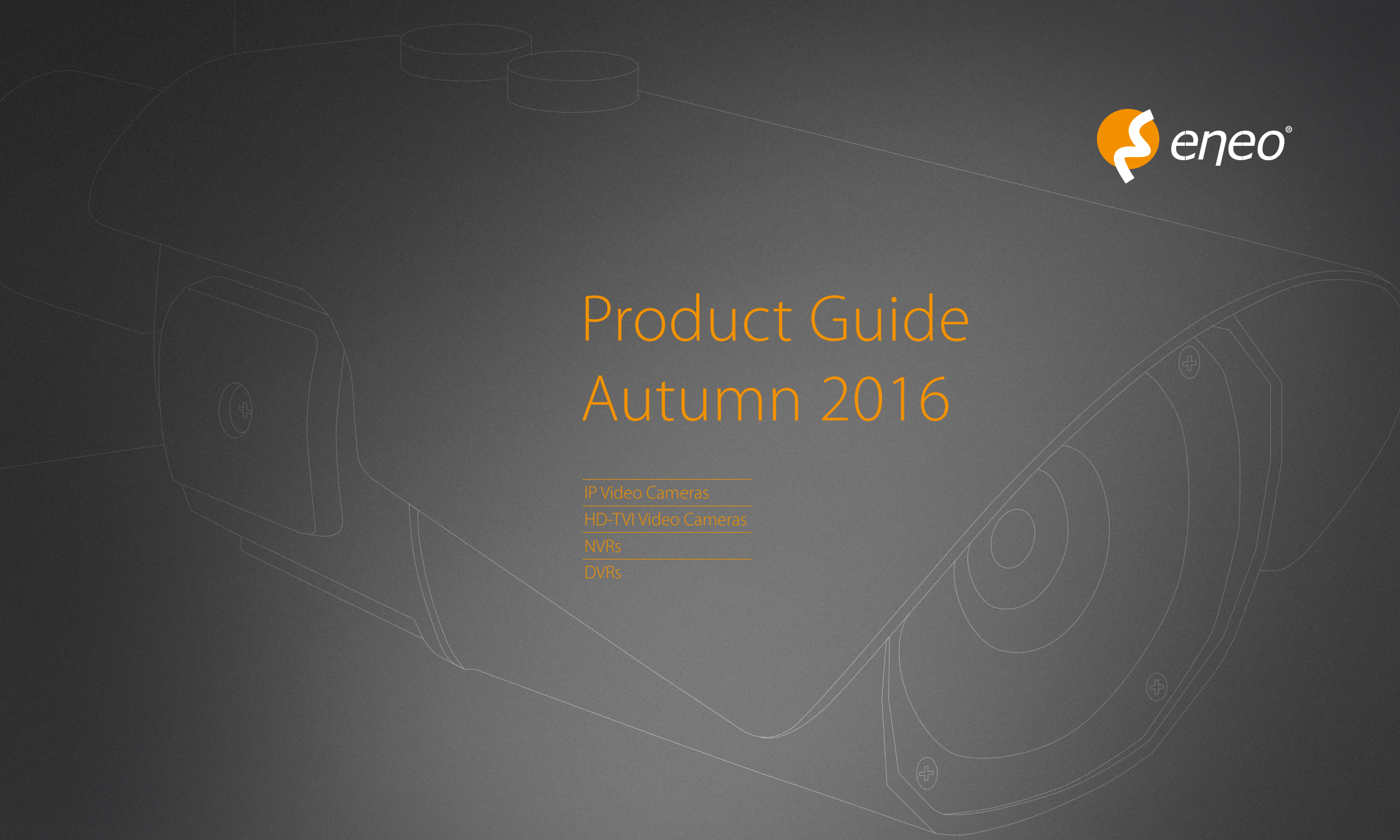

Product Guide Autumn 2016

IP Video Cameras

HD-TVI Video Cameras

NVRs

DVRs

Passion for Security

eneo stands for video security products made by high-class processing in accordance with German quality benchmarks. Specialist installers find everything they need for reliable industry solutions from a single source in the technologically comprehensive eneo portfolio. All eneo cameras, recorders, monitors and accessories impress through their high convenience for installers and their user-friendliness in addition to their outstanding cost effectiveness.

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Sophisticated Testing Procedure

All eneo devices undergo a sophisticated testing procedure comprising quality management certified compliant with EN ISO 9001:2008, strict inspections of incoming goods and extensive test during and after the product development phase.

Sustainably Secure

The various product tests ensure the constantly high quality which forms the basis of the eneo three-year warranty. eneo network products consistently support ONVIF Profile S. Interoperability and high security standards give networked video surveillance systems flexible scalability and make them sustainably secure.

Expert Solutions

The technologically comprehensive and all-purpose product range not only caters for the multiple demands placed by users and installers, it also meets the needs of the requirements in various industries. The convenience eneo products give to installers enables efficient video security solutions out of the box.

We furthermore offer special production runs customised to projects and customers as well as product modifications. After all, a video security solution is there for the customers, not the other way round.

Premium Class

The Candid and Callisto camera series characterise the striking profile of the eneo Premium Class. Practicality along with convenience for installers are reflected in the perfect balance of form and function that gives a unique distinction to the exclusive design of the box, bullet and dome cameras.

High-quality autofocus and motorised varifocal lenses in combination with powerful image sensors deliver video imagery with an outstanding quality. The sturdy premium models are complemented by a wide choice of installation solutions that meet the different demands on installation.

eneo Premium Class cameras come with megapixel lenses featuring resolutions of 2 MP (1920 × 1080), 3 MP (2048 × 1536) and 5 MP (2592 × 1944) combined with highly sensitive CMOS image sensors and a new generation of encoders. This is all rounded off by a broad range of functions and features that increase the benefits and convenience for end users.

Functions and Features
Autofocus zoom or motorised varifocal lenses with push-focus function for lens remote setting by user interface
Infrared high-power LEDs for 24/7 use
Video analysis functions such as motion detection, virtual tripwires and motion fields
Vertical view for vertically oriented video recording, for example for corridor, stairwell and road monitoring applications
Image correction functions such as defog and lens distortion correction
Triple streaming for simultaneous output of up to three video streams and different codecs (e.g. 2 × H.264, 1 × MJPEG)
Secure, cross-browser interface in a responsive design
ONVIF mapping for coding of system events such as video analysis or a tampering alarm as ONVIF alarm

Economy Class

Uncompromising product quality, competitive price: the fact that one does not exclude the other is proven by the HD and full HD video cameras in the eneo Economy Class.

Equipped with a lean but practical feature set, the very competitive dome and bullet cameras go through the same strict product tests as the models in the Premium Class. This makes the HD-TVI and IP models in the eneo Economy Class interesting for not only small video security applications.

Video Management Applications

eneo iRAS

The control and image transmission software manages up to 1024 cameras, NVRs and DVRs in a system. eneo iRAS supports the DLR, PNR and TVR premium recorder series. The user-friendly interface and features such as time-based and event-driven image search or the editable e-map make working with the software extremely easy to use. Additionally, the software supports multi-view display and multi-monitor operation, event monitoring / alarming as well as status checking / indicators.

eneo RAS MOBILE App

As an alternative or a supplement to video management with eneo iRAS on a PC, users can also use the RAS MOBILE app for secure access to the video network when they are on the move. eneo RAS MOBILE also supports 720 p and 1080 p resolutions, bidirectional audio transmission and control of PTZ-capable video security devices.

eneo RAS MOBILE is available for Android and iOS systems.

eneo CenPro

With the eneo CenPro control software users have remote access to economy recorders in the TER series. The supported features include e-map with integrated editor, live playback as well as multiview display and multi-monitor operation, time-based and event-driven image search, event monitoring/alarming as well as status indicators. eneo CenPro gives users maximum scalability without any limit on the managed video sources.

eneo CenPro Mobile

eneo CenPro Mobile gives users the capability of managing their video security system securely and when on the move. Everywhere and at any time. The app provides playback and video research in live or playback mode, and supports live, playback and freeze display from up to 16 video channels. Additional available functions include bidirectional audio support, snapshot and local storage, customised video image layout, targeted video search by date and time, and PTZ control.

eneo CenPro Mobile supports Android devices in addition to smartphones and tablets with iOS 6.0 or higher.

Flexible KVM Transmission Solution

for Video Security and Information Systems

Specifications
HDMI, RS232, IR and 4 × USB over ethernet
Resolutions: up to Full HD (HDMI 1.3 b)
Straight connection: Transmission range 150 M over CAT5e, 180 M over CAT6
2-way RS232, full duplex data communication
HDMI 1.3 b and HDCP compliant
HDMI audio support
Bi-Directional analog audio transmission
Bi-Directional IR transmission
Transmitter with built in HDMI loop out
Receiver supports 4-USB Ports (1 × USB 1.1 & 3 × USB 2.0)

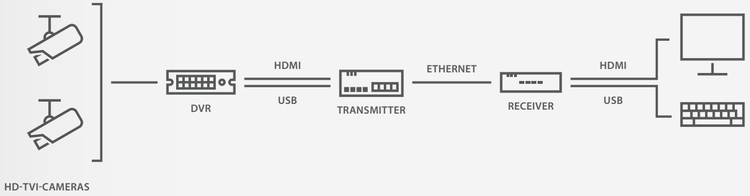
The IP KVM (keyboard, video, mouse) transmission solution consists of the IAM-5EE 1001 MTA transmitter and IAM-5EE 1001 MRA receiver. Its versatility allows the devices to be operated as a network extender or switch. As a „digital matrix switch" they enable cost-effective, technology flexible and scalable video security solutions.

They can also be used as interfaces for data transmission in digital signage applications. Neither a computer nor management software is needed for controlling the linked devices as users normally have direct access to the networked device user interfaces over the receiver connected to the monitor, mouse and keyboard.

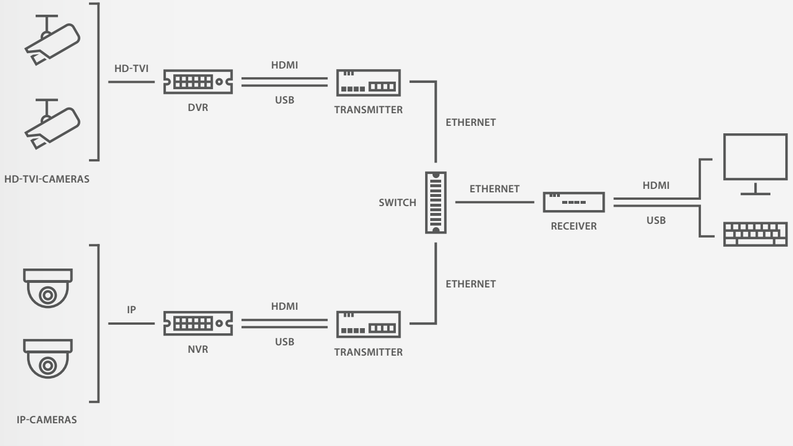
This transmission solution is compatible with all devices equipped with a HDMI port, permits setup of stable point-to-point connections for transmission of HDMI, audio and IR signals as well as USB and RS232 in a local network. Establishment of point-to-multipoint connections is also possible with multicast switches.

Transmitter IAM-5EE1001 MTA

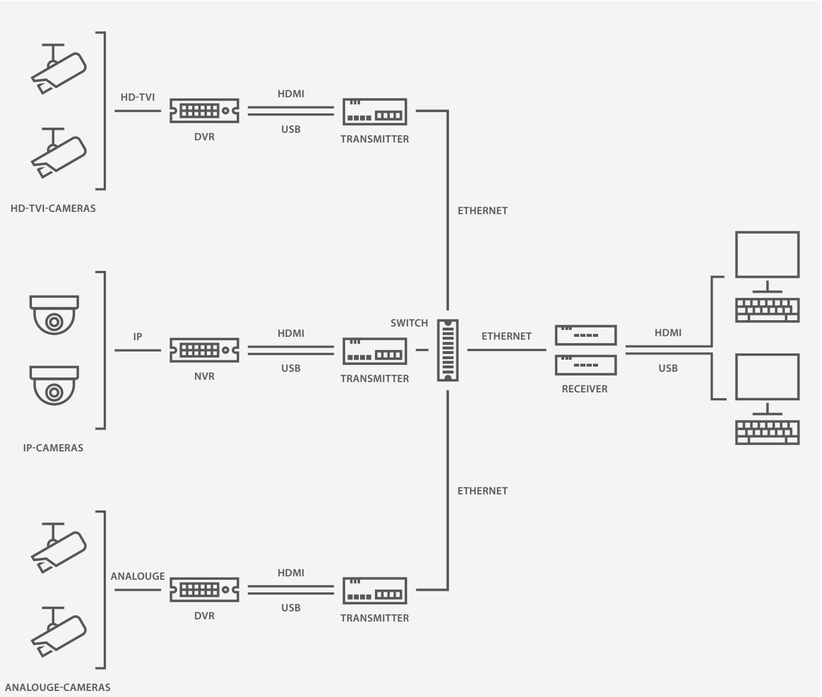
Receiver IAM-5EE1001MRA



Application example: Point-2-point connection with IP KVM extender



Application example: Multipoint-2-point connection with IP KVM switch



Application example: Multipoint-2-point connection

Easy Installation 2.0 by WiFi

Greater ease of installation for Candid IP cameras is created by the new WiFi interface.

Easy installation is to remain in the comfort zone and at the same time save time and money. This is why installers love eneo products, because the increase in ease of installation is a key goal of eneo product development. One example is the new WiFi interface for connecting a WiFi dongle to Candid IP cameras – it does away with the unwieldy test monitor for camera adjustment which can now be easily carried out by laptop, tablet or smartphone via WiFi.

Cameras

eneo Product Codes

The alphabetical and numerical sequences of eneo product names, illustrated and broken down based on examples from the camera, recorder and accessories product groups.

FOCAL LENGTH | ZOOM FACTOR

I	P	P	-	7	2	A	0	0	3	0	M	0	A

TECHNOLOGY	CLASS	TYPE	HOUSING	RESOLUTION	LENS	HOUSING MATERIAL	WILD CARD	GENERATION
I = IP	P = Premium	C = Box/Cube	4 = Tiny	S = SD	A = Autofocus + Zoom Factor	P = Plastic	I = IR	A
T = HD-TVI	E = Economy	M = Module	5 = Compact	1 = 1 MP 720 p	M = Motorised + Focal Length	M = Metal	A = Effio A	B
A = Analogue		B = Bullet	6 = Small	2 = 2 MP 1080 p	F = Fixed + Focal Length	S = Stainless Steel	V = Effio V	C
H = Thermal		D = Dome	7 = Medium	3 = 3 MP	V = Vario + Focal Length	X = Explosion Protection	0	D
M = Multisignal		P = PTZ	8 = Large	5 = 5 MP	C = CS Mount	W = With/Without Housing		E
				8 = 8 MP (UHD)				F

BREAKDOWN

IP-CAMERA, PREMIUM CLASS, PTZ, MEDIUM, 2 MP, 30 X AUTOFOCUS ZOOM, METAL HOUSING, GENERATION A

DVRs / NVRs

INPUT CHANNELS | HDD (TB)

T	E	R	-	2	2	N	1	6	0	3	0	0	A

TECHNOLOGY	CLASS	TYPE	HOUSING	RESOLUTION	MAX. RECORDING RESOLUTION	WILD CARD	VERSION
I = IP	P = Premium	R= Recorder	1 = 1HU	S = SD	R = 1920x1080 @ Real time	0	A
T = HD-TVI	E = Economy		2 = 1 1/2 HU	1 = 1 MP 720 p	N = 1920x1080 @ No Real time		B
A = Analogue			3 = 2HU	2 = 2 MP 1080 p			C
M = Multisignal				3 = 3 MP			C

BREAKDOWN

HD-TVI RECORDER, ECONOMY CLASS, HOUSING:1 1/2 HEIGHT UNITS, 2 MP, NO REAL TIME RECORDING

AT 1920X1080, 16 INPUT CHANNELS, 3 TB HDD, VERSION A

CHANNELS

I	A	M	-	5	E	E	1	0	0	1	M	T	A

TECHNOLOGY	APPLICATION	FORM	HOUSING	USAGE	TRANSMISSION	SERIES	HOUSING MATERIAL	TYPE	GENERATION
I = IP	A = Accessories	M = Module	4 = Tiny	E = Extender	W = Wireless	1	P = Plastic	R = Receiver	A
T = TVI		C = Box	5 = Compact	P = Protection	E = Ethernet		M = Metal	T = Transmitter	B
A = Analogue		R = Rack	6 = Small	M = Media Converter	U = UTP		S = Stainless Steel		C
H= HD-SDI			7 = Medium	S = Switch	C = Coax		X = Explosion Protection		
			8 = Large	D = Distribution	F = Fiber		W = With/Without Housing		
					M = Multiple				

BREAKDOWN

IP ACCESSORY MODULE, COMPACT, EXTENDER, ETHERNET, SERIES 1, 1 CHANNEL, METAL, TRANSMITTER, GENERATION A

Accessories

	IPB-75 M3610 M0A	IPB-73 M2812 M0A	IPB-72 A0010 M0A	IPB-72 A0003 M0A	IPB-62 M2812 M0A
SERIES	eneo Candid Medium, eneo Premium Class	eneo Candid Medium, eneo Premium Class	eneo Candid Medium, eneo Premium Class	eneo Candid Medium, eneo Premium Class	eneo Candid Small, eneo Premium Class
PRODUCT NUMBER	213015	213017	213011	213012	213019
SYSTEM	True Day & Night	True Day & Night	True Day & Night	True Day & Night	True Day & Night
SENSOR	1/1.8" CMOS Sony STARVIS 5.04 Megapixel	1/2.8" CMOS Sony STARVIS 3.23 Megapixel	1/3" CMOS Panasonic Progressive Scan	1/3" CMOS Panasonic Progressive Scan	1/2.8" CMOS Sony 2.3 Megapixel RGB
RESOLUTION STANDARD	HD 1080 p, 3 Megapixel, 5 Megapixel	HD 1080 p, 3 Megapixel	HD 1080 p	HD 1080 p, 3 Megapixel	HD 1080 p
RESOLUTION MAX.	2592 × 1944	2048 × 1536	1920 × 1080	1920 × 1080	1920 × 1080
VIDEO COMPRESSION	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG
IMAGE TRANSMISSION RATE MAX.	25 fps	25 fps	25 fps	25 fps	25 fps
SENSITIVITY	0.07 Lux at F1.5, 40 IRE	0.15 Lux at F1.4, 40 IRE	0.5 Lux at F1.6, 50 IRE	0.35 Lux at F1.2, 40 IRE	0.15 Lux at F1.4, 40 IRE
DIGITAL NOISE REDUCTION (DNR)	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR
BACKLIGHT COMPENSATION	BLC, HLC	BLC, HLC	BLC, HLC	BLC, HLC	BLC, HLC
WIDE DYNAMIC RANGE (WDR)	D-WDR	D-WDR	WDR 113 dB	WDR 113dB	D-WDR
ANALYSIS FUNCTIONS	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog
ZOOM FACTOR	3×	4×	10×	3×	4×
LENS TYPE	Varifocal (motorized)	Varifocal (motorized)	Auto focus zoom	Auto focus zoom	Varifocal (motorized)
FOCAL LENGTH	3.6 – 10 mm	2.8 – 12 mm	5.1 – 50 mm	3 – 9 mm	2.8 – 12 mm
STREAM TYPES	2 × H.264, 1 × M-JPEG simultaneous	2 × H.264, 1 × M-JPEG simultaneous	2 × H.264, 1 × M-JPEG simultaneous	2 × H.264, 1 × M-JPEG simultaneous	2 × H.264, 1 × M-JPEG simultaneous
ILLUMINATION	Infrared, approx. 50 m	Infrared, approx. 50 m	Infrared, approx. 50 m	Infrared, approx. 50 m	Infrared, approx. 50 m
WEB BROWSER	Mozilla, Safari, Google Chrome, Edge-M-JPEG only, Microsoft Internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge-M-JPEG only, Microsoft Internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge-M-JPEG only, Microsoft Internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)
AUDIO SUPPORT	yes	yes	yes	yes	-
INTERNAL STORAGE	micro SDXC-card	micro SDXC-card	micro SDXC-card	micro SDXC card	micro SDXC card
ONVIF	Profile S	Profile S	Profile S	Profile S	Profile S
TEMPERATURE RANGE (OPERATION)	-50 °C ~ +50 °C	-50 °C ~ +50 °C	-50 °C ~ +50 °C	-50 °C ~ +50 °C	-50°C ~ +50°C
ALARM INPUTS / OUTPUTS	1 / 1	1 / 1	1 / 1	1 / 1	-/-
SUPPLY VOLTAGE	24 VAC, 12 VDC, PoE	12 VDC, 24 VAC, PoE	12 VDC, 24 VAC, PoE	12 VDC, 24 VAC, PoE	PoE
VANDALISM RESISTANT	-	-	-	-	-
COLOUR (HOUSING)	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C
PROTECTION RATING	IP 67	IP 67	IP 67	IP 67	IP 66

	IEB-62 V2812 M0A	IEB-62 F0036 M0A	IEB-63 M2812 M0A	IEB-63 F0037 M0A	IPD-75 M3610 M0A
SERIES	eneo Economy Class	eneo Economy Class	eneo Economy Class	eneo Economy Class	eneo Callisto, eneo Premium Class
PRODUCT NUMBER	214862	214861	214558	214559	213016
SYSTEM	True Day & Night	True Day & Night	True Day & Night	True Day & Night	True Day & Night
SENSOR	1/2.8" CMOS Sony 2.3 Megapixel RGB	1/2.8" CMOS Sony 2.3 Megapixel RGB	1/2.8" CMOS Sony STARVIS	1/2.8" CMOS Sony STARVIS	1/1.8" CMOS Sony STARVIS 5.04 Megapixel
RESOLUTION STANDARD	HD 1080 p	HD 1080 p	HD 1080 p, 3 Megapixel	HD 1080 p, 3 Megapixel	HD 1080 p, 3 Megapixel, 5 Megapixel
RESOLUTION MAX.	1920 × 1080	1920 × 1080	2048 × 1536	2048 × 1536	2592 × 1944
VIDEO COMPRESSION	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG
IMAGE TRANSMISSION RATE MAX.	25 fps	25 fps	25 fps	25 fps	25 fps
SENSITIVITY	0.15 Lux at F1.4, 40 IRE	0.15 Lux at F1.4, 40 IRE	0.1 Lux at F1.4	0.2 Lux at F2.5	0.07 Lux at F1.5, 40 IRE
DIGITAL NOISE REDUCTION (DNR)	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2 D-DNR, 3D-DNR
BACKLIGHT COMPENSATION	BLC, HLC	BLC, HLC	BLC, HLC	BLC, HLC	BLC, HLC
WIDE DYNAMIC RANGE (WDR)	D-WDR	D-WDR	D-WDR	D-WDR	D-WDR
ANALYSIS FUNCTIONS	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog
ZOOM FACTOR	4×	-	4×	-	3×
LENS TYPE	Varifocal	Fixed focal length	Varifocal (motorized)	Fixed focal length	Varifocal (motorized)
FOCAL LENGTH	2.8 – 12 mm	3.6 mm	2.8 – 12 mm	3.7 mm	3.6 – 10 mm
STREAM TYPES	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous
ILLUMINATION	Infrared, approx. 40 m	Infrared, approx. 40 m	Infrared, approx. 25 m	Infrared, approx. 25 m	Infrared, approx. 40 m
WEB BROWSER	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)
AUDIO SUPPORT	-	-	yes	yes	yes
INTERNAL STORAGE	micro SDXC card	micro SDXC card	microSDHC card, microSDXC card	microSDHC card, microSDXC card	microSDXC card
ONVIF	Profile S	Profile S	Profile S	Profile S	Profile S
TEMPERATURE RANGE (OPERATION)	-20 °C ~ +50 °C	-20 °C ~ +50 °C	-20 °C ~ +50 °C	-20 °C ~ +50 °C	-50 °C ~ +50 °C
ALARM INPUTS / OUTPUTS	-/-	-/-	1 / 1	1 / 1	1 / 1
SUPPLY VOLTAGE	PoE, 12 VDC	PoE, 12 VDC	PoE, 12 VDC	PoE, 12 VDC	12 VDC, 24 VAC, PoE
VANDALISM RESISTANT	-	-	-	-	yes
COLOUR (HOUSING)	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	white	white	Pantone Cool Gray 1 C
PROTECTION RATING	IP 66	IP 66	IP 67	IP 67	IP 67

	IPD-73 M2812 M0A	IPD-72 A0003 M0A	IPD-62 M2812 P0A	IED-62 V2812 M0A	IED-62 F0036 M0A
SERIES	eneo Callisto, eneo Premium Class	eneo Callisto, eneo Premium Class	eneo Premium Class	eneo Economy Class	eneo Economy Class
PRODUCT NUMBER	213020	213013	213021	214866	214865
SYSTEM	True Day & Night	True Day & Night	True Day & Night	True Day & Night	True Day & Night
SENSOR	1/2.8" CMOS Sony STARVIS 3.23 Megapixel	1/3" CMOS Panasonic Progressive Scan	1/3" CMOS Panasonic Progressive Scan	1/2.8" CMOS Sony 2.3 Megapixel RGB	1/2.8" CMOS Sony 2.3 Megapixel RGB
RESOLUTION STANDARD	HD 1080 p, 3 Megapixel	HD 1080 p	HD 1080 p	HD 1080 p	HD 1080 p
RESOLUTION MAX.	2048 × 1536	1920 × 1080	1920 × 1080	1920 × 1080	1920 × 1080
VIDEO COMPRESSION	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG
IMAGE TRANSMISSION RATE MAX.	25 fps	25 fps	25 fps	25 fps	25 fps
SENSITIVITY	0.15 Lux at F1.4, 40 IRE	0.35 Lux at F1.2, 40 IRE	0.35 Lux at F1.2, 40 IRE	0.15 Lux at F1.4, 40 IRE	0.15 Lux at F1.4, 40 IRE
DIGITAL NOISE REDUCTION (DNR)	2 D-DNR, 3D-DNR	2 D-DNR, 3D-DNR	2 D-DNR, 3D-DNR	2 D-DNR, 3D-DNR	2 D-DNR, 3D-DNR
BACKLIGHT COMPENSATION	BLC, HLC	BLC, HLC	BLC, HLC	BLC, HLC	BLC, HLC
WIDE DYNAMIC RANGE (WDR)	D-WDR	WDR 113 dB	WDR 113 dB	D-WDR	D-WDR
ANALYSIS FUNCTIONS	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog
ZOOM FACTOR	4×	3×	3×	4×	-
LENS TYPE	Varifocal (motorized)	Auto focus zoom	Varifocal (motorized)	Varifocal	Fixed focal length
FOCAL LENGTH	2.8 – 12 mm	3 – 9 mm	2.8 – 12 mm	2.8 – 12 mm	3.6 mm
STREAM TYPES	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous
ILLUMINATION	Infrared, approx. 40 m	Infrared, approx. 40 m	Infrared, approx. 40 m	Infrared, approx. 30 m	Infrared, approx. 30 m
WEB BROWSER	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)
AUDIO SUPPORT	yes	yes	yes	-	-
INTERNAL STORAGE	microSDXC card	microSDXC card	microSDXC card	-	-
ONVIF	Profile S	Profile S	Profile S	Profile S	Profile S
TEMPERATURE RANGE (OPERATION)	-50 °C ~ +50 °C	-50 °C ~ +50 °C	-50 °C ~ +50 °C	-20 °C ~ +50 °C	-20 °C ~ +50 °C
ALARM INPUTS / OUTPUTS	1 / 1	1 / 1	1 / 1	-/-	-/-
SUPPLY VOLTAGE	12 VDC, 24 VAC, PoE	12 VDC, 24 VAC, PoE	12 VDC, 24 VAC, PoE	12 VDC, PoE	12 VDC, PoE
VANDALISM RESISTANT	yes	yes	yes	-	-
COLOUR (HOUSING)	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C
PROTECTION RATING	IP 67	IP 67	IP 67	IP 66	IP 66

	IED-62 V2812 P0A	IED-62 F0036 M0A	IED-63M 2812 M0A	IED-63F 0037 M0A	IED-63MF 2812 P0A
SERIES	eneo Economy Class	eneo Economy Class	eneo Economy Class	eneo Economy Class	eneo Economy Class
PRODUCT NUMBER	214864	214863	214557	214556	214560
SYSTEM	True Day & Night	True Day & Night	True Day & Night	True Day & Night	True Day & Night
SENSOR	1/2.8" CMOS Sony 2.3 Megapixel RGB	1/2.8" CMOS Sony 2.3 Megapixel RGB	1/2.8" CMOS Sony STARVIS	1/2.8" CMOS Sony STARVIS	1/2.8" CMOS Sony STARVIS
RESOLUTION STANDARD	HD 1080 p	HD 1080 p	HD 1080 p, 3 Megapixel	HD 1080 p, 3 Megapixel	HD 1080 p, 3 Megapixel
RESOLUTION MAX.	1920 × 1080	1920 × 1080	2048 × 1536	2048 × 1536	2048 × 1536
VIDEO COMPRESSION	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG
IMAGE TRANSMISSION RATE MAX.	25 fps	25 fps	25 fps	25 fps	25 fps
SENSITIVITY	0.15 Lux at F1.4, 40 IRE	0.15 Lux at F1.4, 40 IRE	0.1 Lux at F1.4	0.2 Lux at F2.5	0.1 Lux at F1ww.4
DIGITAL NOISE REDUCTION (DNR)	2 D-DNR, 3D-DNR	2 D-DNR, 3D-DNR	2 D-DNR, 3 D-DNR	2 D-DNR, 3 D-DNR	2 D-DNR, 3 D-DNR
BACKLIGHT COMPENSATION	BLC, HLC	BLC, HLC	BLC, HLC	BLC, HLC	BLC, HLC
WIDE DYNAMIC RANGE (WDR)	D-WDR	D-WDR	D-WDR	D-WDR	D-WDR
ANALYSIS FUNCTIONS	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog
ZOOM FACTOR	4×	-	4×	-	4×
LENS TYPE	Varifocal	Fixed focal length	Varifocal (motorized)	Fixed focal length	Varifocal (motorized)
FOCAL LENGTH	2.8 – 12 mm	3.6 mm	2.8 – 12 mm	3.7 mm	2.8 – 12 mm
STREAM TYPES	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous
ILLUMINATION	Infrared, approx. 30 m	Infrared, approx. 30 m	Infrared, approx. 25 m	Infrared, approx. 25 m	Infrared, approx. 25 m
WEB BROWSER	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome - M-JPEG only, Microsoft internet Explorer (ActiveX)
AUDIO SUPPORT	-	-	yes	yes	yes
INTERNAL STORAGE	-	-	microSDHC card, microSDXC card	microSDHC card, microSDXC card	microSDHC card, microSDXC card
ONVIF	Profile S	Profile S	Profile S	Profile S	Profile S
TEMPERATURE RANGE (OPERATION)	-10 °C ~ +50 °C	-10 °C ~ +50 °C	-20 °C ~ +50 °C	-20 °C ~ +50 °C	-10 °C ~ +50 °C
ALARM INPUTS / OUTPUTS	-/-	-/-	1 / 1	1 / 1	1 / 1
SUPPLY VOLTAGE	12 VDC, PoE	12 VDC, PoE	PoE, 12 VDC	PoE, 12 VDC	PoE, 12 VDC
VANDALISM RESISTANT	-	-	yes	yes	-
COLOUR (HOUSING)	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	white	white	white
PROTECTION RATING	-	-	IP 67	IP 67	-

	IED-63F 0037 P0A	IPC-52 A0030 P0A	IPC-52 A0003 M0A	IPC-55 C0000 M0A	NXP-880 F26
SERIES	eneo Economy Class	eneo Premium Class	eneo Candid Box, eneo Premium Class	eneo Candid Box, eneo Premium Class	eneo Economy Class
PRODUCT NUMBER	214561	212716	213014	213022	212447
SYSTEM	True Day & Night	True Day & Night	True Day & Night	True Day & Night	True Day & Night
SENSOR	1/2.8" CMOS Sony STARVIS	1/2.8" CMOS Sony STARVIS	1/3" CMOS Panasonic Progressive Scan	1/1.8" CMOS Sony STARVIS 5.04 Megapixel	1/2.8" CMOS Sony Exmor
RESOLUTION STANDARD	HD 1080p, 3 Megapixel	HD 1080p	HD 1080p	HD 1080p, 3 Megapixel, 5 Megapixel	HD 1080p
RESOLUTION MAX.	2048×1536	1920×1080	1920×1080	2592×1944	1920×1080
VIDEO COMPRESSION	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG	-
IMAGE TRANSMISSION RATE MAX.	25 fps	60 fps	25 fps	25 fps	25 fps
SENSITIVITY	0.2 Lux at F2.5	0.35 Lux at F1.6, 50 IRE	0.35 Lux at F1.2, 40 IRE	0.07 Lux at F1.5, 40 IRE	0.1 Lux at F2.0, 50 IRE
DIGITAL NOISE REDUCTION (DNR)	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR
BACKLIGHT COMPENSATION	BLC, HLC	BLC, HLC	BLC, HLC	BLC, HLC	-
WIDE DYNAMIC RANGE (WDR)	D-WDR	WDR 120 dB	WDR 113 dB	D-WDR	yes
ANALYSIS FUNCTIONS	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, face detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, defog
ZOOM FACTOR	-	30×	3×	-	-
LENS TYPE	Fixed focal length	Auto focus zoom	Auto focus zoom	Lens not included	Fixed focal length
FOCAL LENGTH	3.7 mm	4.3 – 129 mm	3 – 9 mm	-	2.6 mm
STREAM TYPES	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	3 x H.264, 1 x M-JPEG simultaneous
ILLUMINATION	Infrared, approx. 25 m	-	-	-	
WEB BROWSER	Mozilla, Safari, Google Chrome - M-JPEG only, Microsoft internet Explorer (ActiveX)	Microsoft Internet Explorer vers. 7.0 or higher, Google Chrome (Java), Mozilla Firefox (Java), Safari (Java)	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)	Mozilla, Safari, Google Chrome, Edge - M-JPEG only, Microsoft internet Explorer (ActiveX)	Microsoft Internet Explorer vers. 7.0 or higher, Google Chrome (Java), Mozilla Firefox (Java), Safari (Java)
AUDIO SUPPORT	yes	yes	yes	yes	yes
INTERNAL STORAGE	microSDHC card, microSDXC card	microSDHC card, 32GB	microSDXC card	microSDXC card	microSD card
ONVIF	Profile S	Profile S	Profile S	Profile S	Profile S
TEMPERATURE RANGE (OPERATION)	-10 °C ~ +50 °C	0 °C ~ +50 °C	-10 °C ~ +50 °C	-10 °C ~ +50 °C	-20°C ~ +50°C
ALARM INPUTS / OUTPUTS	1 / 1	1 / 1	1 / 1	1 / 1	yes
SUPPLY VOLTAGE	PoE, 12 VDC	PoE, 24 VAC, 12 VDC	PoE, 24 VAC, 12 VDC	24 VAC, 12 VDC, PoE	12 VDC
VANDALISM RESISTANT	-	-	-	-	-
COLOUR (HOUSING)	white	white	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	-
PROTECTION RATING	-	-	-	-	-

	IPP-82 A0030 M1A	IPP-72 A0030 M0A	IPP-62 A0012 M0A
SERIES	eneo Premium Class	eneo Premium Class	eneo Minitrax eneo Premium Class
PRODUCT NUMBER	212715	213541	214175
SYSTEM	True Day & Night	True Day & Night	True Day & Night
SENSOR	1/2.8" CMOS Sony STARVIS	1/2.8" CMOS Sony STARVIS	1/2.8" CMOS Sony STARVIS
RESOLUTION STANDARD	HD 1080p	HD 1080p	HD 1080p
RESOLUTION MAX.	1920×1080	1920×1080	1920×1080
VIDEO COMPRESSION	H.264, M-JPEG	H.264, M-JPEG	H.264, M-JPEG
IMAGE TRANSMISSION RATE MAX.	60 fps	60 fps	60 fps
SENSITIVITY	0.35 Lux at F1.6, 50 IRE	0.35 Lux at F1.6, 50 IRE	0.35 Lux at F1.6, 50 IRE
DIGITAL NOISE REDUCTION (DNR)	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	3D-DNR
BACKLIGHT COMPENSATION	BLC, HLC	BLC, HLC	BLC, HLC
WIDE DYNAMIC RANGE (WDR)	WDR 120 dB	WDR 120 dB	WDR 120 dB
ANALYSIS FUNCTIONS	Motion detection, tampering protection, line detection, field detection, defog	Motion detection, tampering protection, line detection, field detection, face detection, defog	Motion detection, tampering protection, line detection, field detection, face detection, defog
ZOOM FACTOR	30×	30×	12×
LENS TYPE	Auto focus zoom	Auto focus zoom	Auto focus zoom
FOCAL LENGTH	4.3 – 129.0 mm	4.3 – 129.0 mm	4.8 – 57.6 mm
STREAM TYPES	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous	2 x H.264, 1 x M-JPEG simultaneous
ILLUMINATION	Infrared, approx. 300 m	-	-
WEB BROWSER	Microsoft Internet Explorer vers. 7.0 or higher, Google Chrome (Java), Mozilla Firefox (Java)	Microsoft Internet Explorer vers. 7.0 or higher, Google Chrome (Java), Mozilla Firefox (Java)	Microsoft Internet Explorer vers. 7.0 or higher, Mozilla, Safari, Google Chrome - M-JPEG only
AUDIO SUPPORT	yes	yes	yes
INTERNAL STORAGE	microSDHC card, 32 GB	microSDHC card, 32 GB	microSDHC card, 32 GB
ONVIF	Profile S	Profile S	Profile S
TEMPERATURE RANGE (OPERATION)	-30 °C ~ 65 °C	-50 °C ~ +65 °C	-20 °C ~ +50 °C
ALARM INPUTS / OUTPUTS	4 / 1	4 / 1	4 / 1
SUPPLY VOLTAGE	PoE+, 12 VDC	12 VDC, 24 VAC, PoE	12 VDC, 24 VAC, PoE
VANDALISM RESISTANT	-	yes	yes
COLOUR (HOUSING)	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C
PROTECTION RATING	IP 66	IP 66	IP 66

	TVB-2080 Z10 IR	TVB-2080 Z03 IR	TVB-2080 V2812 IR	TVB-980 V2812 IR	TVB-920 F36 IR
SERIES	eneo Candid Medium, eneo Premium Class	eneo Candid Medium, eneo Premium Class	eneo Candid Medium, eneo Premium Class	eneo Economy Class	eneo Economy Class
PRODUCT NUMBER	212939	212115	212114	212122	212121
SYSTEM	True Day & Night	True Day & Night	True Day & Night	True Day & Night	True Day & Night
SENSOR	1/3" CMOS Panasonic Progressive Scan	1/2.8" CMOS Sony Exmor	1/2.8" CMOS Sony Exmor	1/3" CMOS Sony	1/3" CMOS Sony
RESOLUTION	1920×1080 (16:9), 1280×720 (16:9)	1920×1080 (16:9), 1280×720 (16:9)	1920×1080 (16:9), 1280×720 (16:9)	1920×1080 (16:9)	1280×960 (4:3)
SENSITIVITY	0.5 Lux at F1.6, 50 IR	0.07 Lux at F1.2, 30 IRE	0.09 Lux at F1.4, 30 IRE	0.01 Lux	0.01 Lux
DIGITAL NOISE REDUCTION (DNR)	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR	2D-DNR, 3D-DNR
BACKLIGHT COMPENSATION	BLC, HLC	BLC, HLC	BLC, HLC	-	-
WIDE DYNAMIC RANGE (WDR)	WDR 113 dB, D-WDR	WDR 113 dB, D-WDR	WDR 113 dB, D-WDR	D-WDR	D-WDR
VIDEO OUTPUTS	HD-TVI, Composite (SUB-OUT)	HD-TVI, Composite (SUB-OUT)	HD-TVI, Composite (SDTV) selectable, Composite (SUB-OUT)	HD-TVI	HD-TVI
SIGNAL FORMAT	HD-TVI	HD-TVI	HD-TVI, Composite (SDTV)	HD-TVI	HD-TVI
FRAME RATE	1080 @ 25 / 30 p, 720 @ 25 / 30 p	1080 @ 25 / 30 p, 720 @ 25 / 30 p	1080 @ 25 / 30 p, 720 @ 25 / 30 p	1080 @ 25 / 30 p	720 @ 25 / 30 p
ZOOM FACTOR	10×	3×	4×	4×	-
LENS TYPE	Auto focus zoom	Auto focus zoom	Varifocal	Varifocal	Fixed focal length
FOCAL LENGTH	5.1 – 51 mm	3 – 9 mm	2.8 – 12 mm	2.8 – 12 mm	3.6 mm
HORIZONTAL ANGLE OF VIEW	53 – 7°	88 – 35°	102 – 32°	89 – 35°	75°
TEMPERATURE RANGE (OPERATION)	-30 °C ~ +50 °C	-30 °C ~ +50 °C	-30 °C ~ +50 °C	-10 °C ~ +55 °C	-10 °C ~ +55 °C
ILLUMINATION	Infrared, approx. 50 m	Infrared, approx. 50 m	Infrared, approx. 60 m	Infrared, approx. 30 m	Infrared, approx. 20 m
SERIAL INTERFACES	RS-485	RS-485	RS-485	-	-
ALARM INPUTS	-	-	-	-	-
ALARM OUTPUTS	-	-	-	-	-
SUPPLY VOLTAGE	12 VDC (11 VDC – 30 VDC), 24 VAC	12 VDC (11 VDC – 30 VDC), 24 VAC	12 VDC (11 VDC – 30 VDC), 24 VAC	12 VDC	12 VDC
COLOUR (HOUSING)	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	Pantone 7541 C	Pantone 7541 C
PROTECTION RATING	IP 67	IP 67	IP 67	IP 66	IP 66

	TVD-2080Z03IR	TVD-2080 V2812 IR	MPD-62 V2812 P0A	TVD-980 V2812 IR	TVD-920 F36 IR
SERIES	eneo Callisto eneo Premium Class	eneo Callisto eneo Premium Class	eneo Premium Class	eneo Economy Class	eneo Economy Class
PRODUCT NUMBER	212113	212112	214833	212120	212117
SYSTEM	True Day & Night	True Day & Night	True Day & Night	True Day & Night	True Day & Night
SENSOR	1/2.8" CMOS Sony Exmor	1/2.8" CMOS Sony Exmor	1/2.8" CMOS Sony E xmor	1/3" CMOS Sony	1/3" CMOS Sony
RESOLUTION	1920×1080 (16:9), 1280×720 (16:9)	1920×1080 (16:9), 1280×720 (16:9)	1920×1080 (16:9)	1920×1080 (16:9)	1280×960 (4:3)
SENSITIVITY	0.07 Lux at F1.2, 30 IRE	0.09 Lux at F1.4, 30 IRE	0.3 Lux at F1.4, 40 IRE	0.01 Lux	0.01 Lux
DIGITAL NOISE REDUCTION (DNR)	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR	2D-DNR, 3D-DNR
BACKLIGHT COMPENSATION	BLC, HLC	BLC, HLC	BLC, HS BLC (Eclipser)	-	-
WIDE DYNAMIC RANGE (WDR)	WDR 113 dB, D-WDR	WDR 113 dB, D-WDR	D-WDR	D-WDR	D-WDR
VIDEO OUTPUTS	HD-TVI, Composite (SUB-OUT)	HD-TVI, Composite (SDTV) selectable	CVI selectable	HD-TVI	HD-TVI
SIGNAL FORMAT	HD-TVI	HD-TVI, Composite (SDTV)	HD-TVI, Composite (SDTV), AHD, CVI	HD-TVI	HD-TVI
FRAME RATE	1080 @ 25 / 30 p, 720 @ 25 / 30 p	1080 @ 25 / 30 p, 720 @ 25 / 30 p	1080 @ 25 / 30 p	1080 @ 25 / 30 p	720 @ 25 / 30 p
ZOOM FACTOR	3×	4×	4×	4×	-
LENS TYPE	Auto focus zoom	Varifocal	Varifocal	Varifocal	Fixed focal length
FOCAL LENGTH	3 – 9 mm	2.8 – 12 mm	2.8 – 12 mm	2.8 – 12 mm	3.6 mm
HORIZONTAL ANGLE OF VIEW	88 – 35°	102 – 32°	96 – 32°	89 – 35°	75°
TEMPERATURE RANGE (OPERATION)	-30 °C ~ +50 °C	-30 °C ~ +50 °C	-10 °C ~ +50 °C	-10 °C ~ +55 °C	-10 °C ~ +55 °C
ILLUMINATION	Infrared, approx. 50 m	Infrared, approx. 50 m	Infrared, approx. 30 m	Infrared, approx. 30 m	Infrared, approx. 15 m
SERIAL INTERFACES	RS-485	RS-485	-	-	-
ALARM INPUTS	-	-	-	-	-
ALARM OUTPUTS	-	-	-	-	-
SUPPLY VOLTAGE	12 VDC (11 VDC – 30 VDC), 24 VAC	12 VDC (11 VDC – 30 VDC), 24 VAC	12 VDC	12 VDC	12 VDC
COLOUR (HOUSING)	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	white	Pantone 7541 C	Pantone 7541 C
PROTECTION RATING	IP 67	IP 67	-	IP 66	IP 66

HD-TVI

	TVC-2080 Z03	TPP-82 A0030 MIA	TPP-72 A0030 P0A	TPP-62A0012M0A
SERIES	eneo Candid Box, eneo Premium Class	eneo Fastrax, eneo Premium Class	eneo Fastrax, eneo Premium Class	eneo Minitrax, eneo Premium Class
PRODUCT NUMBER	212116	213857	213271	214176
SYSTEM	True Day & Night	True Day & Night	True Day & Night	True Day & Night
SENSOR	1/2.8" CMOS Sony Exmor	1/2.8" CMOS Sony STARVIS	1/2.8" CMOS Sony STARVIS	1/2.8" CMOS Sony STARVIS
RESOLUTION	1920×1080 (16:9), 1280×720 (16:9)	1920×1080 (16:9), 1280×720 (16:9)	1920×1080 (16:9), 1280×720 (16:9)	1920×1080 (16:9), 1280×720 (16:9)
SENSITIVITY	0.07 Lux at F1.2, 30 IRE	0.35 Lux at F1.6, 50 IRE	0.35 Lux at F1.6, 50 IRE	0.35 Lux at F1.6, 50 IRE
DIGITAL NOISE REDUCTION (DNR)	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	2D-DNR, 3D-DNR	3D-DNR
BACKLIGHT COMPENSATION	BLC, HLC	BLC, HLC	BLC, HLC	BLC, HLC
WIDE DYNAMIC RANGE (WDR)	WDR 113 dB, D-WDR	WDR 120 dB	WDR 120 dB	WDR 120 dB
VIDEO OUTPUTS	HD-TVI, Composite (SDTV)	SDTV, HD-TVI / AHD selectable	SDTV, HD-TVI / AHD selectable	SDTV, HD-TVI / AHD selectable
SIGNAL FORMAT	HD-TVI, Composite (SDTV)	HD-TVI, AHD, Composite (SDTV)	HD-TVI, AHD, Composite (SDTV)	HD-TVI, AHD, Composite (SDTV)
FRAME RATE	1080 @ 25 / 30 p, 720 @ 25 / 30 p	1080 @ 25 / 30 p, 720 @ 25 / 30 / 50 / 60 p	1080 @ 25 / 30 p, 720 @ 25 / 30 / 50 / 60 p	1080 @ 25 / 30 p, 720 @ 25 / 30 / 50 / 60 p
ZOOM FACTOR	3×	30×	30×	12×
LENS TYPE	Auto focus zoom	Auto focus zoom	Auto focus zoom	Auto focus zoom
FOCAL LENGTH	3 – 9 mm	4.3 – 129 mm	4.3 – 129 mm	4.8 – 57.6 mm
HORIZONTAL ANGLE OF VIEW	88 – 35 °	65.1 – 2.23 °	65.1 – 2,23 °	64.2 – 5.9 °
TEMPERATURE RANGE (OPERATION)	-10 °C ~ +50 °C	-30 °C ~ +65 °C	0 °C ~ +50 °C	-20 °C ~ +50 °C
ILLUMINATION	-	Infrared, approx. 300 m	-	-
SERIAL INTERFACES	RS-485	RS-485	RS-485	RS-485
ALARM INPUTS	-	4	4	4
ALARM OUTPUTS	-	2	2	2
SUPPLY VOLTAGE	12 VDC (11 VDC-30 VDC), 24 VAC	24 VDC, 24 VAC	12 VDC, 24 VAC	12 VDC, 24 VAC
COLOUR (HOUSING)	Pantone Cool Gray 1 C	Pantone Cool Gray 1 C	black	Pantone Cool Gray 1 C
PROTECTION RATING	-	IP 66	-	IP 66

	PNR-5332 / 3TB	PNR-5316 / 3TB	PNR-5308 / 3TB	PNR-5304 / 1TB	PNR-5564 R
PRODUCT NUMBER	213336	210050	210049	210047	211771
IP CHANNELS	32	16	8	4	64
COMPRESSION STANDARD	H.264	H.264	H.264	H.264	H.264, MPEG-4, M-JPEG
OPERATING SYSTEM	Linux	Linux	Linux	Linux	Windows 7 (64bit)
MAX. RECORDING RESOLUTION.	2592×1944	2592×1944	2592×1944	2592×1944	2592×1944
MAX.RECORDING RATE	960 fps at 1920×1080	400 fps at 1920×1080	200 fps at 1920×1080	100 fps at 1920×1080	1600 fps at 1920×1080
RECORDING	Time lapse, event, panic, text in- POS, pre-alarm	Time lapse, event, panic, text in- POS, pre-alarm	Time lapse, event, panic, text in- POS, pre-alarm	Time lapse, event, panic, text in- POS, pre-alarm	Time lapse, event, panic, text in- POS, pre-alarm
HARDDISK CAPACITY (INTERNAL/MAX.)	3TB / 24TB	3TB / 8TB	3TB / 8TB	1TB / 8TB	0 / 48TB
EXPORT OF IMAGES OR CLIPS	USB port, via client software, clip player, AVI, JPG, BMP	USB port, via client software, clip player, AVI, JPG, BMP	USB port, via client software, clip player, AVI, JPG, BMP	USB port, via client software, clip player, AVI, JPG, BMP	USB port, via client software, clip player, AVI, JPG, BMP
INTERFACES EXTERNAL STORAGE	eSATA; 4×HDD 4TB	eSATA; 4×HDD 4TB	eSATA; 4×HDD 4TB	eSATA; 4x HDD 4TB	USB
DATA TRANSFER RATE MAX.	230 Mbps	64 Mbps	32 Mbps	16 Mbps	300 Mbps
AUDIO OUTPUT	line output	line output	line output	line output	1×line-out, 3.5 mm socket
USB PORTS	2×USB 2.0	1×USB 2.0, 1×USB 3.0	1×USB 2.0, 1×USB 3.0	1×USB 2.0, 1×USB 3.0	4×USB 2.0, 2×USB 3.0
MONITOR OUTPUTS	HDMI, VGA	HDMI, VGA	HDMI, VGA	HDMI, VGA	HDMI, VGA
NETWORK	2×100 / 1000 Base-T, RJ45	1×Gigabit Ethernet	1×Gigabit Ethernet	1×Gigabit Ethernet	-
NETWORK PROTOCOLS	TCP, DHCP, SNS, FEN, Zeroconf	TCP, DHCP, SNS, FEN, Zeroconf	TCP, DHCP, SNS, FEN, Zeroconf	TCP, DHCP, SNS, FEN, Zeroconf	TCP, UDP, RDP, DHCP, NTP, SNS, FEN, Zeroconf
NETWORK DATA TRANSFER RATE	50 Mbps	20 Mbps	20 Mbps	20 Mbps	150 Mbps
ALARM INPUTS	16	4	4	4	-
ALARM OUTPUTS	4×TTL NO / NC selectable	1×Relay NO/NC contact	1×Relay NO/NC contact	1×Relay NO/NC contact	-
ALARM NOTIFICATION	e-Mail notification; Buzzer; remote software, alarm output	e-Mail notification; Buzzer; remote software, alarm output	e-Mail notification; Buzzer; remote software, alarm output	e-Mail notification; Buzzer; remote software, alarm output	e-Mail notification; live pop up (client); acknowledge event (client); map - live pup up (client); event monitor (client); alarm display (client); buzzer
REMOTE CONFIGURATION	remote software, browser	remote software, browser	remote software, browser	remote software, browser	remote software
MOBILE ACCESS	Android OS, iPhone	iPhone, Android OS	iPhone, Android OS	iPhone, Android OS	Android OS, iPhone
CONTROL UNITS (EXTERNAL)	mouse, network keyboard	mouse, network keyboard	mouse, network keyboard	mouse, network keyboard	keyboard, mouse, network keyboard
ONVIF	Profile S	Profile S	Profile S	Profile S	Profile S
SUPPLY VOLTAGE	100 – 240 VAC, 50 / 60 Hz	12 V, 1.0 A (Adaptor: 100 – 240 V~, 50 / 60 Hz, 1.5 A, 12 V, 5 A)	12 V, 1.0 A (Adaptor: 100 – 240 V~, 50 / 60 Hz, 1.5 A, 12 V, 5 A)	12 V, 1.0 A (Adaptor: 100 – 240 V~, 50 / 60 Hz, 1.5 A, 12 V, 5 A)	100 – 240 VAC, redundant power supply

NVR

	PNR-5548R	PNR-5532R	PNR-5564T	PNR-5548T	PNR-5532T
PRODUCT NUMBER	211770	211769	212933	212932	212931
IP CHANNELS	48	32	64	48	32
COMPRESSION STANDARD	H.264, MPEG-4, M-JPEG	H.264, MPEG-4, M-JPEG	H.264, MPEG-4, M-JPEG	H.264, MPEG-4, M-JPEG	H.264, MPEG-4, M-JPEG
OPERATING SYSTEM	Windows 7 (64 bit)	Windows 7 (64bit)	Windows 7 (64 bit)	Windows 7 (64 bit)	Windows 7 (64bit)
MAX. RECORDING RESOLUTION.	2592 × 1944	2592 × 1944	2592 × 1944	2592 × 1944	2592 × 1944
MAX.RECORDING RATE	1200 fps at 1920 × 1080	800 fps at 1920 × 1080	1600 fps at 1920 × 1080	1200 fps at 1920 × 1080	800 fps at 1920 × 1080
RECORDING	Time lapse, event, panic, text in- POS, pre-alarm	Time lapse, event, panic, text in- POS, pre-alarm	Time lapse, event, panic, text in- POS, pre-alarm	Time lapse, event, panic, text in- POS, pre-alarm	Time lapse, event, panic, text in- POS, pre-alarm
HARDDISK CAPACITY (INTERNAL/MAX.)	0 / 48 TB	0 / 48 TB	12 TB / 30 TB	12 TB / 30 TB	12 TB / 30 TB
EXPORT OF IMAGES OR CLIPS	USB port, via client software, clip player, AVI, JPG, BMP	USB port, via client software, clip player, AVI, JPG, BMP	USB port, via client software, clip player, AVI, JPG, BMP	USB port, via client software, clip player, AVI, JPG, BMP	USB port, via client software, clip player, AVI, JPG, BMP
INTERFACES EXTERNAL STORAGE	USB	USB	USB	USB	USB
DATA TRANSFER RATE MAX.	300 Mbps	300 Mbps	300 Mbps	300 Mbps	300 Mbps
AUDIO OUTPUT	1 × line-out, 3.5 mm socket	1 × line-out, 3.5 mm socket	1 × line-out, 3.5 mm socket	1 × line-out, 3.5 mm socket	1 × line-out, 3.5 mm socket
USB PORTS	4 × USB 2.0, 2 × USB 3.0	4 × USB 2.0, 2 × USB 3.0	4 × USB 2.0, 2 × USB 3.0	4 × USB 2.0, 2 × USB 3.0	4 × USB 2.0, 2 × USB 3.0
MONITOR OUTPUTS	HDMI, VGA	HDMI, VGA	HDMI, VGA, DVI	HDMI, VGA, DVI	HDMI, VGA, DVI
NETWORK	-	-	-	-	-
NETWORK PROTOCOLS	TCP, UDP, RDP, DHCP, NTP, SNS, FEN, Zeroconf	TCP, UDP, RDP, DHCP, NTP, SNS, FEN, Zeroconf	TCP, UDP, RDP, DHCP, NTP, SNS, FEN, Zeroconf	TCP, UDP, RDP, DHCP, NTP, SNS, FEN, Zeroconf	TCP, UDP, RDP, DHCP, NTP, SNS, FEN, Zeroconf
NETWORK DATA TRANSFER RATE	150 Mbps	150 Mbps	150 Mbps	150 Mbps	150 Mbps
ALARM INPUTS	-	-	-	-	-
ALARM OUTPUTS	-	-	-	-	-
ALARM NOTIFICATION	e-Mail notification; live pop up (client); acknowledge event (client); map - live pop up (client); event monitor (client); alarm display (client); buzzer	e-Mail notification; live pop up (client); acknowledge event (client); map - live pop up (client); event monitor (client); alarm display (client); buzzer	e-Mail notification; live pop up (client); acknowledge event (client); map - live pop up (client); event monitor (client); alarm display (client); buzzer	e-Mail notification; live pop up (client); acknowledge event (client); map - live pop up (client); event monitor (client); alarm display (client); buzzer	e-Mail notification; live pop up (client); acknowledge event (client); map - live pop up (client); event monitor (client); alarm display (client); buzzer
REMOTE CONFIGURATION	remote software	remote software	remote software	remote software	remote software
MOBILE ACCESS	Android OS, iPhone	Android OS, iPhone	Android OS, iPhone	Android OS, iPhone	Android OS, iPhone
CONTROL UNITS (EXTERNAL)	keyboard, mouse, network keyboard	keyboard, mouse, network keyboard	keyboard, mouse, network keyboard	keyboard, mouse, network keyboard	keyboard, mouse, network keyboard
ONVIF	Profile S	Profile S	Profile S	Profile S	Profile S
SUPPLY VOLTAGE	100 – 240 VAC, redundant power supply	100 – 240 VAC, redundant power supply	100 – 240 VAC	100 – 240 VAC	100 – 240 VAC

HD-TVI DVR

	TVR-3016 AH 3.0	TVR-2016 AM1.0	TVR-2008 AM1.0	TVR-1004 AE1.0	TER-22 N160300 A
PRODUCT NUMBER	212128	212127	212126	212125	213346
VIDEO INPUTS (AMOUNT)	16	16	8	4	16
AUDIO INPUTS (AMOUNT)	4	4	4	4	1
MAX. RECORDING RESOLUTION.	1920 × 1080	1920 × 1080	1920 × 1080	1920 × 1080	1920 × 1080
MAX.RECORDING RATE	400 at 1920 × 1080	400 at 1280 × 720	200 at 1280 × 720	100 at 1280 × 720	400 at 1280 × 720
HARDDISK CAPACITY (INTERNAL/MAX.)	3 / 16	1 / 16	1 / 16	1 / 8	3 / 12
COMPRESSION STANDARD	H.264	H.264	H.264	H.264	H.264
INTERFACES EXTERNAL STORAGE	USB, eSATA	USB, eSATA	USB, eSATA	USB	USB
MONITOR OUTPUTS	RGB, HDMI	RGB, HDMI	RGB, HDMI	RGB, HDMI	RGB, HDMI
SPOT MONITOR	CVBS	CVBS	CVBS	-	-
RECORDING	permanent, movement, event, panic, text in- POS	permanent, movement, event, panic, text in- POS	permanent, movement, event, panic, text in- POS	permanent, movement, event, panic, text in- POS	permanent, timer, movement, event
DIGITAL SIGNATURE	Watermark	Watermark	Watermark	Watermark	Watermark
ALARM INPUTS	16 × TTL, programmable as NC/NO	16 × TTL, programmable as NC / NO	8 × TTL, programmable as NC / NO	4 × TTL, programmable as NC / NO	4 × TTL programmable as NC/NO (terminal block)
ALARM OUTPUTS	4 × NO/NC contact	4 × NO/NC contact	4 × NO/NC contact	1 × NO/NC contact	1 × NO/NC contact
ALARM NOTIFICATION	e-Mail notification, alarm output, remote software, FTP	e-Mail notification, alarm output, remote software, FTP	e-Mail notification, alarm output, remote software, FTP	e-Mail notification, alarm output, remote software, FTP	buzzer, e-Mail notification, alarm output, remote software
SERIAL INTERFACES	RS-485, RS-232	RS-485, RS-232	RS-485, RS-232	RS-485, RS-232	RS-485
REMOTE CONFIGURATION	Remote software, Microsoft Internet Explorer	Remote software, Microsoft Internet Explorer	Remote software, Microsoft Internet Explorer	Remote software, Microsoft Internet Explorer	Remote software, Microsoft Internet Explorer
MOBILE ACCESS	iPhone, Android OS	iPhone, Android OS	iPhone, Android OS	iPhone, Android OS	Android OS, iPhone
CONTROL UNITS (EXTERNAL)	mouse, keyboard, network keyboard	mouse, keyboard, network keyboard	mouse, keyboard, network keyboard	mouse, keyboard, network keyboard	mouse, remote control
SUPPLY VOLTAGE	100 – 240 VDC, 50 / 60 Hz	100 – 240 VDC, 50 / 60 Hz	100 – 240 VDC, 50 / 60 Hz	12 VDC (PSU 100 – 240 VAC included)	12 VDC

HD-TVI DVR

	TER-22 N080300 A	TER-12 N040200 A
PRODUCT NUMBER	213345	213344
VIDEO INPUTS (AMOUNT)	8	4
AUDIO INPUTS	1	1
MAX. RECORDING RESOLUTION.	1920×1080	1920×1080
MAX.RECORDING RATE	200 at 1280×720	100 at 1280×720
HARDDISK CAPACITY (INTERNAL/MAX.)	3/12	2/6
COMPRESSION STANDARD	H.264	H.264
INTERFACES EXTERNAL STORAGE	USB	USB
MONITOR OUTPUTS	RGB, HDMI	VGA
SPOT MONITOR	-	-
RECORDING	permanent, timer, movement, event	permanent, timer, movement, event
DIGITAL SIGNATURE	Watermark	Watermark
ALARM INPUTS	4×TTL programmable as NC/NO (terminal block)	4×TTL, programmable as NC/NO (terminal block)
ALARM OUTPUTS	1×NO/NC contact	1×NO/NC contact
ALARM NOTIFICATION	buzzer, e-Mail notification, alarm output, remote software	buzzer, e-Mail notification, alarm output, remote software
SERIAL INTERFACES	RS-485	RS-485
REMOTE CONFIGURATION	Remote software, Microsoft Internet Explorer	Remote software, Microsoft Internet Explorer
MOBILE ACCESS	Android OS, iPhone	Android OS, iPhone
CONTROL UNITS (EXTERNAL)	mouse, remote control	mouse, remote control
SUPPLY VOLTAGE	12VDC	12VDC

Strong technology partnerships for flexible video management

What counts is the solution: Strong technology partnerships and ONVIF compliant eneo IP products present installers with multiple options for flexible video security solutions. Thanks to our cooperation with leading suppliers of system solutions customers can choose the best products for them in terms of video management and recording among the top products.

As continuous expansion of the eneo partner network and integration of our IP products in the video management software and recording solutions of our partners is an ongoing process, we recommend to regularly visit our website www.eneo-security.com

Stay up to date on the subject of video management:

Interface standard

ONVIF

Technology partners

aimetis
artec technologies
axxon Experience The Next
CamIQ
HEITEL by xtralis
KSENOS
MAKU
milestone
MIRASYS
netavis we observe
NUUO
QNAP SECURITY
SeeTec
SiNVR SIEMENS Network Video
Synology
xtralis Now Part of Honeywell

From the IP Camera to the Customised Product Solution

Case Study: Commerzbank Arena Frankfurt

Network video cameras can do more than security. In a parking management demo system of the Mainz-based PMS GmbH at the Frankfurt Commerzbank Arena, eneo IP-cameras combine security, economy and convenience. A tailor-made installation solution demonstrates that customized eneo solutions impress.

Installation and maintenance of video and parking management systems is the core business of PMS GmbH. In the state-of-the art parking systems provided by SkiData, with whom the company from Mainz collaborates, parking management and classic video surveillance mesh together. eneo Callisto IP-domes are an integral part of these systems.

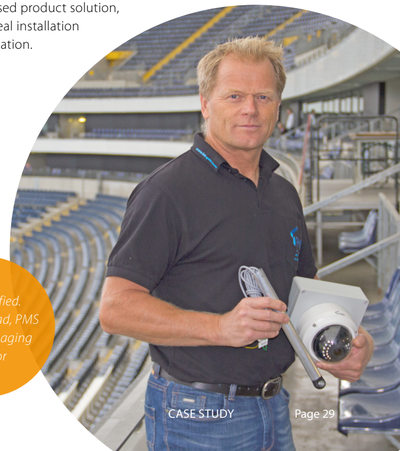
The cameras' high-resolution video signals create the conditions for efficiency (traffic jam prevention, emissions reduction, optimal capacity utilisation) and customer convenience on the parking areas. At the same time, the cameras ensure security at the crucial the ticket machines and ticket columns. In this dual function, eneo IP cameras have already been used in several major projects for which the PMS GmbH is responsible, such as at Weeze Airport (North Rhine-Westphalia) and in Doha, the capital of the Emirate of Qatar, where around 1,700 eneo network cameras are in use.

In the parking lot of the Commerzbank Arena the company operates a demo system in which the IP cameras perform the various functions: Status information on each individual parking bay and control of their info LEDs, continuous video surveillance coverage between the parked vehicles as well as the driving lane, car finder support though automatic number plate recognition at every parking space.

To ensure the system software can process the incoming signals into meaningful information for output to the user interfaces, high definition video signals and low vulnerability are absolutely essential. Therefore the choice came down to Callisto IP domes.

Thanks to their modular housing design and various optional accessories, they can flexibly adapt to the widest range of installation scenarios, as was shown by the PMS demo system, where Callisto wedge adapters increase the horizontal and vertical range of the cameras. Additionally, customised junction boxes featuring the PMS logo formed an integral part of the installation.

During an on-site visit Vokder Nieraad, PMS GmbH Managing Director, said he was very satisfied with the customised product solution, it had proven to be the ideal installation solution for the test application.



Very satisfied. Volker Nieraad, PMS GmbH Managing Director

Your eneo Contacts

Michael Englberger
Business Development Manager

+49 160 - 95 63 67 14
m.englberger@eneo-security.com

Süddeutschland, Österreich

Andy Keikus
Business Development Manager

+49 151 - 46 71 43 78
a.keikus@eneo-security.com

Mitteldeutschland

Jussi Simonen
Business Development Manager

+49 170 - 851 50 40
j.simonen@eneo-security.com

Norddeutschland, BeNeLux, Nordics, Baltics

Jorge Ramirez
Business Development Manager

+49 151 - 11 75 84 03
j.ramirez@eneo-security.com

Schweiz, Frankreich & Südeuropa

Daniel Lehmann
Marketing

+49 6074 - 88 82 91
d.lehmann@eneo-security.com

Dennis Garufo
Webinars & Trainings

+49 6074 - 88 81 45
d.garufo@eneo-security.com

PRESALES & AFTERSALES SUPPORT

eneo Presales Support

+49 6074 - 88 81 11
presales@eneo-security.com

eneo Aftersales Support

+49 6074 - 88 84 00
support@eneo-security.com

eneo is a trademark of
Videor E. Hartig GmbH
Carl-Zeiss-Straße 8
D-63322 Rödermark
Germany

Phone +49 6074 - 888 - 0
Fax +49 6074 - 888 -100
E-Mail info@eneo-security.com
Web www.eneo-security.com

CEOs
Michael Haas, Jürgen Hagenlocher

Certification
DIN ISO 9002 since 1994
EN ISO 9001:2000 since 2002
EN ISO 9001:2008 since 2009

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arndtteunissen GmbH
www.arndtteunissen.de

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eneo is a trademark of
Videor E. Hartig GmbH
Carl-Zeiss-Straße 8
D-63322 Rödermark
Germany

Phone +49 6074 - 888 - 0
Fax +49 6074 - 888 -100
E-Mail info@eneo-security.com
Web www.eneo-security.com

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