SIEMENS

Sinteso™ C-LINE

Automatic fire detectors

FDOOT221, FDO221, FDT221

For the automatically addressed detector bus FDnet

- The ideal fire detector for every application
- Signal processing with detection algorithms (DA)
- Early and reliable detection when fires occur
- Highly developed immunity to deceptive phenomena
- Supports disturbance-free function testing with **DFT***technology*™ (Disturbance-Free Test) as well as scan and test of external alarm indicator (FDOOT221, FDO221)

Properties

Features

- Resistant to environmental and interfering influences such as dust, fibers, insects, moisture, extreme temperatures, electromagnetic interference, corrosive vapors, vibration, artificial aerosols, and atypical fire phenomena
- Shock resistant, theft protection as an accessory
- Signal processing with detection algorithms
- Proven immunity to faults in power electronics
- Protected electronics, high-quality components
- Sophisticated sensors and electronic monitoring
- Internal alarm indicator (IAI), 360° visibility, alignment not necessary
- Integrated line separator
- The same detector base can be used for every type of detector
- Supports automatic detector test with **DFT***technology*™ (FDOOT221, FDO221, VdS 3860 certified)
- Supports scan for external alarm indicators (FDOOT221, FDO221)
- Supports external alarm indicator test (FDOOT221, FDO221)
- 'One-man' testing, commissioning, diagnostics, and maintenance
- Exchange the detector without resetting the parameters
- Exchange the detector without a ladder at heights up to 8 m

Ecological benefits:

- Environmentally friendly processing
- Reusable materials
- Electronic parts and synthetic materials can be easily separated

Use

Multi-sensor smoke detector FDOOT221

Multi-sensor smoke detector consisting of:

- Point detector with additional heat sensors
- Detector dust cap to protect the point detector during the construction phase

Function

- Functions according to the scattered light principle with two sensors: Optical forward and backward scattering
- Opto-electronic measuring chamber: Obstructs disruptive extraneous light but can be relied upon to detect both light and dark smoke particles
- Two additional heat sensors increase the fire detector's immunity to deceptive phenomena.
- Selectable detection behavior thanks to different parameter sets

Use

- For early detection of flaming fires of solid and liquid substances as well as of smoldering fires
- For early and reliable fire detection in an environment with deceptive phenomena
- Can be used addressed

Smoke detector FDO221

Smoke detector consisting of:

- Point detector
- Detector dust cap to protect the point detector during the construction phase

Function

- Functions according to the scattered light principle with one sensor: Optical forward scattering
- Opto-electronic measuring chamber: Obstructs disruptive extraneous light but can be relied upon to detect both light and dark smoke particles
- Selectable detection behavior thanks to different parameter sets
- Integrated temperature sensor for room temperature measurement

Use

- For early detection of flaming fires as well as smoldering fires
- Can be used addressed

Heat detector FDT221

Heat detector consisting of:

- Point detector
- Detector dust cap to protect the point detector during the construction phase

Function

- Two redundant heat sensors: If one of the two sensors fails, the fire detector still conforms to the highest response class
- Measures the operating temperature and the temperature inside the detector housing so that temperature rise can be detected.
- Selectable detection behavior thanks to different parameter sets

Use

- For monitoring rooms in which rapid temperature rise is to be expected in the event of a fire or if optical detection is difficult
- Can be used addressed

Dummy detector FDX291

Use

- To cover bases that are left empty for prolonged periods of time

Type Overview

Type	Designation	Order no.	Weight [kg]
Point detector			
FDOOT221	Multi-sensor smoke detector	S54310-F20-A1	0.105
FDO221	Smoke detector	S54310-F18-A1	0.104
FDT221	Heat detector	A5Q00001567	0.086
Accessories			
FDX291	Dummy detector	S54319-F2-A1	0.120

You will find information about detector bases and accessories in document 007775.

Product documentation

Document ID	Title
007004	Technical manual Automatic fire detectors FDOOT221, FDOOT241-A3, FDOOT241-A4, FDOOT241-A5, FDOOT241-8, FDOOT241-9, FDOOT241-A9, FDO241, FDO221, FDT241, FDT221
007775	Data Sheet Detector bases and accessories FDB22x, FDB20x, FDB241, FDB251, FDB281, FDB299
008164	Equipment overview Sinteso™ Detector system FD20
008331	List of compatibility (for 'Sinteso™' product line)
009409	Data sheet Colored detectors, bases and base attachment FDO.., FDOOT…, FDT…, FDB…, FDCW241

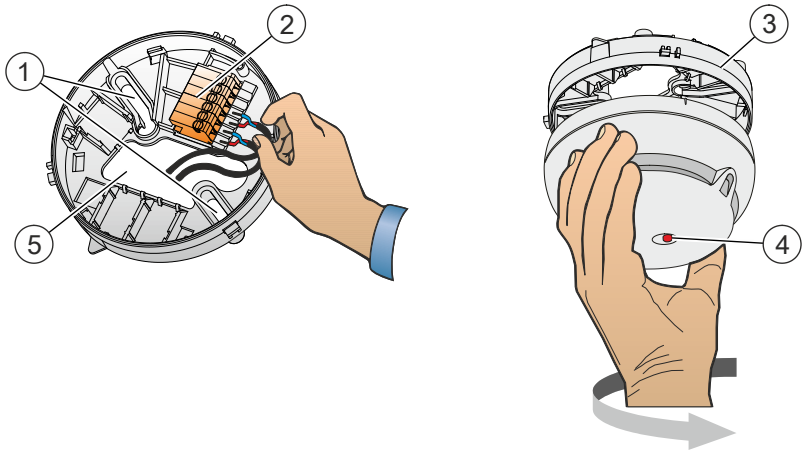
Related documents such as the environmental declarations, CE declarations, etc., can be downloaded from the following Internet address:

www.siemens.com/bt/download

Installation

Easy, time-saving, and top quality mounting

- Detector base FDB221 for surface-mounted and recess-mounted supply lines
- Detector base FDB222 for flush mounting, only for recess-mounted supply lines
- Extra-long mounting slits allow existing drill holes from other systems to be reused
- A large opening in the detector base makes it easy to feed the cables through.
- Screwless connection terminals (spring clip principle)
- Detector line can be connected without any tools The wire can be inserted easily by hand
- The detector can be mounted in the base easily by hand or using a detector exchanger
- The alarm indicator (AI) is centered in the detector, which makes alignment of the detector superfluous



1 Mounting slits
2 Screwless connection terminals
3 Detector base
4 Alarm indicator
5 Opening for cable entry

You will find more information about detector bases and accessories in document 007775.

Disposal

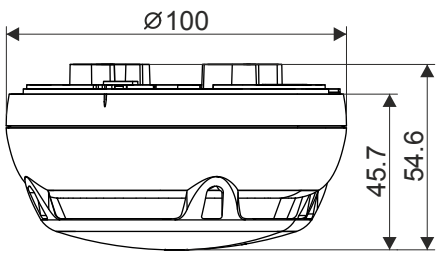
The device is considered an electronic device for disposal in accordance with European Directive and may not be disposed of as domestic waste.

- Use only designated channels for disposing the devices.
- Comply with all local and currently applicable laws and regulations.

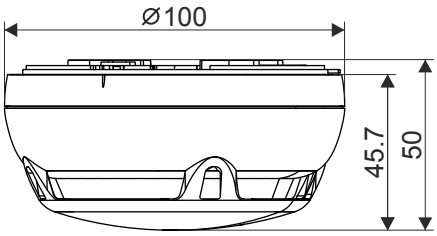
Technical data

		FDOOT221	FDO221	FDT221
Operating voltage (modulated)		DC 12…33 V		
Operating current (quiescent)		190…230 µA	180…230 µA	130…200 µA
External alarm indicators which can be connected	Without sounder base	2		
	With sounder base	1		
Communication protocol		FDnet		
System compatibility		FS20, SIGMASYS AlgoRex: Product version <67	FS20, SIGMASYS AlgoRex: Product version <66	FS20, AlgoRex, SIGMASYS
Operating temperature		-10…+60 °C	-10…+60 °C	Dependent on configuration: -10…+50 °C -10…+65 °C
Storage temperature		-30…+75°C		
Air humidity (short-term moisture condensation permitted)		≤95 % rel.		
Color		~RAL 9010 pure white		
Protection category (IEC 60529)	With detector base FDB221/-AA, FDB222, FDB291	IP43		
	Base FDB221 and sealing element FDBZ295	IP44		
	Base attachment humid FDB293 and base attachment wet FDB295	IP44		
Standards		EN 54-7 EN 54-17 EN 54-29	EN 54-7 EN 54-17	EN 54-5 EN 54-17
Approvals: ● VdS ● LPCB ● FM ● DNV GL (marine)		 G204006 126bw/01 3029351 MEDB00003UK	 G204018 126bf/01 3029351 MEDB00003UK	 G204020 126bj/01 3046115 MEDB00003UR
Permissible wind speed		Max. 5 m/s	Max. 5 m/s	–

Dimensional drawing



With base FDB221 for surface-mounted cable entry



With base FDB222 for flush mounting

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