

SIEMENS



FD20 Sinteso™ Detector system

Equipment overview

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1	About this document	7
2	Automatic fire detectors	9
2.1	C-LINE Fire detectors with detection algorithms	9
2.2	S-LINE Fire detectors with <i>ASAt technology</i> TM	12
2.2.1	Accessories for fire detectors	18
2.3	S-LINE Linear smoke detector with <i>ASAt technology</i> TM	18
2.3.1	Accessories for linear smoke detector	19
2.4	C-LINE Infrared flame detector with detection algorithms	20
2.5	S-LINE Infrared flame detector with <i>ASAt technology</i> TM	21
2.5.1	Accessories for infrared flame detector	22
3	Detector base	23
3.1	Detector base collective	23
3.2	Detector base addressable	24
3.2.1	Accessories for detector base	24
3.3	Base attachment	25
3.4	Base attachment wet and humid	26
3.4.1	Accessories for base attachment wet and humid	27
3.5	Sounder base addressable	28
3.6	Sounder base collective	29
3.6.1	Accessories for sounder base	29
3.7	Base adapter MS8 / Sinteso	30
3.8	Base adapter AnalogPLUS / Sinteso	30
3.9	Base adapter SIGMACON / Sinteso	30
3.10	Removing tool	30
4	Alarm indicators	31
4.1	Door frame version	31
4.2	Wall version	31
4.2.1	Accessories for wall version	32
4.3	Recess mounting version	33
4.3.1	Spare part for FDAI93	33
4.3.2	Accessories for recess mounting version	33
5	Manual call points	35
5.1	Manual call point FDM221 with direct operation	35
5.1.1	Accessories for manual call point FDM221	36
5.1.2	Spare parts for manual call point FDM221	36
5.2	Manual call points FDM225/226 with direct operation	37
5.2.1	Accessories for manual call points FDM225	38
5.2.2	Accessories for manual call points FDM225, FDM226	38
5.2.3	Spare parts for manual call points FDM225, FDM226	39
5.3	Manual call point FDM224 with direct operation	40
5.4	Manual call point 'Heavy Duty' FDM224H with direct operation	41
5.4.1	Accessories for manual call points FDM224 and FDM224H	41
5.4.2	Spare parts for manual call points FDM224 and FDM224H	42
5.5	Manual call point FDM223 complete with indirect operation	43
5.6	Manual call point FDM223 with indirect operation	44
5.7	Manual call point 'Heavy Duty' FDM223H with indirect operation	45
5.7.1	Accessories for manual call points FDM223, FDM223H	45
5.7.2	Spare parts for manual call points FDM223, FDM223H	46
6	Alarm devices	47

6.1	Alarm sounders	47
6.2	Alarm sounder with supplementary optical indication	48
6.2.1	Accessories for alarm sounders, alarm sounder with supplementary optical indication	48
6.3	Sounder base	51
6.4	Sounder interbase FDSB221, Sounder interbase with supplementary optical indication FDSB229	52
6.4.1	Accessory	53
7	Control module SPF 5100.....	55
8	Line separator, Input/output modules	57
8.1	Line separator	57
8.2	Multi line separator FDCL221-M	58
8.2.1	Accessories for FDCL221 / FDCL221-M	58
8.3	Input module FDCI221, FDCI222	59
8.4	Input/output modules FDCIO22x	60
8.4.1	Accessories for transponder	62
8.4.2	Accessories for input/output module and transponder	62
8.4.3	Spare part for input/output module and transponder	62
9	Special detectors	63
9.1	Radio gateway	63
9.1.1	Accessory for radio gateway	63
9.2	Radio smoke detector	64
9.2.1	Accessories for radio smoke detector	64
9.3	Radio base for manual call point SMF121	65
9.3.1	Accessory for radio base	66
9.4	Manual call points	66
9.4.1	Accessory for SMF121	66
9.4.2	Spare part for SMF121	66
9.5	SWING Radio gateway	67
9.5.1	Accessory for SWING radio gateway	67
9.6	SWING Radio smoke detector	68
9.6.1	Accessories for SWING radio smoke detector	68
9.7	SWING Radio manual call point	69
9.7.1	Accessories for SWING radio manual call point	69
9.8	Radio test set	70
9.9	Air sampling smoke detection kit	71
9.9.1	Accessories for air sampling smoke detection kit	72
9.10	Aspirating smoke detectors	73
9.10.1	Accessory	73
9.11	Video Fire Controller	75
10	Test equipment and accessories	76
10.1	Detector exchanger	76
10.2	Detector exchanger and tester	76
10.2.1	Spare part for FDUD292/293	77
10.2.2	Accessories for FDUD291/292/293	77
10.3	Detector tester RE6, RE6T, RE7T, RE8ST, RE8STCO	77
10.3.1	Accessories for RE6	77
10.3.2	Accessories for RE7T, RE8ST, RE8STCO	79
10.3.3	Spare parts for RE7T, RE8ST, RE8STCO	80
10.3.4	Accessories for DX791, RE6, RE6T, RE7T, RE8ST, RE8STCO	80
10.3.4.1	Spare parts for telescope rod FDUM291	81
10.3.4.2	Spare parts for telescope rod FDUM292	82
10.4	Test equipment for linear smoke detectors	82
10.4.1	Adjustment device set	82

10.4.2	Detector tester.....	82
10.5	Line tester	83
10.5.1	Accessories for line tester	83
10.5.2	Spare parts for line tester.....	84
10.6	Test lamp for flame detector	84
10.6.1	Spare part for test lamp	84
10.7	Adapter for FDnet devices	85
11	Index	87

1 About this document

Purpose

This document is an overview about the Sinteso detector products for the systems engineering fire.



This document is continuously revised and extended.

Scope

The document contains information about all available devices to the series Sinteso.

Target groups

This document arranges itself to all persons.

Reference documents

You find the detailed information in the technical descriptions.

Conventions

(...)	Additional information
bold letters	Definitions of designations
see	Cross-reference

Document identification

Place	Signification
Title page	– System names – Product type – Document purpose
Last page bottom left	– Document number – Version date
Last page bottom right	– Manual – Register

Modification index

Version	Date	Brief description
008164_a_en_--	08.2004	First edition
008164_b_en_--	12.2004	Align document layout, new manual call point complete FDM223, minor changes
008164_c_en_--	01.2005	Added spare parts for telescope rod FDUM291/292
008164_d_en_--	03.2005	Visibility of chapter 3.4.1 corrected
008164_e_en_--	04.2005	Added manual call point housing Heavy Duty FDMH292-R and accessories, SYGMACONTROL control module SPF 5100, Base attachment wet FDB293, minor changes
008164_f_en_--	01.2006	Deleted scope of supply and packing unit, added document no. and standards, miscellaneous new, miscellaneous deleted, div. minor changes
008164_g_en_--	04.2006	Tech. data, weight deleted, old part no add with BPZ, new devices manual call points FDM224/224H/225/226, EOL22(Ex), colored detectors, transponder FDCIO223, signal base collective FDSB292, Intelligent detector tester FDUD293, detector designation plate DBZ1193A, minor changes
008164_h_en_--	04.2006	Name changed from neural fire detector to multi-sensor smoke detector
008164_i_en_--	05.2007	Deleted connection factor, new FDS229, FDOOT241-8 colored, FDBZ294, drawings replaced by photos

008164_j_en_--	08.2007	New devices as Radio gateway and accessories, Radio test equipment, Detector test equipment, Air sampling smoke detection, LaserFocus VESDA, MCL USB adapter. Minor changes as IP protection, System compatibility etc.
008164_k_en_--	08.2007	Wrong part no. of FDS229-R/-A adjusted
008164_l_en_--	01.2008	Add new devices as FDB202, FDB201 colored replaced by FDB202 colored, FDB222, FDB221 colored replaced by FDB222 colored, FDX291, minor changes
008164_m_en_--	04.2008	Modified the link to STEP, Modified manual call points SMF121, div. VdS No. completed, minor changes
008164_n_en_--	09.2008	New devices FDV241, FDOOTC241, change part no. and data sheet no. from LaserFocus, new photo from FDM226 and approvals, replace all photos (tif) through (jpg), minor changes
008164_o_en_--	01.2009	change color of devices, minor changes, New FDBZ295 Sealing element, correction of address
008164_p_en_--	05.2009	Sealing element FDBZ295, Housing FDCH221, FDCI221, FDCIO221, RE7T, correction of address
008164_q_en_--	07.2009	VdS FDOOTC241, New REF8-C, replace AX1204 by FA2003-A1, New FDBZ295 for point detectors, modified protection category, Back nut correction of delivery unit, change photos of manual call point housings (yellow, blue, green), FDT2x1 Techn. data -> modified ext. alarm indicator
008164_r_en_--	12.2009	FDCL221-M (new), FDMH293-O (new); VdS FDM226-RG, FDM226-RP
008164_s_en_--	06.2010	New FDAI91, FDAI92, FDAI93 replace DJ1191, DJ1192, DJ1193. New FDCAI221
008164_t_en_--	12.2011	FDOOTC241 (LPCB); New: FDOOT241-A3, FDOOT241-A4 and FDOOT241-A9; Base adapter FDB241 and FDB299; Sounder interbase FDBS221 and Sounder beacon interbase FDBS229; Blanking plate FDBZ296 New housing FDMH292-R
008164_u_en_--	11.2012	VdS: FDOOT241-A3, FDOOT241-A4, FDOOT241-A9, SWING (new)
008164_v_en_--	03.2013	New naming for FDS229, FDSB229 New products: RE8ST, RE8STCO
008164_w_en_--	12.2013	Order number DOW1171 FDA221, FDA241, FDCC221S, FDUZ227 FDM273, FDB295

Download

The current issue documentation and photos can be found in the Siemens Intranet. <https://workspace.sbt.siemens.com/content/00001123/default.aspx> (STEP, Asset Portal)



2 Automatic fire detectors

2.1 C-LINE Fire detectors with detection algorithms

FDOOT221	Multi-sensor smoke detector	Part no.	A5Q00001566
FDOOT221	Multi-sensor smoke detector for detector ex-change	Part no.	A5Q00001566-R
FDOOT221	Multi-sensor smoke detector (colored)	Part no.	A5Q00016442



Documents	Accessories	see chapter 3
Colored detectors	Product data sheet	007850
	Data sheet	009409
	Technical description	007004

Application

For the early detection of flaming fires caused by the combustion of liquid and solid matters, as well as smoldering fires. For the early and reliable fire detection in environments with deceptive phenomena. Can be used as an addressable device.

Function

Works according to the scattered light principle with two sensors, optical forward and backward scattering. Opto-electronic sampling chamber holds off disturbing extraneous light but optimally detects both dark and light smoke particles.

Two additional heat sensors increase the fire detector's immunity to deceptive phenomena. Selectable detection behavior thanks to different DA parameter sets.

Technical data

Communication protocol	FDnet
Operating voltage (modulated)	12... 33 VDC
Operating current (quiescent)	200... 280 µA
Ext. alarm indicator without sounder base	2
Ext. alarm indicator with sounder base	1
Operating temperature	-10... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	white, ~RAL 9010 colored, according to customer requirement
Protection category EN60529/IEC529 with	
– Base FDB22x and Base attachment FDB291	IP43
– Base FDB221 and Sealing element FDBZ295	IP44
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
Standards	CEA4021, EN54-7, EN54-17
Dimensions	Ø100 x 46 mm
Approvals	VdS G204006

FDO221	Smoke detector	Part no.	A5Q00001565
FDO221	Smoke detector for detector exchange	Part no.	A5Q00001565-R
FDO221	Smoke detector (colored)	Part no.	A5Q00016440



Accessories	see chapter 3
Documents	Product data sheet
Colored detectors	Data sheet
	Technical description

Application

For the early detection of smoke-generating flaming and smoldering fires.
Can be used as an addressable device.

Function

Works according to the scattered light principle with one sensor, optical forward scattering.
Opto-electronic sampling chamber holds off disturbing extraneous light but optimally detects smoke particles. Selectable detection behavior thanks to different DA parameter sets.

Technical data

Communication protocol	FDnet
Operating voltage (modulated)	12... 33 VDC
Operating current (quiescent)	180... 230 μ A
Ext. alarm indicator without sounder base	2
Ext. alarm indicator with sounder base	1
Operating temperature	-10... +60 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	white, ~RAL 9010 colored, according to customer requirement
Protection category EN60529/IEC529 with	
– Base FDB22x and Base attachment FDB291	IP43
– Base FDB221 and Sealing element FDBZ295	IP44
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
Standards	EN54-7, EN54-17
Dimensions	Ø100 x 46 mm
Approvals	VdS G204018, LPCB 126ab/02

FDT221	Heat detector	Part no.	A5Q00001567
FDT221	Heat detector (colored)	Part no.	A5Q00016444
 		Accessories	see chapter 3
	Documents	Product data sheet	007850
	Colored detectors	Data sheet	009409
		Technical description	007004
Application			
Monitoring of rooms in which a quick temperature rise is expected in case of fire, or when optical detection is difficult.			
Can be used as an addressable device.			
Function			
Equipped with two redundant heat sensors, so that in case of failure of one sensor, the detector still complies with the highest alarm class. Measures the ambient temperature and the temperature in the detector housing, so that a temperature increase can be detected immediately.			
Selectable detection behavior thanks to different DA parameter sets.			
Technical data			
Communication protocol		FDnet	
Operating voltage (modulated)		12... 33 VDC	
Operating current (quiescent)		130... 200 µA	
Ext. alarm indicator without sounder base		2	
Ext. alarm indicator with sounder base		1	
Operating temperature depending on the parameterization		-10... +50 °C / -10... +70 °C	
Storage temperature		-30... +75 °C	
Humidity		≤95 % rel.	
Color		white, ~RAL 9010	
		colored, according to customer requirement	
Protection category EN60529/IEC529 with			
– Base FDB22x and Base attachment FDB291		IP43	
– Base FDB221 and Sealing element FDBZ295		IP44	
– Base attachment wet FDB293		IP54	
System compatibility FDnet		FS20, AlgoRex, SIGMASYS	
Standards		EN54-5, EN54-17	
Dimensions		Ø100 x 46 mm	
Approvals		VdS G204020, LPCB 126aa/02	

2.2 S-LINE Fire detectors with ASAtSMtechnology™

FDOOT241-A3	Multi-sensor smoke detector	Part no.	S54310-F10-A1
FDOOT241-A4	Multi-sensor smoke detector	Part no.	S54310-F9-A1
		Accessories	see chapter 3
	Documents	Product data sheet	008141
		Technical description	007004

FDOOT241-A3



Application

For the early detection of flaming fires caused by the combustion of liquid and solid matters, as well as smoldering fires. For the early and reliable fire detection in environments with deceptive phenomena. Addressable application possible, for the step-by-step modernization from AnalogPLUS or SIGMALOOP to Sinteso FDnet.

FDOOT241-A4



Function

Works according to the scattered light principle with two sensors, optical forward and backward scattering. Opto-electronic sampling chamber holds off disturbing extraneous light but optimally detects both dark and light smoke particles.

Two additional hear sensors increase the fire detector's immunity to deceptive phenomena.

Software can be set multi-sensor smoke detector, smoke detector or heat detector.

Selectable detection behavior thanks to application-specific ASA parameter sets.

Multi-Protocol:

- FDOOT241-A3 (AnalogPLUS, FDnet)
- FDOOT241-A4 (SIGMALOOP, FDnet)

Technical data

Communication protocol	AnalogPLUS / SIGMALOOP or FDnet
Operating voltage AnalogPLUS / FDnet (modulated)	16... 28 VDC / 12... 33 VDC
Operating voltage SIGMALOOP / FDnet (modulated)	14... 28 VDC / 12... 33 VDC
Operating current AnalogPLUS - SIGMALOOP / FDnet (quiescent)	200 µA / 200... 280 µA
Ext. alarm indicator in AnalogPLUS / SIGMALOOP	2 / 2
Ext. alarm indicator in FDnet	2
Permissible air speed	1... 20 m/s
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	white, ~RAL 9010
Protection category EN60529/IEC529 with	
– Base FDB22x and Base attachment FDB291	IP43
– Base FDB221 and Sealing element FDBZ295	IP44
– Base adapter FDB241	IP44
– Base DB1131 or SPF3600	IP44
System compatibility FDnet (*) ¹	FS20, AlgoRex, SIGMASYS
System compatibility detector system AnalogPLUS	AlgoRex
System compatibility detector system SIGMALOOP	SIGMASYS,
Standards	CEA4021, EN54-5, EN54-7, EN54-17
Dimensions	Ø100 x 46 mm
Approvals	VdS G211125 (FDOOT241-A3) VdS G212007 (FDOOT241-A4)

(*) Compatibility with FS20 on FDnet protocol only available if enabled in your country-specific FS20 software

FDOOT241-8	Multi-sensor smoke detector	Part no.	A5Q00004663
FDOOT241-8	Multi-sensor smoke detector colored	Part no.	A5Q00026304
FDOOT241-8	Multi-sensor smoke detector for detector exchange	Part no.	A5Q00004663-R
FDOOT241-8M	Multi-sensor smoke detector and base adapter, packet FDOOT241-8 + FDB281 for migration	Part no.	A5Q00016038
FDOOT241-8B	Multi-sensor smoke detector and addr. base, packet FDOOT241-8 + FDB221 for migration	Part no.	A5Q00015956

FDOOT241-8



Accessories	see chapter 3
Documents	Product data sheet 008141
Colored detectors	Data sheet 009409
	Technical description 007004

Application

For the early detection of flaming fires caused by the combustion of liquid and solid matters, as well as smoldering fires. For the early and reliable fire detection in environments with deceptive phenomena. Addressable application possible, for the step-by-step modernization from MS8 to Sinteso FDnet.

**Function**

Works according to the scattered light principle with two sensors, optical forward and backward scattering. Opto-electronic sampling chamber holds off disturbing extraneous light but optimally detects both dark and light smoke particles.

Two additional heat sensors increase the fire detector's immunity to deceptive phenomena.

Software can be set multi-sensor smoke detector, smoke detector or heat detector.

Selectable detection behavior thanks to application-specific ASA parameter sets.

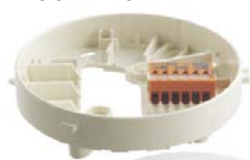
Multi-Protocol:

- FDOOT241-8 (PMT, MS8)

FDOOT241-8M



FDOOT241-8B

**Technical data**

Communication protocol	MS8/PMT or FDnet
Operating voltage MS8 / FDnet (modulated)	14... 28 VDC / 12... 33 VDC
Operating current MS8 / FDnet (quiescent)	200 µA / 200... 280 µA
Ext. alarm indicator in MS8	not supported
Ext. alarm indicator in FDnet	2
Permissible air speed	1... 20 m/s
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	white, ~RAL 9010
Protection category EN60529/IEC529 with	
– Base FDB22x and Base attachment FDB291	IP43
– Base FDB221 and Sealing element FDBZ295	IP44
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
System compatibility detector system MS8	SIGMASYS, BMS, SM80/88/D100, SRS
Standards	CEA4021, EN54-5, EN54-7, EN54-17
Dimensions	Ø100 x 46 mm

FDOOT241-9	Multi-sensor smoke detector	Part no.	A5Q00004813
FDOOT241-A9	Neural fire detector	Part no.	S54310-F11-A1
FDOOT241-9	Multi-sensor smoke detector (colored)	Part no.	A5Q00016443
FDOOT241-9	Multi-sensor smoke detector for detector exchange	Part no.	A5Q00004813-R
FDOOT241-9M	Multi-sensor smoke detector and coll. base, packet FDOOT241-9 + FDB201 for migration	Part no.	A5Q00015955

FDOOT241-9 / FDOOT241-A9



Accessories	see chapter 3
Documents	Product data sheet 007005
Colored detectors	Data sheet 009409
	Technical description 007004

Application

For the early detection of flaming fires caused by the combustion of liquid and solid matters, as well as smoldering fires. For the early and reliable fire detection in environments with deceptive phenomena. Can be used as an addressable or collective device for the step-by-step modernization from SinoLINE300 to Sinteso FDnet.

Function

Works according to the scattered light principle with two sensors, optical forward and backward scattering. Opto-electronic sampling chamber holds off disturbing extraneous light but optimally detects both dark and light smoke particles.

Two additional heat sensors increase the fire detector's immunity to deceptive phenomena.

Software can be set multi-sensor smoke detector, smoke detector or heat detector.

Selectable detection behavior thanks to application-specific ASA parameter sets.

Multi-Protocol:

FDOOT241-A9 collective / GMT (Cerberus / Siemens) / SinoLINE300, FDnet

FDOOT241-9M



Technical data

Communication protocol	FDnet, collective with & without current limitation
Operating voltage FDnet / collective (modulated)	12... 33 VDC / 14... 28 VDC
Operating current FDnet (quiescent)	200... 280 µA
Operating current collective (quiescent)	100... 200 µA (depending on connection factor)
Ext. alarm indicator without sounder base	2
Ext. alarm indicator with sounder base	1
Permissible air speed	1... 20 m/s
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	white, ~RAL 9010 colored, according to customer requirement
Protection category EN60529/IEC529 with	
– Base FDB22x and Base attachment FDB291	IP43
– Base FDB221 and Sealing element FDBZ295	IP44
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
System compatibility collective, conventional	CZ10, CS11, BC10, FC10, XC10, FC330A, FC700A, SIGMASYS, BMS, SM80/88/D100
Standards	CEA4021, EN54-5, EN54-7, EN54-17
Dimensions	Ø100 x 46 mm
Approvals	VdS G204007 (FDOOT241-9) VdS G204133 (FDOOT241-A9)

FDOOTC241**Multi-sensor fire detector****Part no.****S54311-F1-A1**

	Accessories	see chapter 3
Documents	Product data sheet	A6V10217810
	Technical description	A6V10209291

Application

For very early and reliable detection of emerging fire, due to analysis of the three criteria smoke, heat and gas. Very fast response to all carbon monoxide (CO) generating fires and very early and reliable alarming in environments with deceptive phenomena.

The additional CO analysis makes it exceptionally fast and ideal for applications where the occupants make speed of detection critical (e.g. nursing homes, hospitals, sheltered accommodations etc.). Can be used as an addressable device.

→ The availability will be communicated via the corresponding Delivery Release.

Function

Works according to the scattered light principle with two sensors, optical forward and backward scattering. Opto-electronic sampling chamber holds off disturbing extraneous light but optimally detects both dark and light smoke particles. Two additional heat sensors and an additional CO sensor increase the fire detector's immunity to deceptive phenomena and the response characteristics of the fire detector. Selectable detection behavior by application-specific ASA parameter sets.

Technical data

Communication protocol	FDnet
Operating voltage	12... 33 VDC
Operating current (quiescent)	320... 400 µA
Ext. alarm indicator without sounder base	2
Ext. alarm indicator with sounder base	1
Permissible air speed	1... 20 m/s
Operating temperature	-20... +70 °C
Storage temperature	-20... +55 °C
Humidity	15... 90 % (0... 99 % short-term condensation permitted)
Color	white, ~RAL 9010
Protection category EN60529/IEC529 with	
– Base FDB22x and Base attachment FDB291	IP43
– Base FDB221 and Sealing element FDBZ295	IP44
System compatibility FDnet	FS20 (MP2.1)
Standards	CEA4021, EN54-5, EN54-7, EN54-17, VdS2806, LPS1265, LPS1274
Dimensions	Ø100 x 46 mm
Approvals	VdS G209040, LPCB 126ah/03

FDO241	Smoke detector	Part no.	A5Q00004811
FDO241	Smoke detector (colored)	Part no.	A5Q00016441
 		Accessories	see chapter 3
	Documents	Product data sheet	007005
	Colored detectors	Data sheet	009409
		Technical description	007004
Application For the early detection of smoke-generating flaming and smoldering fires. Can be used as an addressable device.			
Function Works according to the scattered light principle with one sensor, optical forward scattering. Opto-electronic sampling chamber holds off disturbing extraneous light but optimally detects smoke particles. Selectable detection behavior thanks to application-specific ASA parameter sets.			
Technical data			
Communication protocol		FDnet	
Operating voltage (modulated)		12... 33 VDC	
Operating current (quiescent)		180... 230 µA	
Ext. alarm indicator without sounder base		2	
Ext. alarm indicator with sounder base		1	
Operating temperature		-10... +60 °C	
Storage temperature		-30... +75 °C	
Humidity		≤95 % rel.	
Color		white, ~RAL 9010	
		colored, according to customer requirement	
Protection category EN60529/IEC529 with			
– Base FDB22x and Base attachment FDB291		IP43	
– Base FDB221 and Sealing element FDBZ295		IP44	
System compatibility FDnet		FS20, AlgoRex, SIGMASYS	
Standards		EN54-7, EN54-17	
Dimensions		Ø100 x 46 mm	
Approvals		VdS G204017, LPCB 126ab/01	

FDT241	Heat detector	Part no.	A5Q00004812
FDT241	Heat detector (colored)	Part no.	A5Q00016445
 		Accessories	see chapter 3
	Documents	Product data sheet	007005
	Colored detectors	Data sheet	009409
		Technical description	007004
Application Monitoring of rooms in which a quick temperature rise is expected in case of fire, or when optical detection is difficult. Can be used as an addressable device.			
Function Equipped with two redundant heat sensors, so that in case of failure of one sensor, the detector still complies with the highest alarm class. Measures the ambient temperature and the temperature in the detector housing, so that a temperature increase can be detected immediately. Selectable detection behavior thanks to application-specific ASA parameter sets.			
Technical data			
Communication protocol		FDnet	
Operating voltage (modulated)		12... 33 VDC	
Operating current (quiescent)		130... 200 µA	
Ext. alarm indicator without sounder base		2	
Ext. alarm indicator with sounder base		1	
Operating temperature depending on the parameterization		-25... +50 °C / -25... +70 °C	
Storage temperature		-30... +75 °C	
Humidity		≤95 % rel.	
Color		white, ~RAL 9010 colored, according to customer requirement	
Protection category EN60529/IEC529 with			
– Base FDB22x and Base attachment FDB291		IP43	
– Base FDB221 and Sealing element FDBZ295		IP44	
– Base attachment wet FDB293		IP54	
System compatibility FDnet		FS20, AlgoRex, SIGMASYS	
Standards		EN54-5, EN54-17	
Dimensions		Ø100 x 46 mm	
Approvals		VdS G204019, LPCB 126aa/01	

FDX291	Dummy detector	Part no.	S54319-F2-A1
	Documents	Product data sheet	007850, 007005
	Application To cover bases without detectors over a long period.		

2.2.1 Accessories for fire detectors

FDBZ293	Detector locking device	Part no.	A5Q00005035
		Document	Product data sheet



Application

For protection against theft.

Technical data

Threaded pin	M3 x 6 (100x)
Hexagonal wrench	1.5 mm

FDZ291	Detector dust cap	Part no.	A5Q00004814
		Document	Product data sheet



10 pieces

Application

To cover the detector, for the protection against dust during construction work.

Technical data

Material	Polystyrene
Color	red

2.3 S-LINE Linear smoke detector with ASAtTM technology

FDLB291	Base for linear smoke detector	Part no.	A5Q00003941
FDL241-9	Linear smoke detector	Part no.	A5Q00002298
		Documents	Product data sheet
			Technical description

FDLB291



Application

Large storerooms and production workshops. Areas with complex roof structures or historically valuable ceilings. Covered courtyards. Atrium-type buildings. Reception halls.
Can be used as an addressable or collective device.

Function

The detector consists of a light emitter and a light receiver. The light emitter emits a bundled infrared ray, which is scattered back by the prism-shaped reflector to the light emitter. The receiver converts the received infrared signal in an electric signal, which is evaluated by the microprocessor-controlled electronics.

Smoke penetrating the measuring section attenuates the infrared signal. When the signal reaches pre-defined measuring values, the detector transmits the corresponding danger level to the control unit. Distance measurement for the recognition of foreign matters. The built-in alarm indicator signals the alarm status locally.

Max. Detection distance 5 – 100m.

FDL241-9



Technical data

Communication protocol	FDnet, collective with & without current limitation
Operating voltage FDnet / collective	12... 33 VDC / 18... 28 VDC
Operating current FDnet und collective	1.5 mA
Ext. alarm indicator	1
Operating temperature	-25... +60 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	white, ~RAL 9010
Protection category EN60529/IEC529	IP65
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
System compatibility collective, conventional	CZ10, BC10, FC10, XC10, CS11, FC700A, FC330A, SIGMASYS, BMS, SM80/88/D100
Standards	EN54-12, EN54-17
Dimensions	135 x 135 x 115 mm
Approvals	VdS G204063, LPCB 126ag/01

2.3.1 Accessories for linear smoke detector

DLR1191	Long distance reflector (Prism)	Part no.	BPZ:4787710001
DLR1192	Middle distance reflector (400cm²)	Part no.	BPZ:4788490001
DLR1193	Short distance reflector (100cm²)	Part no.	BPZ:4787840001

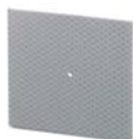
DLR1191



DLR1192



DLR1193



Documents Product data sheet 007017
Technical description 007016

Application

Reflectors to the linear smoke detector incl. detector heating.

Function

Light rays arriving are reflected parallel. Any extraneous light is also reflected in its own direction and consequently does not reach the receiver.

The retro reflecting prism in the DLR1191 has the shape of a pyramid that's lateral faces are formed by isosceles orthogonal triangles. Light beams entering through the base are completely reflected twice on the lateral faces and reflected back through the base. In principle, the reflector foil has the same effect (function) as the prism.

Technical data

Long distance reflector (Prism) for 20-100 m	
Supply for detector heater	24 VDC
Dimensions	135 x 135 x 65 mm

Middle distance reflector (400 cm ²) for 30-65 m	
Dimensions	200 x 200 x 2.5 mm

Short distance reflector (100 cm ²) for 10-30 m	
Dimensions	100 x 100 x 2.5 mm

DLF1191-AA	Short distance filter 7-10m	Part no.	BPZ:4933030001
DLF1191-AB	Short distance filter 5-8m	Part no.	BPZ:4933160001
DLF1191-AC	Extraneous light filter	Part no.	BPZ:5221480001

Document Product data sheet 007017

DLF1191-AA



DLF1191-AB, DLF1191-AC



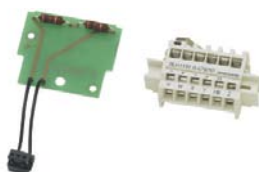
Application

The short distance filter is required for short distance of 5-10 m.

The extraneous light filter is required at powerful external light causes interference
Only one filter possible.

DLH1191A	Detector heating element	Part no.	BPZ:4787970001
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Documents Product data sheet 007017
Technical description 007016



Application

In the event of danger of condensation of the linear smoke detector.

Technical data

Operating voltage	20... 30 VDC
Operating current	30... 50 mA
Resistance	600 Ω

—	Metal screwed cable gland M20 x 1.5	Part no.	A5Q00004478
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10 pieces



Application

For surface cable entry.

Technical data

Material	Ms nickel-plated
Dimensions	M20 x 1.5

2.4 C-LINE Infrared flame detector with detection algorithms

FDFB291	Base for infrared flame detector	Part no.	A5Q00003310
FDF221-9	Infrared flame detector (1 Sensor)	Part no.	A5Q00003902
	Documents	Product data sheet	007012
		Technical description	007011

FDFB291



Application

For simple applications, additional to smoke detectors.

Detection of smokeless combustible liquid and gas fires, as well as smoke-forming open fire involving carbonaceous materials as contained in wood, plastics, gases, oil products etc.

Only used without source of interference as sun, halogen light, and blackbody radiation.

Can be used as an addressable or collective device.

Function

1 infrared sensor with detection algorithms.

FDF221-9



Technical data

Communication protocol	FDnet, collective with & without current limitation
Operating voltage addressable / collective (quiescent)	12... 33 VDC / 16... 28 VDC
Operating current FDnet / collective (quiescent)	0.7 mA / 0.5 mA
Ext. alarm indicator	2
Connection terminals	0.2... 1.5 mm ²
Operating temperature	-25... +70 °C
Storage temperature	-40... +75 °C
Humidity	≤95 % rel.
Color	white, ~RAL 9010
Protection category EN60529/IEC529	IP44
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
System compatibility collective, conventional	CZ10, BC10, FC10, XC10, CS11, FC700A, FC330A, SIGMASYS, BMS, SM80/88/D100
Standards	EN54-10, EN54-17
Dimensions	135 x 135 x 77 mm
Approvals	VdS G204009, LPCB 126af/02

2.5 S-LINE Infrared flame detector with **ASAtechnology™**

FDFB291	Base for infrared flame detector	Part no.	A5Q00003310
FDF241-9	Infrared flame detector (3 Sensors)	Part no.	A5Q00003006
	Documents	Product data sheet	007012
		Technical description	007011

FDFB291



Application

Detects smokeless liquid and gas fires as well as smoke-generating open fires resulting from the combustion of carbonaceous materials such as wood, synthetics, gases, oil products, etc.
Large industrial warehouses, Hangars for military and civil aircraft, Underground tunnels etc.
Can be used as an addressable or collective device.

Function

3 infrared sensors with **ASAtechnology™**.

FDF241-9



Technical data

Communication protocol	FDnet, collective with & without current limitation
Operating voltage addressable / collective (quiescent)	12... 33 VDC / 14... 28 VDC
Operating current FDnet / collective (quiescent)	0.7 mA / 0.5 mA
Ext. alarm indicator	2
Connection terminals	0.2... 1.5 mm ²
Operating temperature	-35... +70 °C
Storage temperature	-40... +75 °C
Humidity	≤95 % rel.
Color	white, ~RAL 9010
Protection category EN60529/IEC529	IP67
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
System compatibility collective, conventional	CZ10, BC10, FC10, XC10, CS11, FC700A, FC330A, SIGMASYS, BMS, SM80/88/D100
Standards	EN54-10, EN54-17
Dimensions	135 x 135 x 77 mm
Approvals	VdS G204010, LPCB 126af/01

2.5.1 Accessories for infrared flame detector

MV1	Mounting bracket	Part no.	BPZ:3950450001
MWV1	Ball and socket joint	Part no.	BPZ:3674840001
DFZ1190	Rain hood	Part no.	BPZ:5302660001

Document Product data sheet 007012

MV1



Application

MV1 The mounting bracket for volumetric surveillance, fixed the detector in the right angle.

MWV1 Ball and socket joint for the flame detector for the orientation to a defined object.

DFZ1190 Rain hood for the flame detector for outdoor applications.

MWV1



Technical data

Mounting bracket

Dimensions

136 x 120 x 120 mm

Ball and socket joint

Dimensions

120 x 164 x 118 mm

DFZ1190



Rain hood

Dimensions

150 x 165 x 130 mm

–	Metal screwed cable gland M20 x 1.5	Part no.	A5Q00004478
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10 pieces

Application

For surface cable entry.

Technical data

Material

Dimensions

Ms nickel-plated

M20 x 1.5

3 Detector base

3.1 Detector base collective

FDB201	Detector base collective	Part no.	A5Q00003814
FDB201-AA	Detector base collective with 1 micro terminal	Part no.	A5Q00012742
FDB202	Detector base flat, collective	Part no.	S54319-F3-A1
FDB202	Detector base flat, collective (colored)	Part no.	A5Q00016446

FDB201



Application

For fire detectors with collective signal processing.

For recess supply wiring.

Only FDB201, FDB201-AA for surface supply wiring, cable diameter up to 6 mm.

FDB201-AA



FDB202



FDB202



Technical data

Screwless connecting terminals 'grey'

Color

wire cross-sectional area from 0.2 ... 1.5 mm²
white, ~RAL 9010

colored, according to customer requirement

Dimensions

FDB201

Ø100 x 22 mm

FDB202

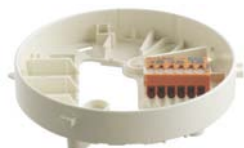
Ø100 x 17 mm

3.2 Detector base addressable

FDB221	Detector base addressable	Part no.	A5Q00001664
FDB221-AA	Detector base addressable with 1 micro terminal	Part no.	A5Q00012741
FDB222	Detector base flat, addressable	Part no.	S54319-F1-A1
FDB222	Detector base flat, addressable (colored)	Part no.	A5Q00016447

	Document	Product data sheet	007775
	Colored detectors	Data sheet	009409

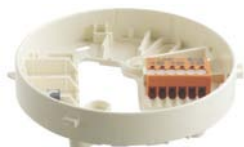
FDB221



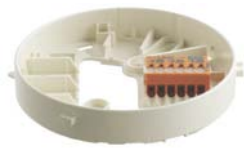
Application

For fire detectors with addressable signal processing.
For recess supply wiring.
Only FDB221, FDB221-AA for surface supply wiring, cable diameter up to 6 mm.

FDB221-AA



FDB222



FDB222



Technical data

Screw less connecting terminals 'orange'	wire cross-sectional area from 0.2 ... 1.5 mm ²
Color	white, ~RAL 9010
	colored, according to customer requirement
Dimensions	
FDB221	Ø100 x 22 mm
FDB222	Ø100 x 17 mm

3.2.1 Accessories for detector base

FDBZ295	Sealing element	Part no.	S54319-F10-A1
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Application

For higher protection category.
Use only with bases FDB201, FDB201-AA, FDB221 and FDB221-AA and for recess supply wiring.
Note: Not usable together with the designation plate FDBZ291.

Technical data

Dimensions	Ø106 x 28 mm
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FDBZ291	Designation plate	Part no.	A5Q00002621
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Document	Product data sheet	007775
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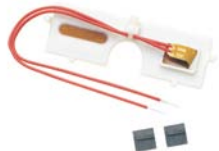
10 pieces

Application

To identify the location address.
For base FDB20x/-AA, FDB22x/-AA, FDB271 and base attachment FDBZ291

Technical data

Color	transparent
Dimensions	62 x 35 mm

FDBH291	Detector heating incl. micro terminals	Part no.	A5Q00004439
	Application For the operation of the point fire detectors in critical environments, danger of frost formation or moisture condensation, e.g. in cold storage houses, attics, loading ramps, cheese storage cellars, etc. Optimum function of the detector heating is only ensured with the base attachment wet FDB293.	Documents	Product data sheet 007775
			Technical description 007004
		Technical data Operating voltage (normal operation) 20... 30 VDC Operating current 35... 55 mA Operating temperature -30°... +40 °C Humidity ≤95 % rel.	

DBZ1190-AA	Micro terminal	Part no.	BPZ:4677080001
DBZ1190-AB	Auxiliary terminal	Part no.	BPZ:4942340001
 50 pieces  50 pieces	Application As cross-connection point for T branches, external alarm indicators (AI), cable shielding, or for the connection of a power supply unit e.g. for the detector heating.	Technical data DBZ1190-AA for conductors 0.28... 0.5 mm ² / 4-pole Dimensions 7 x 10 x 10 mm	
		DBZ1190-AB for conductors 1.0... 2.5 mm ² / 3-pole Dimensions 13.5 x 9.5 x 19.5 mm	

3.3 Base attachment

FDB291	Base attachment	Part no.	A5Q00001603
FDB291	Base attachment (colored)	Part no.	A5Q00016448
 	Application For the supply of surface-mounted lines > Ø6 mm.	Document	Product data sheet 007775
		Colored detectors	Data sheet 009409
		Technical data Color white, ~RAL 9010 colored, according to customer requirement Dimensions Ø120 x 25 mm	

3.4 Base attachment wet and humid

FDB293	Base attachment wet with seal	Part no.	A5Q00003945
		Document	Product data sheet
			007775



Application

For mounting in humid or wet environments, and when the detector-heating unit is used.

Technical data

Color	white, ~RAL 9010
Dimensions	135 x 135 x 49 mm

FDB295	Base attachment wet	Bestell-Nr.	S54319-F21-A1
		Document	Product data sheet
			007775
		Installation	A6V10331076



Application

For mounting in humid and/or cold environments, and when the detector-heating unit is used..

IP44 with FDO2x1, FDT2x1, FDOOT221, FDOOT241, FDOOTC241

IP54 with FDS221-R, FDS221-W, FDS229-R & FDS229-A

Technical data

Color	weiss, ~RAL 9010
Dimensions	135 x 135 x 53 mm

3.4.1 Accessories for base attachment wet and humid

DBZ1194	Protective cage	Part no.	BPZ:4677110001
		Document Product data sheet	007775
	Application For the protection of the detector against damage. Can only be used together with the base attachment wet FDB293.		
	Technical data Dimensions Ø160 x 126 mm		
FDBZ294	EMC Protective cage	Part no.	A5Q00023040
		Document Product data sheet	007775
	Application To protect the detector from large electromagnetic fields. Can only be used together with the base attachment wet FDB293.		
	Technical data Dimensions Ø140 x 60/90 mm		
DBZ1193A	Designation plate (10x)	Part no.	BPZ:4864330001
		Document Product data sheet	007775
 10 pieces	Application To identify the location address. For base attachment wet FDB293.		
	Technical data Color transparent Dimensions 62 x 52 mm		
–	Metal screwed cable gland M20 x 1.5	Part no.	A5Q00004478
	Details see chapter 2.5.1		
			
FDBH291	Detector heating incl. micro terminals	Part no.	A5Q00004439
		Documents Product data sheet	007775
		Technical description	007004
	Application For the operation of the point fire detectors in critical environments, danger of frost formation or moisture condensation, e.g. in cold storage houses, attics, loading ramps, cheese storage cellars, etc. Optimum function of the detector heating is only ensured with the base attachment wet FDB293.		
	Technical data Operating voltage (normal operation) 20... 30 VDC Operating current 35... 55 mA Operating temperature -30°... +40 °C Humidity ≤95 % rel.		

3.5 Sounder base addressable

FDSB291	Sounder base addressable incl. 2 micro terminals	Part no.	A5Q00001647
		Documents	Product data sheet Technical description
			007026 007025
Application			
For all Sinteso point detectors.			
For recess supply wiring. For surface supply wiring, cable diameter up to 6 mm.			
The signal base and the detector compose a unity, which already has a base and is mounted on ceilings, e.g. in hotel rooms, hospitals and nursing homes.			
Can be used as addressable device.			
Function			
In case of a fire alarm, the signal base triggers an acoustic signal in parallel to the flashing of the detector LED.			
Technical data			
Communication protocol detector / ton element		FDnet / EAI-Link (AI connection)	
Operating voltage		12... 33 VDC	
Operating current quiescent condition		150 µA	
Operating current ton activated		1.2 mA	
Ext. alarm indicator		1	
Number of sounds		11; 2 activation levels, 2 sound intensities	
Sound intensity		80... 88 dBA	
Operating temperature		-25... +70 °C	
Storage temperature		-30... +75 °C	
Humidity		≤95 % rel.	
Screw less connection terminals 'orange'		Wire cross-sectional area from 0.2... 1.5 mm ²	
Color		white, ~RAL 9010	
Protection category EN60529/IEC529		IP43	
System compatibility FDnet		FS20, AlgoRex, SIGMASYS	
Standards		EN54-3	
Dimensions		153 x 93 x 27 mm	
Approvals		VdS G204062	

3.6 Sounder base collective

FDSB292	Sounder base collective incl. 2 micro terminals	Part no.	A5Q00013755
	Documents	Product data sheet	007026
		Technical description	009769



Application

Compatible only with the FDOOT241-9 on a collective detector line.
For recess supply wiring. For surface supply wiring, cable diameter up to 6 mm.
The signal base and the detector compose a unity, which already has a base and is mounted on ceilings, e.g. in hotel rooms, hospitals and nursing homes.

Function

The sounder base FDSB292 serves for acoustic alarming on a collective detector line, when the collective detector line is migrated to FDnet, the buzzer of the sounder base FDSB292 behaves in the same way as the sounder base FDSB291. In case of a fire alarm, the signal base triggers an acoustic signal in parallel to the flashing of the detector LED.

Technical data

Communication protocol	collective
Operating voltage	12... 33 VDC
Operating current quiescent condition	150 µA
Operating current ton activated	1.2 mA
Ext. alarm indicator	1
Number of sounds	1, 1 activation level, 1 sound intensity
Sound intensity	84 dBA
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Screw less connection terminals 'grey'	Wire cross-sectional area from 0.2... 1.5 mm ²
Color	white, ~RAL 9010
Protection category EN60529/IEC529	IP43
System compatibility collective	CZ10, BC10, FC10, XC10, CS11, FC330A, FC700A, SIGMASYS, BMS, SPF, SM80/88/D100
Standards	EN54-3
Dimensions	153 x 93 x 27 mm
Approvals	VdS G204062

3.6.1 Accessories for sounder base

FDBZ291	Designation plate	Part no.	A5Q00002621
	Document	Product data sheet	007775



10 pieces

Application

To identify the location address.

Technical data

Color	transparent
Dimensions	62 x 35 mm

DBZ1190-AA	Micro terminal	Part no.	BPZ:4677080001
DBZ1190-AB	Auxiliary terminal	Part no.	BPZ:4942340001

DBZ1190-AA



50 pieces

DBZ1190-AB



50 pieces

Application

For the connection of an external alarm indicator (AI).

Technical data

DBZ1190-AA for conductors	0.28... 0.5 mm ² / 4-pole
Dimensions	7 x 10 x 10 mm

DBZ1190-AB for conductors	1.0... 2.5 mm ² / 3-pole
Dimensions	13.5 x 9.5 x 19.5 mm

3.7 Base adapter MS8 / Sinteso

FDB281	Base adapter	Part no.	A5Q00004929
		Document	Product data sheet
			008141



Application

Adapter for MS8 detector base (existing, addressable MS8 fire detection systems).

Technical data

Color	white, ~RAL 9010
Dimensions	Ø117 x 37 mm

3.8 Base adapter AnalogPLUS / Sinteso

FDB241	Base adapter	Part no.	S54319-F13-A1
		Document	Product data sheet
			008141



Application

Adapter for AlgoRex or SIGMALOOP detector base

Technical data

Color	white, ~RAL 9010
Dimensions	Ø117 x 37 mm

3.9 Base adapter SIGMACON / Sinteso

FDB299	Base adapter	Part no.	S54319-F14-A1
		Document	Product data sheet
			008141



Application

Adapter for AlgoRex collective and SIGMACON detector base

Technical data

Color	white, ~RAL 9010
Dimensions	Ø117 x 37 mm

3.10 Removing tool

FDUD290	Removing tool	Part no.	S54370-S13-A1
		Document	Product data sheet
			008141



Application

Removing tool to remove base adapters FDB241 and FDB299. Together with detector exchanger FDUD291 or detector exchanger and tester FDUD292

4 Alarm indicators

4.1 Door frame version

FDAI91

Alarm indicator, resistor 75 Ω

Part no.

S54370-F9-A1

Documents

Product data sheet

A6V10276520

Technical description

007004



Application

Alarm indicators are connected in parallel to automatic fire detectors in order to indicate quickly the source of an alarm signal from detectors, which are not easily accessible or visible.

Function

The LEDs in the alarm indicator are on, as soon as the appropriate detector is in alarm.

Technical data

Operating voltage	5... 8 VDC
Operating current, permanent	max. 35 mA
Screwless connection terminals	Wire cross-sectional area max. 1.5 mm ²
Environmental temperature	-25... +80 °C
Humidity	≤95 % rel.
Protection category EN60529/IEC529	IP40
Color	white, ~RAL 9010
Dimensions	62 x 37 x 24 mm

4.2 Wall version

FDAI92

Alarm indicator, resistor 75 Ω

Part no.

S54370-F3-A1

Documents

Product data sheet

A6V10276520

Technical description

007004



Application

Alarm indicators are connected in parallel to automatic fire detectors in order to indicate quickly the source of an alarm signal from detectors, which are not easily accessible or visible. For concealed wiring.

Function

The LEDs in the alarm indicator are on, as soon as the appropriate detector is in alarm.

Technical data

Operating voltage	5... 8 VDC
Operating current, permanent	max. 35 mA
Screwless connection terminals	Wire cross-sectional area max. 1.5 mm ²
Environmental temperature	-25... +80 °C
Humidity	≤95 % rel.
Protection category EN60529/IEC529	IP40
Color	white, ~RAL 9010
Dimensions	85 x 85 x 28 mm

FDCAI221	Addressable alarm indicator, resistor 75 Ω	Part no.	S54370-F10-A1
	Documents	Product data sheet	A6V10244934
		Technical description	A6V10258110
Application			
Addressable alarm indicators are connected in parallel to automatic fire detectors in order to indicate quickly the source of an alarm signal from detectors, which are not easily accessible or visible. The addressable alarm indicator has 2x2 connectors for the detector line For concealed wiring.			
Function			
The alarm indicator contains indicator lamps (LEDs). They light up as soon as the connected fire detector gives an alarm.			
Technical data			
Communication protocol		FDnet	
Operating voltage		12... 33 VDC	
Operating current, quiescent		240... 400 µA	
Screwless connection terminals		Wire cross-sectional area max. 1.5 mm ²	
Operating temperature		-10... +55 °C	
Storage temperature		-30... +70 °C	
Humidity		≤95 % rel.	
Color		white, ~RAL 9010	
Protection category EN60529/IEC529		IP40	
System compatibility FDnet		FS20, AlgoRex, SIGMASYS	
Standards		EN54-17, EN54-18	
Dimensions		85 x 85 x 32 mm	
Approval		VdS G210015	

4.2.1 Accessories for wall version

AI330	Adapter frame for FDAI92 and for FDCAI221	Part no.	BPZ:3169430001
	Document	Product data sheet	A6V10276520
	Application		
	For surface laid conduit or ducts, to increase the loop space or as an adapter for different makes of box.		
Technical data			
Color	white, ~RAL 9010		
Dimensions	85 x 85 x 16 mm		

4.3 Recess mounting version

FDAI93	Alarm indicator	Part no.	S54370-F5-A1
		Documents	Product data sheet
			A6V10276520



Application

Indicator lamp to connect in parallel to automatic fire detectors in order to indicate quickly the source of an alarm signal from detectors, which are not easily accessible or visible
For recessed mounting in devices, false ceilings, raised floors.

Technical data

Operating voltage	6... 8 VDC
Operating current permanent	max. 35 mA
Screw less connection terminals	max. 1.5 mm ²
Environmental temperature	-25... +80 °C
Humidity	≤95 % rel.
Protection category EN60529/IEC529	
– with DJZ1193	IP65
– with DCA1191	IP56
Color	transparent
Dimensions	Ø22 x 51 mm

4.3.1 Spare part for FDAI93

–	Insulating cap	Part no.	BPZ:3048160001
----------	-----------------------	-----------------	-----------------------



Application

Use as spare part.

4.3.2 Accessories for recess mounting version

DCA1191	Housing with cover	Part no.	BPZ:4588560001
–	Washer	Part no.	BPZ:2473130001
		Document	Product data sheet
			A6V10276520

DCA1191



Application

For surface mounting in wet areas.
Up to 4 alarm indicators FDAI93 can be built into the housing.

Technical data

Housing with cover	IP56
Protection category EN60529/IEC529	
Dimensions	135 x 135 x 65 mm
Color	white, ~RAL 9010

Washer



Washer

Dimensions	Ø23 x 1 mm
------------	------------

–	Metal screwed cable gland M20 x 1.5	Part no.	A5Q00004478
	Details see chapter 2.5.1		



DJZ1193	Alarm indicator housing incl. washer	Part no.	BPZ:5302950001
		Document	Product data sheet
		A6V10276520	



Application
 For surface mounting in dry areas.
 1 alarm indicator FDAI93 in can be built into the housing.

Technical data

Protection category EN60529/IEC529	IP65
Color	white, ~RAL 9010
Dimensions	87 x 87 x 64 mm

MVH1	Mounting arm	Part no.	BPZ:3496190001
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Application
 For mounting of the alarm indicator housing DJZ1193 and detectors in hollow floors.

Technical data

Pipe clamp	1/2"
Dimensions	20 x 20 x 290... 420 mm

5 Manual call points

5.1 Manual call point FDM221 with direct operation

FDMH291-R	Housing red, with key	Part no.	A5Q00002217
FDMH291-Y	Housing yellow, with key	Part no.	A5Q00004979
FDMH291-B	Housing blue, with key	Part no.	A5Q00004980
FDMH291-G	Housing green, with key	Part no.	A5Q00004981
FDME221	Switching unit	Part no.	A5Q00002451

Documents	Product data sheet	007001
	Technical description	007002



Application

For the immediate manual actuation of an alarm.

For indoor and outdoor application. For surface- and recess-mounted feed lines in easily accessible places.

Addressable.



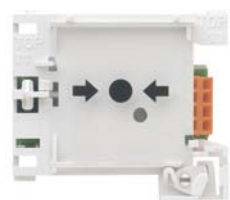
Function

Direct alarm actuation by pushing in the glass plate. By replacing the glass plate the push button is set back and the device is ready for operation again.



Technical data

Communication protocol	FDnet
Operating voltage	12... 33 VDC
Operating current (quiescent)	200 µA
Connection terminals	0.28... 1.5 mm ²
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	red, ~RAL 3000, blue, ~RAL 5005, yellow, ~RAL 1023, green, ~RAL 6024
Protection category EN60529/IEC529	IP44
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
Standards	EN54-11, EN54-17
Dimensions	87 x 87 x 46.6 mm
Approvals	VdS G203059, LPCB 126ac/01



5.1.1 Accessories for manual call point FDM221

FDMC291	Protective cover	Part no.	A5Q00001644
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5 pieces

Application

Protects the manual call point from unintentional glass break.

Technical data

Color	transparent
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–	Metal screwed cable gland M20 x 1.5	Part no.	A5Q00004478
–	Back nut	Part no.	A5Q00004479



10 pieces

Application

For surface-mounted feed lines.



10 pieces

Technical data

Cable gland	
Dimensions	M20 x 1.5

Back nut	
Dimensions	M20

5.1.2 Spare parts for manual call point FDM221

FDMG291	Glass	Part no.	A5Q00002122
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10 pieces

Application

Use as spare part.

Technical data

Color	transparent
-------	-------------

FDMK291	Cover with key	Part no.	A5Q00001643
----------------	-----------------------	-----------------	--------------------



Application

Use as spare part.

Technical data

Color	red, ~RAL 3000
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5.2 Manual call points FDM225/226 with direct operation

FDM225-RG	Manual call point with glass plate	Part no.	A5Q00013434
FDM225-RP	Manual call point with plastic element	Part no.	A5Q00012020
FDM225-RG (F)	Manual call point with glass plate for 'France'	Part no.	A5Q00020274
FDM225-RP (F)	Manual call point with plastic element for 'France'	Part no.	A5Q00020273
FDM226-RG	Manual call point with glass plate incl. back box	Part no.	A5Q00013435
FDM226-RP	Manual call point with plastic element incl. back box	Part no.	A5Q00013436

FDM225-RG, FDM225-RP

Documents Product data sheet 009023
Technical description 009757



Application

For the immediate manual actuation of a fire alarm.

For indoor and outdoor application.

FDM225 for surface and recess mounting in easily accessible places.

FDM226 for surface mounting for IP67 applications

Addressable.

Function

FDM225/226-RG

- direct alarm actuation by pushing in the glass plate
- by replacing the glass plate the push button is set back and the device is ready for operation again

FDM225/226-RP

- direct alarm actuation by pushing on the plastic element
- the switch is set back with the key and the device is ready for operation again

An additional protective cover FDMC295 protects the manual call point from unintentional glass break.

FDM225-RG (F)



FDM225-RP (F)



FDM226-RG, FDM226-RP



Technical data

Communication protocol

FDnet

Operating voltage

13... 33 VDC

Operating current (quiescent)

180 μ A

Connection terminals

0.28... 1.5 mm²

Operating temperature

-25... +70 °C

Storage temperature

-30... +75 °C

Humidity

≤95 % rel.

Color

red, ~RAL 3000

Protection category EN60529/IEC529

– FDM225

IP44

– FDM226

IP66

System compatibility FDnet

FS20, AlgoRex, SIGMASYS

Standards

EN54-11, EN54-17

Dimensions

– FDM225

87 x 87 x 20 mm

– FDM226

87 x 87 (113) x 57 mm

Approvals

– FDM225-RG

VdS G207092, LPCB 126ap/02

– FDM225-RG (F)

VdS G207092, LPCB 126ap/11

– FDM225-RP

VdS G207092, LPCB 126ap/01

– FDM225-RP (F)

VdS G207092, LPCB 126ap/10

– FDM226-RG

VdS G209194; LPCB 126ap/04

– FDM226-RP

VdS G209194; LPCB 126ap/03

5.2.1 Accessories for manual call points FDM225

FDMH295-R	Back box	Part no.	A5Q00013437
FDMH295-S	Back box with holes and socket	Part no.	A5Q00013438

FDMH295-R



Application

Back box for FDM225-xx for surface mounting.

Technical data

Color

red, ~RAL 3000

FDMH295-S



FDMH295-S

With 2 holes and 2 sockets for cable up to Ø5 mm

5.2.2 Accessories for manual call points FDM225, FDM226

FDMC295	Protective cover	Part no.	A5Q00013440
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10 pieces

Application

Protects the manual call point from unintentional glass break.

Technical data

Color

transparent

5.2.3 Spare parts for manual call points FDM225, FDM226

FDMG295	Glass palte 'neutral'	Part no.	A5Q00013442
FDMP295	Plastic element 'neutral'	Part no.	A5Q00013445

FDMG295

**Application**

Use as spare part.

5 pieces

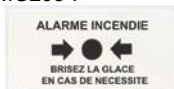
FDMP295



5 pieces

FDMG295-F	Glass plate 'France'	Part no.	A5Q00013443
FDMP295-F	Plastic element 'France'	Part no.	A5Q00013446

FDMG295-F

**Application**

Use as spare part.

5 pieces

FDMP295-F



5 pieces

FDMK295	Key	Part no.	A5Q00013448
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**Application**

Use as spare part.

5 pieces

5.3 Manual call point FDM224 with direct operation

FDMH293-R	Housing red, with glass and key	Part no.	A5Q00004023
FDMH293-Y	Housing yellow, with glass and key	Part no.	A5Q00004908
FDMH293-B	Housing blue, with glass and key	Part no.	A5Q00004909
FDMH293-G	Housing green, with glass and key	Part no.	A5Q00004911
FDMH293-O	Housing orange, with glass and key	Part no.	S54311-F2-A1
FDME224	Switching unit	Part no.	A5Q00009392

Documents	Product data sheet	007001
	Technical description	007002



Application

For the immediate manual actuation of an alarm.
For indoor and outdoor application, equally suited for wet, humid and dusty areas.
For surface- and recess-mounted feed lines in easily accessible places.
Addressable.

Function

Direct alarm actuation by smashing in the glass plate.
To replace the glass plate, open the housing door with the key, upon closing the door the button is reset.

Technical data

Communication protocol	FDnet
Operating voltage	12... 33 VDC
Operating current (quiescent)	200 µA
Ext. alarm indicator	2
Connection terminals	0.28... 1.5 mm ²
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	red, ~RAL 3000, yellow, ~RAL 1023, blue, ~RAL 5005, green, ~RAL 6024, orange, ~RAL 2011
Protection category EN60529/IEC529	IP44
– with seal DMZ1197-AD	IP64
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
Standards	EN54-11, EN54-17
Dimensions	134.3 x 134.3 x 43.2 mm
Approvals	VdS G206123

5.4 Manual call point 'Heavy Duty' FDM224H with direct operation

FDMH292-R FDME224	Housing Heavy Duty red Switching unit	Part no. Part no.	A5Q00005525 A5Q00009392
		Documents	Product data sheet Technical description
			008345 007002
FDMH292-R	 Application For the immediate manual actuation of a fire alarm. For indoor and outdoor application, equally suited for wet, humid and dusty areas. Only for surface mounted feed lines in easily accessible places, Tunnels, Industry. Addressable. The housing is equipped with one opening at the top and two openings at the bottom for nipples (en- closed) and for M20 metal screwed cable glands → see accessory. For IP66 applications the unused openings must be locked with the V-plug → see accessory. Function Direct alarm actuation by smashing in the glass plate. To replace the glass plate, open the housing door with the key, upon closing the door the button is reset.		
FDME224	 Technical data	Communication protocol Operating voltage Operating current (quiescent) Ext. alarm indicator Connection terminals Operating temperature Storage temperature Humidity Color Protection category EN60529/IEC529 – with seal DMZ1197-AD and V-plug System compatibility FDnet Standards Dimensions Approvals	FDnet 12... 33 VDC 200 µA 2 0.28... 1.5 mm ² -25... +70 °C -30... +75 °C ≤95 % rel. red, ~RAL 3000 IP44 IP64 FS20, AlgoRex, SIGMASYS EN54-11, EN54-17 134.3 x 134.3 x 43.2 mm VdS G206124

5.4.1 Accessories for manual call points FDM224 and FDM224H

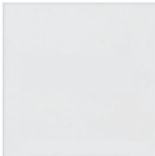
DMZ1197-AC	Protective cover	Part no.	BPZ:5223550001
 5 pieces	Application Protects the manual call point from unintentional glass break. Technical data	transparent	
DMZ1197-AD	Seal for wet areas	Part no.	BPZ:5470680001
 5 pieces	Application Protects the manual call point in wet applications. Technical data	transparent	

	Metal screwed cable gland M20 x 1.5	Part no.	A5Q00004478
	Details see chapter 2.5.1		

–	V-plug PA M20 x 1.5	Part no.	A5Q00008131
			
Application For locked the unused openings at the housing FDMH292-R.			
Technical data			
Color		black	
Dimensions		M20 x 1.5 mm	

–	Locking plug red, M20 x 1.5 (1 hole)	Part no.	A5Q00006735
–	Locking plug red, M20 x 1.5 (2 holes)	Part no.	A5Q00010055
Locking plug 1 hole  10 pieces Locking plug 2 holes  10 pieces			
Application For surface-mounted feed lines. For the application in dry rooms.			
Technical data			
Color		red	
Dimensions		M20 x 1.5	

5.4.2 Spare parts for manual call points FDM224 and FDM224H

DMZ1196-AC	Glass	Part no.	BPZ:4942050001
 10 pieces			
Application Use as spare part.			

DMZ1195	Key	Part no.	BPZ:4851910001
 10 pieces			
Application Only for housing FDMH293-x Use as spare part.			

5.5 Manual call point FDM223 complete with indirect operation

FDM223	Manual call point complete, housing red with glass , key, switching unit and locking plug	Part no.	A5Q00008098
	Documents	Product data sheet Technical description	007001 007002



Consist of:

- Housing red
- Glass
- Key
- Switching unit
- 2 locking plugs (2 holes)
- 2 labels
 - Standard with house and
 - Feuerwehr/Brandmelder, red

Application

For the immediate manual actuation of a fire alarm.
 For indoor and outdoor application, equally suited for wet, humid and dusty areas.
 For surface- and recess-mounted feed lines in easily accessible places.
 Addressable.

Function

Indirect alarm actuation by smashing in the glass plate and pressing the push button.
 To replace the glass plate, open the housing door with the key. The push button must be set back before closing the door again.

Technical data

Communication protocol	FDnet
Operating voltage	12... 33 VDC
Operating current (quiescent)	200 µA
Ext. alarm indicator	2
Connection terminals	0.28... 1.5 mm ²
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	red, ~RAL 3000
Protection category EN60529/IEC529	IP44
– with seal DMZ1197-AD	IP64
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
Standards	EN54-11, EN54-17
Dimensions	134.3 x 134.3 x 43.2 mm
Approvals	VdS G204002, LPCB 126ac/02

5.6 Manual call point FDM223 with indirect operation

FDMH293-R	Housing red, with glass and key	Part no.	A5Q00004023
FDMH293-Y	Housing yellow, with glass and key	Part no.	A5Q00004908
FDMH293-B	Housing blue, with glass and key	Part no.	A5Q00004909
FDMH293-G	Housing green, with glass and key	Part no.	A5Q00004911
FDME223	Switching unit	Part no.	A5Q00003087

Documents	Product data sheet	007001
	Technical description	007002



Application

For the immediate manual actuation of an alarm.

For indoor and outdoor application, equally suited for wet, humid and dusty areas.

For surface- and recess-mounted feed lines in easily accessible places.

Addressable.

Function

Indirect alarm actuation by smashing in the glass plate and pressing the push button.

To replace the glass plate, open the housing door with the key. The push button must be set back before closing the door again.

Technical data

Communication protocol	FDnet
Operating voltage	12... 33 VDC
Operating current (quiescent)	200 μ A
Ext. alarm indicator	2
Connection terminals	0.28... 1.5 mm ²
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	red, ~RAL 3000, blue, ~RAL 5005, yellow, ~RAL 1023, green, ~RAL 6024
Protection category EN60529/IEC529	IP44
– with seal DMZ1197-AD	IP64
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
Standards	EN54-11, EN54-17
Dimensions	134.3 x 134.3 x 43.2 mm
Approvals	VdS G204002, LPCB 126ac/02

5.7 Manual call point 'Heavy Duty' FDM223H with indirect operation

FDMH292-R	Heavy Duty housing red with glass, hexagon wrench key, 3 nipples and plate fire brigade / fire detector	Part no.	A5Q00005525
FDME223	Switching unit	Part no.	A5Q00003087
	Documents	Product data sheet	008345
		Technical description	007002

FDMH292-R



Application

For the immediate manual actuation of a fire alarm.

For indoor and outdoor application, equally suited for wet, humid and dusty areas.

Only for surface mounted feed lines in easily accessible places, Tunnels, Industry etc.

Addressable.

The housing is equipped with **one** opening at the top and **two** openings at the bottom for nipples (enclosed) and for M20 metal screwed cable glands → see accessories.

For IP66 applications the unused openings must be locked with the V-plug → see accessories.

Function

Indirect alarm actuation by smashing in the glass plate and pressing the push button.

To replace the glass plate, open the housing door with the key. The push button must be set back before closing the door again.

FDME223



Technical data

Communication protocol	FDnet
Operating voltage	12... 33 VDC
Operating current (quiescent)	200 µA
Ext. alarm indicator	2
Connection terminals	0.28... 1.5 mm ²
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	rot, ~RAL 3000
Protection category EN60529/IEC529	IP44
– with seal DMZ1197-AD and V-plug	IP64
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
Standards	EN54-11, EN54-17
Dimensions	134.3 x 134.3 x 43.2 mm
Approvals	VdS G205014, LPCB 126ac/03

5.7.1 Accessories for manual call points FDM223, FDM223H

DMZ1197-AC	Protective cover	Part no.	BPZ:5223550001
	Details see chapter 5.4.1		



DMZ1197-AD	Seal for wet areas	Part no.	BPZ:5470680001
	Details see chapter 5.4.1		



–	Metal screwed cable gland M20 x 1.5 Details see chapter 2.5.1	Part no.	A5Q00004478
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–	V-plug PA M20 x 1.5 Details see chapter 5.4.1	Part no.	A5Q00008131
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5.7.2 Spare parts for manual call points FDM223, FDM223H

–	Locking plug red, M20 x 1.5 (1 hole)	Part no.	A5Q00006735
–	Locking plug red, M20 x 1.5 (2 holes) Details see chapter 5.4.1	Part no.	A5Q00010055

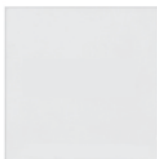
Locking plug 1 hole



Locking plug 2 holes



DMZ1196-AC	Glass	Part no.	4942050001
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10 pieces

Application
Use as spare part.

–	Plate	Part no.	5304150001
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Application
Only for Germany.
Printed on both sides (Front side Feuerwehr / back side Brandmelder).

DMZ1195	Key	Part no.	4851910001
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10 pieces

Application
Only for housing FDMH293-x
Use as spare part.

6 Alarm devices

6.1 Alarm sounders

FDS221-R	Alarm sounder red	Part no.	A5Q00004117
FDS221-W	Alarm sounder white	Part no.	A5Q00006711
FDS221-R		Documents	Product data sheet
			Technical description
			007026
			008109
	Application		
	Only with addressable detector base applicable.		
	For recess supply line.		
	With base FDB221, FDB221-AA for surface supply line until cable 6 mm in diameter, otherwise use the base attachment.		
	Along escape routes, corridors, staircases and is mounted on the wall or on the ceiling.		
FDS221-W	Function		
	Loud alarming in case of fire alarm, clearly recognizable as danger signal.		
	Technical data		
	Communication protocol	FDnet	
	Operating voltage	12... 33 VDC	
	Operating current quiescent condition	250 µA	
	Operating current Ton activated	3.5 mA	
	Ext. alarm indicator	2	
	Connection terminals	according to the detector base	
	Number of sounds	11; 2 activation levels, 3 sound intensities	
	Sound intensity	80... 99 dBA	
	Operating temperature	-25... +70 °C	
	Storage temperature	-30... +75 °C	
	Humidity	≤95 % rel.	
	Color	red, ~RAL 3000, white, ~RAL 9010	
	Protection category EN60529/IEC529 with	mounting on the wall with cable feed from bottom	
	– Base FDB22x and Base attachment FDB291	→ IP43, otherwise IP40	
	– Base FDB221 and Sealing element FDBZ295	IP44	
	– Base attachment wet FDB293	IP54	
	System compatibility FDnet	FS20, AlgoRex, SIGMASYS	
	Standards	EN54-3, EN54-17	
	Dimensions	Ø100 x 43 mm	
	Approvals	VdS G204073, LPCB 531p/01	

6.2 Alarm sounder with supplementary optical indication

FDS229-R	Alarm sounder with supplementary optical indication, red	Part no.	A5Q00023093
FDS229-A	Alarm sounder with supplementary optical indication, orange	Part no.	A5Q00023092

Documents	Product data sheet	A6V10067776
	Technical description	010095

FDS229-R



Application

Only with addressable detector base applicable.

For recess supply line.

With base FDB221, FDB221-AA for surface supply line until cable 6 mm in diameter, otherwise use the base attachment.

Along escape routes, corridors, staircases and is mounted on the wall or on the ceiling.

Function

Acoustic and optical alarming in case of fire alarm, clearly recognizable as danger signal.

FDS229-A



Technical data

Communication protocol	FDnet
Operating voltage	12... 33 VDC
Operating current quiescent condition	250 µA
– Operating current ton activated	3.5 mA
– Operating current beacon activated	3.5 mA
– Operating current ton and beacon activated	7.0 mA
Sounds	11; 2 activation levels, 3 sound intensities
Sound intensity	80... 99 dBA
Number of flashing pattern	1 (intermittent)
Light intensity (unit: candela, cd) at 32 VDC (depending of viewing angle -30... +30 °):	
– with hood red	1.27... 3.2 cd
– with hood orange	1.1... 2.8 cd
Ext. alarm indicator	2
Connection terminals	according to the detector base
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	transparent red, transparent orange
Protection category EN60529/IEC529 with	mounting on the wall with cable feed from bottom
– Base FDB22x and Base attachment FDB291	→ IP43, otherwise IP42
– Base FDB221 and Sealing element FDBZ295	IP44
– Base attachment wet FDB293	IP54
System compatibility FDnet	FS20
Standards	EN54-3, EN54-17
Dimensions	Ø100 x 43 mm
Approvals	VdS G207156, LPCB FDS229-A: 531p/03 LPCB FDS229-R: 531p/02

6.2.1 Accessories for alarm sounders, alarm sounder with supplementary optical indication

FDB221	Detector base addressable	Part no.	A5Q00001664
FDB221-AA	Detector base addressable with 1 micro terminal	Part no.	A5Q00012741
FDB222	Detector base flat, addressable	Part no.	S54319-F1-A1

Details see chapter 3.2



FDBZ295	Sealing element	Part no.	S54319-F10-A1
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**Application**

For higher protection category.

Use only with bases FDB201, FDB201-AA, FDB221 and FDB221-AA and for recess supply wiring.

Note: Not usable together with the designation plate FDBZ291.

Technical data

Dimensions

Ø106 x 28 mm

Color

White, ~RAL9010

FDBZ293	Detector locking device	Part no.	A5Q00005035
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Details see chapter 2.2.1



FDBZ291	Designation plate	Part no.	A5Q00002621
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Details see chapter 3.2.1



DBZ1190-AA	Micro terminal	Part no.	BPZ:4677080001
DBZ1190-AB	Auxiliary terminal	Part no.	BPZ:4942340001

Details see chapter 3.2.1

DBZ1190-AA



DBZ1190-AB



FDB291	Base attachment	Part no.	A5Q00001603
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Details see chapter 3.3



FDB293	Base attachment wet with seal Details see chapter 3.4	Part no.	A5Q00003945
			
FDB295	Base attachment wet Details see chapter 3.4	Bestell-Nr.	S54319-F21-A1
			
-	Metal screwed cable gland M20 x 1.5 Details see chapter 2.5.1	Part no.	A5Q00004478
			
DBZ1193A	Detector designation plate (10x) Details see chapter 3.4.1	Part no.	BPZ:4864330001
			
DBZ1194	Protective cage Details see chapter 3.4.1	Part no.	BPZ:4677110001
			
FDBZ294	EMC Protective cage Details see chapter 3.4.1	Part no.	A5Q00023040
			
FDBH291	Detector heating incl. micro terminals Details see chapter 3.4.1	Part no.	A5Q00004439
			

6.3 Sounder base

FDSB291	Sounder base addressable incl. 2 micro terminals Details see chapter 3.5	Part no.	A5Q00001647
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FDSB292	Sounder base collective incl. 2 micro terminals Details see chapter 3.6	Part no.	A5Q00013755
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6.4 Sounder interbase FDSB221, Sounder interbase with supplementary optical indication FDSB229

FDSB221	Sounder interbase	Part no.	S54372-F16-A1
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FDSB221

Documents	Product data sheet	A6V10277376
	Technical description	A6V10320090
	Operating instructions	A6V10320092



Application

Only with addressable detector base applicable.
For recess supply wiring and for surface supply wiring, cable diameter up to 6 mm.
For all point detectors designed for Sinteso.
In hotel rooms, hospital rooms, nursing homes living rooms and lounges.

Function

The sounder interbase FDSB221 serves for acoustic alarming in an addressed fire detector system. In case of a fire alarm the sounder interbase triggers an acoustic signal.

Technical data

Communication protocol	FDnet
Operating voltage	DC 12... 33 V
Operating current quiescent condition	250 µA
– Sound activated	3,5 mA
Sounds	11, 2 activation levels, 3 sound intensities
Sound level	80... 87 dBA
Connection terminals	according to the detector base
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Colors	White ~RAL9010 / translucent
Protection category EN60529/IEC529 with	IP21C
– Base attachment wet FDB293	-
System compatibility FDnet	FS20
Standards	EN 54-3 Typ A, EN 54-17
Dimensions	Ø122 x 45 mm
Approvals	VdS G211081

FDSB229	Sounder interbase with supplementary optical indication	Part no.	S54372-F16-A1
FDSB229		Documents	Product data sheet Technical description Operating instructions
			A6V10277376 A6V10320090 A6V10320092
		Application Only with addressable detector base applicable. For recess supply wiring and for surface supply wiring, cable diameter up to 6 mm. For all point detectors designed for Sinteso. In hotel rooms, hospital rooms, nursing homes living rooms and lounges.	
		Function The sounder interbase with supplementary optical indication FDSB229 has the same functionality as the sounder interbase FDSB221. In addition an optical alarming (via LED's) is provided.	
Technical data			
Communication protocol		FDnet	
Operating voltage		DC 12... 33 V	
Operating current quiescent condition		250 µA	
– Sound activated		3,5 mA	
– Light activated		1.5/3.5/6.5 mA (low/mid/high)	
– Light and Sound activated		5/7/10.5 mA (low/mid/high)	
Sounds		11, 2 activation levels, 3 sound intensities	
Sound level		80... 87 dBA	
Luminous intensity		1.27...3.2 cd	
Number of luminous intensity levels		3 levels and 2 flashing modes (not available for all panels)	
Connection terminals		according to the detector base	
Operating temperature		-25... +70 °C	
Storage temperature		-30... +75 °C	
Humidity		≤95 % rel.	
Colors		White ~RAL9010 / translucent	
Protection category EN60529/IEC529 with		IP21C	
– Base attachment wet FDB293		-	
System compatibility FDnet		FS20	
Standards		EN 54-3 Typ A, EN 54-17	
Dimensions		Ø122 x 45 mm	
Approvals		VdS G211082	

6.4.1 Accessory

FDBZ296	Blanking plate	Part no.	S54372-B15-A1
		Documents	Product data sheet A6V10277376
			Technical description A6V10320090
			Operating instructions A6V10320092
	Function If no detector is inserted the blanking plate provides a smooth protection.		
Technical data			
Dimensions		Ø89 x 8 mm	
Color		translucent	

7 Control module SPF 5100

SPF 5100	Control module	Part no.	S24218-A15-A2
		Documents	Product data sheet Technical description
			005774 005673



Application

Serves for the selective control of alarming or operating devices directly via the control output (extern AI) of the next fire detector.

Can be integrated in commercially available connection sockets, in the auxiliary base F or in recess distributor sockets 70/80.

Function

The control is free programmable and can be allocated to any control criteria.

The changeover contact can be set potential-free or with potential.

The control module does not require an FDnet address.

Technical data

Operating voltage	12... 28 VDC
Operating current at 12 VDC / 28 VDC	10 mA / 22 mA
Switching voltage min. / max.	12 VDC / 30 VDC
Switching current min. / max.	15 mA / 1 A
Relay contact	1 changer
Activation	statically
Distance to the detector	≤10 m
Operating temperature	-25... +70 °C
Protection category EN60529	depending on installation (module is climatically unprotected)
Detector compatibility	Sinteso
System compatibility FDnet	SIGMASYS, AlgoRex
Dimensions	50 x 45 x 18 mm
Approval	VdS G297046

8 Line separator, Input/output modules

8.1 Line separator

FDCL221	Line separator	Part no.	A5Q00004011
		Documents	Product data sheet
			Technical description
			007065
			007063



Application

To avoid the breakdown of several stub lines in case of a short circuit, line separators may be inserted. The line separator is used where several stub lines are connected to the FDnet at one point. Retrofitting of existing, collective systems to the addressed Sinteso fire detection system.

Function

The separator is an electronic switch, which is integrated in the FDnet and separates the negative conductor in case of a short circuit, so that the short circuit-free side can continue to be operated.

The separator has 2x2 connectors for the detector line.

Yellow LED for the status indication signals the short circuit separation.

Technical data

Communication protocol	FDnet
Operating voltage	12... 33 VDC
Operating current	250 μ A
Operating temperature	-25... +70 °C
Storage temperature	-30... +80 °C
Humidity	≤95 % rel.
Color	transparent
Protection category EN60529/IEC529	IP44
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
Standards	EN54-17
Dimensions	44 x 47.5 x 10 mm
Approvals	VdS G204030, LPCB 126ae/01

8.2 Multi line separator FDCL221-M

FDCL221-M	Line separator	Part no.	S54312-F6-A1
		Documents	Product data sheet Technical description
			A6V10230308 A6V10224006



Application

To avoid the breakdown of several stub lines in case of a short circuit, line separators may be inserted. The multi line separator is used where several stub lines are connected to the FDnet at one point. The module can also be connection to 2 separate loops
Retrofitting of existing, collective systems to the addressed Sinteso FS20 fire detection system.

Function

The module has total 9 separators. Each separator is an electronic switch, which is integrated in the FDnet and separates the negative conductor in case of a short circuit, so that the short circuit-free side can continue to be operated.

The separator has connections for the detector lines, connections for the stub lines (T taps), jumpers for programming of operation mode (1 loop or 2 loop mode), yellow LED for the status indication signals the short circuit separation.

Technical data

Communication protocol	FDnet
Operating voltage	12... 33 VDC
Operating current	2.25 mA (9 x 250 µA) or 2 x 1 mA (4 x 250 µA)
Number of separators	9 with 1 loop 2 x 4 with 2 loops
Operating temperature	-25... +70 °C
Storage temperature	-30... +75 °C
Humidity	≤95 % rel.
Color	
– Housing	white, ~RAL 9010
– Cover	Transparent, matt
– Aux. housing FDCH221	white, ~RAL 9010
Protection category EN60529/IEC529	IP30
– With ext. Housing FDCH221	IP65
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
Standards	EN54-17
Approvals	VdS G209162

8.2.1 Accessories for FDCL221 / FDCL221-M

–	U-rail TS35, L=122 mm	Part no.	BPZ:5644780001
–	U-rail TS35, L=288 mm	Part no.	BPZ:5644230001



Application

For the mounting of the line separator.
For the series mounting of in-/output modules together with the mounting feet.

8.3 Input module FDCI221, FDCI222

FDCI221	Input module	Part no.	S54312-F1-A1
		Documents	Product data sheet Technical description
			A6V10202196 A6V10211122
FDCI221		Application For the connection of 1 independent, potential-free make or break contact for the acknowledgement of technical states (e.g. door or ventilation control) or for alarm actuation (e.g. sprinkler alarm). Addressable applicable.	
	Function 1 input for potential-free contact. Status indication by LED.		
2 Resistors 1 x 3k3; 1 %; 0.25 W 1 x 680 Ω; 1 %; 0.25 W		Technical data Communication protocol Operating voltage Operating current Connection terminals Operating temperature Storage temperature Humidity Color housing / cover Protection category EN60529/IEC529 – with auxiliary housing FDCH221 System compatibility C-NET Standards Dimensions Approvals	C-NET 12... 33 VDC max. 0.3 mA 0.2... 2.5 mm ² -25... +70 °C -30... +75 °C ≤95 % rel. white, ~RAL 9010 / transparent matt IP30 IP65 FS720 EN54-17, EN54-18 95 x 71 x 23 mm VdS G209066, LPCB request

FDCI222	Input module	Part no.	A5Q00001984
		Documents	Product data sheet Technical description
			007024 007023
FDCI222		Application For the connection of 4 independent, potential-free make or break contacts for the acknowledgement of technical states (e.g. door or ventilation control) or for alarm actuation (e.g. sprinkler alarm). Addressable.	
	Function 4 inputs for potential-free contacts. Status indication by LED.		
8 Resistors 4 x 3k01; 1 %; 0,25 W 4 x 1k15; 1 %; 0,25 W		Technical data Communication protocol Operating voltage Operating current Connection terminals Operating temperature Storage temperature Humidity Color housing / cover Protection category EN60529/IEC529 – with housing FDCH221 System compatibility FDnet Standards Dimensions Approvals	FDnet 12... 33 VDC 0.25... 0.35 mA 0.2... 1.5 mm ² (2.5 mm ²) -25... +60 °C -30... +65 °C ≤95 % rel. white, ~RAL 9010 / transparent matt IP30 IP65 FS20, AlgoRex, SIGMASYS CEA GEI I-084, EN54-17, EN54-18 130 x 90 x 20 mm VdS G204028, LPCB 126ad/01

8.4 Input/output modules FDCIO22x

FDCIO221	Input/output module	Part no.	S54312-F2-A1
		Documents	Product data sheet Technical description
			A6V10202196 A6V10211122
FDCIO221			
			
Application For the connection of 1 independent, potential-free make or break contact for the acknowledgement of technical states (e.g. door or ventilation control) or for alarm actuation (e.g. sprinkler alarm). For the decentralized control of fire doors, ventilation, air conditioning, etc. Addressable applicable.			
Function 1 input for potential-free contact. 1 output configurable via jumper – not monitored → 1 potential-free relay contact (30 VAC, 2 A / 30 VDC, 2 A) – monitored → 1 relay contact (30 VDC, 2 A) Status indication by LED.			
Technical data Communication protocol C-NET Operating voltage 12... 33 VDC Operating current max. 0.4 mA Relay output (ohm) 30 VAC, 2 A, max. 60 VA 30 VDC, 2 A, max. 60 W Anschlussklemmen 0.2... 2.5 mm ² Operating temperature -25... +70 °C Storage temperature -30... +75 °C Humidity ≤95 % rel. Color Gehäuse / Deckel white, ~RAL 9010 / transparent matt Protection category EN60529/IEC529 IP30 – with auxiliary housing FDCH221 IP65 System compatibility C-NET FS720 Standards EN54-17, EN54-18 Dimensions 95 x 71 x 23 mm Approvals VdS G209067, LPCB request			
3 Resistors			
2 x 3k3; 1 %; 0.25 W			
1 x 680 Ω; 1 %; 0.25 W			
2 Mounting feet			
			
FDCIO222	Input/output module	Part no.	A5Q00002369
		Documents	Product data sheet Technical description
			007024 007023
FDCIO222			
			
Application For the connection of 4 independent, potential-free make or break contacts for the acknowledgement of technical states (e.g. door or ventilation control) or for alarm actuation (e.g. sprinkler alarm). For the decentralized control of fire doors, ventilation, air conditioning, etc. Addressable.			
Function 4 inputs for potential-free contacts. 4 outputs with 4 potential-free relay contacts for fire control installations. Status indication by LED.			
Technical data Communication protocol FDnet Operating voltage 12... 33 VDC Operating current 0.6... 0.75 mA Relay output (ohm) 250 VAC, 4 A, max. 1000 VA 30 VDC, 4 A, max. 120 W Connection terminals 0.2... 1.5 mm ² (2.5 mm ²) Operating temperature -25... +60 °C Storage temperature -30... +65 °C Humidity ≤95 % rel. Color housing / cover white, ~RAL 9010 / transparent matt Protection category EN60529/IEC529 IP30 – with housing FDCH221 IP65 System compatibility FDnet FS20, AlgoRex, SIGMASYS Standards CEA GEI I-084, EN54-17, EN54-18 Dimensions 130 x 90 x 20 mm Approvals VdS G204029, LPCB 126ad/02			
8 Resistors			
4 x 3k01; 1 %; 0,25 W			
4 x 1k15; 1 %; 0,25 W			
2 Mounting feet			
			

FDCIO223	Transponder	Part no.	S24218-B102-A1
		Documents	Product data sheet 009168 Technical description 009122

FDCIO223

**Application**

For connection of collective fire detectors (GMT/conventional line, GMT/conventional line with shunt-Zener-diode barrier (SB3) for explosion-hazard areas).
For monitored controls of e.g. smoke dampers, alarm devices, door magnets and extinguishing activation devices (adhere to country-specific instructions).
Monitored signal input for status and alarm messages or for acknowledging technical status.
Addressable.

Function

The 2 in-/outputs can be parameterized autonomously in each case as detector line collective, contact input, control output, control output and input as acknowledgement with selectable monitoring time frame.

2 Transzorb diode 20 V
2 x 560 Ω 1 %; 0,25 W
2 x 680 Ω 5 %; 0,25 W
2 x 2,7k Ω 1 %; 0,35 W
2 x 3,3k Ω 5 %; 0,25 W

2 Mounting feet

**Technical data**

Operating voltage FDnet	12... 33 VDC
External power supply: Input voltage	18... 32 VDC
In-/outputs as collective detector line	GMT Siemens/Cerberus, Synova300C or similar
Collective line factor (KLK) / end of line	32 / 20 V Transzorb diode
Control output	24 VDC $\pm$ 5 % / 2 A (fuse on site)
Contact input	
End of line combinations	3,3k Ω /680 Ω , 2,7k Ω /560 Ω , 3,3k Ω
Operating temperature	-25... +60 °C
Storage temperature	-30... +65 °C
Humidity	$\leq$ 95 % rel.
Communication protocol	FDnet
Connection terminals	0.2... 1.5 mm ² (Auxiliary terminal 2.5 mm ²)
Color housing / cover	white, ~RAL 9010 / transparent matt
Protection category EN60529/IEC529	IP30
– with housing FDCH221	IP65
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
Standards	CEA GEI I-084, EN54-17, EN54-18
Dimensions	132 x 90 x 24 mm
Approvals	VdS G206054, LPCB 126aq/01

FDCIO224	Input/output module	Part no.	A5Q00018689
		Documents	Product data sheet 007024 Technical description 007023

FDCIO224

**Application**

For the VdS interface for extinguishing activating devices.
Addressable.

Function

4 inputs for potential-free contacts.
4 outputs with 4 potential-free relay contacts (230 VAC / 4 A) for the VdS interface for extinguishing controls.
Status indication by LED.

Technical data

Communication protocol	FDnet
Operating voltage	12... 33 VDC
Operating current	0,6... 0,75 mA
Relay output (ohm)	250 VAC, 4 A, max. 1000 VA 30 VDC, 4 A, max. 120 W
Connection terminals	0.2... 1.5 mm ² (2.5 mm ²)
Operating temperature	-25... +60 °C
Storage temperature	-30... +65 °C
Humidity	$\leq$ 95 % rel.
Color housing / cover	white, ~RAL 9010 / transparent matt
Protection category EN60529/IEC529	IP30
– with housing FDCH221	IP65
System compatibility FDnet	FS20, AlgoRex, SIGMASYS
Standards	CEA GEI I-084, EN54-17, EN54-18
Dimensions	130 x 90 x 20 mm
Approvals	VdS G207001

8 Resistors
4 x 2k7; 1 %; 0,35 W
4 x 560 Ω ; 1 %; 0,25 W

2 Mounting feet



8.4.1 Accessories for transponder

EOL22(Ex)	End-of-line	Part no.	BPZ:5162220001
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Application

End-of-line unit for collective detection lines as well as generally as end-of-line unit within explosion-hazard areas of zones 1 and 2.

8.4.2 Accessories for input/output module and transponder

-	U-rail TS35, L=122 mm	Part no.	BPZ:5644780001
-	U-rail TS35, L=288 mm	Part no.	BPZ:5644230001



Details see chapter 8.2

FDCH221	Housing for input/output modules	Part no.	S54312-F3-A1
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Application

For the mounting of the input/output modules for wet applications.

Technical data

Protection category EN60529/IEC529

Color housing / cover

Dimensions

IP65

white, ~RAL 9010 / transparent matt

207 x 119 x 48 mm

-	Metal screwed cable gland M20 x 1.5	Part no.	A5Q00004478
-	Back nut	Part no.	A5Q00004479



Details see chapter 5.1.1

8.4.3 Spare part for input/output module and transponder

FDCM291	Mounting feet to in-/output modules	Part no.	A5Q00003855
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25 pieces

Application

Installation in range of the in-/output modules with mounting feet onto top U-rail TS35.
Use as spare part.

9 Special detectors

9.1 Radio gateway

FDCW221	Radio gateway	Part no.	S54323-F104-A1
		Document	Product data sheet
			Operating instructions
			010087
			009865



Application

Wireless fire detection is used in situations where the user wants to avoid wires and their installation. In addition it means less interruption of operation and high flexibility for extensions and changes.

Function

High transmission reliability by radio transmission in SRD band (Short Range Device), a reserved frequency band with defined user rules. 80 channels are available.

The radio gateway FDCW221 is connected to the detector bus FDnet and communicates with up to 30 radio detectors (smoke detectors and manual call points). Each detector has its own location address. The additional 9 V battery (must be ordered separately A5Q00004142) safeguards operation during commissioning or when the detector bus is without voltage. MC link connector for commissioning and maintenance with detector exchanger and tester.

Technical data

Supply voltage	via FDnet, additionally 1x 9 V lithium battery, monitored
Communication protocol	FDnet
Transmitter/receiver antenna	2 (antenna diversity)
Transmitting power	≤5 mW ERP
Transmission distance	max. 40 m in building max. 200 m in open air
Channel width	25 kHz
Radio frequency	868 ... 870 MHz (SRD band)
Ext. alarm indicator	2
Operating temperature	-10... + 55 °C
Dimensions (WxHxD)	58 x 213.5 x 33.4 mm
Color	grey-white, ~RAL 9002
Protection category	IP40
Humidity	≤95 %
Standard	EN54-17, EN54-18
Approval	VdS G211066

9.1.1 Accessory for radio gateway

–	Lithium brownstone battery 9 V / 1 Ah	Part no.	A5Q00004142
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10 pieces

Application

For the supply of the detector testers, line tester, radio smoke detector etc.

Technical data

Dimensions	25 x 48 x 16 mm
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9.2 Radio smoke detector

DOW1171/DBW1171	Radio smoke detector complete	Part no.	S24218-F62-A7
DOW1171	Radio smoke detector	Part no.	S24218-F62-A8
DBW1171	Base for radio smoke detector	Part no.	S24218-F316-A1
		Document	Product data sheet
			010087

DOW1171/DBW1171



Application

The radio smoke detector can be inserted and removed and actuated using the DZ1191, DZ1193 detector exchanger.

The radio smoke detector complete consists of the radio smoke detector DOW1171, the base DBW1171 and 2 batteries (A5Q00004142).

DOW1171



Function

Uniform response to various types of fires. Dynamic analysis of the sensor signal smoke in the detector itself. Built-in diagnostic algorithms with automatic self-test. High immunity to false alarms and ambient influences. High-quality optoelectronic sensor system. Automatic compensation of soiling. Each radio smoke detector has its own address and can transmit 4 danger levels.

The radio smoke detector is supplied by two 9 V lithium batteries and can be mounted at any position within radio range. In normal operating condition they have a service life of more than 5 years.

DBW1171



Technical data

Supply voltage	2x 9 V lithium batteries, separately
Communication protocol	FDnet
Transmitter/receiver antenna	2 (antenna diversity)
Transmitting power	≤5 mW ERP
Transmission distance	max. 40 m in building, max. 200 m in open air
Channel width	25 kHz
Radio frequency	868 ... 870 MHz (SRD Band)
Operating temperature	-10... + 55 °C
Dimension (ØxH)	119 x 73 mm
Color	white, ~RAL 9010
Protection category	IP40
Humidity	≤95 %
Standard	EN54-7
Approval	VdS G211065

9.2.1 Accessories for radio smoke detector

DBZ1190	Locking device	Part no.	BPZ:4585260001
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50 pieces

Application

To protect the detector from theft.

DBZ1193A	Detector designation plate (10x) See chapter 3.4.1 for details.	Part no.	BPZ:4864330001
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–	Lithium brownstone battery 9 V / 1 Ah See chapter 9.1.1 for details.	Part no.	A5Q00004142
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DBZ1192	Base attachment for humid environment	Part no.	BPZ:4588140001
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**Application**

For installation in damp and corrosive environments. M20 x 1.5 cable entries are located on the side of the base attachments for easy access.

Technical data

Dimensions (WxHxD)	135 x 135 x 45 mm
Color	white, ~RAL 9010
Protection category	IP44

DBZ1194	Protective cage	Part no.	BPZ:4677110001
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**Application**

To protect the detector from damage. Can only be used together with the base attachment humid.

Technical data

Dimensions (ØxH)	160 x 126 mm
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–	Metal screwed cable gland M20 x 1.5	Part no.	A5Q00004478
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Details see chapter 2.5.1



9.3 Radio base for manual call point SMF121

SMF6120	Radio base	Part no.	S24218-F72-A1
		Document	Product data sheet
			010087

**Function**

The radio base is battery-operated and can be mounted at every place within radio range. The radio base consists of a housing including radio electronics and antennas. The two 3.6 V batteries used are inserted here. The batteries must only be inserted in the base during commissioning (address allocation).

The batteries V24069-Z112-A1 and the manual call point SMF121 must be ordered separately.

Technical data

Supply voltage	2 x 3.6 V lithium batteries, separately monitored
Communication protocol	FDnet
Transmitter/receiver antenna	2 (antenna diversity)
Transmitting power	≤5 mW ERP
Transmission distance	max. 40 m in building; max. 200 m in open air
Channel width	25 kHz
Radio frequency	868 ... 870 MHz (SRD band)
Operating temperature	-10... + 55 °C
Dimension (WxHxD)	125 x 125 x 57 mm (incl. manual call point)
Color	red, ~RAL 3000
Protection category	IP43
Humidity	≤95 %
Standard	EN54-11
Approval	VdS G203060

9.3.1 Accessory for radio base

–	Lithium battery 3.6 V / 2.1 Ah	Part no.	V24069-Z112-A1
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Application

For the supply of the radio base SMF6120.

9.4 Manual call points

SMF121	Manual call point international (SIEMENS)	Part no.	V24217-C1218-W200
SMF121	Manual call point neutral	Part no.	V24217-C1218-W100

Document Product data sheet 010087

V24217-C1218-W200



Application

Manual call point with indirect alarm actuation, compatible with radio base SMF6120.

The radio base SMF6120 must be ordered separately.

The key S24217-G34-A1 must be ordered separately.

V24217-C1218-W100



9.4.1 Accessory for SMF121

–	Key	Part no.	S24217-G34-A1
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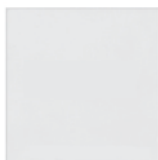


Application

The key is used for manual call point SMF121.

9.4.2 Spare part for SMF121

–	Glass	Part no.	S24217-G41-A1
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Application

Use as spare part.

10 pieces

9.5 SWING Radio gateway

FDCW241	SWING Radio gateway	Part no.	S54370-F11-A1
		Document	Product data sheet
			Operating instructions
			A6V10271323
			A6V10227639



Application

Wireless fire detection is used in situations where the user wants to avoid wires and their installation. In addition it means less interruption of operation and high flexibility for extensions and changes.

Function

High transmission reliability by radio transmission in SRD band (Short Range Device), a reserved frequency band with defined user rules. 43 channels are available.

The radio gateway FDCW241 is connected to the detector bus FDnet/C-NET and communicates with up to 30 radio detectors. Each detector has its own location address.

The 3.6 V battery pack (must be ordered separately S54370-Z11-A1) safeguards operation during commissioning or when the detector bus is without voltage and leads to a service life of well over 6 years. MCL USB Adapter for connection of the SWING-Tool. Makes reading of information possible, for commissioning, maintenance and for the troubleshooting.

Technical data

Supply voltage	Via detector bus, additionally 1x 3.6 V lithium battery, monitored
Communication protocol	FDnet/C-NET
Transmitter/receiver antenna	Dual band antenna
Transmitting power	≤10 mW ERP
Transmission distance	max. 180 m in building max. 1000 m in open air
Channel width	50 kHz
Radio frequency	868 ... 870 MHz (SRD band)
- 23 channels	433 ... 435 MHz
- 20 channels	
Operating temperature	-10... + 55 °C
Dimensions (WxHxD)	89 x 167 x 28 mm
Color	white, ~RAL 9010
Protection category	IP40 IP65 (with housing FDCH221)
Humidity	≤95 %
Standard	EN 54-17, EN 54-18, EN 54-25, EN 300220-2
Approval	VdS G212103

9.5.1 Accessory for SWING radio gateway

-	Li-SOCI2 Batteriepack 3,6 V / 10 Ah	Part no.	S54370-Z11-A1
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Application

For the supply of the radio detector and radio gateway

Technical data

Dimensions	25 x 48 x 16 mm
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9.6 SWING Radio smoke detector

FDOOT271/FDB271	Neural radio detector	Part no.	S54313-F1-A1
FDB271	Base	Part no.	S54319-F12-A1
		Document	Product data sheet
			A6V10271323

FDOOT271/FDB271



FDB271



Application

The Swing radio smoke detector can be inserted and removed and actuated using the DZ1191, DZ1193 detector exchanger.

The radio smoke detector consists of the radio smoke detector FDOOT271, the base FDB271 and a battery pack (S54312-F3-A1).

Function

Uniform response to various types of fires. Dynamic analysis of the sensor signal smoke in the detector itself. Built-in diagnostic algorithms with automatic self-test. High immunity to false alarms and ambient influences. High-quality optoelectronic sensor system. Automatic compensation of soiling. Each radio smoke detector has its own address and can transmit 4 danger levels.

The radio detector is supplied by a 3.6 battery pack and can be mounted at any position within radio range. In normal operating condition they have a service life of more than 3 years.

Technical data

Supply voltage	3.6V-10Ah, battery pack, order separately
Communication protocol	FDnet/C-NET
Transmitter/receiver antenna	Dual band antenna
Transmitting power	≤10 mW ERP
Transmission distance	max. 180 m in building, max. 1000 m in open air
Channel width	50 kHz
Radio frequency	
- 23 channels	868 ... 870 MHz (SRD Band)
- 20 channels	433 ... 435 MHz
Operating temperature	-10... + 55 °C
Dimension (ØxH)	117 x 64 mm
Color	white, ~RAL 9010
Protection category	IP44
Humidity	≤95 %
Standard	EN 54-17, EN 54-18, EN 54-25, EN 300220-2
Approval	
- VdS	G212104

9.6.1 Accessories for SWING radio smoke detector

FDBZ291	Designation plate	Part no.	A5Q00002621
	See chapter 3.2.1 for details.		



10 pieces

BAT3.6-10	Li-SOCI2 Batteriepack 3,6 V / 10 Ah	Part no.	S54370-Z11-A1
	See chapter 9.5.1 for details.		



9.7 SWING Radio manual call point

FDMH273	Switching unit for FDM273	Part no.	S54323-B108-A1
FDME273	Housing for FDM273	Part no.	S54323-B109-A1
	Document	Product data sheet	A6V10271323

FDMH273-R



Application

The SWING radio manual call point is used in situations where the user wants to avoid wires and their installation. In addition it means less interruption of operation and high flexibility for extensions and changes.

Function

The radio base consists of a housing part inclusive radio electronic and dual band antenna. The radio base is battery-operated and can be mounted at each place within a radio range. Manual call point with indirect alarm actuation by breaking the glass and pressing the push button. The housing (FDMH273), the switching unit (FDME273) and the battery pack 3.6V, 10Ah need to be ordered separately.

FDME273



Technical data

Supply voltage	Via detector bus, additionally 3.6V-10Ah, battery pack, monitored
Communication protocol	FDnet/C-NET
Transmitter/receiver antenna	Dual band antenna
Transmitting power	≤10 mW ERP
Transmission distance	max. 180 m in building, max. 1000 m in open air
Channel width	50 kHz
Radio frequency	868 ... 870 MHz (SRD Band) 433 ... 435 MHz
- 23 channels	
- 20 channels	
Operating temperature	-10... + 55 °C
Dimension (ØxH)	135 x 135 x 58
Color	Red, ~RAL 3000
Protection category	IP44
Humidity	≤95 %
Standard	EN 54-11 Typ B indoor, EN 54-25, EN 300220-2
Approval	
- VdS	G213092

9.7.1 Accessories for SWING radio manual call point

BAT3.6-10	Li-SOCl₂ Battery pack 3,6 V / 10 Ah	Part no.	S54370-Z11-A1
	See chapter 9.5.1 for details.		



DMZ1197-AC	Protective cover	Part no.	BPZ:5223550001
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5 pieces

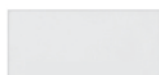
Application

Protects the manual call point from unintentional glass break.

Technical data

Color	transparent
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DMZ1196-AC	Glass	Part no.	BPZ:4942050001
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Application

Use as spare part.

10 pieces

DMZ1195	Key	Part no.	BPZ:4851910001
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10 pieces

Application

Only for housing FDMH293-x or FDMH273
Use as spare part.

9.8 Radio test set

DZW1171	Radio test set	Part no.	BPZ:5762200001
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Document	Product data sheet	010087
	Operating instruction	004446



Application

Field strength measurements can be carried out in the building to ensure reliable planning. Such measurements can be made using the mobile radio test set DZW1171.

Function

Position module A at the location of the radio gateway. It is now possible to check the radio contact at the radio smoke detector position by means of module B. As long as the LED on module B lights up, the transmission of radio signals is ensured.

Two 9 V lithium batteries (A5Q00004142) are needed and must be ordered separately.

—	Lithium brownstone battery 9 V / 1 Ah	Part no.	A5Q00004142
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See chapter 9.1.1 for details.

9.9 Air sampling smoke detection kit

FDBZ292

Air sampling smoke detection kit

Part no.

A5Q00021362

Document

Product data sheet

009728

Mounting/Installation

009726



Application

It can be used as an addressable or collective device.
The smoke detectors and bases must be ordered separately.

Function

The air sampling smoke detection kit is mounted in the ventilation system where air flow measuring devices are usually installed, i.e. where there is no air vortex, change of direction, duct branching, duct narrowing or duct extensions. The distance to the branching, bracket or bend must have 5 x the duct diameter. In order to guarantee smoke detection, mount on the outside of the air duct sampling, after the last air inlet. Accessories for all shapes of duct.

Technical data

Smoke detector	FDO241, FDOOT241-8, FDOOT241-9
Detector base	FDB201, FDB201-AA, FDB221, FDB221-AA
Min. duct diameter	100 mm
Permissible air speed	1... 20 m/s
Air flow indicator	≥1 m/s
Ambient temperature	-20... +50 °C
Dimensions (WxHxD)	146 x 235 x 183 mm
Color	grey, ~RAL 7001
Protection category	IP54
Humidity	≤95 % rel.
Approval	VdS G207139 with smoke detector FDOOT241-8, FDOOT241-9 with parameter set no 9

9.9.1 Accessories for air sampling smoke detection kit

FDBZ292-AA	Air flow tube 0.6 m	Part no.	A5Q00021363
FDBZ292-AB	Air flow tube 1.5 m	Part no.	A5Q00021364
FDBZ292-AC	Air flow tube 2.8 m	Part no.	A5Q00021366



Application

The air flow tube is introduced through a hole drilled into the duct and shortened according to the diameter of the duct.

FDBZ292-AD	Sealing kit for air flow tubes	Part no.	A5Q00021367
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Application

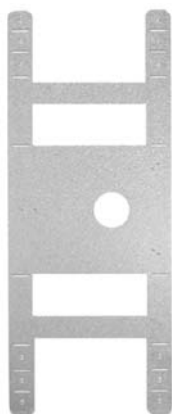
One sealing kit is necessary for

- applications using the mounting bracket
- applications using air flow tubes longer than 1 m

Two sealing kits are necessary for

- applications using the mounting bracket and air flow tubes longer than 1 m

FDBZ292-AF	Mounting bracket	Part no.	A5Q00021369
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Application

The mounting bracket is used for uneven, round and insulated ducts.

9.10 Aspirating smoke detectors

FDA221	Aspirating smoke detector (5S)	Part no.	S54333-F15-A1
FDA241	Aspirating smoke detector (8H)	Part no.	S54333-F17-A1
		Document	Product data sheet
			A6V10331032

FDA221



Application

FDA221

The FDA221 series of detectors are a very early warning dual wavelength (blue & infra-red) smoke detectors designed to protect small business-critical environments up to 500 m².

FDA241

The FDA221 series of detectors are a very early warning dual wavelength (blue & infra-red) smoke detectors designed to protect small business-critical environments up to 800 m².

Function

The detector works by continually drawing air into sampling holes in a pipe net-work. The air is passed into a uniquely designed detection chamber where light scattering technology detects the presence of very small amounts of smoke. The FDA221 and FDA241 detectors can communicate directly on the FDnet/C-NET loops (with an optional FDCC221S PCB), so there is no need for separate relay or network connections.

FDA241



Technical data

Operating voltage	19... 30 VDC
Quiescent current	150 mA
Alarm current	250 mA
Display	4 Alarm state indicators(FDA241) Purge, Dust (FDA241) 3 Alarm state indicators FDA221), Fault and disabled indicators, Smoke and airflow level bargraphs indicator
Area coverage	
– FDA221	up to 500 m ²
– FDA241	up to 800 m ²
Alarm threshold	
– FDA221	0.03 - 2.0 % obs/m / Info alarm, Pre-alarm, Fire 1 (5 sets) 2.0 - 20 % obs/m / Fire 2 (5 sets)
– FDA241	0.03 - 2.0 % obs/m / Info alarm, Pre-alarm, Fire 1 (10 sets) 2.0 - 20 % obs/m / Fire 2 (10 sets)
Air inlet pipe	Accepts both metric and American standard pipe sizes, External diameter 25 mm, Internal diameter 21 mm
Pipe length	
– FDA221	Single pipe length: 30m Branched pipe length: 2 x 25m
– FDA241	Single pipe length: 60m Branched pipe length: 2 x 60m
Relay output	3x 2 A / 30 V
Terminals	0.2... 2.5 mm ² (30... 12 AWG)
Dimensions (WxHxD)	155 x 280 x 114 mm
Operating temperature	-20... +40 °C
Humidity	≤95 % rel. (no condensation)
Protection category	IP30
Approval	VdS, LPCB

9.10.1 Accessory

FDCC221S	Communication interface	Part no.	S24218-A201-A2
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Application

For connecting the aspirating smoke detector FDA221 / FDA241 to FDnet/C-NET. The installation is not permitted in the case of standalone operation. FDCC221S has its own ID. This ID is made visible to the detector line and it replaces the ID of the aspirating smoke detector.

LaserFOCUS VLF-250	Aspirating smoke detector with display	Part no.	VLF-250-SIE see footnote 1)
LaserFOCUS VLF-500	Aspirating smoke detector with display	Part no.	VLF-500-SIE see footnote 1)

Document Product data sheet

A6V10221433



Application

VLF-250

The LaserFOCUS detector is a very early warning smoke detector (Aspirating Smoke Detector ASD) designed to protect small, business-critical environments of less than 250 sqm.

VLF-500

The LaserFOCUS detector is a very early warning smoke detector (Aspirating Smoke Detector ASD) designed to protect small, business-critical environments of less than 500 sqm.

Function

The detector works by continually drawing air into sample holes in a pipe network. The air is filtered and passed into a detection chamber where light scattering technology detects the presence of very small amounts of smoke. Detector status information is communicated on the detector display.

The FDnet interface card is integrated.

Technical data

Operating voltage	18... 30 VDC
Quiescent current	220 mA
Alarm current	295 mA
Display	4 Alarm state indicators, Fault and disabled indicators, Smoke level indicator
Area coverage	
– VLF-250	up to 250 m ²
– VLF-500	up to 500 m ²
Alarm threshold	0.025 - 2.00 %/m / Info alarm, Pre-alarm 0.025 - 20.00 %/m / Fire 1, Fire 2
Air inlet pipe	Accepts both metric and American standard pipe sizes, External diameter 25 mm, Internal diameter 21 mm
Pipe length	
– VLF-250	max. 1 x 25 m (max. 12 holes), max. 2 x 15 m per branch (max. 6 holes per branch)
–	
– VLF-500	max. 1 x 50 m (max. 24 holes), max. 2 x 30 m per branch (max. 12 holes per branch)
Relay output	3x 2 A / 30 V (Pre-alarm, Alarm, Fault)
Terminals	0.2... 2.5 mm ² (30... 12 AWG)
Dimensions (WxHxD)	255 x 185 x 90 mm
Operating temperature	0... +40 °C
Humidity	≤95 % rel. (no condensation)
Protection category	IP30
Approval	VdS, LPCB

1) Delivery time and ordering approximately 14 working days from date of order from:

EMEA

Xtralis (UK) Ltd.
Focus 31, Mark Road
Hemel Hempstead, Hertfordshire HP2 7BW
United Kingdom
Tel: +44 1442 242330
Fax: +44 1442 249327

APAC

Xtralis Pty Ltd.
4 North Drive, Virginia Park
236-262 East Boundery Road (PO Box 102)
Bentleigh East, Victoria, Australia, 3165
Tel: +61 3 9936 7200
Fax: +61 3 9936 7201

Warranty for all Xtralis products is 24 months.

Contact Xtralis (UK) for information about warranty, replacement parts, repair and return items.

9.11 Video Fire Controller

FDV241	Video fire controller	Part no.	S54335-F1-A1
		Document	Product data sheet
			Technical description
			A6V10207909
			A6V10092464



Application

The video fire controller is for monitoring and recording of alarms and events. The video fire controller enable video recording of alarms and events such as arson, sabotage or vandalism. Local storage on compact flash card with pre-and post-alarm recording.

Function

Can be connected with CCTV system via Ethernet for live picture transmission and live event evaluation. Compatible with all SISTORE™ product assortments. Easy installation and configuration of the video functions with the included software. Allocation of the video fire controllers to the detectors via fire control panel. A fault at the video fire controller or at the camera will be transmitted to the fire control panel. The communication transponder FDCC221 is integrated in FDV241.

- Compatible with U-rail acc. to DIN EN 50022 dimension 35 x 7.5 or 35 x 15; 2.3 mm size.
- The power supply, the compact flash card and the U-rail must be provided separately.

Technical data FDV241

Ext. supply input	12... 24 VDC or 24 VAC, 1.25 A, max. 15 W
Compact Flash Slot	CF-Typ I: 42.8 x 36.4 x 3.3 mm
Compact Flash Slot	not included
– permissible temperature range	0... 70 °C
– min. bit rate	1 MB/s, r/w
– min. memory space	4 GB
Battery	Varta 6032
Operating temperature	-10... +50 °C
Humidity (no condensation)	20... 80 % rel.
Protection category EN60529 / IEC529	IP20
Standard	EN54-17, EN54-18
Video connections IN , OUT, LOOP	Video cable 75 Ohm BNC plug
USB 2.0	max. 500 mA
Network connection (Ethernet, LAN)	RJ45
Connection terminals pluggable POWER	0.2... 1.5 mm ²
Dimensions (WxHxD)	192 x 110 x 44 mm

Technical data FDCC221

Operating voltage FDnet	12... 33 VDC
Quiescent current	0.6... 0.75 mA
Communication protocol	FDnet
Approval	VdS G208063
System compatibility	FS20 (from MP2.1)

10 Test equipment and accessories

10.1 Detector exchanger

FDUD291	Detector exchanger	Part no.	A5Q00003585
		Document	Product data sheet
			007228



Application
For all Sinteso point detectors.

Function
Rational insertion and removal of point detectors.
The point detector can be gripped in four turning positions for increased work efficiency.
Compatible with the telescope rays and the conventional extension rods VR10/11/12/13.

Technical data
Dimensions Ø121 x 57 x 390 mm

10.2 Detector exchanger and tester

FDUD292 FDUD293	Detector exchanger and tester Intelligent detector tester	Part no. Part no.	A5Q00003357 A5Q00018261
		Documents	Product data sheet
			007228
		FDUD292	Operation
			007227
		FDUD293	Operation
			009718



Adapter cable

Application
For all Sinteso point detectors, manual call points, alarm sounder (wire less MC-Link).
Input module, Output module, Linear smoke detector via adapter cable FDUD292-A.

Function
Rational insertion and removal of point detectors.
Commissioning, maintenance, status check and testing of detectors with extend diagnosis information on site. Polling parameters such as bus address and changes to detector settings. Efficient trouble-shooting with detectors, installation and control unit.
Compatible with the telescope rays and the conventional extension rods VR10/11/12/13.

Technical data

Operating voltage	9 VDC
– Alkali battery	Commercial 9 V
for temperatures under –10 °C	
– Lithium brownstone battery	ULTRALIFE U9VL or U9VL-J
	Capacity 950... 1200 mAh
Operating current	
– Stand by (light off / on)	2 mA / 42 mA
– Communication (3 LEDs + Summer)	95 mA
Operating temperature	-25... +40 °C
temporary	-30... +50 °C
Storage temperature	-30... +75 °C
– with battery	-25... +60 °C
Humidity	≤95 % rel. (no condensation)
Dimensions	Ø121 x 85 x 390 mm

10.2.1 Spare part for FDUD292/293

FDUD292-A	Adapter cable for detector exchanger	Part no.		A5Q00004990
		Document	Product data sheet	007228
			Operation	007227



Application
MC-Link cable from detector exchanger and tester to the in-/output module and to the linear smoke detector.

Technical data
Audio stereo cable with direct and bend stereo jack

3.5 mm

Cable length 1.5 m

10.2.2 Accessories for FDUD291/292/293

–	Lithium brownstone battery 9 V / 1 Ah	Part no.	A5Q00004142
	See chapter 9.1.1 for details.		



10.3 Detector tester RE6, RE6T, RE7T, RE8ST, RE8STCO

RE6	Detector tester for smoke detectors	Part no.	BPZ:3680300001
		Document	Product data sheet 007228



Application
The detector tester (delivered with bellow DZZ1190) is placed over the detector and given a brief push to release the test gas and so simulate the presence of fire aerosols. The detector responds quickly and actuates an alarm. The test gas is free of halogenated chlorofluorocarbons (CFCs). It is not combustible. The extension rod FDUM291/292 and the test gas can REF8, REF8-S must be ordered separately.

10.3.1 Accessories for RE6

REF8	Test gas can for smoke detectors	Part no.	A5Q00011687
REF8-S	Test gas can for smoke detectors	Part no.	A5Q00011688
REF8-C	Test gas can CO	Part no.	S54370-N2-A1
		Document	Product data sheet 007228

REF8
REF8-S
REF8-C



Application
REF8 has been developed as an environmentally friendly test gas for the testing of smoke detectors. REF8 can be used in the temperature range of 0... +40 °C in dry or in humid environments. Complies with environmental laws. Protects atmosphere and ozone layer.
REF8-S has been developed as environmentally friendly test gas for the testing of smoke detectors. REF8-S can be used in the temperature range of -20... +40 °C in dry or in humid environments. REF8-S remains measurable longer than REF8, and is used for detectors having a longer signal evaluation time. Complies with environmental laws. Protects atmosphere and ozone layer.
REF8-C is used to test the CO functionality of detectors with a CO sensor. REF8-C can be used in dry or humid environments at temperatures of -20... +50 °C.
Use only together with detector tester RE6.

RE6T**Detector tester for heat detectors****Part no.****BPZ:3680270001**

Document Product data sheet

007228

**Application**

This detector tester contains a hot air generator. For the performance check, the tester is pushed over the detector. The hot air released, heats the detector and so actuates an alarm.
The extension rod FDUM291/292 must be ordered separately.

**Forbidden in electrical switching stations or areas where there is a danger of explosion!****Technical data**

Mains voltage

220 VAC/50... 60 Hz, ~300 W

Operating temperature

0... +40 °C

RE7T**Solo461 Heat detector tester kit****Part no.****S54370-S3-A1**

Document Product data sheet

A6V10252901

**Application**

The detector tester contains a hot air generator. For the performance check, the tester is pushed over the detector. The hot air released, heats the detector and so actuates an alarm.
The extension rod FDUM291/292 must be ordered separately.

Kit consists of:

- 1 Tester
- 2 Batteries
- 1 Charger

**Forbidden in electrical switching stations or areas where there is a danger of explosion!****Technical data**

Operating temperature

5... +45 °C

Storage temperature

-10... +50 °C

Humidity

≤95 %

RE8ST**Testfire 1001-101 ST test kit****Part no.****S54370-S23-A1**

Document Product data sheet

A6V10397718

**Application**

The detector tester contains a smoke capsule. For the performance check, the tester is pushed over the detector. The smoke released actuates an alarm.
The extension rod FDUM291/292 must be ordered separately.

Kit consists of:

- 1 Testfire 1001-101 tester
- 1 smoke capsule
- 2 Batteries
- 1 Charger (incl. 12V connection cable)
- 2 mains cables (110 / 120-220 / 240 VAC)
- 1 USB cable

**Forbidden in electrical switching stations or areas where there is a danger of explosion!****Technical data**

Operating temperature

5... +45 °C

Storage temperature

-10... +50 °C

Humidity

≤95 %

RE8STCO	Testfire 2001-101 ST test kit	Part no.	S54370-S24-A1						
		Document	Product data sheet						
			A6V10397718						
									
Application The detector tester contains a smoke or a CO capsule. For the performance check, the tester is pushed over the detector. The smoke / CO released actuates an alarm. The extension rod FDUM291/292 must be ordered separately. Kit consists of: – 1 Testfire 1001-101 tester – 1 smoke capsule – 1 CO capsule – 2 Batteries – 1 Charger (incl. 12V connection cable) – 2 mains cables (110 / 120-220 / 240 VAC) – 1 USB cable									
 Forbidden in electrical switching stations or areas where there is a danger of explosion!									
Technical data <table><tr><td>Operating temperature</td><td>5... +45 °C</td></tr><tr><td>Storage temperature</td><td>-10... +50 °C</td></tr><tr><td>Humidity</td><td>≤95 %</td></tr></table>				Operating temperature	5... +45 °C	Storage temperature	-10... +50 °C	Humidity	≤95 %
Operating temperature	5... +45 °C								
Storage temperature	-10... +50 °C								
Humidity	≤95 %								

10.3.2 Accessories for RE7T, RE8ST, RE8STCO

RE7T-A	Solo719 Adaptor for FDUM29x	Part no.	S54370-N4-A1
			
Application Adaptor from heat detector tester RE7T to the telescope rods FDUM29x.			

10.3.3 Spare parts for RE7T, RE8ST, RE8STCO

RE7T-B	Solo760 Battery for RE7T	Part no.	S54370-N5-A1
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Application

Use as spare part for RE7T heat detector tester.

RE7T-C	Solo725 Charger for RE7T	Part no.	S54370-N6-A1
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Application

Use as spare part for charging of battery baton to the RE7T heat detector tester.

RE8-S	RE8-S für RE8ST & RE8STCO	Part no.	S54370-N25-A1
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Application

Use as spare part for RE8ST & RE8STCO.

6 pieces

RE8-CO	RE8-CO für RE8STCO	Part no.	S54370-N22-A1
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Application

Use as spare part for RE8STCO.

6 pieces

10.3.4 Accessories for DX791, RE6, RE6T, RE7T, RE8ST, RE8STCO

FDUM291	Telescope rod	Part no.	A5Q00004996
		Document	Product data sheet 007228



Application

The three-part telescope with tri-oval tubes serve as extensions for the detector exchanger, detector testers and other applications up to 5 m.

Technical data

Color	yellow, black
Dimensions	Ø34.5 mm x 1.6 m (drown out length= 4.2 m)

FDUM292	Telescope rod	Part no.	A5Q00004997
		Document	Product data sheet
			007228

**Application**

The stable, four-part telescope with round tubes serve as extensions for the detector exchanger, detector testers and other applications up to 8 m.

Technical data

Color

yellow, black

Dimensions

Ø44.5 mm x 2.1 m (drown out length = 7.3 m)

10.3.4.1 Spare parts for telescope rod FDUM291

–	Adapter with lever, screw and nut incl. attachment and bushing screw	Part no.	A5Q00009786
–	Lever with screw and nut	Part no.	A5Q00009787
–	Small flap with screw and nut	Part no.	A5Q00009788
–	Large flap with screw and nut	Part no.	A5Q00009789

**Application**

Use as spare part.

10.3.4.2 Spare parts for telescope rod FDUM292

–	Adapter with lever, screw and nut incl. attachment and bushing screw	Part no.	A5Q00009786
–	Lever with screw and nut	Part no.	A5Q00009787



Application
Use as spare part.

10.4 Test equipment for linear smoke detectors

10.4.1 Adjustment device set

FDLU291	Adjustment device set for linear smoke detector	Part no.	A5Q00004905
	Document	Product data sheet	007017
		Technical description	007016



Application

The optics can be rationally adjusted to the reflector by single-handed alignment by means of the adjustment device.

Box with adjustment device, alarm test filter, visor, magnet, spiral cable, MC-link cable, and battery 9 V, 0.5 Ah.

Technical data

Dimensions adjustment device	120 x 65 x22 mm
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10.4.2 Detector tester

RE10	Detector tester	Part no.	BPZ:3685190001
	Document	Product data sheet	007228



Application

For performance check of linear smoke detector. In compliance with the type of detector to be tested, the alarm test filter is inserted in the detector tester.

Alarm test filter contained in FDLU291 or TF04 must be ordered separately.

Function

The detector tester is then held in front of the optical parts of the detector (i.e. into the infrared ray). The detector reacts after a few seconds.

TF04	Alarm test filter (Absorption 77 %)	Part no.	BPZ:4931090001
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Application

Alarm test filter for detector tester RE10.

10.5 Line tester

FDUL221

Line tester

Part no.

A5Q00004397

 Documents Product data sheet
 Operation

 007228
 008250


Application

The line tester is a universal device for the final testing of completely installed FDnet fire detection lines, when no control unit has been connected yet. For troubleshooting for electricians, installers or service technicians.

Line tester incl. line connection set FDUL221-A and power supply set FDUL221-B.

Technical data

Line tester

Operating voltage

min. 10 VDC, max. 30 VDC

– Battery or via

2 x 9 V

– mains adapter

240 VAC/24 VDC, 625 mA

Current consumption during measuring

depending on number of devices

Detection line voltage

– FDnet (FS20, AlgoRex)

32 VDC

– FDnet (SIGMASYS)

28 VDC

Max. connection factor (MK) per line

– with mains adapter

min. 550

– with battery

min. 150

Operating temperature

-25... +40 °C

Storage temperature

-30... +75 °C

– with battery

-25... +60 °C

Humidity

≤95 % rel. (no condensation)

Dimensions

190 x 135 x 45 mm

Mains adapter AC/DC

Input voltage

100... 240 VAC / 50... 60 Hz / 400 mA

Output voltage

24 VDC / 625 mA

Dimensions

115 x 52 x 33 mm

10.5.1 Accessories for line tester

–

Lithium brownstone battery 9 V / 1 Ah

Part no.

A5Q00004142

Details see chapter 10.2.2



10.5.2 Spare parts for line tester

FDUL221-A	Line connection set	Part no.	A5Q00008436
FDUL221-B	Mains adapter set	Part no.	A5Q00008437
FDUL221-C	PC cable (RS232)	Part no.	A5Q00008438

	FDUL221-A Line Connection Set Application Use as spare part.	A5Q00008436
	FDUL221-B Power Supply Set	A5Q00008437
	FDUL221-C PC Cabel (RS232) FDUL221-A	A5Q00008438 A5Q00008436

10.6 Test lamp for flame detector

LE3 FA2003-A1	Test lamp Battery (12 V, 7 Ah, VDS)	Part no. Part no.	BPZ:3669510001 A5Q00019353
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Document Product data sheet 000252

 	Application For checking the alarm function of all flame detector for distance up to 10 m.	
	Technical data Test lamp Dimensions	178 x 180 x 369 mm
	Battery Dimensions	151 x 94 x 65 mm

10.6.1 Spare part for test lamp

–	Halogen lamp 12 V / 50 W	Part no.	BPZ:3679630001
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	Application Use as spare part.
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10.7 Adapter for FDnet devices

FDUZ227	MCL USB adapter	Part no.	S54323-F106-A1
		Document	Product data sheet
		Installation	A6V10355605 A6V10347735
Application			
The MCL USB adapter is an interface converter for USB to MC link. It can be used to connect FDnet devices or C-NET devices to a PC using a serial protocol (MCL).			
Function			
The adapter is used for floor repeater display FT2011-A1, for floor repeater terminal FT2010-A1, for radio gateways FDCW221 & FDCW241, for detector exchanger and tester FDUD292/293 and for line tester FDUL221 (in the future other FDnet devices possible).			
The SWING devices FDOOT271 & FDCW241 can communicate via radio with the FDUZ227 (in the future other SWING devices will be possible). The radio communication requires the tool FXS2061.			
Technical data			
Power supply		via USB (5V)	
Interface		USB 2.0, MC link, FDnet, radio	
Operating temperature		-10... +55 °C	
Storage temperature		-20... +60 °C	
Humidity		≤95 % rel.	
Dimensions (WxHxD)		100 x 30 x 54 mm	
Protection category		IP30	

11 Index

A

Adapter cable for detector exchanger 77
 Adapter frame for FDAI92 32
 Adapter frame for FDCAI221 32
 Adapter with lever
 for FDUM291 81
 for FDUM292 82
 Adjustment device set for linear smoke detector 82
 AI330 32
 Air flow tube 0.6 m 72
 Air flow tube 1.5 m 72
 Air flow tube 2.8 m 72
 Air sampling smoke detection kit 71
 Alarm indicator 33
 Alarm indicator housing incl. washer 34
 Alarm indicator, resistor 75 Ω 31, 32
 Alarm sounder
 red 47
 white 47
 Alarm sounder with supplementary optical indication, orange 48
 Alarm sounder with supplementary optical indication, red 48
 Alarm test filter (Absorption 77 %) 82
 Aspirating smoke detector (5S) 73
 Aspirating smoke detector (8H) 73
 Aspirating smoke detector with display 74
 Auxiliary terminal 25, 29, 49

B

Back box
 for FDM225-xx 38
 Back nut
 for screwed cable gland 36, 62
 Ball and socket joint
 for flame detector 22
 Base 68
 Base adapter
 for MS8-detector base 30
 Base adapter
 for AlgoRex /SIGMASYS detector base 30
 Base adapter
 for AlgoRex-collective and SIGMACON detector base 30
 Base attachment 25, 49
 Base attachment (colored) 25
 Base attachment for humid environment 65

base attachment wet with additional integrated rubber seal 26, 50
 Base attachment wet with seal 26, 50
 Base for infrared flame detector 21
 Base for infrared flame detector 20
 with detection algorithm 20
 Base for linear smoke detector 18
 Base for radio smoke detector 64
 BAT3.6-10 68, 69
 Battery (12 V, 7 Ah, VDS)
 for test lamp 84
 Blanking plate
 for FDSB221 or FDSB229 53

C

Communication interface 73
 Control module 55
 Cover with key
 for FDM221 36

D

DBW1171 64
 DBZ1190 64
 DBZ1190-AA 25, 29, 49
 DBZ1190-AB 25, 29, 49
 DBZ1192 65
 DBZ1193A 27, 50, 64
 DBZ1194 27, 50, 65
 DCA1191 33
 Designation plate 24, 29, 68
 Designation plate
 for FDB293 27
 Designation plate
 for FDB221/-AA 49
 Detector base addressable 24, 48
 Detector base addressable with 1 micro terminal 24, 48
 Detector base collective 23
 Detector base collective with 1 micro terminal 23
 Detector base flat, addressable 24, 48
 Detector base flat, addressable (colored) 24
 Detector base flat, collective 23
 Detector base flat, collective (colored) 23
 Detector designation plate
 for FDB293 50, 64
 Detector dust cap 18
 Detector exchanger 76
 Detector exchanger and tester 76
 Detector heating element 19

Detector heating incl. micro terminals 25, 27, 51
 Detector locking device 18, 49
 Detector tester
 for linear smoke detectors 82
 Detector tester for heat detectors 78
 Detector tester for smoke detectors 77
 DFZ1190 22
 DJZ1193 34
 DLF1191-AA 19
 DLF1191-AB 19
 DLF1191-AC 19
 DLH1191A 19
 DLR1191 19
 DLR1192 19
 DLR1193 19
 DMZ1195 42, 46, 70
 DMZ1196-AC 42, 46, 70
 DMZ1197-AC 41, 45, 69
 DMZ1197-AD 41, 45
 DOW1171 64
 DOW1171/DBW1171 64
 Dummy detector 17
 DZW1171 70

E

EMC Protective cage 27, 50
 End-of-line
 EOL22(Ex) 62
 EOL22(Ex) 62
 Extraneous light filter 19

F

FA2003-A1 84
 FDA221 73
 FDA241 73
 FDAI91 31
 FDAI92 31
 FDAI93 33
 FDB201 23
 FDB201-AA 23
 FDB202 23
 FDB221 24, 48
 FDB221-AA 24, 48
 FDB222 24, 48
 FDB241 30
 FDB271 68
 FDB281 30
 FDB291 25, 49
 FDB293 26, 50
 FDB295 26, 50
 FDB299 30
 FDBH291 25, 27, 51
 FDBZ291 24, 29, 49, 68
 FDBZ292 71
 FDBZ292-AA 72

FDBZ292-AB 72
 FDBZ292-AC 72
 FDBZ292-AD 72
 FDBZ292-AF 72
 FDBZ293 18, 49
 FDBZ294 27, 50
 FDBZ295 24, 49
 FDBZ296 53
 FDCAI221 32
 FDCC221S 73
 FDCH221 62
 FDCI221 59
 FDCI222 59
 FDCIO221 60
 FDCIO222 60
 FDCIO223 61
 FDCIO224 61
 FDCL221 57
 FDCL221-M 58
 FDCM291 62
 FDCW221 63
 FDCW241 67
 FDF221-9 20
 FDF241-9 21
 FDFB291 20, 21
 FDL241-9 18
 FDLB291 18
 FDLU291 82
 FDM223 43
 FDM225-RG 37
 FDM225-RG (F) 37
 FDM225-RP 37
 FDM225-RP (F) 37
 FDM226-RG 37
 FDM226-RP 37
 FDMC291 36
 FDMC295 38
 FDME221 35
 FDME223 44, 45
 FDME224 40, 41
 FDME273 69
 FDMG291 36
 FDMG295 39
 FDMG295-F 39
 FDMH273 69
 FDMH291-B 35
 FDMH291-G 35
 FDMH291-R 35
 FDMH291-Y 35
 FDMH292-R 41, 45
 FDMH293-B 40, 44
 FDMH293-G 40, 44
 FDMH293-O 40
 FDMH293-R 40, 44
 FDMH293-Y 40, 44

FDMH295-R 38
 FDMH295-S 38
 FDMK291 36
 FDMK295 39
 FDMP295 39
 FDMP295-F 39
 FDO221 10
 FDO241 16
 FDOOT221 9
 FDOOT241-8 13
 FDOOT241-8B 13
 FDOOT241-8M 13
 FDOOT241-9 14
 FDOOT241-9M 14
 FDOOT241-A3 12
 FDOOT241-A4 12
 FDOOT241-A9 14
 FDOOT271/FDB271 68
 FDOOTC241 15
 FDS221-R 47
 FDS221-W 47
 FDS229-A 48
 FDS229-R 48
 FDSB221 52
 FDSB229 53
 FDSB291 28, 51
 FDSB292 29, 51
 FDT221 11
 FDT241 17
 FDUD290 30
 FDUD291 76
 FDUD292 76
 FDUD292-A 77
 FDUD293 76
 FDUL221 83
 FDUL221-A 84
 FDUL221-B 84
 FDUL221-C 84
 FDUM291 80
 FDUM292 81
 FDUZ227 85
 FDV241 75
 FDX291 17
 FDZ291 18

G

Glass
 for FDM221 36
 for FDM223 46
 for FDM224 and FDM224H 42
 for FDM224, FDM224H and FDM273 70
 for SMF121 66
 Glass plate 'France'
 for FDM225/226 39
 Glass plate 'neutral'

for FDM225/226 39

H

Halogen lamp 12 V / 50 W
 for LE3 84
 Heat detector
 with ASAtechnology™ 17
 with detection algorithms 11
 Heat detector (colored) 11, 17
 Heavy Duty housing red with glass, hexagon
 wrench key, 3 nipples and plate
 Feuerwehr/Brandmelder 45
 Housing blue, with glass and key
 for FDME223 44
 for FDME224 40
 Housing blue, with key
 for FDME221 35
 Housing for input/output modules 62
 Housing green, with glass and key
 for FDME223 44
 for FDME224 40
 Housing green, with key
 for FDME221 35
 Housing Heavy Duty red
 for FDME224 41
 Housing orange, with glass and key
 for FDME224 40
 Housing red, with glass and key 69
 for FDME223 44
 for FDME224 40
 Housing red, with key
 for FDME221 35
 Housing with cover
 for FDAI93 33
 Housing yellow, with glass and key
 for FDME223 44
 for FDME224 40
 Housing yellow, with key
 for FDME221 35

I

Infrared flame detector
 with detection algorithms 20
 Infrared flame detector 20
 Infrared flame detector 21
 Input module 59
 Input module
 1 input 59
 Input/output module 60, 61
 Input/output module
 1 input, 1 output 60
 Insulating cap
 for FDAI93 33
 Intelligent detector tester 76

K

Key

- for FDM225/226* 39
- for FDMH293-x* 42, 46
- for FDMH293-x and FDMH273* 70
- for SMF121* 66

L

Large flap

- for FDUM291* 81

LaserFOCUS VLF-250

 74

LaserFOCUS VLF-500

 74

LE3

 84

Lever with screw and nut

- for FDUM291* 81
- for FDUM292* 82

Line connection set

- for FDUL221* 84

Line separator

 57

Line tester

 83

Linear smoke detector

 18

LI-SOCI2 3,6V-10Ah

 67, 68, 69

Lithium battery 3.6 V / 2.1 Ah

- for radio base SMF6120* 66

Lithium brownstone battery 9 V / 1 Ah

 63, 64, 70, 77, 83

Locking device

 64

Locking plug M20 x 1.5 (1 hole)

- for FDMH292-R and FDMH293-x* 42, 46

Locking plug M20 x 1.5 (2 holes)

- for FDMH292-R and FDMH293-x* 42, 46

Long distance reflector (Prism)

 19

M

Mains adapter set

- for FDUL221* 84

Manual call point complete

- housing red with glass, key, switching unit and locking plug* 43

Manual call point international (SIEMENS)

- for radio base SMF6120* 66

Manual call point neutral

- for radio base SMF6120* 66

Manual call point with glass plate

 37

Manual call point with glass plate for 'France'

 37

Manual call point with glass plate incl. back box

 37

Manual call point with plastic element

 37

Manual call point with plastic element for 'France'

 37

Manual call point with plastic element incl. back box

 37

MCL USB adapter

- Radio* 85

Metal screwed cable gland M20 x 1.5

- for DBZ1192* 65

for DCA1191

 33

for FDB293

 50

for FDCH291 and FDCH292

 62

for FDFB291

 22

for FDFB293

 27

for FDLB291

 19

for FDMH291-x

 36

for FDMH292-R and FDMH293-x

 42, 46

Micro terminal

 25, 29, 49

Middle distance reflector (400cm²)

 19

Mounting arm

 34

Mounting bracket

 72

for flame detector

 22

Mounting feet to in-/output modules

 62

Multi line separator

 58

Multi-sensor fire detector

with ASAtechnology™

 15

Multi-sensor smoke detector

with ASAtechnology™

 12, 13

with detection algorithms

 9

Multi-sensor smoke detector

with ASAtechnology™

 14

Multi-sensor smoke detector (colored)

 9, 14

Multi-sensor smoke detector and addr. base, packet FDOOT241-8 + FDB221 for migration

with ASAtechnology™

 13

Multi-sensor smoke detector and base adapter, packet FDOOT241-8 + FDB281 for migration

with ASAtechnology™

 13

Multi-sensor smoke detector and coll. base, packet FDOOT241-9 + FDB201 for migration

with ASAtechnology™

 14

Multi-sensor smoke detector colored

 13

Multi-sensor smoke detector for detector exchange

with ASAtechnology™

 13, 14

with detection algorithms

 9

MV1

 22

MVH1

 34

MWV1

 22

N

Neural fire detector with ASAtechnology™

 14

Neural radio detector

 68

P

PC cable (RS232)

for FDUL221

 84

Plastic element 'France'

for FDM225/226

 39

Plastic element 'neutral'

for FDM225/226

 39

Plate

for FDM223

 46

Protective cage

 27, 50

Protective cage

 65

Protective cover
 for FDM221 36
 for FDM223 and FDM223H 45
 Protective cover
 for FDM225/226 38
 Protective cover
 for FDM224 and FDM224H 41
 Protective cover
 for FDM224, FDM224H and FDM273 69

R

Radio base
 for SMF121 65
 Radio gateway 63
 Radio smoke detector 64
 Radio smoke detector complete 64
 Radio test set 70
 Rain hood
 for flame detector 22
 RE10 82
 RE6 77
 RE6T 78
 RE7T 78
 RE7T-A 79
 RE7T-B 80
 RE7T-C 80
 RE8-CO 80
 RE8-CO for RESTCO
 as spare part 80
 RE8-S 80
 RE8-S for RE8ST & RE8STCO
 as spare part 80
 RE8ST 78
 RE8STCO 79
 REF8 77
 REF8-C 77
 REF8-S 77
 Removing tool for base adapter FDB241 and
 FDB299 30

S

Seal for wet areas
 for FDM223 and FDM223H 45
 for FDM224 and FDM224H 41
 Sealing element
 for FDB201, FDB201-AA, FDB221, FDB221-AA
 24, 49
 Sealing kit for air flow tubes 72
 Short distance filter 5-8m 19
 Short distance filter 7-10 m 19
 Short distance reflector (100cm²) 19
 Small flap
 for FDUM291 81
 SMF121 66

SMF6120 65
 Smoke detector
 with ASAtechnology™ 16
 with detection algorithms 10
 Smoke detector (colored) 10, 16
 Smoke detector for detector exchange
 with detection algorithms 10
 Solo461 Heat detector tester kit 78
 Solo719 Adaptor for FDUM29x 79
 Solo725 Charger for RE7T
 as spare part 80
 Solo760 Solo760 Battery for RE7T
 as spare part 80
 Sounder base addressable incl. 2 micro terminals
 28, 51
 Sounder base collective incl. 2 micro terminals 29,
 51
 Sounder interbase 52
 Sounder interbase with supplementary optical
 indication 53
 SPF 5100 55
 SWING Radio gateway 67
 Switching unit
 for FDMH291-x 35
 for FDMH292-R 41, 45
 for FDMH293-x 40, 44
 Switching unit to FDM273 69

T

Telescope rod 80, 81
 Test gas can CO
 for RE6 77
 Test gas can for smoke detectors
 for RE6 77
 Test lamp 84
 Testfire 1001-101 ST test kit 78
 Testfire 2001-101 ST test kit 79
 TF04 82
 Transponder 61
 TS35, L=288 mm 58, 62

U

U-rail TS35, L=122 mm 58, 62

V

Video fire controller 75
 V-plug PA M20 x 1.5
 for FDMH292-R 42, 46

W

Washer
 for DCA1191 33

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