Supports up to 32 optional LCD-80F or ACS LED annunciators.
- UL/FM Approved.

System Capacity

- Intelligent Signaling Line Circuits 1
- Addressable device capacity 198
- Programmable software zones 99
- ACS Annunciators 32
- ANN-bus devices 16



ELECTRICAL SPECIFICATIONS

AC Power:

MS-9200UDLS Rev 3: 120 VAC, 60 Hz, 3.0 amps.

MS-9200UDLS Rev 3E: 240 VAC, 50 Hz, 1.5 amps.

Wire size: minimum 14 AWG (2.00 mm²) with 600 V insulation

Battery charger capacity: 7 AH -18 AH batteries. Up to two 18 Ah batteries can be housed in the FACP cabinet. Larger batteries require an external battery charger such as the CHG-75 or CHG-120, and a separate battery cabinet such as the BB-26 or NFS-LBB.

Communication loop: Supervised and power-limited.

Notification Appliance Circuits: Each terminal block provides connections for two Style Y (Class B) for a total of four Style Y (Class B) or with an optional ZNAC-92 module converts to four Style Z (Class A) NACs.

Maximum signaling current per circuit: 2.5 amps.

End-of-Line Resistor: 4.7K ohm, ½ watt (P/N 71252 UL listed) for Style Y (Class B) NAC. Refer to panel documentation and Fire Lite Device Compatibility Document for listed compatible devices.

Two Programmable Relays and One Fixed Trouble Relay:

Contact rating: 2.0 amps @ 30 VDC (resistive), 0.5 amps @ 30 VAC (resistive). Form-C relays.

Special Application Non-Resettable Power (24 VDC Nominal): Jumper selectable (JP4) for conversion to resettable power output. Up to 1.0 amp total DC current available from each output. Power-limited.

Special Application Resettable Power (24 VDC nominal): Jumper selectable (JP6) for conversion to non-resettable power. Up to 1.0 amp total DC current available. Refer to the Fire Lite Device Compatibility Document for listed compatible devices.

Remote Sync Output: Remote power supply synchronization output.

Nominal special application power: 24 VDC.

Maximum current: 300 mA.

End-of-Line Resistor: 4.7K ohm. Output linked to NAC 1 control. Supervised and power-limited.

Two Programmable Relays and One Fixed Trouble Relay:

Contact rating: 2.0 amps @ 30 VDC (resistive), 0.5 amps @ 30 VAC (resistive). Form-C relays.

Special Application Non-Resettable Power (24 VDC Nominal): Jumper selectable (JP4) for

conversion to resettable power output. Up to 1.0 amp total DC current available from each output. Power-limited.

Special Application Resettable Power (24 VDC nominal): Jumper selectable (JP6) for conversion to non-resettable power. Up to 1.0 amp total DC current available. Refer to the Fire Lite Device Compatibility Document for listed compatible devices.

Remote Sync Output: Remote power supply synchronization output.

Nominal special application power: 24 VDC.

Maximum current: 300 mA.

End-of-Line Resistor: 4.7K ohm. Output linked to NAC 1 control. Supervised and power-limited.

Telephone Interface: Unless used with Teldat VISORALARM, requires dedicated business telephone number with a minimum of 5 volts DC (off-hook voltage). Get dedicated phone line directly from your local phone company. Do not use shared phone lines or PBX (digital) type phone line extensions.

CABINET SPECIFICATIONS

Door: 19.26" (48.92 cm.) high x 16.82" (42.73 cm.) wide x 0.12" (.30 cm.) deep.

Backbox: 19.00" (48.26 cm.) high x 16.65" (42.29 cm.) wide x 5.20" (13.34 cm.) deep.

Trim Ring (TR-CE): 22.00" (55.88 cm.) high x 19.65" (49.91 cm.) wide.

SHIPPING SPECIFICATIONS

Weight: 26.9 lbs. (12.20 kg.)

Dimensions: 20.00" (50.80 cm.) high x 22.5" (57.15 cm.) wide x 8.5" (21.59 cm.) deep.



MS-9600LS/MS-9600UDLS

MS-9600LS is a 318-point addressable fire alarm control panel with optional Digital Alarm Communicator/Transmitter (DACT-UD2) and expandable to 636 addressable points with an optional second Signaling Line Circuit (SLC-2LS).

FEATURES & BENEFITS

- Up to 159 detectors and 159 control/monitor modules (total of 318 devices) per SLC (636 with SLC-2LS option card).
- Uses PS-Tools programming utility.
- LiteSpeed protocol for SLC communication polls 10 devices at a time and operates on standard, unshielded wire.
- Auto programmable function reduces installation time.
- Advanced Fire Technology includes sensitivity testing and automatic drift compensation.
- 7 amps of power distributed across 4 NAC circuits with onboard Sync Select for System Sensor®, Gentex®, or Wheelock® devices.
- UL/FM Approved.

System Capacity

- Intelligent Signaling Line Circuits 1 expandable to 2
- Intelligent detectors 159 per loop
- Addressable monitor/control modules 159 per loop
- Programmable software zones 99
- ANN-BUS devices 8
- ACS Annunciators 32
- LCD Annunciators 32



ELECTRICAL SPECIFICATIONS

Primary input power:

120 VAC, 50/60 Hz, 3.0 A

240 VAC, 50 Hz, 1.5 A

Battery: 27.6 VDC @ 1.0 A (max)

Maximum battery charger capacity: 26 AH

Minimum battery: 12 AH

MS-9600LS cabinet holds maximum of two 18 AH batteries

Communication Loop: 24 VDC nominal, supervised and power-limited

Notification Appliance Circuits: terminal block provides connections for four Style Y (Class B) or two Style Z (Class A) NACs

Maximum signaling current per circuit: 3.0 A

End-of-Line Resistor: 4.7 K ohms, ½ watt (P/N 71252 UL listed) for Style Y (Class B) NAC.

Supervised and power-limited.

Refer to panel documentation and Fire-Lite Device Compatibility Document for listed compatible devices.

Two Programmable Form-C Relays and One Fixed Trouble Form-C Relay: Contact rating: 2.0 A @ 30 VDC (resistive) 0.5 A @ 30 VAC (resistive).

Four-wire Resettable Special Application Power (24 VDC nominal): Up to 1.5 A for powering four-wire smoke detectors. Power-Limited, non-supervised.

Refer to Fire-Lite Device Compatibility Document for listed compatible devices.

Nonresettable Special Application Power #1 (24VDC nominal) TB3, Terminals 3 (+) & 4 (-): Maximum ripple voltage: 10 mVRMS. Total DC current available from each output is up to 1.5 A.

Power-limited, non-supervised.

Nonresettable Special Application Power #2 (24VDC nominal) TB3, Terminals 5 (+) & 6 (-):

Maximum ripple voltage: 10 mVRMS Total DC current available from each output is up to 1.5 A.

Power-limited, non-supervised.

CABINET SPECIFICATIONS

Door: 19.26" (48.92 cm.) high x 16.82" (42.73 cm.) wide x 0.67" (1.70 cm.) deep.

Backbox: 19.00" (48.26 cm.) high x 16.65" (42.29 cm.) wide x 5.21" (13.23 cm.) deep.

Trim Ring (TR-CE): 22.00" (55.88 cm.) high x 19.65" (49.91 cm.) wide.

SHIPPING SPECIFICATIONS

Weight: 27.3 lbs (12.38 kg)

Dimensions: 20.00" (50.80 cm) high, 22.5" (57.15 cm) wide, 8.5" (21.59 cm) deep.



Fire-Lite Annunciators

ANN-80

The ANN-80 annunciator is a compact, backlit, 80-character LCD fire annunciator that mimics the Fire Alarm Control Panel (FACP) display. It provides system status indicators for AC Power, Alarm, Trouble, Supervisory, and Alarm Silenced conditions. The ANN-80 and the FACP communicate over a two-wire serial interface employing the ANN-BUS communication format. Connected devices are powered, via two additional wires, by either the host FACP or a remote UL-listed, filtered power supply. ANN-80 is red.

FEATURES & BENEFITS

- Listed to UL Standard 864, 9th Edition.
- Backlit 80-character LCD display (20 characters x 4 lines).
- Mimics all display information from the host panel.
- Control switches for System Acknowledge, Signal Silence, Drill, and Reset.
- Control switches can be independently enabled or disabled at the FACP.
- Keyswitch enables/disables control switches and mechanically locks annunciator enclosure.
- Keyswitch can be enabled or disabled at the FACP.
- Enclosure supervised for the tamper.
- System status LEDs for AC Power, Alarm, Trouble, Supervisory, and Alarm Silence.
- Local sounder can be enabled or disabled at the FACP.
- ANN-80 connects to the ANN-BUS terminal on the FACP and requires minimal panel programming.
- Displays device type identifiers, individual point alarm, trouble, supervisory, zone, and custom alpha labels.
- UL Listed.

SPECIFICATIONS	
OPERATING VOLTAGE RANGE:	18 VDC to 28 VDC
CURRENT CONSUMPTION	@ 24 VDC nominal (filtered and nonresettable): 40 mA maximum
AMBIENT TEMPERATURE	32°F to 120°F (0°C to 49°C)
RELATIVE HUMIDITY	93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F) 5.375" (13.65 cm.) high x 6.875" (17.46 cm.) wide x 1.375" (3.49 cm.) deep
	For use indoors in a dry location
	All connections are power-limited and supervised



LCD-80F

The LCD-80F is a compact, 80-character, backlit LCD remote Fire Annunciator for use with the Fire-Lite MS-9200 Series and MS-9600 Series Fire Alarm Control Panels (FACPs). The LCD-80F displays complete system point status information and includes control switches for remote control of critical system functions.

FEATURES & BENEFITS

- 80-character Liquid Crystal Display.
- Mimics all display information from the host panel.
- Control switches for System Acknowledge, Signal Silence, Drill and Reset with enable key.
- System status LEDs for Power, Alarm, Trouble, Supervisory and Alarm Silenced.
- No programming necessary – LCD-80F connects to the terminal port (TB7).
- Displays device type identifiers, individual point alarm, trouble or supervisory, zone and custom alpha labels.
- Time-and-date display field.
- Aesthetically pleasing design.
- May be powered from the host FACP or by a remote power supply (requires 24 VDC).
- Up to 32 LCD-80F annunciators per FACP.
- Plug-in terminal blocks for ease of installation and service.
- Can be remotely located up to 6,000 feet (1828.8 m) from the FACP.
- Local piezo sounder with alarm and trouble resound.
- UL Listed.



Fire-Lite Addressable Detectors

SD355/SD355T Smoke Detectors

Fire-Lite's SD355 and SD355T addressable, low-profile, plug-in photoelectric detectors use a state-of-the-art photoelectric sensing chamber to provide open area protection and are used exclusively with the MS-9050UD, MS-9200UDLS, and MS-9600(UD)LS Addressable Fire Alarm Control Panels. The SD355T adds thermal sensors that will alarm at a fixed temperature of 135°F (57°C).

FEATURES & BENEFITS

- Unique single-source, dual-chamber design to respond quickly and dependably to a broad range of fires.
- Sleek, low-profile design.
- Integral communications and built-in type identification.
- Built-in tamper-resistant feature.
- Removable cover and insect-resistant screen for simple field cleaning.
- Withstands air velocities up to 4,000 feet-per-minute (20 m/sec) without triggering a false alarm.
- Factory preset at 1.5% nominal sensitivity for panel alarm threshold level.
- Visible LED "blinks" when the unit is addressed (communicating with the fire panel) and latches on in alarm.
- Direct surface mounting or electrical box mounting.
- Mounts to: single-gang box or square electrical box.
- UL Listed.

SPECIFICATION	
VOLTAGE RANGE	15-32 VDC (peak)
STANDBY CURRENT	300 μ A @ 24 VDC
LED CURRENT	6.5 mA @ 24 VDC (latched "ON")
AIR VELOCITY	4,000 ft./min. (20 m/sec.) maximum
SIZE	2.1" (5.33 cm) high; base determines diameter
- B210LP(A)	6.1" (15.5 cm) diameter
- B501(A)	4.1" (10.4 cm) diameter
- B200SR(A)	6.875" (17.46 cm) diameter
- B224RB(A)	6.2" (15.748 cm) diameter
WEIGHT	3.6 oz. (102 g).
OPERATING TEMPERATURE RANGE: FOR SD355(A)	0°C to 49°C
(32°F TO 120°F); FOR SD355T(A)	0°C to 38°C (32°F to 100°F)
SD355R(A)	installed in a DNR(A)/DNRW -20°C to 70°C (-4°F to 158°F)
TEMPERATURE	0°C - 49°C (32°F - 120°F)
RELATIVE HUMIDITY	10% - 93%, non-condensing



H355 Series Detectors

Fire-Lite's H355 Series thermal detectors are addressable sensors that use a state-of-the-art thermistor sensing circuit for a fast response. These sensors are designed to provide open area protection and are intended for use with Fire-Lite's MS-9050UD, MS-9200UDLS, and MS-9600(UD)LS Addressable Fire Alarm Control Panels. Both the H355 and H355R provide fixed temperature alarm detection at 135°F. The H355HT provides fixed-high temperature detection.

FEATURES & BENEFITS

- Unique single-source, dual-chamber design to respond quickly and dependably to a broad range of fires.
- Sleek, low-profile design.
- Integral communications and built-in type identification.
- Built-in tamper-resistant feature.
- Removable cover and insect-resistant screen for simple field cleaning.
- Visible LED "blinks" when the unit is addressed (communicating with the fire panel) and latches on alarm.
- Direct surface mounting or electrical box mounting.
- Mounts to: single-gang box or square electrical box.
- UL Listed.

SPECIFICATIONS	
SIZE	2.1" (5.3 cm) high; base determines diameter
B210LP(A)	6.1" (15.5 cm) diameter
B501(A)	4.1" (10.4 cm) diameter
B200SR(A)	6.875" (17.46 cm) diameter
B224RB(A)	6.2" (15.748 cm) diameter
SHIPPING WEIGHT	4.8 oz. (137 g)
INSTALLATION TEMPERATURE	
H355(A), H355R(A)	-4°F to 100°F (-20°C to 38°C)
H355HT(A)	-4°F to 150°F (-20°C to 66°C)
HUMIDITY RANGE	10% to 93% relative humidity (noncondensing)
VOLTAGE RANGE	15 to 32 VDC peak
STANDBY CURRENT	300 µA @ 24 VDC (one communication every five seconds with LED blink enabled)
LED CURRENT	6.5 mA @ 24 VDC
MOUNTING	B210LP(A) flanged base, included. See "Product Line Information: Intelligent Bases" if using a different base
FIXED-TEMPERATURE SETPOINT	135°F (57°C) for the H355(A) and H355R(A); 190°F (88°C) for the H355HT(A)
RATE-OF-RISE DETECTION	responds to greater than 15°F (8.3°C) per minute



AD355 “Adapt” Detectors

Fire-Lite’s AD355 adapt detector is an intelligent, addressable, multi-sensing, low-profile detector designed for use with the Addressable Fire Alarm Control Panels. The Adapt detector combines photoelectric and thermal sensing technologies designed to increase immunity to false alarms.

FEATURES & BENEFITS

- Automatically adjusts sensitivity levels without operator intervention or programming. Sensitivity increases with heat.
- Microprocessor-based, combination photo and thermal technology.
- Compatible with LiteSpeed™ and CLIP systems.
- Sleek, low-profile design.
- Addresses can be viewed and changed without electronic programmers.
- Dual bi-color LED design provides 360° viewing angle.
- Built-in tamper-resistant feature.
- Constructed of off-white fire-resistant plastic, designed to commercial standards, and offers an attractive appearance.
- Several base options, including relay, isolator, and sounder.
- Built-in functional test switch activated by external magnet.
- UL Listed.

SPECIFICATIONS	
SENSITIVITY	auto-adjusting levels: 1 to 2%/ft. and 2 to 4%/ft. with classic CLIP systems; 1 to 2, 2 to 3, and 3 to 4%/ft. with LiteSpeed™ systems; fixed-sensitivity levels: 1, 2, and 4%/ft. with classic CLIP systems; 0.5, 1, 2, 3, and 4%/ft. with FlashScan systems
SIZE	2.0" (5.3 cm) high; base determines diameter
- B210LP(A)	6.1" (15.5 cm) diameter
- B501(A)	4.1" (10.4 cm) diameter
- B200SR(A)	6.875" (17.46 cm) diameter
- B224RB(A)	6.2" (15.748 cm) diameter
SHIPPING WEIGHT	5.2 oz. (147 g)
OPERATING TEMPERATURE	0°C to 38°C (32°F to 100°F).
UL-LISTED VELOCITY RANGE	0 – 4000 ft./min. (1219.2 m/min.), suitable for installation in ducts
RELATIVE HUMIDITY	10% – 93% noncondensing
THERMAL SENSING RATING	fixed-temperature setpoint 135°F (57°C)



D355PL Duct Detector

Fire-Lite's InnovairFlex D355PL non-relay photoelectric duct smoke detector features a pivoting housing that fits both square and rectangular footprints capable of mounting to a round or rectangular duct. The InnovairFlex duct smoke detector senses smoke in the most challenging conditions, operating in airflow speeds of 100 to 4,000 feet per minute, temperatures of -4°F to 158°F, and a humidity range of 0 to 95% (non-condensing).

FEATURES & BENEFITS

- Photoelectric, integrated low-flow technology.
- Air velocity rating from 100 ft/min to 4,000 ft/min (0.5 m/s to 20.32 m/s).
- Versatile mounting options: square or rectangular configuration.
- Broad ranges for operating temperature (-4°F to 158°F, -20°C to 70°C) and humidity (0% to 95% non-condensing).
- Patented sampling tube installs from front or back of the detector with no tools required.
- Cover tamper signal.
- Easily accessible code wheels on sensor head (sold separately).
- Clear cover for convenient visual inspection.
- Remote testing capability.
- Accommodates the installation of an addressable relay module, sold separately, (CRF-300) for applications requiring a Form-C relay.
- UL Listed

SPECIFICATIONS	
SIZE	(Rectangle) 14.38 in (37 cm) Length; 5 in (12.7 cm) Width, 2.5 in (6.6 cm) Depth
SIZE	(Square) 7.75 in (19.7 cm) Length; 9 in (22.9 cm) Width; 2.5 in (6.35 cm) Depth
WEIGHT	1.6 lb (0.73 kg)
OPERATING TEMPERATURE RANGE	-4°F to 158°F (-20°C to 70°C)
STORAGE TEMPERATURE RANGE	-22°F to 158°F (-30°C to 70°C)
OPERATING HUMIDITY RANGE	0% to 95% relative humidity (non-condensing)
AIR DUCT VELOCITY	100 to 4,000 ft/min (0.5 to 20.32 m/s)



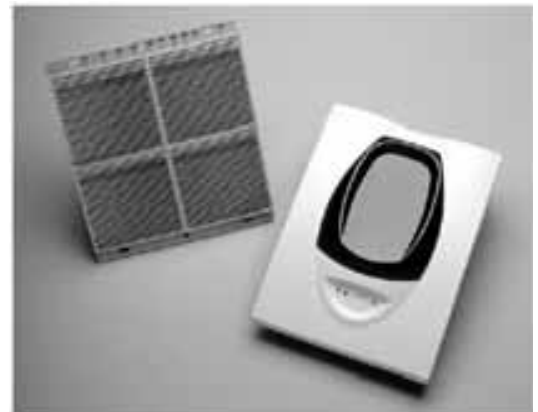
BEAM355/355S Beam Detectors

Fire-Lite's BEAM355 and BEAM355S are intelligent, addressable projected beam smoke detectors for protecting open areas with high and sloping ceilings, and wide-open areas, where spot-type smoke detectors are difficult to install and maintain.

FEATURES & BENEFITS

- Ideal applications are atriums, cathedral ceilings, aircraft hangars, warehouses, sporting arenas, concert halls, and enclosed parking facilities.
- Installation of the single-ended reflective design is much quicker than a dual-ended projected beam detector.
- Alignment is easily accomplished with an optical sight and a two-digit signal strength meter incorporated into the beam detector.
- Usable in open area applications where temperature extremes exceed the design limits of other types of smoke detection.
- Four standard sensitivity selections as well as two Acclimate® settings (automatically adjust to the optimum sensitivity for the specific environment).
- Integral sensitivity test feature allows you to quickly and easily meet the annual maintenance and test requirements of NFPA 72, without physical access to the detector.
- Transmitter/receiver built into the same unit.
- 16' to 328' (use BEAMLRK beyond 230') protection range.
- Digital display – no special tools required.
- Built-in automatic gain control compensates for signal deterioration from dust build-up.
- UL Listed

SPECIFICATIONS	
OPERATIONAL SPECIFICATIONS	
PROTECTION RANGE	16 to 230 feet (5 to 70 m), 230 to 328 feet (70 to 100 m) using optional BEAMLRK kit
ADJUSTMENT ANGLE	±10° horizontal and vertical. Note that the optics move independently of the unit Sensitivity (6 levels)
NOTE	Sensitivity settings are a feature of specific control panels
	Level 1 – 25%
	Level 2 – 30%
	Level 3 – 40%
	Level 4 – 50%
	Acclimate® Level 5 – 30% to 50%
	Acclimate® Level 6 – 40% to 50%
FAULT CONDITION (TROUBLE)	96% or more obscuration blockage
	In alignment mode
	Improper initial alignment
	Self-compensation limit reached
ALIGNMENT AID	Optical gunsight
	Integral signal strength indication
	Two-digit display
INDICATORS	Alarm – local red LED and remote alarm
	Trouble – local yellow LED and remote trouble
	Normal – local flashing green LED



Fire-Lite Addressable Modules

MMF-300 Series and MDF-300 Modules

Four monitor modules are available for Fire-Lite Alarm's MS-9050UD, MS-9200UDLS, and MS-9600 intelligent fire alarm control panels to suit a variety of applications. Monitor modules are used to supervise a circuit of dry-contact input devices, such as conventional heat detectors and pull stations, or control and power a circuit of two-wire smoke detectors.

FEATURES & BENEFITS

- MMF-300 is a standard-sized module that supervises either a Style D (Class A) or Style B (Class B) circuit of dry-contact input devices.
- MMF-301 is a miniature monitor module a mere 1.3" (3.302cm) used to supervise a Style B (Class B) circuit of dry-contact input devices.
- MMF-302 is a standard-sized module used to monitor and supervise compatible two-wire, 24 volt, smoke detectors on a Style D (Class A) or Style B (Class B) circuit.
- MDF-300 is a standard-sized dual monitor module used to monitor and supervise two independent two-wire Style B (Class B) dry-contact initiating device circuits (IDCs) at two separate, consecutive addresses.
- Built-in type identification automatically identifies these devices as a monitor module to the control panel.
- UL Listed.



SPECIFICATIONS	MMF-302(A)
NOMINAL OPERATING VOLTAGE	15 to 32 VDC
MAXIMUM CURRENT DRAW	5.1 mA (LED on)
MAXIMUM IDC WIRING RESISTANCE	25 Ohms
AVERAGE OPERATING CURRENT	270 μ A, 1 communication and 1 LED flash every 5 seconds, 3.9k eol
EOL RESISTANCE	3.9K Ohms.
EXTERNAL SUPPLY VOLTAGE (BETWEEN TERMINALS T10 AND T11)	
DC VOLTAGE	24 volts power limited
RIPPLE VOLTAGE	0.1 Vrms maximum
CURRENT	90 mA per module maximum
TEMPERATURE RANGE	32°F to 120°F (0°C to 49°C)
HUMIDITY RANGE	10% to 93% noncondensing
DIMENSIONS	4.5" (11.43 cm) high x 4" (10.16 cm) wide x 1.25" (3.175 cm) deep. Mounts to a 4" (10.16 cm) square x 2.125" (5.398 cm) deep box
MMF-301(A)	
NOMINAL OPERATING VOLTAGE	15 to 32 VDC
AVERAGE OPERATING CURRENT	350 μ A, 1 communication every 5 seconds, 47k EOL; 600 μ A Max. (Communicating, IDC Shorted)
MAXIMUM IDC WIRING RESISTANCE	1500 Ohms
MAXIMUM IDC VOLTAGE	11 Volts
MAXIMUM IDC CURRENT	450 μ A
EOL RESISTANCE	47K Ohms
TEMPERATURE RANGE	32°F to 120°F (0°C to 49°C)
HUMIDITY RANGE	10% to 93% noncondensing
DIMENSIONS	1.3" (3.302 cm) high x 2.75" (6.985 cm) wide x 0.65" (1.651 cm) deep
WIRE LENGTH	6" (15.24 cm) minimum
MMF-300(A)	
NORMAL OPERATING VOLTAGE RANGE	15 to 32 VDC
MAXIMUM CURRENT DRAW	6.4 mA (LED on)
AVERAGE OPERATING CURRENT	750 μ A (LED flashing)
MAXIMUM IDC WIRING RESISTANCE	1,500 Ohms
MAXIMUM IDC VOLTAGE	11 Volts
MAXIMUM IDC CURRENT	240 μ A
EOL RESISTANCE	47K Ohms
TEMPERATURE RANGE	32° to 120°F (0° to 49°C)
HUMIDITY RANGE	10% to 93% (non-condensing)
DIMENSIONS	4.5" (11.43 CM) HIGH X 4" (10.16 CM) WIDE X 1.25" (3.175 CM) DEEP. MOUNTS TO A 4" (10.16 CM) SQUARE X 2.125" (5.398 CM) DEEP BOX

CMF-300 Control Module

Fire-Lite's CMF-300 Addressable Control Module provides a supervised Class B (Style Y) or Class A (Style Z) circuit for Notification Appliances (horns, strobes, etc.). Addressability allows the CMF to be activated, either manually or through panel programming on a selected basis.

FEATURES & BENEFITS

- CMF-300(A) may be used to switch 24-volt NAC power.
- A trouble condition on the external power supply will never interfere with the rest of the system.
- Built-in type identification automatically identifies this device to the control panel.
- UL Listed.

SPECIFICATIONS	
NORMAL OPERATING VOLTAGE	15 to 32 VDC
MAXIMUM SLC CURRENT DRAW	6.5 mA (LED on)
AVERAGE OPERATING CURRENT	350 μ A direct poll (CLIP mode), 375 μ A group poll (LiteSpeed mode) with LED flashing
EXTERNAL SUPPLY VOLTAGE	maximum 80 volts (RMS or DC)
DRAIN ON EXTERNAL SUPPLY	2 mA maximum (using internal EOL relay)
EOL RESISTANCE	47K ohms
TEMPERATURE RANGE	32°F to 120°F (0°C to 49°C)
HUMIDITY RANGE	10% to 93% non-condensing
DIMENSIONS	4.5" (11.43 cm) high x 4" (10.16 cm) wide x 1.25" (3.175 cm) deep. Mounts to a 4" (10.16 cm) square x 2.125" (5.398 cm) deep box



CRF-300 Relay Module

Fire-Lite's CRF-300 Relay Module provides two isolated sets of Form-C dry-contact outputs for activating a variety of auxiliary devices, such as fans, dampers, door holders, control equipment, etc.

FEATURES & BENEFITS

- CRF-300(A) provides two Form-C dry contacts that switch together.
- A trouble condition on the external power supply will never interfere with the rest of the system.
- Built-in type identification automatically identifies this device to the control panel.
- UL Listed.

SPECIFICATIONS	
NORMAL OPERATING VOLTAGE	15 to 32 VDC
MAXIMUM SLC CURRENT DRAW	6.5 mA (LED on)
AVERAGE OPERATING CURRENT	230 μ A direct poll (CLIP mode), 255 μ A group poll (LiteSpeed mode) with LED flashing
EOL RESISTANCE	not used
TEMPERATURE RANGE	32°F to 120°F (0°C to 49°C)
HUMIDITY RANGE: 10% TO 93% NON-CONDENSING	
DIMENSIONS	4.5" (11.43 cm) high x 4" (10.16 cm) wide x 1.25" (3.175 cm) deep. Mounts to a 4" (10.16 cm) square x 2.125" (5.398 mm) deep box



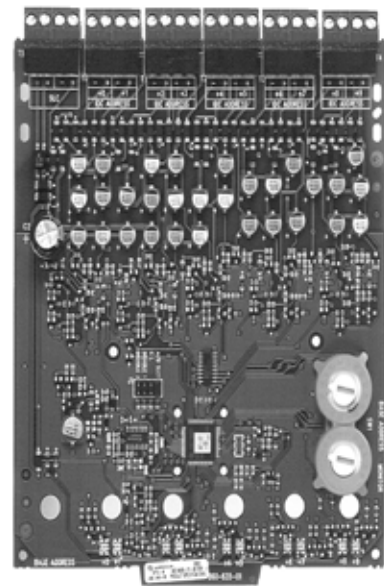
MMF-300-10 Monitor Module

Fire-Lite's MMF-300-10 ten-input monitor module provides an interface between the MS-9050UD, MS-9200UDLS, and MS-9600(UD)LS and normally open contact devices such as pull stations, security contacts or flow switches. Provisions are included for disabling a maximum of two unused addresses.

FEATURES & BENEFITS

- Ten addressable Class B or five addressable Class A initiating device circuits.
- Removable plug-in terminal blocks.
- Status indicators for each point.
- Unused addresses may be disabled.
- Rotary address switches.
- Class A or Class B operation.
- Flexible mounting options.
- UL Listed

SPECIFICATIONS	
STANDBY CURRENT	3.5 mA (SLC current draw with all addresses used; if some addresses are disabled, the standby current decreases)
ALARM CURRENT	55 mA (assumes all ten LEDs solid ON)
TEMPERATURE RANGE	32°F to 120°F (0°C to 49°C) for UL applications; -10°C to +55°C for EN54 applications
HUMIDITY	10% to 85% noncondensing for UL applications; 10% to 93% noncondensing for EN54 applications
DIMENSIONS	6.8" (172.72 mm) high x 5.8" (147.32 mm) wide x 1.25" (31.75 mm) deep
SHIPPING WEIGHT	0.76 lb. (0.345 kg) including packaging



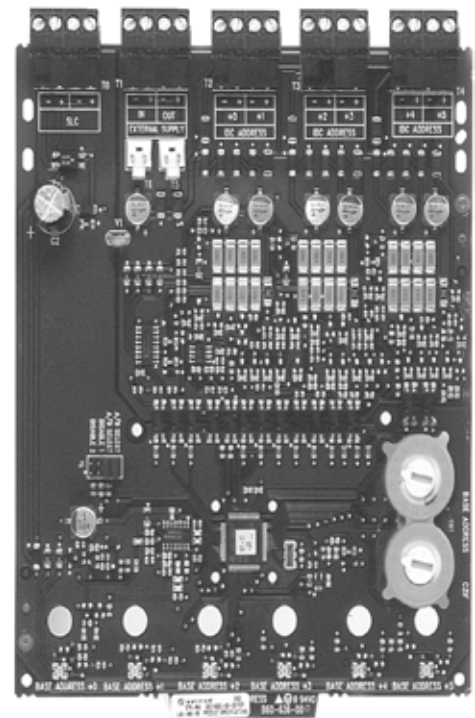
MMF-302-6 Interface Module

Fire-Lite's MMF-302-6 six-zone interface module provides an interface between all Fire-Lite addressable panels and a two-wire conventional detection zone. A common SLC input is used for all modules, and the initiating device circuits share a common external supervisory supply and ground.

FEATURES & BENEFITS

- Transmits the status of a zone of two-wire detectors to the fire alarm control panel.
- Six addressable Class B or three addressable Class A initiating device circuits.
- Status conditions are reported as normal, open, or alarm.
- Supervises the zone of detectors and the connection of the external power supply.
- Removable plug-in terminal blocks.
- Status indicators for each point.
- Unused addresses may be disabled.
- Rotary address switches.
- Class A or Class B operation
- UL Listed

SPECIFICATIONS	
STANDBY CURRENT	2.0 mA (SLC current draw with all addresses used; if some addresses are disabled, the standby current decreases)
ALARM CURRENT	40 mA (assumes all six LEDs solid ON)
TEMPERATURE RANGE	32°F to 120°F (0°C to 49°C)
HUMIDITY	10% to 85% noncondensing
DIMENSIONS	6.8" (172.72 mm) high x 5.8" (147.32 mm) wide x 1.25" (31.75 mm) deep
SHIPPING WEIGHT	1.1 lb. (0.499 kg) including packaging
MOUNTING OPTIONS	BB-2F cabinet or BB-6F cabinet with CH-6 chassis
WIRE GAUGE	12 AWG (3.1 mm ²) to 18 AWG (0.78 mm ²)
MMF-302-6 IS SHIPPED IN CLASS B POSITION	Remove shunt for Class A operation
MAXIMUM SLC WIRING RESISTANCE	40 or 50 ohms, panel dependent



CRF-300-6 Control Module

Fire-Lite's CRF-300-6 six-relay control module provides an intelligent alarm system with six Form-C relays. Provisions are included for disabling a maximum of three unused modules.

FEATURES & BENEFITS

- Six addressable Form-C relay contacts.
- Removable plug-in terminal blocks.
- Status indicators for each point.
- Unused addresses may be disabled.
- Rotary address switches.
- Mount one or two modules in a BB-X2F cabinet (optional).
- Mount up to six modules on a CHS-6 chassis in a BB-2F cabinet (optional).
- UL Listed.

SPECIFICATIONS	
STANDBY CURRENT	1.45 mA (SLC current draw with all addresses used; if some addresses are disabled, the standby current decreases)
ALARM CURRENT	32 mA (assumes all six relays have been switched once and all six LEDs solid ON)
TEMPERATURE RANGE	32°F to 120°F (0°C to 49°C)
HUMIDITY	10% to 93% non-condensing
DIMENSIONS	6.8" (17.27 cm) high x 5.8" (14.73 cm) wide x 1.0" (2.54 cm) deep
SHIPPING WEIGHT	1.1 lb. (0.5 kg) including packaging
MOUNTING OPTIONS	CHS-6 chassis, BB-6F cabinet, or BB-2F cabinet
WIRE GAUGE	12 AWG (3.25 mm ²) to 18 AWG (0.9 mm ²)
MAXIMUM SLC WIRING RESISTANCE: 40 OR 50 OHMS, PANEL DEPENDENT	
RELAY CURRENT	30 mA/relay pulse (15.6 ms pulse duration), pulse under panel control
RELAY CONTACT RATINGS	30 VDC; 70.7 VAC



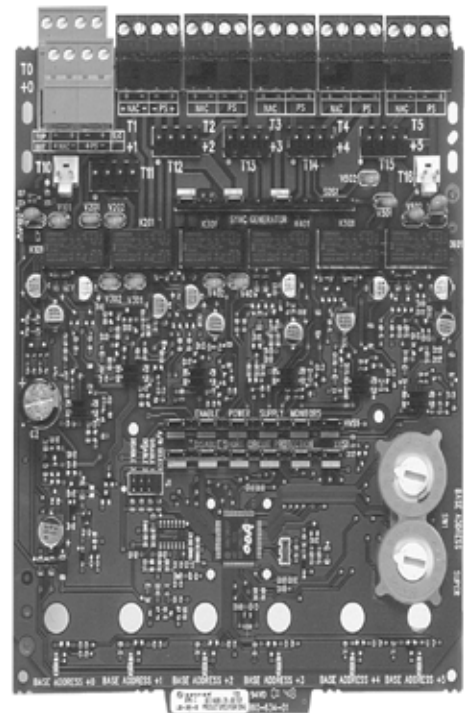
CMF-300-6 Control Module

Fire-Lite's CMF-300-6 six-circuit supervised control module provides the MS-9050UD, MS-9200UDLS, and MS-9600(UD)LS with supervised monitoring of wiring to load devices that require an external power supply to operate, such as horns, strobes or bells. Each module is intended for switching applications involving AC, DC, and audio which require wiring supervision.

FEATURES & BENEFITS

- Six addressable Style B (Class B) or three addressable Style D (Class A) outputs that function as notification appliance/telephone circuits.
- Removable plug-in terminal blocks.
- Status indicators for each point.
- Unused addresses may be disabled.
- Rotary address switches.
- LiteSpeed® or CLIP operation.
- Optional SYNC-1 accessory card for SpectrAlert and SpectrAlert Advance devices.
- Mount one or two modules in a BB-2F cabinet (optional).
- Mount up to six modules on a CHS-6 chassis in a BB-6F or BB-25 cabinet (optional).
- UL Listed.

SPECIFICATIONS	
STANDBY CURRENT	2.25 mA (SLC current draw with all addresses used; if some addresses are disabled, the standby current decreases)
ALARM CURRENT	35 mA (assumes all six NACS have been switched once and all six LEDs solid ON)
TEMPERATURE RANGE	32°F to 120°F (0°C to 49°C) for UL applications; -10°C to +55°C for EN54 applications
HUMIDITY	10% to 85% noncondensing for UL applications; 10% to 93% noncondensing for EN54 applications
DIMENSIONS	6.8" (172.72 mm) high x 5.8" (147.32 mm) wide x 1.25" (31.75 mm) deep
SHIPPING WEIGHT	1.1 lb. (0.499 kg) including packaging



I300(A) Fault Isolator Module

Fire-Lite's I300(A) Fault Isolator Module is used with the MS-9050UD, MS-9200UDLS, and MS-9600(UD)LS to protect the system against wire-to-wire short circuits on the SLC loop. The I300(A) should be placed between each device on the SLC loop, to isolate a short-circuit problem between the modules.

FEATURES & BENEFITS

- Generally used at each T-tap branch to limit the effect of short circuits on a branch to the devices on that branch in Style 4 loops.
- Isolates devices so they can continue to operate typically in the event of a short-circuit on the SLC in Style 7 operation.
- Powered by SLC loop directly, no external power required.
- Mounts in standard junction boxes.
- Integral LED blinks to indicate the normal condition.
- Supports a maximum of 25 devices in-between isolators, except when using relay bases.
- UL Listed.

SPECIFICATIONS	
OPERATING VOLTAGE	15 – 32 VDC (peak)
MAXIMUM CURRENT UPON ACTIVATION DUE TO SHORT CIRCUIT	refer to the manual for the main FACP
STANDBY CURRENT	450 μ A maximum; I300(A) is not isolating – relay closed
TEMPERATURE RANGE	32°F to 120°F (0°C to 49°C)
RELATIVE HUMIDITY	10% to 93%
WEIGHT	5 oz. (150 grams)



Fire-Lite Pull Stations

BG-12 Series

The BG-12 Series from Fire-Lite Alarms is a cost-effective, feature-packed, non-coded series of manual fire alarm pull stations. They offer a variety of different models including single and dual-action versions. The BG-12 Series were designed specifically for use in multiple applications and offer the flexibility to meet the needs of both the installer and end-user.

FEATURES & BENEFITS

- Aesthetically pleasing, highly visible design and color.
- Attractive contoured shape and light textured finish.
- Easy to operate (single or dual-action), yet designed to prevent false alarms when bumped, shaken, or jarred.
- PUSH IN/PULL DOWN handle latches in the down position to clearly indicate the station has been operated.
- Multiple hex- and key-lock models available.
- Station can be opened for inspection and maintenance without initiating an alarm.
- The words "NORMAL" and "ACTIVATED" are molded into the plastic adjacent to the alarm switch (located inside).
- Backplate is large enough to overlap a single-gang backbox cutout by 1/2" (1.27 cm).
- Spanish versions (FUEGO) available (BG-12LSP, BG-12LPSP).
- Can be surface-mounted (with SB-10 or SB-I/O) or semi-flush mounted. Semi-flush mount to a standard single-gang, double-gang, or 4" (10.16 cm) square electrical box.
- UL Listed.

SPECIFICATIONS	
PHYSICAL SPECIFICATIONS PULL STATION SB-I/O SB-10	
HEIGHT	5.5 inches (13.97 cm); 5.601 inches (14.23 cm); 5.5 inches (13.97 cm)
WIDTH	4.121 inches (10.47 cm); 4.222 inches (10.72 cm); 4.121 inches (10.47 cm)
DEPTH	1.39 inches (3.53 cm); 1.439 inches (3.66 cm); 1.375 inches (3.49 cm)



Fire-Lite Releasing Control Panels

MRP-2001

MRP-2001 is a six zone releasing fire control panel for single and dual hazard deluge and pre-action applications. The MRP-2001 provides reliable fire detection, signaling and protection for commercial, industrial and institutional buildings requiring water-based releasing.

FEATURES & BENEFITS

- 6-zone Style B (Class B) or 6-zone Style D (Class A) with optional modules.
- 4 Programmable Output Circuits Style Y (Class B) or 4 Programmable Output Circuits Style Z (Class A) with optional modules.
- Outputs programmable for Releasing Solenoids.
- Dual hazard operation.
- Adjustable water flow discharge timer and two soak timers.
- Cross-zone capability.
- Pre-programmed and custom application templates.
- Built-in NAC synchronization for System Sensor, Wheelock, Gentex, Faraday and Amseco devices.
- Built in programmer: integral 80 character LCD display with backlighting and keypad.
- Annunciator bus supports up to 8 devices, including ANN-80 LCD Remote Annunciator, remote serial or parallel printer gateway, and LED graphic annunciator.
- 7.0 amps total usable current.
- UL Listed

SPECIFICATIONS	
ANNUNCIATORS	8
ELECTRICAL SPECIFICATIONS	
MRP-2001 (FLPS-7 POWER SUPPLY)	120 VAC, 60 Hz, 3.66 amps
MRP-2001E (FLPS-7 POWER SUPPLY)	240 VAC, 50 Hz, 2.085 amps
WIRE SIZE	minimum 14 AWG (2.0 mm ²) with 600 V insulation, supervised, nonpower-limited
CABINET SPECIFICATIONS	
DOOR	19.26" (48.92 cm.) high x 16.82" (42.73 cm.) wide x 0.72" (1.82 cm.) deep
BACKBOX	19.00" (48.26 cm.) high x 16.65" (42.29 cm.) wide x 5.25" (13.34 cm.) deep
TRIM RING	(TR- CE): 22.00" (55.88 cm.) high x 19.65" (49.91 cm.) wide
SHIPPING SPECIFICATIONS	
DIMENSIONS	Height 20.00" (50.80cm)
	Width 22.50" (57.15cm)
	Depth 8.50" (21.59cm)



MRP-2002

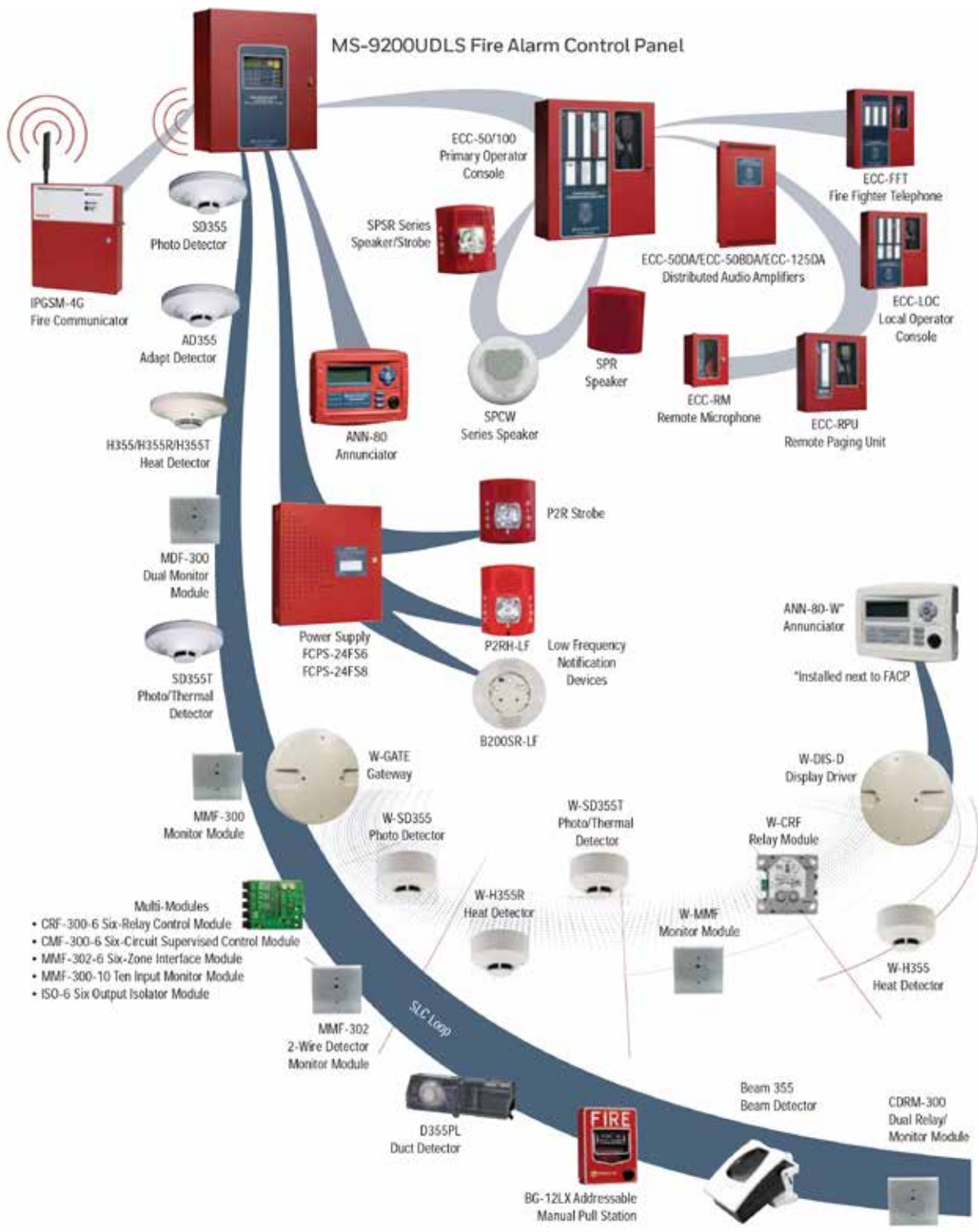
MRP-2002 is a six-zone releasing fire control panel for single and dual hazard agent releasing applications. The MRP-2002 provides reliable fire detection, signaling and protection for commercial, industrial, and institutional buildings requiring agent-based releasing.

FEATURES & BENEFITS

- 6-zone Style B (Class B) or 6-zone Style D (Class A) with optional modules.
- 4 Programmable Output Circuits Style Y (Class B) or 4 Programmable Output Circuits Style Z (Class A) with optional modules.
- Outputs programmable for releasing Solenoids.
- Dual hazard operation.
- Adjustable pre-discharge, discharge and water flow delay timers.
- Programmable abort operation.
- Cross-zone capability.
- Pre-programmed and custom application templates.
- Built-in NAC synchronization for System Sensor, Wheelock, Gentex, Faraday and Amseco devices.
- Built in programmer: integral 80 character LCD display with backlighting and keypad.
- Annunciator bus supports up to 8 devices, including ANN-80 LCD Remote Annunciator, remote serial or parallel printer gateway and LED graphic annunciator.
- 7.0 amps total usable current.
- UL Listed

SPECIFICATIONS	
ANNUNCIATORS	8
ELECTRICAL SPECIFICATIONS	
MRP-2002 (FLPS-7 POWER SUPPLY)	120 VAC, 60 Hz, 3.66 amps
MRP-2002E (FLPS-7 POWER SUPPLY)	240 VAC, 50 Hz, 2.085 amps
WIRE SIZE	minimum 14 AWG (2.0 mm ²) with 600 V insulation, supervised, nonpower-limited
CABINET SPECIFICATIONS	
DOOR	19.26" (48.92 cm.) high x 16.82" (42.73 cm.) wide x 0.72" (1.82 cm.) deep
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TRIM RING	(TR- CE): 22.00" (55.88 cm.) high x 19.65" (49.91 cm.) wide
SHIPPING SPECIFICATIONS	
DIMENSIONS	Height 20.00" (50.80cm)
	Width 22.50" (57.15cm)
	Depth 8.50" (21.59cm)





	CONVENTIONAL FIRE ALARM CONTROL PANELS				ADDRESSABLE FIRE ALARM CONTROL PANELS			
FEATURE	MS-2	MS-4	MS-5UD	MS-10UD	MS-25	MS-9050UD	MS-9200UDLS	MS-9600UDLS
PANEL VOLTAGE	24	24	24	24	24	24	24	24
ADDRESSABLE POINTS	N/A	N/A	N/A	eN/A	25	50	198	636 (2 loops)
LITESPEED™ PROTOCOL	N/A	N/A	N/A	N/A	N/A	No	Yes	Yes
NUMBER OF ZONES	2	4	5	10	5	20	99	99
CLASS A OR B INITIATING ZONES	B Only	B or A option	B or A option	B or A option	B Only	A or B	A or B	A or B
SUPPORTS SYSTEM SENSOR I3 DETECTORS WITH FREEZE WARNING	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A
NOTIFICATION CIRCUITS	1	2	4 (A or B)	4 (A or B)	2 (B Only)	2 (A or B)	4 (A or B)	4 (A or B)
NOTIFICATION POWER (AMPS)	3 3.0-6.0	3	7	2.0	2.5	3.0-6.0	7	
COMMUNICATOR	411 Series	411 Series	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in
SUPPORTS UPLOAD/DOWNLOAD	No	No	Remote or Local	Remote or Local	Local	Remote or Local	Remote or Local	Remote or Local
WORKS WITH IP COMMUNICATOR	No	No	Yes	Yes	Yes	Yes	Yes	Yes
BATTERY RANGE (IN AMP HOURS)	7.0-18	7.0-18	7.0-18	7.0-26	7.0-33	7.0-18	7.0-18	7.0-26
ALARM CONTACT	Yes	Yes	Programmable	Programmable	Programmable	Programmable	Programmable	Programmable
TROUBLE CONTACT	Yes	Yes	Programmable	Programmable	No	Programmable	Yes	Yes
SUPERVISORY CONTACT	No	Yes	Programmable	Programmable	Programmable	Programmable	Programmable	Programmable
REVERSE POLARITY TRANSMITTER	Option	Option	Option	Option	Option	Option	Option	Option
TEMPORAL CODING	Yes	Yes	Programmable	Programmable	Programmable	Programmable	Programmable	Programmable
OPTIONAL REMOTE ANNUNCIATOR	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BUILT-IN SYNC-SELECTIVE SILENCE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SUPPORTS PRINTER	No	No	Option	Option	No Option	Option Yes		
LISTINGS	UL, CSFM, MEA	UL, CSFM, MEA, FM	UL, CSFM, MEA, FM	UL, CSFM, MEA, FM	UL, ULC, CSFM	UL, CSFM, MEA, FM	UL, CSFM, MEA, FM	ULC, CSFM, MEA, FM

FEATURE	FIRE ALARM PANEL COMMUNICATORS				RELEASING CONTROL PANELS		
	411	411UD	411UDAC	IPDACT-2UD	MRP-2001	MRP-2002	
INPUT DC VOLTAGE	12/24	12/24	12	12/24	24	24	
NUMBER OF ZONES/ CHANNELS	3	4	4	Addressable	6	6	
CLASS A OR B ZONES	B	B	B (one A)	N/A	B or A Option	B or A Option	
CONTROL COMMUNICATOR	Slave Comm.	Slave Comm.	Stand-Alone or Slave Comm.	Slave Comm. Contact ID Only	No	No	
REMOTE UPLOAD/ DOWNLOAD	No	Yes	Yes	Yes	No	No	
NO. OF NOTIFICATION CIRCUITS	N/A	N/A	1	N/A	4	4	
SUPPORTS SYSTEM SENSOR I3 DETECTORS WITH FREEZE WARNING	N/A	N/A	N/A	N/A	Yes	Yes	
NOTIFICATION POWER (AMPS)	N/A	N/A	1	N/A	7	7	
BATTERY RANGE (IN AMP HOURS)	N/A	N/A	Up to 14.0	N/A	7.0-26	7.0-26	
AUX INPUT	No	No	No	Yes	N/A	N/A	
ALARM CONTACT	No	Option (prog.)	Option (prog.)	No	Programmable	Programmable	
TROUBLE CONTACT NO OPTION (PROG.) OPTION (PROG.) NO PROGRAMMABLE	Programmable						
SUPERVISORY CONTACT/OUTPUT	No	Option (prog.)	Option (prog.)	Yes	Programmable	Programmable	
OPTIONAL REMOTE ANNUNCIATOR	No	No	No	No	Yes	Yes	
SUPPORTS PRINTER	No	No	No	No	Yes	Yes	
LISTINGS	UL, ULC, CSFM, MEA	UL, ULC, CSFM, MEA	UL, ULC, CSFM, MEA	UL, CSFM	UL, CSFM, MEA, FM	UL, CSFM, MEA, FM	



Honeywell System Sensor

Honeywell System Sensor is a global manufacturer of fire alarm detection and notification appliances, specializing in smoke detection, carbon monoxide detection and notification technologies. Every day, System Sensor works to develop advanced ideas that deliver state-of-the-art solutions.

Honeywell System Sensor range includes:



Conventional Eco Series Introduction

ECO1000 is a range of conventional detectors, which have been produced using the latest manufacturing technology and supplied with an array of advanced features, making them "better by design".

FEATURES & BENEFITS

- Low profile design
- Low current draw
- Automatic drift compensation
- Remote alarm test feature
- Remote LED Option
- Common base (ECO1000B)
- EN54 Certified



ECO1003- Photoelectric Smoke Detector

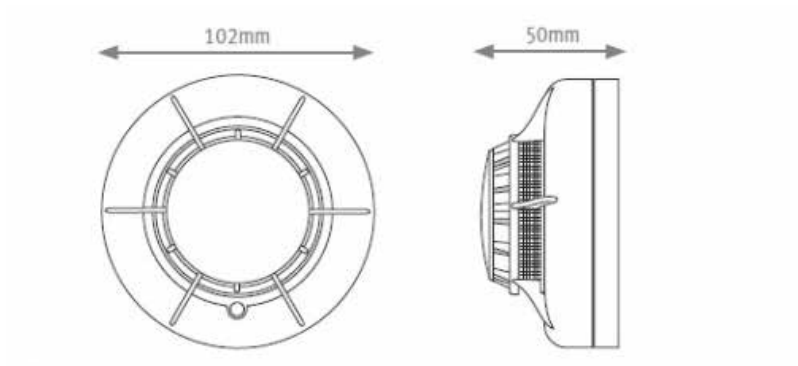
The ECO1003 photoelectric smoke detector uses a state-of-the-art optical chamber combined with an application specific integrated circuit (ASIC) to provide quick and accurate detection of fires.

ELECTRICAL SPECIFICATIONS	
OPERATING VOLTAGE RANGE	8 to 30VDC (Nominal 12/24VDC)
MAXIMUM STANDBY CURRENT @250C	60µA @ 24VDC
MAXIMUM PERMISSIBLE ALARM CURRENT	80mA (current limited by control panel)
ENVIRONMENTAL SPECIFICATIONS	
APPLICATION TEMPERATURE RANGE (SEE NOTE)	-30°C to 70°C
HUMIDITY	5% to 95% Relative Humidity (non-condensing)
MECHANICAL INFORMATION	
HEIGHT	32.5mm (plus 9.5mm for standard base)
DIAMETER	102mm
WEIGHT	75g (plus 45g for standard base)
WIRE GAUGE FOR TERMINALS	0.4mm ² to 2.0mm ²
COLOUR	Approximates to RAL9016
MATERIAL	ABS



Architect/Engineer Specifications

ECO1003 Photoelectric Smoke Detector



ECO1002 Multi-Criteria Detector

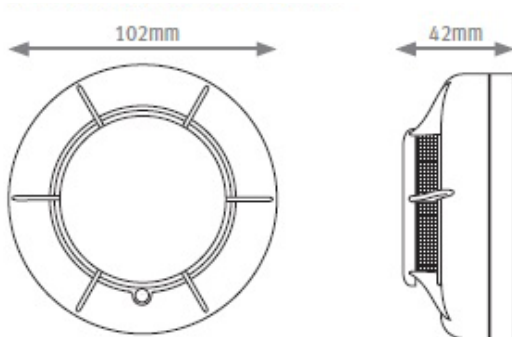
The ECO1002 multi-criteria detector uses a state-of-the-art optical chamber and a thermal element combined with a microprocessor, running sophisticated algorithms to provide quick and accurate detection of fires. The combination of photoelectric and thermal characteristics provides a faster response to "real fire" situations, while at the same time reducing the risk of unwanted environmentally generated alarms.

ELECTRICAL SPECIFICATIONS	
OPERATING VOLTAGE RANGE	8 to 30VDC (Nominal 12/24VDC)
MAXIMUM STANDBY CURRENT @250C	75µA @ 24VDC
MAXIMUM PERMISSIBLE ALARM CURRENT	80mA (current limited by control panel)
ENVIRONMENTAL SPECIFICATIONS	
APPLICATION TEMPERATURE RANGE (SEE NOTE)	-30°C to 70°C
HUMIDITY	5% to 95% Relative Humidity (non-condensing)
MECHANICAL INFORMATION	
HEIGHT	40.5mm (plus 9.5mm for standard base)
DIAMETER	102mm
WEIGHT	78g (plus 45g for standard base)
WIRE GAUGE FOR TERMINALS	0.4mm ² to 2.0mm ²
COLOUR	Approximates to RAL9016
MATERIAL	ABS



Architect/Engineer Specifications

ECO1002 A Photoelectric Smoke/Thermal Detector



ECO1005- Rate of Rise Thermal Detector

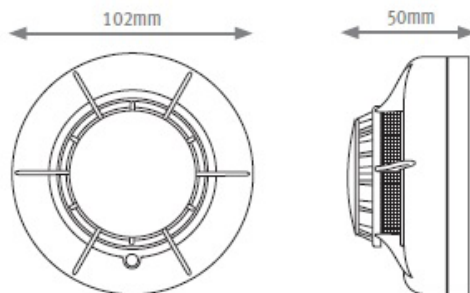
The ECO1005 thermal detector uses a state-of-the-art thermal element combined with an application specific integrated circuit (ASIC) to provide quick and accurate detection of fires. The detector incorporates both rate of rise and static elements and is suitable for all areas where the ambient conditions do not normally exhibit rapid changes in temperature.

ELECTRICAL SPECIFICATIONS	
OPERATING VOLTAGE RANGE	8 to 30VDC (Nominal 12/24VDC)
MAXIMUM STANDBY CURRENT @250C	70µA @ 24VDC
MAXIMUM PERMISSIBLE ALARM CURRENT	80mA (current limited by control panel)
ENVIRONMENTAL SPECIFICATIONS	
APPLICATION TEMPERATURE RANGE (SEE NOTE)	-30°C to 70°C
HUMIDITY	5% to 95% Relative Humidity (non-condensing)
MECHANICAL INFORMATION	
HEIGHT	40.5mm (plus 9.5mm for standard base)
DIAMETER	102mm
WEIGHT	70g (plus 45g for standard base)
WIRE GAUGE FOR TERMINALS	0.4mm ² to 2.0mm ²
COLOUR	Approximates to RAL9016
MATERIAL	ABS



Architect/Engineer Specifications

ECO1005 Rate of Rise Thermal Detector



Carbon Monoxide Detectors

The CO1224T and CO1224TR detectors features RealTest,[®] the industry's first functional test for the detector's CO sensing cell. RealTest enables you to know the detector is providing the protection it promises. Designed for system connection, the CO1224T and CO1224TR enables you to maximize profits and minimize installation costs with code-compliant features, such as a trouble relay that sends a sensor failure or end-of-life signal to the control panel and SEMS-type terminal Philips-head screws that provide a quick and positive wiring connection while facilitating wiring supervision. The CO1224T and CO1224TR unit also features a low current draw, which allows more detectors to be connected to the panel without having to purchase a more expensive panel or extra power supply.

CARBON MONOXIDE DETECTORS					
MODEL NO.	DETECTION TYPE	WIRING	OPERATING VOLTAGE	MAX. STANDBY CURRENT	MAX. ALARM CURRENT
CO1224T	Electrochemical	4-wire	12/24 VDC	20mA	40mA
CO1224TR	Electrochemical	4-wire	12/24 VDC	20mA	40mA
MODEL NO.	DESCRIPTION				
CO-PLATE	Carbon monoxide detector replacement plate				



Reflected Beam Smoke Detectors

The BEAM1224 Series reflected beam smoke detectors are equipped with both a transmitter and a receiver in one unit. They are easy to install and align with the included reflector. With six sensitivity levels, the BEAM1224 unit can be set to respond accurately in its respective environment. Plus, with multiple accessories ranging from multi-mounting to device heating, the BEAM1224 detector is capable of protecting any high ceiling area. The BEAM1224S model comes with an integral sensitivity test feature.

INNOVAIR DUCT SMOKE DETECTORS AND ACCESSORIES

InnovairFlex™ Duct Smoke Detectors

InnovairFlex™ combines an impressive collection of innovations designed to save you time and money and provide the flexibility you need in the field. An adjustable housing overcomes mounting constraints. Plug-in, tool-free sampling tubes speed installation. The front cover test/reset button simplifies test/maintenance. With these features and many more, InnovairFlex is reshaping duct smoke detection.



InnovairFlex Duct Smoke Detectors

MODEL NO.	DESCRIPTION	WIRING	AIR VELOCITY RANGE	OPERATING TEMP. RANGE	RATING	OPERATING VOLTAGE	ALARM CURRENT	AUXILIARY CONTACT
D2	Photoelectric low-flow duct smoke detector	2-wire	100-4,000 ft/min	-4° to 158°F (-20° to 70°C)	-	12/24 VDC	130 mA max.	-
D4120	Photoelectric low-flow duct smoke detector	4-wire	100-4,000 ft/min	-4° to 158°F (-20° to 70°C)	-	24 VAC/DC or 120 VAC	65 mA max. at 24 VDC	2 Form C Auxiliary
D4120W	Watertight photoelectric low-flow duct smoke detector	4-wire	100-4,000 ft/min	-4° to 158°F (-20° to 70°C)	NEMA 4	24 VAC/DC or 120 VAC	65 mA max. at 24 VDC	2 Form C Auxiliary
D4S	Photoelectric lowflow sensor- only component	4-wire	100-4,000 ft/min	-4° to 158°F (-20° to 70°C)	-	24 VAC/DC or 120 VAC	65 mA max. at 24 VDC	-
D4P120	Power-board-only component	4-wire	-	-4° to 158°F (-20° to 70°C)	-	24 VAC/ VDC or 120 VAC	65 mA max. at 24 VDC	2 Form C Auxiliary
D4240	Photoelectric low-flow duct smoke detector	4-wire	100-4,000 ft/min	-4° to 158°F (-20° to 70°C)	-	120 VAC/DC or 240 VAC	65 mA max. at 24 VDC	2 Form C Auxiliary
2D51	Photoelectric no-flow/low-flow smoke detector	4-wire	0-4,000 ft/min	-4° to 158°F (-20° to 70°C)	-	24 VAC/DC or 120 VAC w/ B210LP	75 mA max.	1 Form A & 1 Form C Auxiliary Relay

InnovairFlex™ Special Applications

Photoelectric low-profile detectors and bases for use in no-flow/low-flow air handling systems.

Special Applications

MODEL NO.	DESCRIPTION
2151	Photoelectric low-profile plug-in detector for special applications
2D51	Photoelectric low-profile plug-in detector for special applications
B114LP	120VAC detector base for use with 2151 special applications duct smoke detector
B114LPBT	24VAC/DC detector base for use with 2151 special applications duct smoke detector
B210LP	Intelligent base - 15-32 VDC
D4P120	4-wire photoelectric power board component only



Note: 2151 with B114LP or B114LPBT is not remote test capable, for remote testing use 2D51, B210LP with D4P120.

InnovairFlex™ Duct Smoke Accessories

Duct smoke detector accessories add functionality to the duct smoke detection system by allowing quick, convenient inspections at eye level and effective audible and visible notification options. All System Sensor duct smoke detectors and accessories are UL listed.

MODEL NO.	DESCRIPTION	OPERATING VOLTAGE
RTS2	Multi-signaling accessory	20-29 VDC
AOS	Add-on strobe	—
RTS2-AOS	Multi-signaling accessory with add-on strobe	20-29 VDC
APA151	Remote annunciator with piezo alert	16-33 VDC
RA100Z	Remote annunciator	3.1-32 VDC
RTS151	Remote test station	2.8-32 VDC (Alarm LED)
RTS151KEY	Remote test station with key test/reset	14-35 VDC (Power LED); 2.8-32 VDC (Alarm LED)
DST1	InnovairFlex sampling tube for ducts up to 1 foot	
DST1.5	InnovairFlex sampling tube for ducts 1 to 2 feet	
DST3	InnovairFlex sampling tube for ducts 2 to 4 feet	
DST5	InnovairFlex sampling tube for ducts 4 to 8 feet	
DST10	InnovairFlex sampling tube for ducts 8 to 12 feet	
ETX	InnovairFlex twelve-inch exhaust tube	
DH4000E-1	Weatherproof outdoor enclosure	





Alarm Bells

The alarm bells offer high-output notification in security and fire alarm systems. Six-inch, eight-inch, and ten-inch models are available for 24 VDC and 120 VAC systems.

MODEL	GONG SIZE	NOMINAL VOLTAGE	OPERATING VOLTAGE	SOUND OUTPUT	MAXIMUM CURRENT
SSM24-6	6 in.	24 VDC	16-33 VDC	82 dB	DC-31.1 mA / FWR-53.5 mA
SSM24-8	8 in.	24 VDC	16-33 VDC	80 dB	DC-31.1 mA / FWR-53.5 mA
SSM24-10	10 in.	24 VDC	16-33 VDC	81 dB	DC-31.1 mA / FWR-53.5 mA
SSV120-6	6 in.	120 VDC	96-132 VDC	85 dB	53 mA
SSV120-8	8 in.	120 VDC	96-132 VDC	82 dB	53 mA
SSV120-10	10 in.	120 VDC	96-132 VDC	82 dB	53 mA



System Sensor FFAST-LT

The FFAST Fire Alarm Aspiration Sensing Technology® series is a line of aspirating smoke detectors that draw air into a patented, high-sensitivity smoke-sensing chamber through a pipe network. FFAST is approved to EN54-20 Class A and EN54-20 Class C and delivers unique technology with the highest detection performance.

FFAST- Fire Alarm Aspiration Sensing Technology® is an advanced fire detection system for use where early warning is a requirement. FFAST LT is a lighter version which combines high sensitivity laser smoke detection with advanced aspiration technology to deliver reliable smoke detection for Class C applications up to 2000sqm and Class A for up to 150sqm providing sensitivity up to 0.07%obs/m. The device serves a wide variety of EN54-20 Class C applications where standard detection methods are prone to failure alarms, maintenance is a complicated process, the environment is harsh or where aesthetics matter.



FEATURES & BENEFITS

- Multiple event logging up to 2240 events
- Ultrasonic airflow sensing
- A single device covers up to 2000m²
- PipelQ™LT software provides intuitive system layout and configuration all in one package
- User friendly air flow pendulum graph for verification of pipe network functionality
- Protected electronics from air flow and accidental damage during installation or maintenance
- Easily replaceable and reusable filter without affecting the rest of the device
- Designed for efficient wiring and installation: cable gland holes, easy access to the wiring area and no special tools required.
- Easy access to parts requiring routine maintenance: filter(s) and sensor(s).
- Single & Dual channel versions with independent channels including fan, sensor and flow monitoring
- IP65 enclosure



PHYSICAL SPECIFICATION	
HEIGHT	403mm (including inlets and outlets)
WIDTH	356mm
DEPTH	135mm
CABLE ACCESS	Knock out cable gland holes
WIRE GAUGE	0.5mm ² to 2mm ² max
MAXIMUM SINGLE PIPE LENGTH	100m
MAXIMUM TOTAL BRANCHED PIPE LENGTH	160m (per channel)
MAXIMUM AIR INLET HOLES	18 (per channel)
OUTSIDE PIPE DIAMETER	25mm or 27mm
INTERNAL PIPE DIAMETER	15-21mm
SENSITIVITY	0.07 % obs/m
RELAYS	3 (1 Alarm, 1 Fault, 1 Pre-Alarm) x per Channel
SOUNDER OUTPUTS	1 per channel
EVENT LOG	2244 Events
INTERFACES	Terminal blocks: power supply, relays, sounder outputs, external input; USB port; Buttons (Test, Reset, Disable)
POWER SUPPLY AND RELAYS CONNECTIONS	2mm ² max
USB	Standard USB cable for Type B USB connection
SHIPPING WEIGHT - INCLUDING PACKAGING MATERIAL	6.5 kg (dual channel)
FLOW MONITORING AND REPORTING	High and low according to EN54-20
FILTRATION	Replaceable filter
FAN CONTROL	10 programmable speeds

ELECTRICAL SPECIFICATIONS	
SMOKE SENSOR (S)	Optical laser point type
EXTERNAL SUPPLY VOLTAGE	18.5-31.5 V
REMOTE RESET TIME	2s
POWER RESET	0.5s
AVG. OPERATING CURRENT	
1 CHANNEL DEVICE	170mA @ 24 VDC (excluding sounders)
2 CHANNEL DEVICE	270mA @ 24 VDC (excluding sounders)
MAX. AVERAGE OPERATING CURRENT	
1 CHANNEL DEVICE	360mA @ 24 VDC (excluding sounders)
2 CHANNEL DEVICE	570mA @ 24 VDC (excluding sounders)
RELAY CONTACT RATINGS	2.0 A @ 30 VDC, 0.5 A @ 30 VAC

ENVIRONMENTAL SPECIFICATIONS	
OPERATING TEMPERATURE	-10°C to 55°C
HUMIDITY RANGE	10% to 93% (non condensing)
IP RATING	65
COVERAGE AREA UP TO	2000m ²

ORDERING INFORMATION	
PART NO.	Description
FL0122E	Stand Alone Dual Channel Detector
FL0112E	Stand Alone Single Channel Dual Detector
FL0111E	Stand Alone Single Channel Detector

ACCESSORIES	
F-LT-EB	Earth Bar
FL-IF-6	FAAST LT Integral Filter (6 filters)
PIPE AND FITTINGS	Please see Aspiration Accessories Brochure

LINEAR HEAT DETECTOR (LHD)

The System Sensor Linear Heat Detectors portfolio consists of:

- 800 Series Digital LHD Cable and 900 series Analogue LHD Series
- LD Series Digital LHD Cable

800 Series Digital LHD Cable and 900 series Analogue LHD Series

System Sensor 800 series digital linear heat detector and 900 series analogue linear heat detector offer early detection of fire and overheating conditions in industrial high risk hazards as well as many types of commercial applications.

The Linear Heat Detection Cable (LHDC) is a continuous heat detector in the form of a cable. It can detect heat at any points along its entire length. The cable is composed of two twisted shield conductors insulated with a heat sensitive polymer, then wrapped with a protective tape and finished with an outer covering.

Linear Heat Detection Cable is available in resettable and non-resettable technology. The non-resettable cable is described as Digital and the resettable as Analogue.

800 Series Digital LHD Cable (Non-Resettable)

The 800 series is a fixed temperature and non-resettable digital cable. The cable contains insulators which melt at a specific temperature. At the rated temperature, the heat sensitive polymeric insulation creates pressure between conductors, permitting them make contact with each other thereby initiating an alarm signal at the control panel. The LHDC is installed in conjunction with an end-of-line (EOL) device for continuity monitoring and a junction box (optional) for leader wire connection.

900 Series Analogue LHD Cable (Resettable)

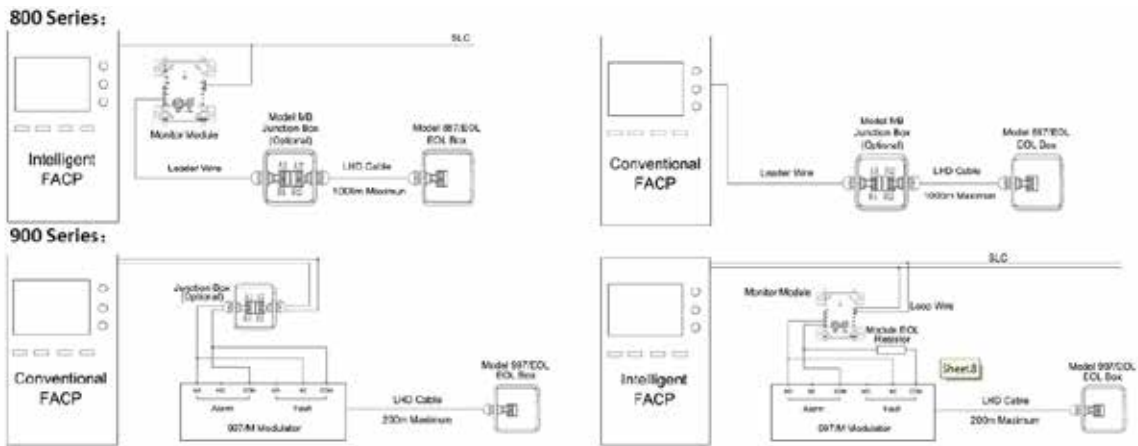
The 900 series is an analogue heat sensing cable containing insulators of which resistance varies proportionally to changes in temperature. Analogue cable is installed in conjunction with an end-of-line (EOL) device for continuity monitoring and a modulator providing selectable alarm thresholds (programmed before shipping), fire and fault outputs. This cable is self-restorable after the fire event as long as its temperature does not exceed specified resettable temperature limit of 120°C (248°F). Alarm temperature setting ranges between 70°C to 130°C (158°F to 266°F). Customer can specify its own alarm temperature setting. The factory default setting is set at 85°C (185°F).



FEATURES & BENEFITS

- Multiple configurations for installations:
 - Digital type of LHD cables
 - Analogue type of LHD cables
- Multiple alarm temperature ratings available for both digital and analogue type
- Maximum zone length (Digital) - 1000 meters
- Maximum zone length (Analogue) – 200 meters
- Resettable temperature up to 120°C (248°F) (Analogue)
- Selectable alarm temperature threshold programmed before shipping (Analogue)
- Normal, fault and alarm indicators on the 900 series modulator (Analogue)
- Compatible with any conventional or intelligent fire alarm panel
- Smoothing algorithms provide false alarm immunity

Typical Wiring Diagrams & Specifications



LD Series Digital LHD Cable

System Sensor Fixed Temperature Linear Heat Detection Cable range consists of a twisted pair of extremely low resistance (.05 Ohm/ft. of twisted pair) tri-metallic conductors, sheathed in new advanced thermal polymers. These polymers are chemically engineered to breakdown at specific fixed temperatures allowing the twisted conductors to make contact and initiate an alarm at the control panel without any calibration for changes in ambient temperatures. The factor in determining which detection temperature wire to use is the maximum ambient temperature of the hazard area or equipment to be protected. The proper temperature model must be selected to provide the fastest alarm response to a potential fire condition without creating false alarm conditions. In the selection process, it's critical to consider the hazard areas highest potential ambient temperature. It is a co-axial cable which exerts a defined change in electrical resistance of internal polymers when subjected to changes in surface temperatures. System monitoring through an associated electronic interface unit provides fault indication of open and short circuit conditions on the sensor cable.

System Sensor LHS range is UL/FM approved.

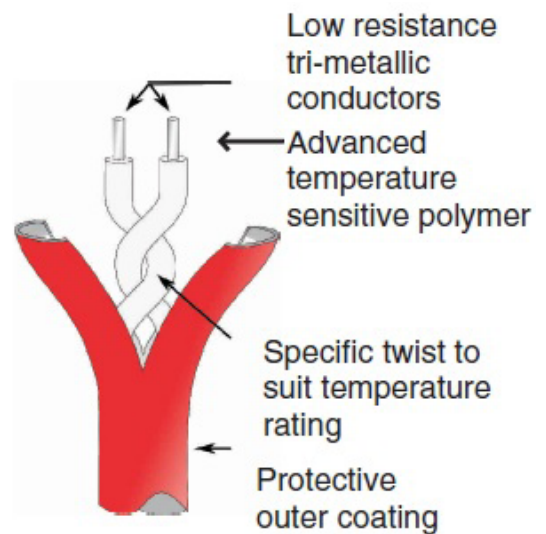


Figure: Fixed temperature Linear Heat Detection Cable Construction

PHYSICAL/OPERATING SPECIFICATIONS	JTY-LD-N*-887	JTY-LD-997
TYPE OF CABLE	Digital	Analogue
ALARM TEMPERATURE	70°C (158°F, not available for Nylon sheath), 85°C (185°F), 105°C (221°F), 138°C (280.4°F)	70°C to 130°C (Set by factory, default setting 85°C) 158°F to 266°F (Set by factory, default setting 85°C)
OPERATING TEMPERATURE RANGE	-25°C to (N* - 20)°C -13°F to (N* - 36) °F	-25°F to (Alarm Temp. - 20) °F -13°F to (Alarm Temp. - 36) °F
RESET TEMPERATURE	NA	120°C (248°F)
MAX ZONE LENGTH	1000m	200m
MIN BEND RADIUS	1.5 cm	1.5 cm
STANDARD ROLL LENGTH	200m or 600m	200m or 600m
STANDARD ROLL LENGTH	Steel	Steel
OUTER SHEATH OPTION	PVC/Nylon/Steel	PVC/Nylon/Steel
WEIGHT	1.8kg/100m (1.2lb/100ft)(PVC sheath)	1.4kg/100m (0.94lb/100ft)(PVC sheath)
ELECTRICAL SPECIFICATIONS	JTY-LD-N*-887	JTY-LD-997
OPERATING VOLTAGE / CONTACT RATING	NA	20 – 26 VDC
STANDBY CURRENT	NA	25mA
ALARM AND FAULT CURRENT	NA	45mA
RESISTANCE	0.32ohms/m (0.1ohms/ft)	NA

Specifications

MODEL NO	DESCRIPTION
SS-LD-68-155	Digital Linear Heat Detector(68 C), UL/FM approved
SS-LD-78-172	Digital Linear Heat Detector(78 C), UL/FM approved
SS-LD-88-190	Digital Linear Heat Detector(88 C), UL/FM approved
SS-LD-105-221	Digital Linear Heat Detector(105 C), UL/FM approved
SS-LDN-68-155	Digital Linear Heat Detector(68 C), with Nylon Extrusion, UL/FM approved
SS-LDN-78-172	Digital Linear Heat Detector(78 C), with Nylon Extrusion, UL/FM approved
SS-LDN-88-190	Digital Linear Heat Detector(88 C), with Nylon Extrusion, UL/FM approved
SS-LDN-105-221	Digital Linear Heat Detector(105 C), with Nylon Extrusion, UL/FM approved
SS-LDS-68-155	Digital Linear Heat Detector(68 C), with Stainless Steel Extrusion, UL/FM approved
SS-LDS-78-172	Digital Linear Heat Detector(78 C), with Stainless Steel Extrusion, UL/FM approved
SS-LDS-88-190	Digital Linear Heat Detector(88 C), with Stainless Steel Extrusion, UL/FM approved
SS-LDS-105-221	Digital Linear Heat Detector(105 C), with Stainless Steel Extrusion, UL/FM approved
SS-APDL	Alarm Point Distance Locator, FM Listed
887/EOL	End Of Line Box
887/M	Modulator - Junction Box



System Sensor WFD Series – Waterflow Detectors

WFD Series Water Flow Detectors

The WFD Series water flow detectors are available in a range of sizes to accommodate fire sprinkler risers from two to eight inches.

All units feature vane-type paddles and an adjustable mechanical relay.



WFD Series Water Flow Detectors

MODEL	PIPE SIZE	HOLE SIZE	PRESSURE RATING	CONTACT RATINGS	TRIGGERING THRESHOLD
WFD20	2 in.	1¼ in.	450 PSI	2 Form C: 10 A, 1/2 HP @ 125/250 VAC; 2.5 A @ 6/12/24 VDC	4–10 GPM
WFD25	2½ in.	1¼ in.	450 PSI	2 Form C: 10 A, 1/2 HP @ 125/250 VAC; 2.5 A @ 6/12/24 VDC	4–10 GPM
WFD30-2	3 in.	2 in.	450 PSI	2 Form C: 10 A, 1/2 HP @ 125/250 VAC; 2.5 A @ 6/12/24 VDC	4–10 GPM
WFD40	4 in.	2 in.	450 PSI	2 Form C: 10 A, 1/2 HP @ 125/250 VAC; 2.5 A @ 6/12/24 VDC	4–10 GPM
WFD50	5 in.	2 in.	450 PSI	2 Form C: 10 A, 1/2 HP @ 125/250 VAC; 2.5 A @ 6/12/24 VDC	4–10 GPM
WFD60	6 in.	2 in.	450 PSI	2 Form C: 10 A, 1/2 HP @ 125/250 VAC; 2.5 A @ 6/12/24 VDC	4–10 GPM
WFD80	8 in.	2 in.	450 PSI	2 Form C: 10 A, 1/2 HP @ 125/250 VAC; 2.5 A @ 6/12/24 VDC	4–10 GPM

SUPERVISORY SWITCHES

System Sensor manufactures devices for supervising a variety of control valves, including outside screw and yoke, post indicator, butterfly, and rising and non-rising stem gate.



MODEL	DESCRIPTION	VALVE SIZE	CONTACT RATING	MAXIMUM OPERATING CURRENT
OSY2	Used to monitor the open position of an outside screw-and-yoke type gate valve	1 in. to 12 in.	10 A @ 125/250 VAC; 2.5 A @ 6/12/24 VDC	-
PIBV2	Used to monitor the open position of post indicator and butterfly control valves	-	10 A @ 125/250 VAC; 2.5 A @ 6/12/24 VDC	-
PSP1	A plug-in special application supervisory switch designed for applications where no other type of listed valve supervisory switch can be used	-	Plug Contacts: 250 mA @ 6/12/24 VAC/DC, normally open Cover Tamper: 5 A @ 125/250 VAC, 2.5 A @ 6/12/24 VAC	250 mA



AUDIBLE VISIBLE NOTIFICATION

SpectrAlert Advance strobes – which are available in ceiling-mount or wall-mount varieties to meet a wide variety of applications – are ideal for warning hearing-impaired individuals during an emergency event. For convenient installation, the universal mounting plate with its snap-in feature holds the product in place for the screw attachment. Strobes feature 11 field-selectable candela settings and are compatible with 12- or 24-volt systems for a high level of customization. SpectrAlert Advance strobes are listed to UL 1971 for public mode evacuation. Please note that model numbers with a “K” suffix are outdoor-rated products listed to UL 1638 and rated from -40° F to 151° F (-40° C to 66° C), with a NEMA 4X rating. See page 16 for our line of plain strobes for ECS/MNS applications.



Ceiling-Mount Strobes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA	MARKING	DESCRIPTION
INDOOR	SCR	SCW	Standard	FIRE	Clear lens
	SCRH	SCWH	High	FIRE	Clear lens
OUTDOOR	SCRK	SCWK	Standard	FIRE	Clear lens
	SCRHK	SCWHK	High	FIRE	Clear lens

Wall-Mount Strobes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA	MARKING	DESCRIPTION
INDOOR	SR	SW	Standard	FIRE	Clear lens
	SR-SP	–	Standard	FUEGO	Clear lens
	SRH	SWH	High	FIRE	Clear lens
OUTDOOR	SRK	SWK	Standard	FIRE	Clear lens
	SRK-R	SWK-R	Standard	FIRE	Clear lens, Device only
	SRHK	SWHK	High	FIRE	Clear lens
	SRHK-R	–	High	FIRE	Clear lens, Device only

Notes

Standard Candela settings: 15, 15/75, 30, 75, 95, 110, and 115

High Candela settings: 135, 150, 177, and 185

SP denotes “FUEGO” printed housing.

R represents replacement device only, ships minus plastic weatherproof back box.

R outdoor replacement models are meant for use with WTP series of weatherproof flush-mount plates or SA-WBB outdoor metal weatherproof back boxes.

SpectrAlert Advance® Chimes

SpectrAlert Advance chimes were designed to produce a distinctive chime tone to meet UL 464 private mode applications for alerting trained personnel to investigate possible emergency situations and take appropriate actions. Devices feature rotary switches to select from a multitude of sound patterns and volume settings, and are compatible with 12- or 24-volt systems for additional customization.

Using the shorting spring feature to provide instant feedback to ensure that wiring is properly connected – in conjunction with our plug-in design – simplifies the process and cuts install time. Chimes are also compatible with the System Sensor synchronization protocol.



Chimes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	DESCRIPTION
INDOOR	CHR	CHW	Chime with selectable chime tones and volume settings

SpectrAlert Advance® Chime Strobes

SpectrAlert Advance indoor chime strobes were designed to produce a distinctive chime tone to meet UL 464 and UL 1638 in private mode applications, when alerting trained personnel to investigate possible emergency situations and take appropriate actions. Using the shorting spring feature to provide instant feedback to ensure that wiring is properly connected – in conjunction with our plug-in design – simplifies the process and cuts install time. With 7 field-selectable candela settings and 12- or 24-volt operation in one device, chime strobes maximize profits and provide a high level of customization.

Chime Strobes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA	DESCRIPTION
INDOOR	CHSR	CHSW	Standard	2-wire, Clear lens



SpectrAlert Advance® Mini-Horns

The SpectrAlert Advance series of mini-horn sounders is ideal for providing primary and secondary signaling for fire and security applications such as hotel, motel, or residential fire system applications, or where smaller notification devices are desired. Mini-horns offer 2 volume settings, high or low, as well as temporal or non-temporal tones. Compatible with 12- or 24-volt systems. Mini-horns are compatible with the System Sensor synchronization protocol, and they can be mounted to single-gang back boxes for aesthetically pleasing applications.



Mini Horns

LOCATION	RED MODEL NO.	WHITE MODEL NO.	DESCRIPTION
INDOOR	MHR	MHW	Mini Horn with two volume settings

SpectrAlert Advance® Horns

SpectrAlert Advance horns increase application flexibility for indoor or outdoor installations. Intended for full building notification as well as on the property ground, they produce a loud sound to notify occupants to evacuate the buildings. Installers can easily adapt devices to suit a wide range of application requirements by using field-selectable sound patterns and volume settings. Compatible with 12- or 24- volt systems. The universal mounting plate's plug-in design simplifies installation, too. SpectrAlert Advance horns are listed to UL 464 for public mode application, and "K" series outdoor products are listed to UL 464 for private mode applications and rated from -40° F to 151° F (-40° C to 66° C), with a NEMA 4X rating.



Mini Horns

LOCATION	RED MODEL NO.	WHITE MODEL NO.	DESCRIPTION
INDOOR	HRK	HW	Horn
OUTDOOR	HRK	—	Horn
	HRK-R	—	Horn, Device only

SpectrAlert Advance® Horn Strobes

SpectrAlert Advance horn strobes are rich with features guaranteed to cut installation time and maximize profits. Intended for full building notification as well as on the property ground, they produce a loud sound to notify occupants to evacuate the buildings; the strobe is intended to notify those that may have a hearing impairment. Features include a universal mounting plate with a preliminary snap-in feature to hold the product in place for the screw attachment, 11 field-selectable candela settings, and rotary switches to select horn tone and volume settings. Compatible with 12- or 24-volt systems. SpectrAlert Advance horn strobes are listed to UL 1971 and UL 464 for public mode evacuation. Model numbers with a “K” suffix are outdoor products that are listed to UL 1638 and UL 464 for private mode evacuation. The outdoor products are rated from -40° F to 151° F (-40° C to 66° C) and have a NEMA 4X rating.



Ceiling-Mount Horn Strobes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA	MARKING	DESCRIPTION
INDOOR	PC2R	PC2W	Standard	FIRE	2-Wire, Clear Lens
	–	PC2W-SP	Standard	FUEGO	2-Wire, Clear Lens
	PC2RH	PC2WH	High	FIRE	2-Wire, Clear Lens
	PC4R	PC4W	Standard	FIRE	4-Wire, Clear Lens
	PC4RH	–	High	FIRE	4-Wire, Clear Lens
OUTDOOR	PC2RK	PC2WK	Standard	FIRE	2-Wire, Clear Lens
	PC2RHK	PC2WHK	High	FIRE	2-Wire, Clear Lens

Ceiling-Mount Horn Strobes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA	MARKING	DESCRIPTION
INDOOR	P2R P2W Standard	FIRE	2-Wire, Clear Lens		
	P2R-SP	–	Standard	FUEGO	2-Wire, Clear Lens
	P2RH	P2WH	High	FIRE	2-Wire, Clear Lens
	P4R	P4W	Standard	FIRE	4-Wire, Clear Lens
	P4RH	–	High	FIRE	4-Wire, Clear Lens
OUTDOOR	P2RK	P2WK	Standard	FIRE	2-Wire, Clear Lens
	P2RK-R	–	Standard	FIRE	2-Wire, Clear Lens, Device Only
	P2RHK	P2WHK	High	FIRE	2-Wire, Clear Lens
	–	P2WHK-R	High	FIRE	2-Wire, Clear Lens, Device Only
	P2RHK-120	–	High	FIRE	2-Wire, Clear Lens, 120 V
	P4RK	P4WK	Standard	FIRE	4-Wire, Clear Lens
	P4RK-R	–	Standard	FIRE	4-Wire, Clear Lens, Device Only

SpectrAlert Advance® Directional Sounder

The ExitPoint Directional Sounder with Voice Messaging is a unique life safety product. It produces pulsating sound consisting of broadband low-, mid-, and high-range sound that helps occupants determine the location of the sound. When placed strategically within a building, they can lead building occupants to the nearest and safest exit or area of refuge, even in low-to-no visibility. Sounder can also play a recorded voice alert message in 15 different language combinations to instruct occupants what to do as they approach, which allows them to act quickly. It includes 4-speed selections and 5 power settings for 24-volt operation.



Directional Sounder

LOCATION	WHITE MODEL NO.	DESCRIPTION
INDOOR	PF24V	ExitPoint™ Directional Sounder with Voice Messaging

SpectrAlert Advance® Speakers

Dual-voltage (25/70.7 Vrms) evacuation speakers were designed for fast installation and top performance in noisy environments. The low total harmonic distortion of the SP speaker offers high fidelity sound output, while the SPV speaker offers high-volume sound output for use in high-ambient noise applications. Evacuation speakers also feature a plug-in design for reducing ground faults. The outdoor models ship with a plastic outdoor back box, featuring removable side flanges and improved saltwater corrosion resistance. Model numbers with a “K” suffix are outdoor rated products that are listed to UL 1480 and rated from -40° F to 151° F (-40° C to 66° C), with a NEMA 4X rating.



Ceiling-Mount Speakers

LOCATION	RED MODEL NO.	WHITE MODEL NO.	DESCRIPTION
INDOOR	SPCRV	SPCW	Dual-voltage evacuation speaker
	SPCRV	SPCWV	Dual-voltage evacuation speaker with high-volume dB sound output
OUTDOOR	–	SPCWK	Dual-voltage evacuation speaker
	–	SPCWK-R	Dual-voltage evacuation speaker, Device only

Wall-Mount Speakers

LOCATION	RED MODEL NO.	WHITE MODEL NO.	DESCRIPTION
INDOOR	SPR	SPW	Dual-voltage evacuation speaker
	SPRV	SPWV	Dual-voltage evacuation speaker with high-volume dB sound output
OUTDOOR	SPRK	SPWK	Dual-voltage evacuation speaker
	SPRK-R	–	Dual-voltage evacuation speaker, Device only

Notes

R represents replacement device only, ships minus plastic weatherproof back box.

R outdoor replacement models are meant for use with WTP series of weatherproof flush-mount plates or MWBB outdoor metal weatherproof back boxes.

SpectrAlert Advance® Speaker Strobes

During an emergency, building occupants and those on property grounds need to quickly understand what is happening and what actions to take. SpectrAlert Advance speaker strobes transmit the clear, intelligible messages and visible notification necessary to meet code, save lives, and protect property. In addition, selectable-output speaker strobes offer many features to reduce ground faults and simplify installation. Rotary switches allow installers to select voltage and power, and the 11 field-selectable candela settings accommodate any application. Low total harmonic distortion of the SP series provides high fidelity sound output while the SPV speakers offer high volume output, making them ideal for use in high-ambient noise environments. The plug-in design and universal mounting plate provides additional flexibility. Model numbers with a “K” suffix are outdoor rated products that are listed to UL 1971 and UL 1480 and are rated from -40° F to 151° F (-40° C to 66° C), with a NEMA 4X rating. The outdoor models ship with the plastic outdoor back box.



Ceiling-Mount Speaker Strobes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA MARKING	DESCRIPTION	DESCRIPTION
INDOOR	SPSCR	SPSCW	Standard	FIRE	Clear lens
	SPSCRV		Standard	FIRE	High volume dB, Clear lens
	SPSCRH	SPSCWH	High	FIRE	Clear lens
	SPSCRVH	SPSCWVH	High	FIRE	Clear lens
OUTDOOR	–	SPSCWK	Standard	FIRE	Clear lens
	–	SPSCWK-R	Standard	FIRE	Clear lens, Device only
	–	SPSCWHK	High	FIRE	Clear Lens

Wall-Mount Speaker Strobes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA MARKING	DESCRIPTION	DESCRIPTION
INDOOR	SPSR	SPSW	Standard	FIRE	Clear lens
	SPSRV	SPSWV	Standard	FIRE	High volume dB, Clear lens
	SPSRH	SPSWH	High	FIRE	Clear lens
OUTDOOR	SPSRK	SPSWK	Standard	FIRE	Clear lens
	SPSRK-R	SPSWK-R	Standard	FIRE	Clear lens, Device only
	SPSRHK	–	High	FIRE	Clear Lens

Notes

Standard Candela settings: 15, 15/75, 30, 75, 95, 110, and 115

High Candela settings: 135, 150, 177, and 185

-R represents replacement device only, ships minus plastic weatherproof back box.

-R outdoor replacement models are meant for use with WTP series of weatherproof flush-mount plates or MWBB outdoor metal weatherproof back boxes



SpectrAlert Advance® Plain Notification Appliances

SpectrAlert Advance plain horn strobes, speaker strobes, and strobes were designed to reduce installation time and meet a wide variety of Mass Notification and Emergency Communication applications. All of the plain notification appliances carry the same product specifications as the “FIRE” marked products. Compatible with our colored lenses and decal kits to provide distinctive visual signaling during and emergency. Model numbers with a “K” suffix are outdoor rated products that are listed to UL 1638 and UL 1480 and are rated from -40° F to 151° F (-40° C to 66° C) and have a NEMA 4X rating. The outdoor models ship with the plastic outdoor back box.

Ceiling-Mount Horn Strob

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA MARKING	DESCRIPTION	DESCRIPTION
INDOOR	PC2R-P	PC2W-P	Standard	None	2-Wire, Clear Lens
	–	PC2WH-P	High	None	2-Wire, Clear Lens



Wall-Mount Horn Strobes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA MARKING	DESCRIPTION	DESCRIPTION
INDOOR	P2R-P	P2W-P	Standard	None	2-Wire, Clear Lens
	–	P2WH-P	High	None	2-Wire, Clear Lens
	P4R-P	P4W-P	Standard	None	4-Wire, Clear Lens
OUTDOOR	P2RK-P	P2WK-P	Standard	None	2-Wire, Clear Lens
	P2RHK-P	P2WHK-P	High	None	2-Wire, Clear Lens



Plain Ceiling-Mount Speaker Strobe

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA MARKING	DESCRIPTION	DESCRIPTION
INDOOR	–	SPSCW-P	Standard	None	Clear lens
	–	SPSCWV-P	Standard	None	High volume dB, Clear lens
	–	SPSCWH-P	High	None	Clear lens
OUTDOOR	–	SPSCWHK-P	High None	Clear lens	



Plain Wall-Mount Speaker Strobes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA MARKING	DESCRIPTION	DESCRIPTION
INDOOR	SPSR-P	SPSW-P	Standard	None	Clear lens
	–	SPSWH-P	High	None	Clear lens
OUTDOOR	SPSRK-P SPSWK-P	Standard	None	Clear lens	



Plain Ceiling-Mount Strobes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA MARKING	DESCRIPTION	DESCRIPTION
INDOOR	–	SCW-P	Standard	None	Clear Lens



Plain Wall-Mount Strobes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	CANDELA MARKING	DESCRIPTION	DESCRIPTION
INDOOR	SR-P	SW-P	Standard	None	Clear lens
	–	SWH-P	High	None	Clear lens
OUTDOOR	SRK-P	SWK-P	Standard	None	Clear lens
	SRHK-P	SWHK-P	High	None	Clear lens



SpectrAlert Advance® Accessories

SpectrAlert Advance devices can be adapted to nearly any application with the appropriate accessory. Our mounting options allow our strobes, speakers, horns, chimes, and strobe combinations to be placed in new or existing construction with professional results.

Ceiling-Mount Back Boxes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	DESCRIPTION
INDOOR	SBBCR	SBBCW	Surface-mount back box for ceiling-mount horns, strobes, horn strobes, speakers, and speaker strobes
OUTDOOR	SA-WBBC	SA-WBBCW	Metal outdoor back box for ceiling-mount horns, strobes, and horn strobes
	–	MWBBCW	Metal weatherproof back box for speakers and speaker strobes



Wall-Mount Back Boxes

LOCATION	RED MODEL NO.	WHITE MODEL NO.	DESCRIPTION
INDOOR	SBBR	SBBW	Surface-mount back box for wall-mount horns, strobes, and horn strobes
	SBBSPR	SBBSPW	Surface-mount back box for wall-mount speakers and speaker strobes
OUTDOOR	SA-WBB	SA-WBBW	Metal outdoor back box for wall-mount horns, strobes, and horn strobes
	MWBB	MWBBW	Metal outdoor back box for speakers and speaker strobes



Back Box Skirts

LOCATION	RED MODEL NO.	WHITE MODEL NO.	DESCRIPTION
WALL	–	BBS-SP201W	Wall-mount back box skirt for ExitPoint Directional Sounder
	–	SEP-BBSW	Strobe expander plate back box skirt for Dual Strobe Expander Plates
	–	SPSEP-BBSW	Speaker strobe expander plate back box skirt for Dual Strobe Expander Plates



Colored Lenses - For use with plain (non-FIRE marked) strobe devices.

CEILING MODEL NO.	WALL MODEL NO.	COLOR	DESCRIPTION
LENS-AC	LENS-A	Amber	Lens attachment for all SpectrAlert Advance plain (non-FIRE marked) LENS-BC LENS-B Blue indoor or outdoor, ceiling- or wall-mounted strobes
LENS-BC	LENS-B	Blue	
LENS-GC	LENS-G	Green	
LENS-RC	LENS-R	Red	



Decal Kits - For use with plain (non-FIRE marked) devices.

CEILING MODEL NO.	WALL MODEL NO.	COLOR	DESCRIPTION
CEILING	DECAL-RC	Red Letters	60 decals* for up to 5 white devices (3 decals are required per device)
	DECAL-WC	White Letters	60 decals* for up to 5 red devices (3 decals are required per device)
WALL	DECAL-R	Red Letters	40 decals* for up to 5 white devices (2 decals are required per device)
	DECAL-W	White Letters	40 decals* for up to 5 red devices (2 decals are required per device)



SpectrAlert Advance® Accessories (cont.)

Mounting Plates

MODEL NO.	MOUNTING	DESCRIPTION
MP120K	Wall or Ceiling	Indoor/Outdoor 120 VAC adapter mounting plate for use with SpectrAlert Advance horns, strobes, 2-wire horn strobes, chimes and chime strobes



Retrofit Plates

MODEL NO.	MOUNTING	DESCRIPTION
RFP	RFPW	Retrofit plate for SpectrAlert Advance devices



Weatherproof Plates

MODEL NO.	MOUNTING	DESCRIPTION
WTP	WTPW	Weatherproof plate for flush mounting outdoor horns, strobes, and horn strobes
WTP-SP	WTP-SPW	Weatherproof plate for flushing mounting outdoor speakers and speaker strobes



Sync-Circuit Module

MODEL NO.	MOUNTING	DESCRIPTION
MDL3R	MDL3W	12 and 24 V sync-circuit module



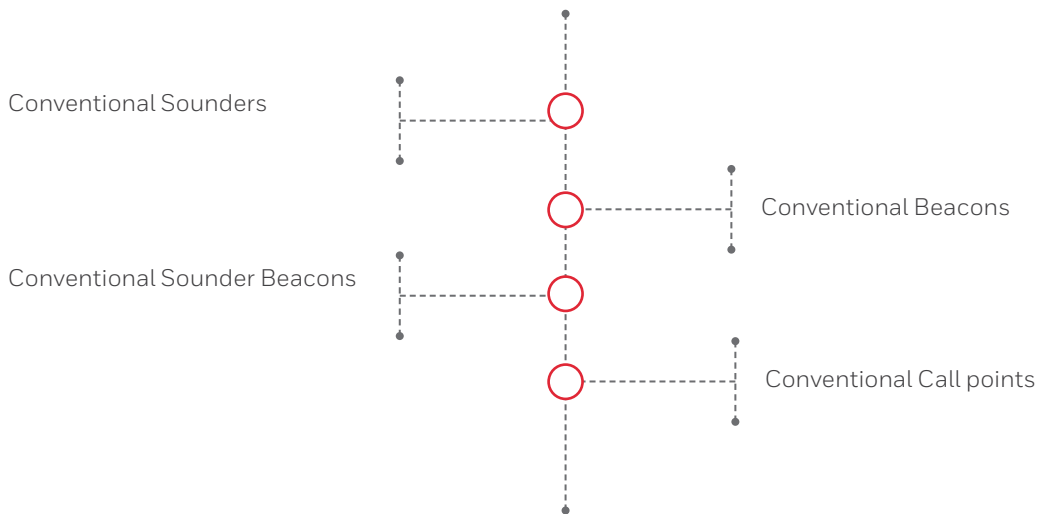
Trim Rings

MOUNTING	MODEL NO.	MOUNTING	DESCRIPTION
CEILING	TRC	TRCW	Trim ring for SpectrAlert Advance speakers and speaker strobes
WALL	TR	TRW	Trim ring for SpectrAlert Advance speakers and speaker strobes
	TR-HS	–	Trim ring for SpectrAlert Advance horns, strobes, and horn strobes



KAC CONVENTIONAL AUDIO VISUAL DEVICES

KAC Alarm Company is the world's largest manufacturer of manual call points and evacuation devices used in commercial fire and security systems, including:



KAC Conventional Sounder

KAC's conventional ENscape sounder is a high quality device designed to alert building occupants of an emergency.

The product features a new folded horn design which provides outstanding sound output at low current draw.

With its modern design, global tone set and extensive installer-friendly features, the ENscape sounder is the logical choice for specifiers, OEMs, installers and distributors.



FEATURES & BENEFITS

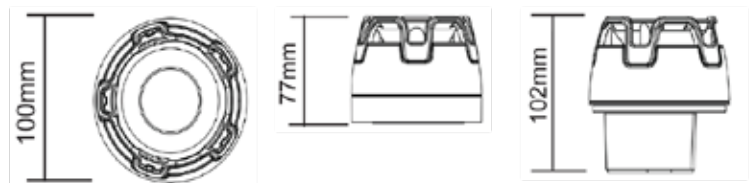
- Simple, fast and flexible installation
- Outstanding performance
- Universal device
- Quality and reliability

Introducing the Range

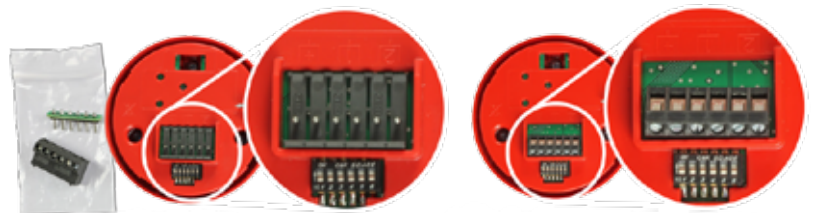
DEVICE	APPROVALS	BODY COLOUR		INSTALLATION OPTIONS	BASE OPTIONS	ENVIRONMENTAL COMPLIANCE
ENSCAPE SOUNDEERS	EN54-3	Red	White	Standard device	First Fix Low Profile or Deep/IP65	RoHS/ WEEE

ELECTRICAL SPECIFICATION	
OPERATING VOLTAGE	9 to 29VDC (Approved to EN54-3 @ 9-14V and 18-29V)
AVERAGE CURRENT CONSUMPTION	31mA @ 29VDC (Tone 8)
MAXIMUM SOUND OUTPUT	107dB (A) @ 1m (Tone 23)
MECHANICAL SPECIFICATION	
BODY COLOUR	Red / White
NUMBER OF TONES	32 includes a bell tone Full tone table available on website or on installation manual
VOLUME SETTING	High or medium
CABLE TERMINAL SIZE	0.5-2.5mm ²
MATERIAL	Flame retardant PC/ABS
GROSS WEIGHT STANDARD DEVICE	190g (low profile base), 197g (deep / IP65 base)
FIRST FIX OPTION	200g (low profile base) 207g (Deep / IP65)
ENVIRONMENTAL SPECIFICATION	
OPERATING TEMPERATURE	-25°C to 70°C
RELATIVE HUMIDITY	93% ±3%, non condensing
INGRESS PROTECTION	IP21C - low profile base IP65 - deep base
FOR ROHS & WEEE	Please visit www.kac.co.uk

Dimensions



Wiring Options



First Fix Device

Standard Device Connections

Out of Box Contents

ENSCAPE SOUNDER	STANDARD DEVICE	FIRST FIX OPTION	DEEP / IP 65 OPTION	DEEP / IP 65 & FIRST FIX OPTION
SOUNDER INCLUDING SELECTED BASE	✓	✓	✓	✓
P PACK (INCLUDES TERMINAL BLOCK & CONTINUITY LIN	X	✓	X	✓
O RING FOR IP65 SEALING	X	X	✓	✓
INSTALLATION DATA SHEET	✓	✓	✓	✓

Accessories

LOW PROFILE BASES	DEEP BASES	IP AND EARTHING KITS	ELECTRICAL ITEMS
CSR – Red low profile base, pack of 5	CWR – Red deep / IP 65, pack of 5	PS 189 – Deep base gasket, pack of 5	SC077- Terminal block, pack of 5
CSW – White low profile base, pack of 5	CWW – White deep / IP 65 base, pack of 5	PS 188 - Deep base O Ring, pack of 5	SC078- Installer link, pack of 5
		SC076 - Earth strap, pack of 5	

Order Information

CODE	BODY COLOUR	BASE OPTION	INSTALL OPTION	EXAMPLE PART NO.
CWSO	RR=Red	S=Low Profile	1=Standard Device	CWSO-RR-S1
	WW=White	W=IP65/Deep	2=First Fix	CWSO-WW-W2



KAC CONVENTIONAL BEACONS

KAC's conventional beacons feature high output LEDs, advanced optics and an innovative lens design, providing outstanding Omni-directional light coverage at low current draw. Specifically designed for, and approved to meet EN54-23, the ENscape beacon delivers outstanding quality, reliability and long operational life.

FEATURES & BENEFITS

- Simple, fast and flexible installation
- Outstanding performance
- Universal device
- Quality and reliability

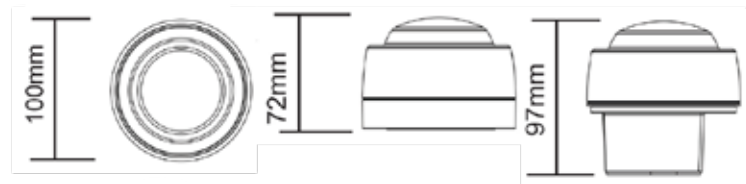
Introducing the Range

DEVICE	APPROVALS	BODY COLOUR		FLASH COLOUR		INSTALLATION OPTIONS		LENS	ENVIRONMENTAL COMPLIANCE
ENscape Beacon	EN54-23 C & W Class	Red	White	Red	White	Standard Device	First Fix	Clear	RoHS/ WEEE

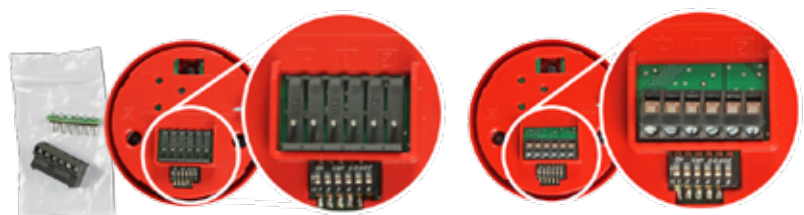
MECHANICAL SPECIFICATION	
BODY COLOUR	Red / White
CABLE TERMINAL SIZE	0.5-2.5mm ²
MATERIAL LENS	PC
MATERIAL BODY	PC/ABS
GROSS WEIGHT: STANDARD DEVICE	164g (low profile), 171g (deep / IP65)
FIRST FIX OPTION	174g (low profile), 181g (deep / IP65)
ENVIRONMENTAL SPECIFICATION	
OPERATING TEMPERATURE	-25°C to 70°C
RELATIVE HUMIDITY	93% ±3% non condensing
INGRESS PROTECTION	IP21C - low profile base
	IP65 - deep base
FOR ROHS, WEEE INFORMATION PLEASE SEE WWW.KAC.CO.UK	
ELECTRICAL SPECIFICATION	
OPERATING VOLTAGE EN54-23	12 to 29VDC
AVERAGE CURRENT CONSUMPTION	26mA @ 29VDC



Dimensions



Wiring Options



First Fix Device

Standard Device Connections

Product Performance

ENSCAPE BEACON	WALL MOUNT W CLASS	WALL MOUNT W CLASS	CEILING MOUNT C CLASS	CEILING MOUNT C CLASS
Flash Colour	White	Red	White	Red
EN54-23 coverage volume code	W-2.4- 9.0	W-2.4- 6.2	C-3-9.5 / C-6-9.5 / C-9-9.5	C-3-9.4 / C-6-8.2
Installation height (X)	2.4m	2.4m	3m / 6m / 9m	3m / 6m
EN54-23 coverage (Y)	Cube YY = 9.0m	Cube YY = 6.2m	Cylinder Æ = 9.5m	Cylinder Æ = 9.4m, 8.6m
EN54-23 coverage volume	194m ³	92m ³	213m ³ / 425m ³ / 638m ³	208m ³ / 348m ³
Flash rate	0.5 Hz	0.5 Hz	0.5 Hz	0.5 Hz
Operating voltage range	12 to 29V	12 to 29V	12 to 29V	12 to 29V
Synchronisation	Automatically on power up, exceeds EN54-23 standard			

Out of Box Contents

ENSCAPE SOUNDER	STANDARD DEVICE	FIRST FIX OPTION	DEEP / IP 65 OPTION	DEEP / IP 65 & FIRST FIX OPTION
BEACON INCLUDING SELECTED BASE	✓	✓	✓	✓
P PACK (INCLUDES TERMINAL BLOCK & CONTINUITY LIN	X	✓	X	✓
O RING FOR IP65 SEALING	X	X	✓	✓
INSTALLATION DATA SHEET	✓	✓	✓	✓

Accessories

LOW PROFILE BASES	DEEP BASES	IP AND EARTHING KITS	ELECTRICAL ITEMS
CSR – Red low profile base, pack of 5	CWR – Red deep / IP 65, pack of 5	PS 189 – Deep base gasket, pack of 5	SC077- Terminal block, pack of 5
CSW – White low profile base, pack of 5	CWW – White deep / IP 65 base, pack of 5	PS 188 - Deep base O Ring, pack of 5	SC078- Installer link, pack of 5
		SC076 - Earth strap, pack of 5	

Order Information

CODE	BODY COLOUR	FLASH COLOUR	BASE OPTION	INSTALL OPTION	LENS COLOUR	EXAMPLE PART NO.
CWST	R=Red	R=Red	S=Low Profile	5=Standard Fix	(all lenses-Clear)	CWST-RR-S5
	W=White	W=White	W=IP65/Deep	6=First Fix		CWST-WW-W6

KAC CONVENTIONAL SOUNDER BEACON

KAC's Conventional Sounder Beacon is ideal for applications where a dual purpose audible and visual alarm device is required. The product features a new folded horn design, high output LEDs, advanced optics and an innovative lens design, providing outstanding sound output and omnidirectional light coverage at low current draw. Specifically designed and approved to meet both EN54-3 and EN54-23, the ENscape Sounder Beacon delivers outstanding quality, reliability and extended operational life.

FEATURES & BENEFITS

- Simple, fast and flexible installation
- Outstanding performance
- Universal device
- Quality and reliability

Introducing the Range

DEVICE	APPROVALS		BODY COLOUR		FLASH COLOUR		INSTALLATION OPTIONS		LENS	ENVIRONMENTAL COMPLIANCE
	EN54-23	EN54-3	Red	White	Red	White	Standard Device	First Fix		
ENSCAPE SOUNDER BEACON	W & C Class	•	•	•	•	•	•	•	•	RoHS/WEEE
ENSCAPE SOUNDER BEACON	0 Class	•	•	•	•	X	•	•	•	RoHS/WEEE

KAC CONVENTIONAL CALL POINTS

KAC offers the most comprehensive range of indoor and outdoor call points for the commercial fire and security industry, with millions of products shipped globally every year. When KAC invented a new manual break-glass call point 40 years ago, it set the global standard. Through our continued commitment to product design and development it is still the most widely used, installer friendly product on the market today. Thousands of product variants are available according to type of use, design feature and bespoke development, providing huge flexibility for OEM partners.

INDOOR CALL POINTS

MCP1 - Resistor & Clean Contact Model

The MCP1A is supplied with a resistor and normally open, clean contact electrical options. A variety of resistor versions are available with 470W and 680W offered as standard. The MCP1B allows for connection to 'savwire' systems.

MCP2 - LED Model

All MCP2 products are supplied with an LED indicator as standard. The MCP2A is supplied with a resistor and normally open, clean contact electrical options. A variety of resistor values are available by request with 470W offered as standard. The MCP2B is designed for connection to 'savwire' systems.

MCP3 - NO/NC Contact Model

The MCP3A is supplied with one normally open and one normally closed contact. Single pole changeover switching can be achieved with the use of two terminal blocks.

Intelligent MCP

KAC offers a comprehensive range of intelligent indoor call points for use with compatible systems. These offer a wide variety of features to meet the requirements of OEM system designers.

For further information please contact the KAC customer service team.

Indoor call points are available in red, yellow, green, white, orange or blue dependant on order volume.

MOUNTING BOXES

SR Surface Mounting Box

ADAPTOR TRAYS

ETT1 Adaptor tray – Europe

ETT3 Adaptor tray – US/Australia



OUTDOOR CALL POINTS

WCP1 - Resistor & Clean Contact Model

The IP67 sealed WCP1A is supplied with a resistor and normally open, clean contact electrical options. A variety of resistor versions are available, with 470W and 680W offered as standard.

WCP2 - LED Model

All IP67 sealed WCP2 products are supplied with an LED indicator as standard. The WCP2A is supplied with both a resistor and normally open, clean contact electrical options. A variety of resistor values are available by request, with 470W offered as standard.

WCP3 - NO/NC Contact Model

The IP67 sealed WCP3A is supplied with one normally open and one normally closed contact. Single pole changeover switching can be achieved with the use of two terminal blocks.

WCP4 - Double Pole Changeover

Contact Model

The IP67 sealed WCP4A is supplied with a double pole changeover set of contacts. The product uses two terminal connector blocks and wiring to the relevant terminals provides a normally open or normally closed operation.

Intelligent WCP

KAC offers a comprehensive range of intelligent outdoor call points for use with compatible systems. These offer a wide variety of features to meet the requirements of OEM system designers.

For further information please contact the KAC customer service team.

Outdoor call points are available in red, yellow, green, white or blue dependant on order volume.

ACCESSORIES

- KG1 x 10 Pack of 10 Spare Glass Elements
- SC070 Pack of 10 Spare Test Keys
- SC071 Pack of 20 Spare MCP Terminals
- PS200 Transparent Hinged Cover
- P056 Pack of 5 Hinged Cover Seals
- PS210 EN54 Flexible Operating Elements

MOUNTING BOXES

SR Surface Mounting Box

ADAPTOR TRAYS

ETT1 Adaptor tray – Europe

ETT3 Adaptor tray – US/Australia

For further information please contact the KAC customer service team.

Outdoor call points are available in red, yellow, green, white or blue dependant on order volume.

ACCESSORIES

- KG1 x 10 Pack of 10 Spare Glass Elements
- SC070 Pack of 10 Spare Test Keys
- SC071 Pack of 20 Spare MCP Terminals
- PS200 Transparent Hinged Cover
- P056 Pack of 5 Hinged Cover Seals
- PS210 EN54 Flexible Operating Elements

FEATURES & BENEFITS

- Fast and easy installation
- Simple maintenance
- EN54 compliant
- Interchangeable elements
- Proven quality and reliability

FIRE AND SECURITY SOLUTIONS FOR SMALL AND MEDIUM-SIZED BUSINESSES

Cost-effective fire, surveillance, access, and intrusion detection solutions

Sound Security

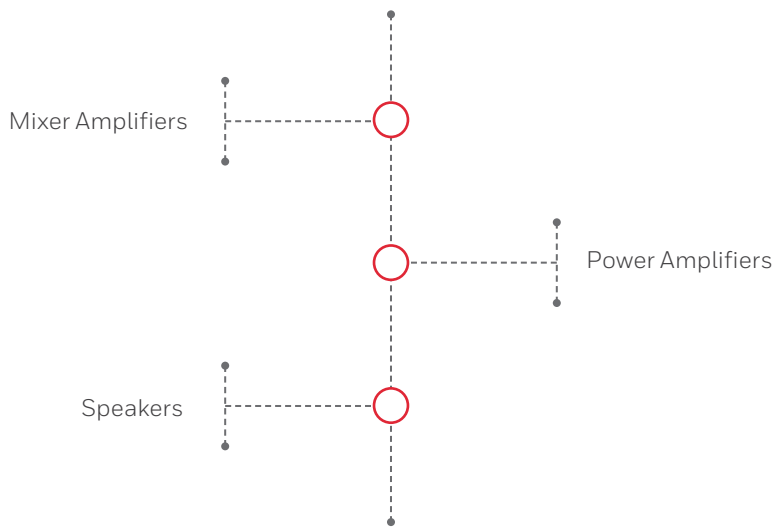
Honeywell compact public address

EMPERTECH, a brand owned by Honeywell Audiovisuals, is committed to provide customers around the globe an internationally compliant, reliable, user-friendly, and cost-competitive public address solution for small-to-midsized locations focus on versatility, reliability and ease of use

FEATURES & BENEFITS

- Ideal for small-to-midsized applications
- High-performance sound system at an affordable price
- Easy operation
- Easy to install and maintain
- Out-of-box functionality with no training required
- Superb sound and speech reproduction
- Reliability: System with high stability, reliability, and safety suit to long duration consecutive operation

Honeywell Compact Public Address Systems Solutions include



Honeywell Range of Amplifiers

Mixer Amplifiers

A range of highly flexible mixer amplifiers for a wide variety of voice and background music applications for retail shops, restaurants and bars, service centers, houses of worship, and warehouses.

FEATURES & BENEFITS

- High efficiency Class-D mixer amplifier – available in 90W and 150W
- 260W mixer with 3 microphones and 2 auxiliary inputs
- Mixer amplifier with audio source and paging station
- 5 zones selectors, BGM, and paging
- 5 zone paging microphone (optional)
- Audio source with CD and USB feature (optional)
- Volume control of each zone
- 7 band equalizer to enhance BGM quality
- Highly efficient, compact, and lightweight

KB-C30P/C60P

Desktop Mixer Amplifier

These commercial-grade mixer power amplifiers efficiently deliver clean, reliable audio for public address systems. They are designed for small applications such as retail shops, restaurants and bars, service centers, houses of worship, and warehouses.

- 100V, 70V and 4-16 Ohms.
- Transformer-isolated speaker outputs.
- Auxiliary (phono) input for music sources – switchable CD/AUX.
- Priority (5-pin DIN) balanced microphone input; 6.35mm jack unbalanced microphone input.
- Equalization function.

SPECIFICATION	KB-C30P	KB-C60P
RELATED POWER OUTPUT	30W	60W
SPEAKER OUTPUT	100 V (334 Ω), 70 V (164 Ω), 4, 8, 16 Ω	
S/N RATIO MICS	> 60 dB	
S/N RATIO AUX	> 70 dB	
TONE CONTROLS	150 Hz, 1 KHz, 6 KHz +/- 10 dB	
INPUT	775 mV, 0 dB, XLR and phone jack	
FREQUENCY RESPONSE	< 0.5% at Rated Power	
THD	100 - 20.000 Hz +/- 3dB	
POWER REQUIRMENTS	220 - 240 VAC, 50/60 Hz	
DIMENSIONS	90(H) x 270(W) x 260(D) mm	
NET WEIGHT	4.3 kg	5.8 kg
COLOR	Black	



KB-C30PT/C60PT

30W MIXER AMPLIFIER WITH TUNER, MP3, AND USB

These commercial-grade mixer amplifiers with built-in MP3/TUNER are designed for high quality sound reproduction and audio output.

Highly flexible mixer amplifiers for a wide variety of voice and background music applications such as retail shops, restaurants and bars, service centers, houses of worship, and warehouses.

- 30W amplifier.
- 100V, 70V and 4-16 Ohms outputs 2.
- Auxiliary switchable CD/AUX.
- 4 pin phoenix connector for balanced mic or Tel in.
- 6.35mm jack unbalanced microphone input.
- Equalization function.
- Music on hold.
- Built-in tuner.
- Built-in USB port.

SPECIFICATION		
	KB-C30P	KB-C60P
RELATED POWER OUTPUT	30W	60W
SPEAKER OUTPUT	100 V (334 Ω), 70 V (164 Ω), 4, 8, 16 Ω	
S/N RATIO MICS	> 60 dB	
S/N RATIO AUX	> 70 dB	
TONE CONTROLS	150 Hz, 1 KHz, 6 KHz +/- 10 dB	
INPUT	775 mV, 0 dB, XLR and phone jack	
FREQUENCY RESPONSE	< 0.5% at Rated Power	
THD	100 - 20.000 Hz +/- 3dB	
POWER REQUIRMENTS	220 - 240 VAC, 50/60 Hz	
DIMENSIONS	90(H) x 270(W) x 260(D) mm	
NET WEIGHT	4.3 kg	5.8 kg
COLOR	Black	



KB-C120PV

2-ZONE MIXER AMPLIFIER

This high quality 2-zone mixer amplifier offers 120Wrms and features dual EQ controls allowing adjustment of the bass and treble frequencies, suitable for powering medium to large sound systems where music may be needed only in a specific area of the building.

- 2 output channels, one for music or speech, the other speech only.
- Master volume, Bass and Treble control, individual knob for level adjustment of each input.
- VOX priority Mic1 and Mc2; Inputs 3, 4, 5 can be switched between microphones and line inputs.
- 4 pin phoenix connector for balanced mic or Tel in.
- Booster output offers connection to additional amplifier system when more power is needed.
- Three balanced combo jack inputs; RCA jack line inputs.
- Operating on AC power or 24V DC.
- Brackets are provided for 19in rack installation.

SPECIFICATION	
	KB-C120PV
MIC INPUTS	0.8 mV / 600 Ω
AUX INPUTS	100mV / 500mV, 1V
SIGNAL/NOISE RATIO, MICS	> 60 dB
SIGNAL/NOISE RATIO, AUX	> 70 dB
FREQUENCY RESPONSE	50 Hz 18 kHz
THD	<1% at rated power
BASS CONTROL	+/- 10 dB at 100 Hz
TREBLE CONTROL	+/- 10 dB at 100 Hz
POWER OUTPUT MS	120 W
AC POWER	240V 50 Hz
DC POWER	24V
BOOSTER OUTPUT	1V/600 Ω
DIMENSIONS	88(H) x 428(w) x 268(D) mm
WEIGHT	10.2 kg



KB-C240PV

2-ZONE MIXER AMPLIFIER

This 240W mixer amplifier can be run on either main or DC power. It is suitable for powering medium to large sound systems where music may be needed only in a specific area of the building.

- Individual Bass, Treble adjustment, and gain/trim control for each input.
- Switchable VOX priority Mic1 over all other inputs; Aux 1, 2 can be overridden by any of the 2, 3, 4 microphone inputs.
- Operate on AC or 24V DC power
- Clean and clear front panel with controls located at the rear.
- Balanced microphone inputs and RCA Aux.

SPECIFICATION	
	KB-C240PV
RATED OUTPUT POWER	240 W at 41,6 Ω (100)
	240 W at 8 Ω
FREQUENCY RESPONSE	70 Hz - 15 kHz
THD	< 0.2% - 3dB at 1kHz
TONE CONTROL	Bass \pm 8 dB at 100 Hz
OUTPUT REGULATION	Treble \pm 8 dB at 10 kHz
SENSITIVITY INPUTS 1-5	1mV to 200 mV
INPUTS 6	500 mV (RCA Phone Socket)
S/N RATIO INPUTS 1-5	>58 dB
INPUTS 6	>65 dB
BOOSTER OUTPUT LEVEL	1 V at 600 Ω
TPAE OUPUT	300 mV
POWER	200V-240VAC at 50 Hz / 24 VDC
AC POWER CONSUMPTION	700 VA at rated power
DIMENSIONS	88(H) x 430(W) x 270(D) mm
WEIGHT	11.5 kg



KB-S200P/S300P/S600P/S1000P

5-input mixer amplifier

Highly flexible mixer amplifier are designed for a wide variety of voice and background music applications such as retail shops, restaurants and bars, service centers, houses of worship, warehouses etc.



- 3 microphones and 2 auxiliary inputs
- 1 line output
- 100V, 70V and 4-16 Ohms transformer-isolated speaker outputs
- automatic mute function for paging and announcements
- individual input gain controls with master volume control
- bass and treble tone controls
- LED level meter
- Speaker output short circuit protection

SPECIFICATION				
	KB-S200P	KB-S600P	KB-S600P	KB-S1000P
RATED POWER OUTPUT	70 W	103 W	260 W	360 W
OUTPUT REGULATION	< 3 dB (no load to full load)			
SPEAKER OUTPUT	70 Ω (70V) 143 Ω (100V) Low impedance: 4-16 Ω	38 Ω (70V) 77 Ω (100V) Low impedance: 4-16 Ω	19 Ω (70) 39 Ω (100V) Low impedance: 4-16 Ω	14 Ω (70V) 28 Ω (100V) Low impedance: 4-16 Ω
INPUT	MIC 1, 2, 3: 600 Ω, 5 mV, unbalanced, phone jack; AUX 1, 2: 10k Ω, 470 mV, unbalanced, RCA jack			
OUTPUT	600 Ω, >650 mV, RAC jack			
FREQUENCY RESPONSE	60 - 15,000 KHz, +/- 3 dB			
THD	< 0.5% at 1 kHz (1/3 Rated output)			
S/N RATIO	> 73 dB			
tone controls	BASS: 100Hz (+/- 10dB), TREBLE: 12 kHz (+/- 10dB)			
CONTROLS	5 input gain, 1 treble, 1 bass, 1 mute and power switch			
COOLING	Internal 12 VDC fan, extensive heat sinking			
INDICATORS	Power indicator LED, LED output level meter 0, 2, 4, 6, 8, 10 dB			
PROTECTION	AC Fuse: 4 A	AC Fuse: 6 A	AC Fuse: 8 A	AC Fuse: 8 A
	current limiter, short circuit and thermal protection circuits			
POWER CONSUMPTION	140 W	260 W	350 W	485 W
POWER REQUIREMENTS	240-250 VAC, 50/60 Hz			
DIMENSIONS	80(H) x 483(W) x 366(D) mm			
BUILT-IN DIMENSIONS	2U RACK 19 INCH			
CARTON DIMENSIONS	185(H) x 520(W) x 435(D) mm			
NET WEIGHT	10.04 kg	11.36 kg	13.68 kg	14.08 kg
GROSS WEIGHT	11.72 kg	13.02 kg	15.70 kg	15.70 kg
COLOR	Panel: steel plate, black			

Power Amplifiers

Power amplifiers are designed to operate under a variety of adverse conditions without fail. Several configurations, power levels and features are available to suit nearly any commercial application

FEATURES & BENEFITS

- This is a rugged and highly reliable product, ideally suited for a wide variety of music and public address applications
- Engineered for high performance with wide frequency response, very low noise and distortion, and excellent output regulation
- Modular design allows fast and easy custom configurations
- Available in 120W, 240W, 360W RMS Output Power



KB-PAM120/240/360

Single Channel Power Amplifier

These commercial-grade power amplifiers efficiently deliver up to 120-360 watts of clean, reliable audio for the most demanding public address and voice alarm applications.

Rugged and over-built to give years of dependable service, they are equipped with massive power transformers, extensive heat-sinking and fan cooling, and protective circuits such as over-temperature, short circuit, radio-frequency interference (RFI) and power soft start.

- 100V, 70V and 4 Ohms transformer.
- Isolated speaker outputs.
- Balanced XLR input with XLR parallel link-out connector.
- 400Hz high pass filter.
- Ground Selector Switch: Frame/float.

SPECIFICATION			
	KB-PAM120	KB-PAM240	KB-PAM360
RATED POWER OUTPUT	120 W	240 W	360 W
GAIN CONTROL	-12 dB to 0		
SPEAKER OUTPUT	41 Ω 70V 83 Ω 100V	21 Ω 70V 41 Ω 100V	16.3 Ω 70V 27.8 Ω 100 V
FREQUENCY RESPONSE	Low impedance: 4 Ω 60 - 20 KHz, +/- 3 dB	low Impedance: 4 Ω	
THD	< 1.0% at 1kHz (1/2 Rated output)		
S/N RATIO	>90 dB		
CONTROLS	Volume control and power switch		
COOLING	Internal 12 VDC fan, extensive heat sinking		
POWER CONSUMPTION	260 W	500 W	760 W
POWER REQUIREMENTS	220-240 V AC, 50/60 Hz, 24 VDC		
DIMENSIONS	89(H) x 483(W) x 435(D) mm		
NET WEIGHT	13 kg	17.66 kg	20.8 kg
COLOR	Black		

Honeywell Range Of Speakers

Honeywell takes pride in offering a range of speakers that stand out for their exceptional sound performance and ergonomic design. Our speakers can adapt to extreme environments, making them suitable for a wide range of applications. Furthermore, they are easy to install and maintain. This EN54-24 certified speaker family is compact, robust, and environment-friendly.

L-PCP06A Compact PA

2.5" ABS Ceiling Loudspeaker

- Optimal audio performance with dual-cone speakers.
- Cone with gasket and damping affect for longer operating life.
- Simple power setting.
- Stylish and unobtrusive design.
- High compact and fire resistant ABS plastic.
- CE and RoHS compliant.



SPECIFICATIONS	L-PCP06A
MAX POWER	9W
RATED POWER	6W
POWER TAPS @ 100V	6W / 3W
POWER TAPS @ 70V	3W / 1.5W
SPL AT 6W/1W (140HZ - 20KHZ,1M)	91dB / 84dB
FREQUENCY RANGE (-10DB)	110Hz - 20kHz
DISPERSION ANGLE (1KHZ/-6DB)	150°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	1.7KΩ / 3.3KΩ
CONNECTION	Push-in terminal block
DIMENSIONS (Ø X H)	Φ103mm x 80mm
HOLE CUT-OUT SIZE	95mm
DIAMETER OF SPEAKER	2.5"
WEIGHT	0.42kg
COLOR	White (RAL 9003)
MATERIAL	ABS

L-PCP06B Compact PA

5.5" ABS Ceiling Loudspeaker

- Clear audio and music reproduction.
- Higher sensitivity.
- Simple power setting.
- Easy to install and cost effective.
- Excellent anti-crush performance.
- CE and RoHS compliant.



SPECIFICATIONS	L-PCP06B
MAX POWER	9W
RATED POWER	6W
POWER TAPS @ 100V	6W / 3W
POWER TAPS @ 70V	3W / 1.5W
SPL AT 6W/1W (100HZ - 15KHZ,1M)	97dB / 91dB
FREQUENCY RANGE (-10DB)	70Hz - 18kHz
DISPERSION ANGLE (1KHZ/-6DB)	150°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	1.7KΩ / 3.3KΩ
CONNECTION	Plastic terminal blocks
DIMENSIONS (Ø X H)	Φ188mm x 75mm
HOLE CUT-OUT SIZE	Φ170mm
DIAMETER OF SPEAKER	5.5"
WEIGHT	0.77kg
COLOR	White (RAL 9003)
MATERIAL	ABS

L-PCP06C

6.5" ABS Moisture-proof Ceiling

Loudspeaker

- Clear and intelligible audio performance.
- Stylish and unobtrusive design.
- Simple power setting.
- Flush-mounting system for fast and easy installation.
- Excellent moisture-proof ability, complying with IP54 standard.
- CE and RoHS compliant.



SPECIFICATIONS	L-PCP06C
MAX POWER	9W
RATED POWER	6W
POWER TAPS @ 100V	6W / 3W / 1.5W
POWER TAPS @ 70V	3W / 1.5W / 0.75W
SPL AT 6W/1W (100HZ - 15KHZ,1M)	99dB / 93dB
FREQUENCY RANGE (-10DB)	80Hz - 16kHz
DISPERSION ANGLE (1KHZ/-6DB)	150°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	1.7KΩ / 3.3KΩ / 6.7KΩ
CONNECTION	Plastic terminal blocks
DIMENSIONS (Ø X H)	Φ188 x 75mm
HOLE CUT-OUT SIZE	Φ170mm
DIAMETER OF SPEAKER	6.5"
WEIGHT	0.77kg
COLOR	White (RAL 9003)
MATERIAL	ABS
IP RATING	IP54

L-PCP20A

5" ABS Coaxial Ceiling Loudspeaker with ABS Dome

- Coaxial design ensures wider frequency response range.
- Flawless acoustic performance.
- Selectable 8 ohms, 70V and 100V inputs.
- Easy connection and installation.
- High strength and fireproof ABS enclosure.
- CE and RoHS compliant.



SPECIFICATIONS	L-PCP20A
MAX POWER	30W
RATED POWER	20W
POWER TAPS @ 100V	20W / 10W
POWER TAPS @ 70V	10W / 5W
SPL AT 20W/1W (150HZ - 20KHZ,1M)	102dB / 90dB
FREQUENCY RANGE (-10DB)	100Hz - 20kHz
DISPERSION ANGLE (1KHZ/-6DB)	120°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	500Ω / 1KΩ
CONNECTION	Binding Post Terminals
DIMENSIONS (Ø X H)	Φ240mm x 151mm
HOLE CUT-OUT SIZE	Φ210mm
DIAMETER OF SPEAKER	5.5"
WEIGHT	2kg
COLOR	White (RAL 9003)
MATERIAL	ABS

L-PCM06A

5" Metal Ceiling Loudspeaker

- Optimal audio performance with dual-cone speakers.
- Cone with gasket and damping affect for longer operating life.
- Time-tested metal grille with hardware free appearance.
- Higher sensitivity.
- Impressive anti-crash and anti-rusting performance.
- CE and RoHS compliant.



SPECIFICATIONS	L-PCM06A
MAX POWER	9W
RATED POWER	6W
POWER TAPS @ 100V	6W / 3W / 1.5W
POWER TAPS @ 70V	3W / 1.5W / 0.75W
SPL AT 6W/1W (150HZ - 20KHZ,1M)	96dB / 90dB
FREQUENCY RANGE (-10DB)	120Hz - 20kHz
DISPERSION ANGLE (1KHZ/-6DB)	160°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	1.7KΩ / 3.3KΩ / 6.7KΩ
CONNECTION	Plastic terminal blocks
DIMENSIONS (Ø X H)	Φ180mm x 55mm
HOLE CUT-OUT SIZE	Φ150mm
DIAMETER OF SPEAKER	5"
WEIGHT	0.7 kg
COLOR	White (RAL 9003)
MATERIAL	Iron

L-PCM06B

6.5" Metal Ceiling Loudspeaker with Metal Dome

- Clear and stereo audio performance.
- Cone edge with damp glue for longer operation life.
- Sturdy press fit metal grille appearance.
- Simple power setting.
- Flush-mounting system for fast and easy installation.
- CE and RoHS compliant.

SPECIFICATIONS	L-PCM06B
MAX POWER	9W
RATED POWER	6W
POWER TAPS @ 100V	6W / 3W / 1.5W
POWER TAPS @ 70V	3W / 1.5W / 0.75W
SPL AT 6W/1W (150HZ - 20KHZ,1M)	100dB / 92dB
FREQUENCY RANGE (-10DB)	110Hz - 20kHz
DISPERSION ANGLE (1KHZ/-6DB)	180°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	1.7KΩ / 3.3KΩ / 6.7KΩ
CONNECTION	Push-in terminal blocks
DIMENSIONS (Ø X H)	Φ200 x 100mm
HOLE CUT-OUT SIZE	175mm
DIAMETER OF SPEAKER	6.5"
WEIGHT	1.08kg
COLOR	White (RAL 9003)
MATERIAL	Iron

LM2-PCP06x

ABS Modular Ceiling Loudspeaker Family

- Superior voice and music reproduction.
- Stylish design.
- Easy installation.
- Excellent moisture-proof ability, complying with IP54 and IP55 Standards (LM2-PCP06C).
- Optional back dome LM2-PM for choice.
- Optional metal bracket LM2-MHA for suspended installation.
- Compliance with CE and RoHS standards.

SPECIFICATIONS	LM2-PCP06A	LM2-PCP06B	LM2-PCP06C	LM2-PM
MAX POWER	9W	9W	9W	
RATED POWER	6W	6W	6W	
POWER TAPS @ 100V	6W / 3W / 1.5W	6W / 3W / 1.5W	6W / 3W / 1.5W	
POWER TAPS @ 70V	3W / 1.5W / 0.75W	3W / 1.5W / 0.75W	3W / 1.5W / 0.75W	
SPL AT 6W/1W	100dB / 92dB(120Hz-18KHz,1m)	100dB / 92dB(120Hz-18KHz,1m)	97dB / 89dB(150Hz-18kHz,1m)	
FREQUENCY RANGE (-10DB)	80Hz - 20kHz	80Hz - 20kHz	110Hz - 20kHz	
DISPERSION ANGLE(1KHZ/4KHZ,6DB)	184° / 90°	184° / 90°	184° / 90°	
RATED INPUT VOLTAGE	100V / 70V	100V / 70V	100V / 70V	
RATED IMPEDANCE	1.7KΩ / 3.3KΩ / 6.7KΩ	1.7KΩ / 3.3KΩ / 6.7KΩ	1.7KΩ / 3.3KΩ / 6.7KΩ	
CONNECTION	4-pole screw plastic block	4-pole screw plastic block	4-pole screw plastic block	
DIMENSIONS(Ø X H)	Ø180mm x 73mm	Ø180mm x 105mm	Ø180mm x 73mm	Ø139 mm x 100mm
HOLE CUT-OUT SIZE	Ø160mm +5mm	Ø160mm+5mm	Ø160mm+5mm	
DIAMETER OF SPEAKER	5"	5"	5"	
WEIGHT	0.64kg	0.76kg	0.64kg	0.12 kg
COLOR	White (RAL 9003)	White (RAL 9003)	White (RAL 9003)	White (RAL 9003)
MATERIAL	ABS	ABS	ABS	ABS
MATERIAL OF DOME	No	ABS	No	

L-PWP40A L-PWP60A/L-PWP60B L-PWP80B

ABS Full Range Cabinet

- High quality sounds effects, lucid in treble and powerful in bass.
- Stylish and strong ABS enclosure.
- Mounting brackets available.
- In a choice of charcoal and white.
- Selectable 8 ohms, 70V and 100V inputs.
- CE and RoHS compliant.



SPECIFICATIONS	L-PWP40A	L-PWP60A/L-PWP60B	L-PWP80A
MAX POWER	60W	80W	100W
RATED POWER	40W	60W	80W
POWER TAPS @ 100V	40W / 20W / 10W	60W / 30W / 15W	80W / 40W / 20W
POWER TAPS @ 70V	20W / 10W / 5W	30W / 15W / 7.5W	40W / 20W / 10W
SPL	99dB / 84dB (40W/1W,130Hz-20kHz,1m) 108dB / 90dB (60W/1W,100Hz-20kHz,1m) 109dB / 92dB (80W/1W,80Hz-20kHz,1m)		
FREQUENCY RANGE (-10DB)	100Hz - 20kHz	80Hz - 20kHz	60Hz - 20kHz
DISPERSION ANGLE (1KHZ/-6DB)160°	135°	115°	
RATED INPUT VOLTAGE	100V / 70V / 8Ω	100V / 70V / 8Ω	100V / 70V / 8Ω
RATED IMPEDANCE	250Ω / 500Ω / 1KΩ	167Ω / 333Ω / 667Ω	125Ω / 250Ω / 500Ω
CONNECTION	Binding Post Terminals	Binding Post Terminals	Binding Post Terminals
DIMENSIONS (W X H X D)	172 x 302 x 165mm	193 x 344 x 202mm	275 x 455 x 261mm
DIAMETER OF SPEAKER	5" woofer, 1" tweeter	6.5" woofer, 1" tweeter	8" woofer, 1" tweeter
WEIGHT	3.2kg	3.8kg	7.5kg
COLOR	White (RAL 9003) (L-PWP40A)	White (RAL 9003) (L-PWP60A)	White (RAL 9003) (L-PWP80A)
CHARCOAL (RAL 7021) (L-PWP40B)	Charcoal (RAL 7021) (L-PWP60B)	Charcoal (RAL 7021) (L-PWP80B)	
MATERIAL	ABS	ABS	ABS



L-PWP10A

ABS Cabinet Loudspeaker

- Multi-cone speaker with powerful and lucid audio performance.
- High-impact and fireproof ABS material.
- Stylish design.
- Easy to install and cost-effective.
- CE and RoHS compliant.



SPECIFICATIONS	L-PWP10A
MAX POWER	15W
RATED POWER	10W
POWER TAPS @ 100V	10W / 5W
POWER TAPS @ 70V	5W / 2.5W
SPL AT 10W/1W (200HZ - 15KHZ,1M)	101dB / 92dB
FREQUENCY RANGE (-10DB)	150Hz - 17KHz
DISPERSION ANGLE (1KHZ/-6DB)	170°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	1K Ω / 2K Ω
CONNECTION	Push-in terminal block
DIMENSIONS (W X H X D)	240 x 345 x 100mm
DIAMETER OF SPEAKER	6.5"
WEIGHT	1.6kg
COLOR	White (RAL 9010)
MATERIAL	ABS

L-PWP06A

ABS Cabinet Loudspeaker

- Superb audio and music reproduction.
- High-impact ABS cabinet.
- Simple power settings.
- Flush mounting in ceiling, wall and furniture.
- CE and RoHS compliant.



SPECIFICATIONS	L-PWP06A
MAX POWER	9W
RATED POWER	6W
POWER TAPS @ 100V	6W / 3W
POWER TAPS @ 70V	3W / 1.5W
SPL AT 6W/1W (250HZ - 20KHZ,1M)	96dB / 90dB
FREQUENCY RANGE (-10DB)	200Hz - 20kHz
DISPERSION ANGLE (1KHZ/-6DB)	120°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	1.7K Ω / 3.3K Ω
CONNECTION	Cable
DIMENSIONS (W X H X D)	260 x 162 x 77mm
DIAMETER OF SPEAKER	5.5"
WEIGHT	1kg
COLOR	White (RAL 9010)
MATERIAL	ABS

L-PWP03A

ABS Moisture-proof Cabinet Loudspeaker

- Waterproof cone.
- Compact and modern design.
- High strength and fireproof ABS enclosure.
- Easy to install and cost-effective.
- CE and RoHS compliant.



SPECIFICATIONS	L-PWP03A
MAX POWER	5W
RATED POWER	3W
POWER TAPS @ 100V	3W / 1.5W
POWER TAPS @ 70V	1.5W / 0.75W
SPL AT 3W/1W (400HZ - 5KHZ,1M)	94dB / 88dB
FREQUENCY RANGE (-10DB)	300Hz - 6kHz
DISPERSION ANGLE (1KHZ/-6DB)	180°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	3.3KΩ / 6.7KΩ
CONNECTION	Push-in terminal block
DIMENSIONS (W X H X D)	120 x 130 x 60mm
DIAMETER OF SPEAKER	3"
WEIGHT	0.4kg
COLOR	White (RAL 9003)
MATERIAL	ABS

L-PHP30A

ABS Horn Loudspeaker

- High impact fireproof ABS material.
- Excellent audio performance and music reproduction.
- Rust and chemical resistant.
- CE and RoHS compliant.



SPECIFICATIONS	L-PHP30A
MAX POWER	45W
RATED POWER	30W
POWER TAPS @ 100V	30W / 15W
POWER TAPS @ 70V	15W / 7.5W
SPL AT 30W/1W (330HZ - 8KHZ,1M)	116dB / 104dB
FREQUENCY RESPONSE (-10DB)	300Hz - 10kHz
DISPERSION ANGLE (1KHZ/-6DB)	140°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	333Ω / 667Ω
CONNECTION	Flexible wire
DIMENSIONS	285 x 205 x 290mm
WEIGHT	2.1kg
COLOR	White (RAL 9003)
MATERIAL	ABS



L-PHP50A

ABS Music Horn

- Extraordinary audio performance and music reproduction.
- Frequency dividing system.
- Wide opening angle.
- Sturdy ABS enclosure.
- CE and RoHS compliant.

SPECIFICATIONS	
MAX POWER	75W
RATED POWER	50W
POWER TAPS @100V	50W / 25W / 12.5W / 9W / 4.5W / 2.6W / 8Ω
SPL AT	50W/1W (200HZ - 15KHZ,1M) 111DB / 96DB
FREQUENCY RANGE (-10DB)	150Hz - 17kHz
DISPERSION ANGLE (1KHZ/-6DB)	70°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	200Ω / 400Ω / 800Ω / 1.1KΩ / 2.2KΩ / 3.9KΩ
CONNECTION	Plastic terminal blocks
DIMENSIONS (WX H X D)	252 x 362 x 310mm
WEIGHT	4kg
COLOR	Light grey RAL 7035
MATERIAL	ABS

L-PJM10A L-PJM20A

Aluminum Unidirectional Projection Loudspeaker

- Intelligible voice and superior sound reproduction.
- Ceiling or wall-mount installation.
- Meets virtually any indoor and outdoor requirement.
- CE and RoHS compliant.

SPECIFICATIONS	L-PJM10A	L-PJM20A
MAX POWER	20W	30W
RATED POWER	10W	20W
POWER TAPS @ 100V	10W / 5W / 2.5W / 1.25W	20W / 10W / 5W / 2.5W
SPL	AT 10W/1W(170HZ - 20KHZ,1M)	AT 20W/1W(200HZ - 15KHZ,1M)
98DB / 89DB	102dB / 90dB	
FREQUENCY RESPONSE (-10DB)	150Hz - 20kHz	150Hz - 20kHz
DISPERSION ANGLE (1KHZ/-6DB)	180°	180°
RATED INPUT VOLTAGE	100V / 70V	100V / 70V
RATED IMPEDANCE	1KΩ / 2KΩ / 4KΩ / 8KΩ	500Ω / 1KΩ / 2KΩ / 4KΩ
CONNECTION	Fire-resistant Cable	Fire-resistant Cable
DIMENSIONS (D X L)	Φ140 x 195mm	Φ140 x 195mm
WEIGHT	2.62kg	2.65kg
COLOR	White (RAL 9003)	White (RAL 9003)
MATERIAL	Aluminum	Aluminum

LPJP20A

ABS Unidirectional Projection Loudspeaker

- Intelligible sound and music reproduction.
- Stylish and unobtrusive design.
- High impact and fireproof ABS enclosure.
- Easy to install and cost-effective.
- CE and RoHS compliant.

SPECIFICATIONS	
MAX POWER	30W
RATED POWER	20W
POWER TAPS @ 100V	20W / 10W
POWER TAPS @ 70V	10W / 5W
SPL AT 20W/1W (200HZ - 15KHZ,1M)	111dB / 91dB
FREQUENCY RESPONSE (-10DB)	150Hz - 20kHz
DISPERSION ANGLE (1KHZ/-6DB)	120°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	500Ω / 1KΩ
CONNECTION	Cable
DIMENSIONS (D X L)	Φ180mm x 230mm
WEIGHT	2.1kg
COLOR	White (RAL 9003)
MATERIAL	ABS

L-POM20A L-POM40A L-POM80A

Aluminum Outdoor Column Loudspeaker

- Intelligible voice and superior sound reproduction.
- Robust aluminum housing.
- Supplied with universal swivel bracket for easy angle adjustment.
- Adjustable 100V and 70V input.
- Applicable to extreme environment.
- CE and RoHS compliant.

SPECIFICATIONS	L-POM20A	L-POM40A	L-POM80A
MAX POWER	30W	60W	100W
RATED POWER	20W(10W x 2)	40W(10W x 4)	80W(10W x 8)
POWER TAPS @ 100V	20W / 10W / 5W / 2.5W	40W / 20W / 10W / 5W	80W / 40W / 20W / 10W
SPL	AT 20W/1W(350HZ - 15KHZ,1M) 105dB / 92dB	AT 40W/1W(200HZ - 15KHZ,1M) 110dB / 94dB	AT 80W/1W(300HZ - 15KHZ,1M) 107dB / 90dB
FREQUENCY RESPONSE (-10DB)	250Hz - 20kHz	150Hz - 18kHz	150Hz - 17kHz
DISPERSION ANGLE (1KHZ/-6DB)	160°	150°	180°
RATED INPUT VOLTAGE	100V / 70V	100V / 70V	100V / 70V
RATED IMPEDANCE	500Ω / 1kΩ / 2kΩ / 4kΩ	250Ω / 500Ω / 1kΩ / 2kΩ	125Ω / 250Ω / 500Ω / 1kΩ
CONNECTION	fire-resistant cable	fire-resistant cable	fire-resistant cable
DIMENSIONS (W*H*D)	165 x 150 x 344mm	165 x 150 x 568mm	165 x 150 x 1016mm
WEIGHT	3.75kg	5.75kg	9.5kg
COLOR	White (RAL 9003)	White (RAL 9003)	White (RAL 9003)
SPEAKER SIZE	4*2	4*4	4*8
MATERIAL	Aluminum	Aluminum	Aluminum

L-PPP20A

ABS Pendant Loudspeaker

- Suitable for speech and music reproduction.
- Simple power settings.
- Easy installation.
- Robust fire-resistant ABS enclosure.
- Supplied with a 2m long fire-resistant cable.
- CE and RoHS compliant.

SPECIFICATIONS	L-PPP20A
MAX POWER	30W
RATED POWER	20W
POWER TAPS @ 100V	20W / 10W / 5W
SPL AT 20W/1W (100HZ - 6KHZ,1M)	103dB / 90dB
FREQUENCY RESPONSE (-10DB)	80Hz - 12kHz
DISPERSION ANGLE (1KHZ/-6DB)	Horizontal 360°, Vertical 140° - 160°
RATED INPUT VOLTAGE	100V / 70V
RATED IMPEDANCE	500Ω / 1KΩ / 2KΩ
CONNECTION	Wire Cable
DIMENSIONS (D X L)	Φ254
SPEAKER SIZE	8"
WEIGHT	2.2kg
COLOR	White
MATERIAL	ABS

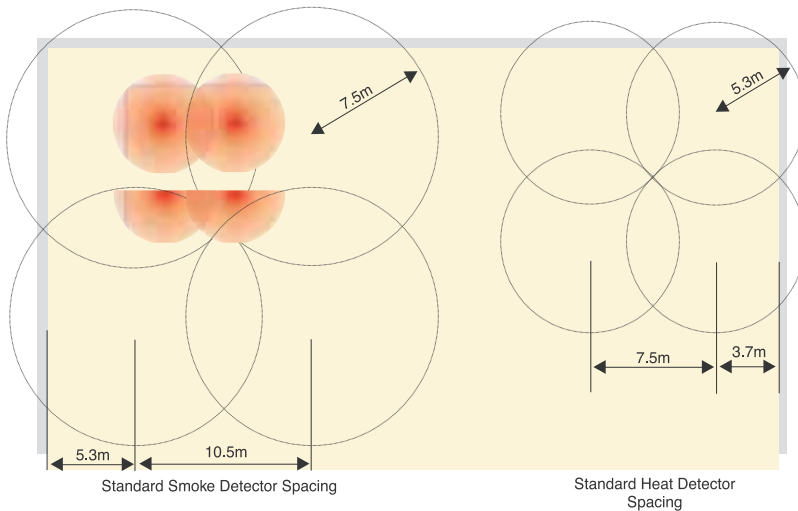
Design Guide

Automatic Fire Detectors

The following information is intended only as a guide to the location and spacing of detectors. There is currently no European standard available. This guide is based on Bs5839 part 1, 2002.

Location and Spacing of Point Fire Detectors on Flat Ceilings

On a flat ceiling with no obstructions, the radius of protection of fire detectors is 7.5m for a smoke detector and 5.3m for a heat detector, and detectors should be mounted a minimum of 0.5m from a wall. Figure 1.0 gives a simple spacing plan based on these figures. In practice, the layout of the room must be considered to obtain the most efficient detector layout.



Simple spacing plans for smoke and heat detectors

Figure 1.0

Ceiling Height

Smoke or heat detectors can only detect fires once a certain amount of smoke or heat has reached the sensor. As the height of a ceiling increases, the time taken for smoke or heat to reach a sensor will increase, and it will become diluted with clean, cool air. As a result, maximum ceiling heights are limited as indicated in table below.

DETECTOR TYPE	MAXIMUM CEILING HEIGHT
Point smoke detector conforming to EN54-7	10.5m
Heat detector conforming to EN54-5 Class A1 (threshold 58°C)	9m
High temperature heat detector conforming to EN54-5 Class B (threshold 78°C)	6m
Optical beam detectors	25m

Maximum ceiling height for different types of detector

Often, a boundary layer can form close to the ceiling, which is free of smoke and remains cool. To avoid this, and maximize the probability of detection, smoke detectors should normally be mounted with their smoke entry 25mm-600mm below the ceiling, and heat detectors should be mounted with their heat element 25mm-150mm below the ceiling.

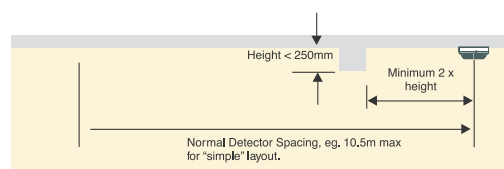
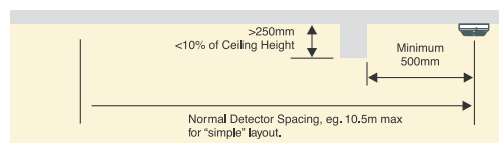
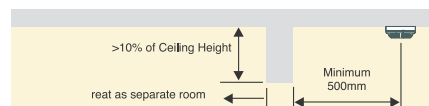
Ceiling Obstructions

Ceiling obstructions such as beams greater than 10% of the ceiling height should be treated as a wall, and will thus divide a room. Detectors should not be mounted within 500mm of such an obstruction.

If the depth an obstruction such as a beam is less than 10% of the height of the ceiling, but greater than 250mm deep, then detectors should not be mounted any closer than 500mm to the obstruction.

Where an obstruction such as a beam or a light fitting is less than 250mm in depth, detectors should not be mounted any closer to the obstruction than twice its depth (see figure 1.1 below).

Where a ceiling comprises a series of small cells, for example a honeycomb ceiling, or a series of closely spaced beams, for example floor or ceiling joists, the recommended spacing and sitting of detectors changes further, dependant on the ceiling height and the depth and spacing of the beams. Reference should be made to relevant standards for details (in the UK BS5839 Part 1: 2002, 22.3.k Tables 1 and 2).



Partitions and Racking

Where the gap between the top of a partition or section of racking and the ceiling is greater than 300mm, it may be ignored. If the gap is less than 300mm it should be treated as a wall (Ref. Figure 1.2).

To maintain a free flow of smoke and heat to the detector, a clear space should be maintained for 500mm in all directions below the detector.

Sloping Ceilings

Where the ceiling is pitched or sloping, the slope of the roof tends to speed the rise of smoke or heat to the apex, hence reducing the delay before the detectors are triggered. For sloped roofs with a pitch height greater than 600mm for smoke detectors, or 150mm for heat detectors, a row of detectors should be placed within a maximum vertical distance of 600mm or 150mm for smoke or heat detectors respectively from the roof apex. Sloped roofs rising less than 600mm for smoke detectors or 150mm for heat detectors may be treated as a flat ceiling.

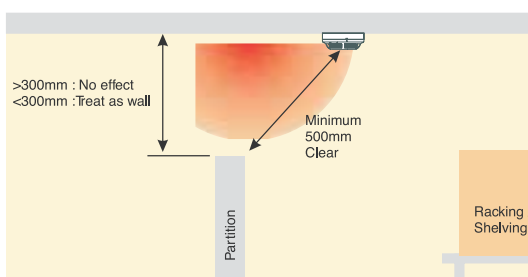
Since the smoke or heat tends to rise faster up the slope, it is permissible to use a greater spacing for the row of detectors mounted in the apex of the roof (Ref. Figure 1.3). For each degree of slope of the roof, the spacing may be increased by 1% up to a maximum of 25%. Care must be taken when placing the next row that no gaps are left in detection coverage.

Corridors

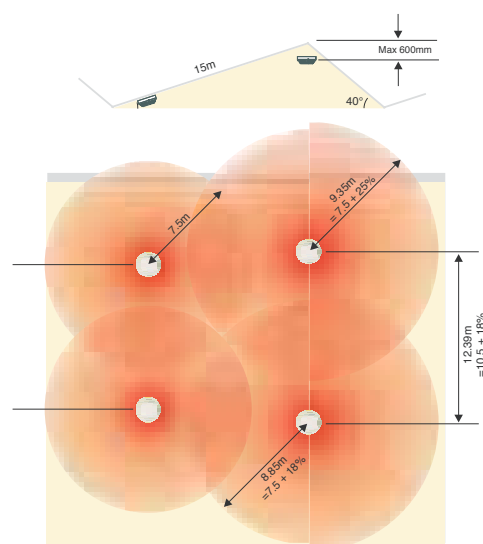
In corridors less than 2m wide, detectors should be spaced at a distance of 15m for smoke detectors and 10.6m for heat detectors, with the maximum dimension to a wall at the end of the corridor being 7.5m and 5.3m respectively.

In narrow rooms and corridors greater than 2m wide, due to the way that the coverage radii of detectors intersect with the walls of the corridor, the spacing between detectors will increase. Figure 1.4 shows how, for a room 6m wide, the spacing for smoke detectors can be increased from the standard 10.5m.

Detector Spacing around isolated ceiling obstructions



Partitions



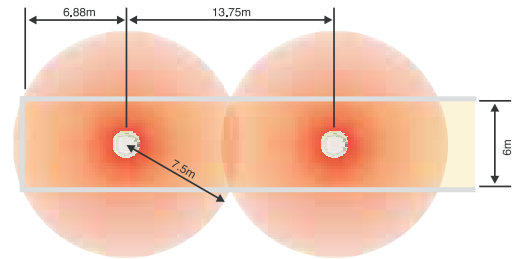
Spacing of Smoke Detectors under a Pitched Roof

Alarm Signals

Audible Alarm Signals

Audible fire alarm signals must provide a clear warning of a fire to all those for whom the signal is intended.

The general requirement for the volume of audible alarm signals is that they should provide a Sound Pressure Level (SPL) of at least 65dB(A), but not more than 120dB(A) throughout all accessible areas of a building. See figure 1.5



Note: Detectors are mounted in the centre line of the room

Figure 1.4

Exceptions to this general rule are as follows:

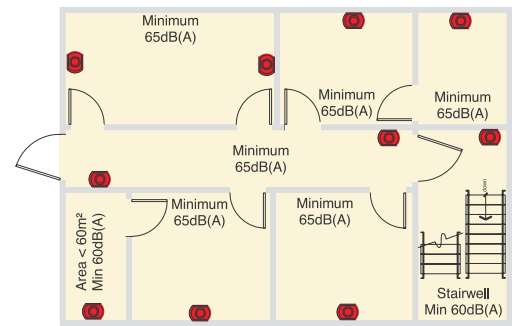
- In stairways the SPL may be reduced to 60dB(A)
- Enclosures less than 60m² may be reduced to 60dB(A)
- There is no minimum for enclosed areas less than 1m²
- At specific points of limited extent the SPL may be reduced to 60dB(A)

Where a continuous background noise level greater than 60dB(A) is present the fire alarm signal should be 5dB above the ambient, but not greater than 120dB(A).

Where the alarm is intended to wake people, an SPL of 75dB(A) is required at the bed head. Generally this will require a sounder to be placed within the room.

Where it is not possible to place a sounder within a room, there will be a loss of approximately 20dB(A) through a standard door, and 30dB(A) through a fire door (Ref. Figure 1.6).

In open space, as the distance from a sounder doubles, the sound level will be reduced by 6dB(A), as shown in Figure 1.7.



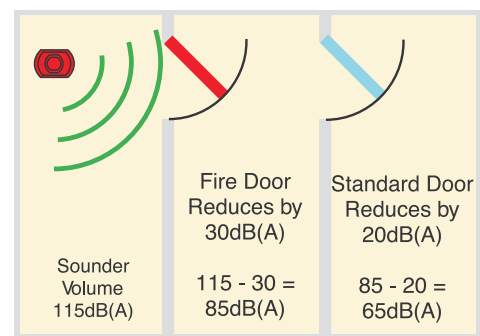
General Fire Alarm Sound Pressure Levels

Figure 1.5

Visual Alarm Signals

Visual alarms are normally used only as a supplement to audible alarms where they are likely to be ineffective, for example in areas of high background noise levels where hearing protection is likely to be worn. They can however be used alone where audible warnings are undesirable for example operating theatres and recording studios.

Visual alarms should be clearly distinguishable from other warning lights, preferably red and should flash at a rate of 30 to 130 flashes per minute. The recommended mounting height is above 2.1m, however they should not be mounted closer than 150mm from the ceiling. They should be positioned so that any alarm is clearly visible from all locations within the area protected.



Warning: Volumes greater than 120dB(A) will cause damage to hearing.

Figure 1.6

Manual Call Points

People can often still detect a fire long before automatic fire detectors; hence manual call points are important components of fire detection systems in occupied buildings to ensure timely evacuation in the case of fire. All call points are approved to EN54-11, and should be of type A, that is once the frangible element is broken or displaced the alarm condition is automatic.

Manual call points should be mounted on all escape routes, and at all exist points from the floors of a building and to clear air.

In order to provide easy access, call points should be mounted between 1.2 and 1.6m from the floor, and should be clearly visible and identifiable. The maximum distance anyone should have to travel in order to activate a manual call point is 45m, (Ref. Figure 1.8) unless the building is occupied by people having limited mobility, or a rapid fire development is likely, in which case the maximum travel distance should be reduced to 20m. Call points should also be sited in close proximity to specific hazards, for example kitchens or paint spray booths.

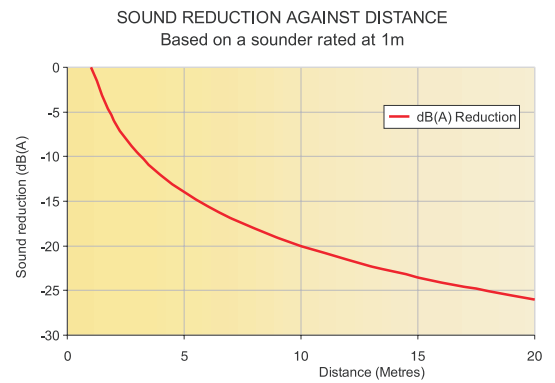


Figure 1.7

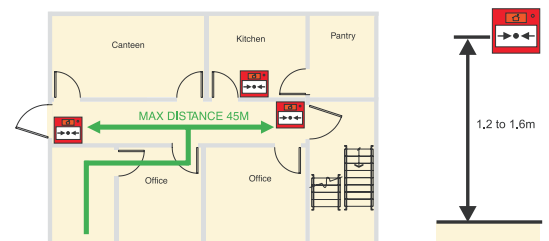


Figure 1.8

