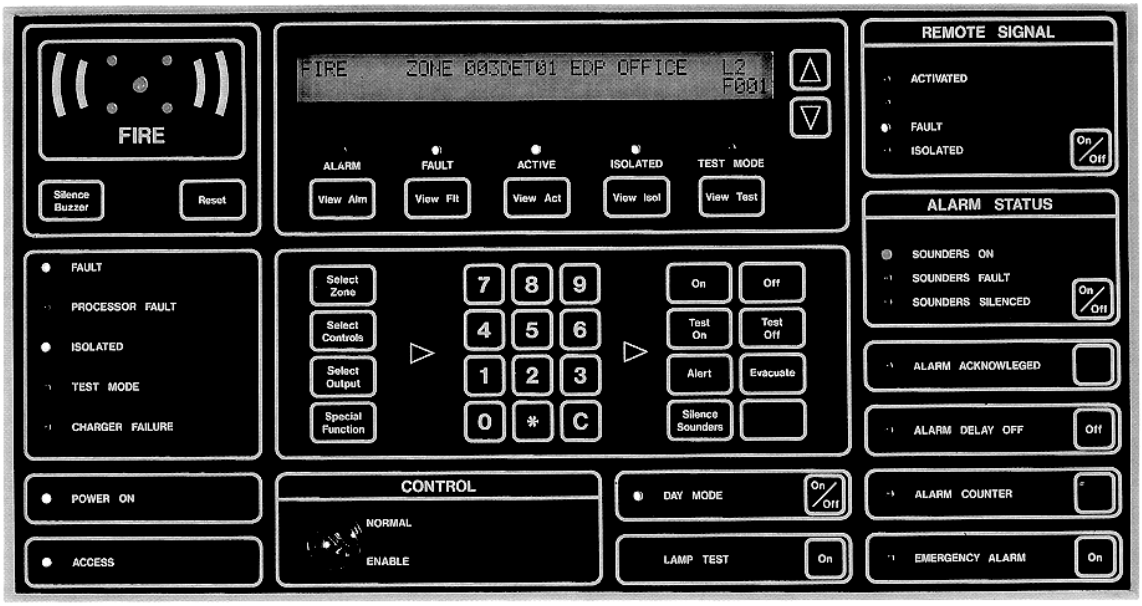
ZETTLER®

LOOP 500 – Fire Alarm System



Data Sheet
217 642
901.1002E

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LOOP 500

Contents

Use

Fire alarm systems (FAS) are hazard alarm systems (HAS) and are used to protect life and property. They must be produced, planned, installed and maintained in accordance with the requirements of the Verband Deutscher Elektrotechniker VDE 0100, 0800, 0804, 0833, Parts 1 and 2, the Standards of the Deutsches Institut für Normung DIN 14 675, DIN EN 54 and the Guidelines of the Association of Property Insurers, VdS Form 2095.

The range of applications of such systems is practically unlimited and is usually defined by building regulations. Fire alarm systems with automatic detectors protect buildings continuously and detect outbreaks of fire in their initial stages.

The LOOP 500 Detector control and indicating equipment described here meets all relevant requirements.

Design features

The detector control and indicating equipment of the LOOP 500 system comprises the following components:

Wall-mounted housing with the following components:
- Power supply 24 V DC, 8 A
- Control panel in 14 different European language versions
- Motherboard for loops 1 & 2

Options:
- Expansion board for loops 3 & 4
- Relay board with 12 relays
- Drive board for TU, FBF and FSK
- Alarm device board with 8 monitored control lines

General features

Each loop of the address network can be fitted with 126 devices. These devices may be: automatic detectors or manual call points, input/output devices, adapters for conventional threshold value detectors, short-circuit isolators or addressed warning lights. Any number of spurs can be branched off the loops, although the total number of addressed devices cannot exceed the figure of 126 per loop.

Zones of older ZETTLER® systems can be integrated into the loops via adapters. Each loop can be divided up into as many as 32 zones. Inter-loop cross-zoning can be programmed as freely as detector circuit double-knock operations. A total of 127 zones can be formed. The control panel contains described function keys and user guidance is provided via the 2-line, 40-digit illuminated display. Each event (alarm, fault, disablement etc.) can be freely assigned through programming to the outputs (transmission units, control lines, relay outputs etc.). An A4 printer and a parallel control panel can be networked with the control and indicating equipment via serial interfaces. Programming is carried out via an interface using any PC and the LOOP 500 programming software.

The event memory can store 100 messages

The LOOP 500 detector control and indicating equipment is supplied as a wall-mounted unit in various national versions:

Country versions

The LOOP 500 fire alarm system and parallel control and indicating unit are supplied as a wall-mounted control panel in different country versions:

	Fire alarm system		**Parallel control and indicating unit**	
Designation	**Order No.**	**Part.-No.**	**Order No.**	**Part.-No.**
LOOP 500, Version GB	541.103	213 119	541.127	217 949
LOOP 500, Version D	541.101	213 117	541.125	217 947
LOOP 500 for zone display panel, Version D	541.200	222 440	–	
LOOP 500, Version F	541.102	213 118	–	
LOOP 500, Version NL	541.104	213 120	541.128	217 959
LOOP 500, Version E	541.105	213 121	–	
LOOP 500, Version I	541.106	213 122	–	
LOOP 500, Version CH/D	541.206	222 446	571.043	224 131
LOOP 500, Version CH/F	541.207	222 447	571.045	224 132
LOOP 500, Version CH/I	541.208	222 448	571.044	224 133
LOOP 500, Version PL	541.111	213 127	–	
LOOP 500, Version CR	541.112	213 109	–	
LOOP 500, Version B/V	541.113	218 026	541.137	218 024
LOOP 500, Version B/F	541.114	218 027	541.138	218 025
LOOP 500, Version H	541.193	228 686	–	

Product *Ordering data* *Illustration*

LOOP 500 control panel

Order-No. **541.101**
Ident-No. **213 117**

The following modules are installed:
- Control panel circuit board with main computer
- Power supply
- Motherboard with terminals for loops 1 & 2

The central computer controls the other system computers, the power supply and the inputs and outputs via the control panel.

As well as the loop terminals, the motherboard also has four monitored and two unmonitored outputs, plus terminals for the expansion board, relay board, drive board for TU/FBF and FSK and alarm device board. In addition, two monitored control lines to DIN 0833 Part 2 are provided for monitored activation of fire protection systems of alarm devices. The loop is 1000 metres long with the maximum number of devices connected.
Two RS 422/RS 485 interfaces and one RS 232 interface are provided for connection of an external A4 printer.

Options...	Order-No.	Ident-No.
Expansion board	541.115	213 128
Relay board	541.117	213 130
TU/FBF Drive board	541.116	213 129
Alarm device board	541.118	213 131

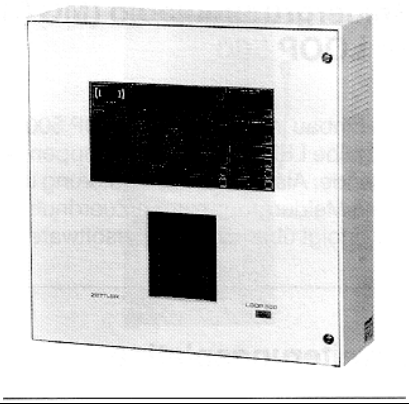
The LOOP 500 fire alarm system is available in different country versions, see overview on page 3.

Technical Data	
Mains voltage	AC 220 V ± 15 %
Mains frequency	48 Hz...63 Hz
Connected load	max. 400 VA
Rated system voltage	DC 24 V ± 15 %
Rated current	8 A
Quiescent current consumption	190 mA
Loop:	
Length	max. 1000 m
Line resistance	max. 100 Ω
Capacitance	max. 120 nF
Control line DIN 0833 Part 2	
– Control voltage	DC 24 V
– Internal resistance of the device to be controlled	200 to 1000 Ω
– Line resistance per wire	max. 50 Ω
Protection class to EN 60950/VDE 0850	I
Housing protection type to EN 60529	IP 30
RFI suppression to EN 55022/VDE 0878 Pt. 1	Cl. B
Housing colour	pearl white (RAL 1013)
Ambient temperature	-5...+45 °C
Climatic conditions to EN 60 721-3-3	3K5
Weight	approx. 20 kg
Dimensions (WxHxD)	600 x 600 x 200 mm
Approvals	
VdS	G 295 052

Product	*Ordering data*	*Illustration*

LOOP 500 Fire alarm system for zone display panel

Order-No. **541.200**
Ident-No. **222 440**

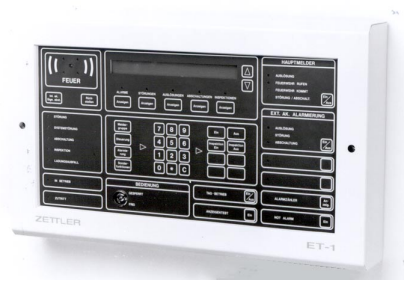


The control panel is equipped as shown on page 4, but with an additional zone display ZDP/L. Via red and yellow LEDs, this indicates the relevant status of up to 64 zones.

Technical Data
As shown on page 4

LOOP 500 parallel control and indicating unit in housing

Order-No. **541.125**
Ident-No. **217 947**



The parallel control and indicating unit is connected via a serial interface to the control panel. It allows all operations to be carried out from an external location.
It comprises a housing, the German control and indicating unit and an interface board.

Technical Data

Voltage supply from control panel	DC 20...30 V
Power consumption	approx. 100 mA
Ambient temperature – Operation	0...+50 °C
Relative humidity	≤ 93 %, (non-condensing)
Protection type	IP 30
Colour	white (RAL 1013)
Dimensions (W x H x D)	420 x 255 x 68 mm
Weight	4.6 kg
2 serial interfaces	
Baud rate	9600 bd
Line resistance	max. 100 Ω
Line capacitance	max. 100 nF
Line length	max. 1000 m

Approvals

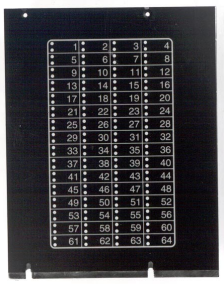
VdS	G 295 052

The LOOP 500 control and indicating unit is available in different country versions, see overview on page 3.

Product	*Ordering data*	*Illustration*

Zone display (ZDP/L) for LOOP 500

Order-No. / Ident-No. **541.157 / 219 019**

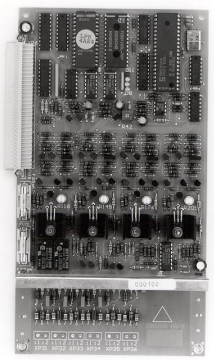


For installation in the LOOP 500 control panel. The display panel contains 64 red and amber LEDs for 64 detector zones.

The following conditions are indicated:
Alarm, initial alarm, fault and disablement of the various detector zones.
The detector zones are assigned to the LEDs via the operating software.

Expansion board DV-1

Order-No. / Ident-No. **541.115 / 213 128**



This contains the connections for loops 3 & 4 and two additional monitored control lines according to DIN 0833 Part 2. A multi-pin connector establishes the link with the motherboard.

Technical Data

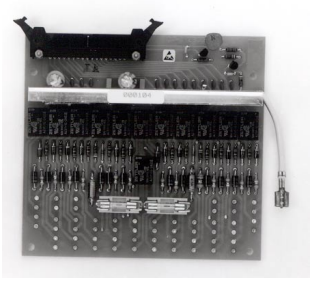
Rated system voltage	DC 24 V
Quiescent current consumption	50 mA
Loop:	
Length	max. 1000 m
Line resistance	max. 100 Ω
Capacitance	max. 120 nF
Control line DIN 0833 Part 2	
– Control voltage	DC 24 V
– Internal resistance of the device to be controlled	200 to 1000 Ω
– Line resistance per wire	max. 50 Ω
Ambient temperature	-0...+60 °C
Weight	approx. 0.270 kg
Dimensions (WxHxD)	125 x 230 x 30 mm

Approvals

VdS	G 295 052

Relay board DR-1

Order-No. / Ident-No. **541.117 / 213 130**



This contains 12 freely programmable relays with volt-free changeover contacts. 12 open collector outputs are provided in parallel with the relays. Connection terminals for the DC 24 V supply voltage are provided for external consumers.

Technical Data

Rated system voltage	DC 24 V
Quiescent current consumption	50 mA
Number of controllable relays & OC outputs	12
Power consumption per activated relay	12 mA
Contact rating	max. 40 V, 1 A, 30 W
Rating of one OC output	DC 24 V, max. 100 mA
Voltage outputs DC 24 V	
– via fuse F4A	2
– via fuse F1A	2
Ambient temperature	-0...+60 °C
Weight	approx. 0.180 kg
Dimensions (WxHxD)	131 x 122 x 35 mm

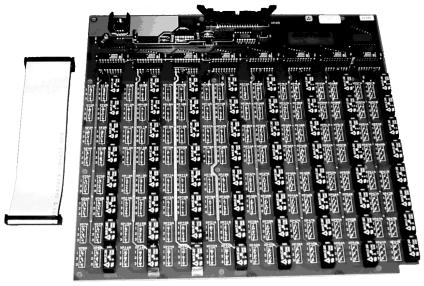
Approvals

VdS	G 295 052

Product	*Ordering data*	*Illustration*

Relay board with 64 relays DR-2

Order-No. / Ident-No. **541.190 / 221 891**



This board has 64 relays, with which the alarm or fault condition of 64 zones can be indicated. Each relay has two volt-free changeover contacts. The alarm or fault indication setting is determined uniformly by a jumper for all relays.

The board is housed in the control panel instead of 2 DR-1 relay cards and is connected to the motherboard via a ribbon cable.

The 3-pin plug-in connections for the relay contacts are not included in the delivery and must be ordered separately if required.

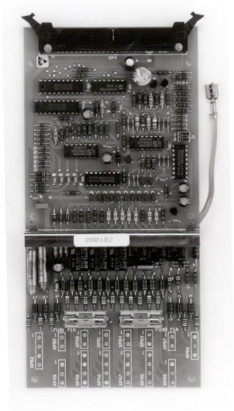
	Order-No.	Ident-No.
Solder connection, 3-pin	530.378	117 424
Push-to-clamp terminal, 3-pin	093.585	183 574

Technical Data

Rated system voltage	DC 24 V
Quiescent current consumption	0 mA
Power consumption per activated relay	30 mA
Contact rating	max. 40 V, 1 A, 30 W
Weight	approx. 0.85 kg
Dimensions (WxHxD)	295 x 275 x 20 mm

Drive board for transmission unit, FSK and FBF – DRO-1

Order-No. / Ident-No. **541.116 / 213 129**



The drive board controls a TU and contains the terminals for a control device for the fire brigade key box (key cabinet) (FSK) by means of the FSK control device and an external fire brigade control panel (FBF) to DIN 14661.

Technical Data

Rated system voltage	DC 24 V
Quiescent current consumption	50 mA
Current consumption per activated relay	12 mA
Ambient temperature	-0...+60 °C
Weight	approx. 0.180 kg
Dimensions (WxHxD)	98 x 204 x 35 mm

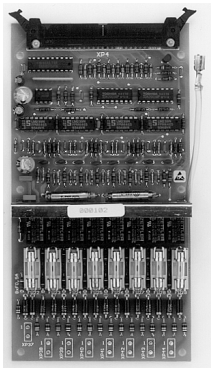
Approvals

VdS	G 295 052

Product	*Ordering data*	*Illustration*

Alarm device board DS-1

Order-No. / Ident-No. **541.118 / 213 131**



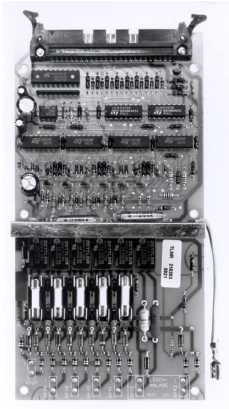
The alarm device board incorporates 8 freely programmable monitored relay outputs. These are used for the monitored control of audible/visual alarm devices or fire control systems.

Technical Data

Number of outputs	8
Standby current	12 mA
Current consumption per relay	30 mA
Current consumption per terminal resistor	2 mA
Short-circuit indication at loop resistance	< 4.3 kΩ
Open-circuit indication at loop resistance	> 5.6 kΩ
Reset time	approx. 1 sec.
Output fuse protection	F500 mA
Loop resistance per wire	max. 100 Ω
Terminal loop resistance	4.7 k Ω
Control voltage	max. DC 27.6 V
Control current	max. 0.5 A
Control power	max. 13.8 W
Weight	approx. 0.195 kg
Dimensions (WxHxD)	98 x 191 x 35 mm

Alarm device board / VdS extinguisher control DS-2

Order-No. / Ident-No. **541.124 / 218 263**



This alarm device board contains 5 freely programmable, monitored relay outputs to control audible/visual alarm devices or fire incident controls, along with a VdS standard interface to control an extinguisher system.

Technical data: Monitored relay outputs

End-of-line resistance	4.7 k Ω
Line resistance per wire	max. 100 Ω
Short circuit indicator for line resistance	< 4,3 kΩ
Open circuit indicator for line resistance	> 5.6 kΩ
Output fuse	F500 mA
Current consumption per end-of-line resistor	2 mA
Current consumption per relay	30 mA
Control voltage	max. DC 27.6 V
Control current	max. 0.5 A
Control power	max. 13.8 W
Reset time following alarm	approx. 1 second

Technical data: VdS standard extinguisher interface
According to guidelines VdS 2496, Part 1

Technical data, general

Number of monitored relay outputs	5
Number of VdS extinguisher interfaces	1
Standby current	12 mA
Weight	approx. 0.195 kg
Dimensions (WxHxD)	98 x 191 x 35 mm

Approvals

VdS	G 295 052

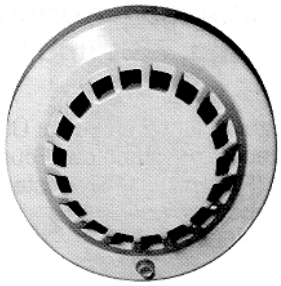
Product	*Ordering data*	*Illustration*

Ionisation smoke detector (IR3-M1)

Order-No. 561.010
Ident-No. 213 567

Ionisation smoke detector (IR3-M1) French

Order-No. 561.010.F
Ident-No. 218 926



The IR3-M1 is a fire smoke detector for the LOOP 500 and MTG systems. It corresponds to DIN EN 54-7 for fixed-point detectors. It responds to various invisible smoke gases (aerosols) and visible smoke. It is use in a fire alarm system does not require a licence. It is equipped with an automatic test chamber monitor, which sends a signal via the primary loop to the control panel if the test chamber in the LOOP 500 system becomes contaminated or develops a fault.

Technical Data

Voltage supply	
from detection circuit	via base module MS3-M2 (LOOP 500) or: via base module MS3-M1 (MTG)
Power consumption	100 µA
Radiation material	AM 241
Radioactive, internal	0.5 Ci, 18.5 Bq
Monitoring area	max. 120 m²
Wind speed	max. 5 m/s
Installation height	max. 16 m
Ambient temperature	
Storage	-30...+80 °C
Operation	-20...+60 °C
Relative humidity	≤ 95 % (non-condensing)
Response sensitivity	m = 0.15 db/m (EN 54-7)
Protection type	IP 43 (in conjunction with surface-mounting base)
Housing material	ABS
Colour	white (RAL 9010)
Dimensions	ø 100 mm, H = 40 mm
Weight	0.13 kg

Approvals

Qualification approval	NW 806/97
VdS	G 295 039
BAG	1994/5

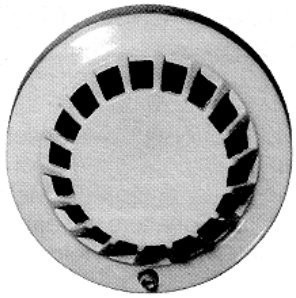
Product	*Ordering data*	*Illustration*

Optical smoke detector (OR3-M1)

Order-No. **561.011**
Ident-No. **213 568**

Optical smoke detector (OR3-M1) French

Order-No. **561.011.F**
Ident-No. **218 927**



The OR3-M1 is a fire smoke detector for the LOOP 500 and MTG systems. It corresponds to DIN EN 54-7 for fixed-point detectors. It responds to visible smoke. It is use in a fire alarm system does not require a licence. It is equipped with an automatic test chamber monitor, which sends a signal via the primary loop to the control panel if the test chamber in the LOOP 500 system becomes contaminated or develops a fault.

Technical Data

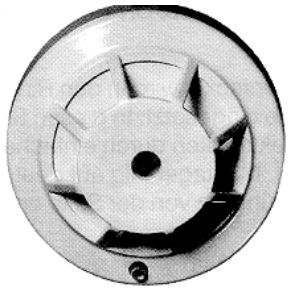
Voltage supply	
from detection circuit	via base module MS3-M2 (LOOP 500) or: via base module MS3-M1 (MTG)
Power consumption	100 µA
Monitoring area	max. 120 m²
Wind speed	unlimited
Installation height	max. 16 m
Ambient temperature	
Storage	-30...+80 °C
Operation	-20...+60 °C
Relative humidity	≤ 95 % (non-condensing)
Response sensitivity	m = 0.15 db/m (EN 54-7)
Protection type	IP 43 (in conjunction with surface-mounting base)
Housing material	ABS
Colour	white (RAL 9010)
Dimensions	ø 100 mm, H = 40 mm
Weight	0.13 kg

Approvals

VdS	G 295 047

Heat detector (W3-M1)

Order-No. **561.012**
Ident-No. **213 566**



The W3-M1 is a heat detector for the LOOP 500 and MTG systems. It corresponds to DIN EN 54-5, response class 1 for fixed-point detectors with a static response threshold.

Technical Data

Voltage supply	
from detection circuit	via base module MS3-M2 (LOOP 500) or: via base module MS3-M1 (MTG)
Power consumption	60 µA
Monitoring area	max. 30 m²
Installation height	max. 16 m
Ambient temperature	
Storage	-30...+80 °C
Operation	-20...+50 °C
Relative humidity	≤ 95 % (non-condensing)
Response behaviour	EN 54-5, response class 1
Protection type	IP 43 (in conjunction with surface-mounting base)
Housing material	ABS
Colour	white (RAL 9010)
Dimensions	ø 100 mm, H = 40 mm
Weight	0.1 kg

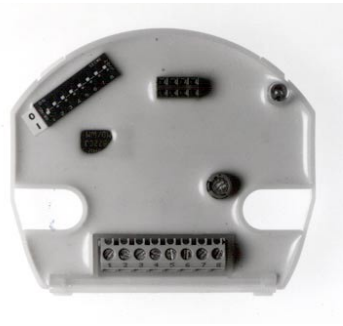
Approvals

VdS	G 295 053

Product	*Ordering data*	*Illustration*

Base module (MS3-M2) LOOP 500

Order-No. / Ident-No. **571.018 217 124**



The base module is used for connecting to the loop or spur of the LOOP 500 system and establishes the connection between the fire detectors (MTG) and primary circuit. Detector addresses are set by means of an 8-pin DILL switch on the module. The following detectors can be accommodated by the module:
OR3-M1, IR3-M1 and W3-M1. All non-addressable indicator lights and signal generator 571.052 can be connected via the parallel indicator.

Technical Data

Voltage supply	
from detection circuit	pulsating 20...36 V
Power consumption, without detector	250 µA
Parallel indicator	6 V pulsating, max. 4 mA
Ambient temperature	
Storage	-30...+80 °C
Operation	-20...+60 °C
Relative humidity	≤ 95 % (non-condensing)
Protection type	IP 43 (in conjunction with surface-mounting base)
Housing material	ABS
Colour	white (RAL 9010)
Dimensions	ø 100 mm, H = 23 mm
Weight	0.095 kg

Approvals

VdS	Corresponding to IR3-M1, OR3-M1 and W3-M1

Detector base (MS3)
for detection network DN and address network AN

Order-No. / Ident-No. **571.011 203 667**

The detector base is installed in the loops or spurs of both networks. The various base electronic components are inserted into this base in a simple manual operation (no tools required). Can be installed on German type 55 installation socket.
Cable insertion from the side or from behind.

Technical Data

Material	ABS
Colour	white (RAL 9010)
Dimensions	ø 100 mm, H = 11 mm
Weight	0.03 kg

Surface-mounting base (MS3-S1) ZETFAS, LOOP 500, MTG

Order-No. / Ident-No. **571.014 217 195**

For use with surface-mounted cabling in the installation duct. Can be installed on German type 55 installation socket. Cable insertion via screwed glands. Detector base MS3 is attached to the surface-mounting base.

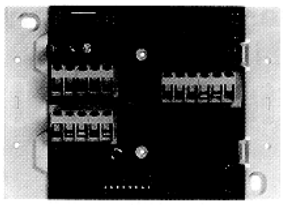
Technical Data

Material	ABS
Colour	white (RAL 9010)
Screwed glands	ø 11 mm
Dimensions	ø 106 mm, H = 26 mm
Weight	0.041 kg

Product	*Ordering data*	*Illustration*

Input/output device (IOM/L) LOOP 500

Order-No. / Ident-No. **571.049 / 217 960**



For use in the address network of the LOOP 500 fire alarm system. As a network component, it is a device with its own address. This device requires a 24 V auxiliary voltage for operation and, if a voltage failure occurs, this is signalled to the control panel as a fault in this device.

It can be operated as an input device with a monitored detection circuit or as an output device with a monitored or unmonitored control line. A relay contact forms the monitored or unmonitored output. If it is operated as a "monitored output", the polarity of the control voltage on the relay is reversed when the control command is activated (polarity reversal).

Faults such as open circuit or short circuit on the monitored input or output are transmitted with the device number to the control panel.

Technical Data

Voltage supply – from auxiliary voltage	DC 24 V ± 15 %
Power consumption	
from detection circuit	150 µA
from auxiliary voltage	12 mA, 22 mA as standard
Ambient temperature	
Storage	-30...+80 °C
Operation	-20...+60 °C
Relative humidity	≤ 95 % (non-condensing)
Protection type	IP 30
Housing material	ABS
Colour	white (RAL 9010)
Dimensions (W x H x D)	120 x 85 x 24 mm
Weight	0.03 kg
Monitored output:	
Voltage/current	DC 24 V max. 1 A
Terminal resistance	1.5 kΩ, 0.6 W
Line resistance	max. 100 Ω
Unmonitored output:	
Relay contact load	max. 40 V / 1 A / 30 W
Monitored input:	
Terminal resistance	1.5 kΩ, 0.6 W
Activation resistance	332 Ω/0.6 W in parallel with terminal resistance
Line resistance	max. 100 Ω

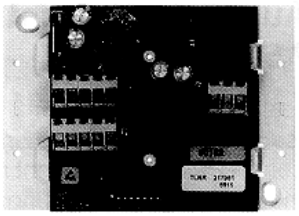
Approvals

VdS	G 296 029

Product	*Ordering data*	*Illustration*

Zone monitor unit (ZMU/L) LOOP 500

Order-No. / Ident-No.: **571.050 / 217 961**



For use in the address network of the LOOP 500 fire alarm system. As a network component, it is a device with two addresses. This device requires a 24 V auxiliary voltage for operation and, if a voltage failure occurs, this is signalled to the control panel as a fault in this device.

It is used to connect conventional 2-wire limit-value detectors to the address network. Both automatic detectors and manual call points can be connected to the conventional detection circuit. Faults such as open circuit or short circuit on the detection circuit and detector faults are transmitted to the control panel.

Technical Data

Voltage supply – from auxiliary voltage		DC 12...24 V
Power consumption		
from detection circuit		max. 500 µA, 6 mA in alarm mode
from auxiliary voltage		5 mA
Ambient temperature		
Storage		-30...+80 °C
Operation		-20...+60 °C
Relative humidity		≤ 95 % (non-condensing)
Protection type		IP 30
Housing material		ABS
Colour		white (RAL 9010)
Dimensions (W x H x D)		120 x 85 x 24 mm
Weight		0.1 kg

Approvals

VdS		G 296 029

Detection circuit:		
Line voltage		20.2 ... 22.2 V
Terminal resistance		1.5 kΩ, 0.6 W
Line resistance		max. 100 Ω
Unmonitored output:		
Relay contact load		max. 40 V / 1 A / 30 W
Monitored input:		
Terminal resistance		
either		2.2 kΩ ± 5 %, 0.5 W
or		4.7 kΩ ± 5 %, 0.5 W
Line resistance	R_E 2.2 kΩ	max. 100 Ω
	R_E 4.7 kΩ	max. 250 Ω

Product	*Ordering data*	*Illustration*

DIN Manual call point

Order-No. / Ident-No. **551.010 213 115**

Manual call point according to DIN 14655 G.
Labelling German, inscription "**Feuerwehr**", colour red.
Plastic housing, for surface mounting and on installation socket.
Cable entries:
Holes are provided in the rear panel. Above and below, one PG11 with screwed glands for cables and closure.
Door opens to the right, with glass panel. Can only be closed in alarm standby mode.

Technical Data

Voltage supply – from detector loop	pulsating 20...36 V
Power consumption	250 µA
Housing material	plastic
Deformation resistance	max. 215 °C
Housing colour	signal red, RAL 3001
Loop system	2-wire
Connection terminals for	max. 2.5 mm²
Ambient temperature	
Storage	-30...+80 °C
Operation	-20...+60 °C
Relative humidity	≤ 95 %
Protection type	IP 54
Dimensions (W x H x D)	135 x 135 x 34 mm
Weight	approx. 0.320 kg

"Out of order" sign and connection plan included.

Approvals

VdS	G 296 001

DIN Manual call point

Order-No. / Ident-No. **551.013 216 773**

Manual call point according to DIN 14655 G.
Labelling German, inscription "**Hausalarm**", colour red.

Description and technical data same as 551.010.

DIN Manual call point

Order-No. / Ident-No. **551.012 216 772**

Manual call point according to DIN 14655 G.
Labelling and inscriptions i**nternational symbols,** colour red.

Description and technical data same as 551.010.

Product	*Ordering data*	*Illustration*
Manual call point TL-1, DIN, Berlin Order-No. / Ident-No. Manual call point according to DIN 14655 G. Labelling German, inscription "**Brandmelder**", colour red. Description and technical data same as 551.010.	**551.027** **225 750**	
DIN Manual call point Spanish Order-No. / Ident-No. Manual call point according to DIN 14655 G. Labelling Spanish, inscription "**Disparo de Extincion**", colour yellow Description and technical data same as 551.010.	**551.014** **216 774**	
DIN Manual call point French Order-No. / Ident-No. Manual call point according to DIN 14655 G. Labelling French, inscription "**Bloqueo de Extincion**", colour blue Description and technical data same as 551.010.	**551.015** **216 775**	
Manual call point LOOP 500 Order-No. / Ident-No. Manual call points to DIN 14654, Form H, and EN 54, Part 11. For use in the address network (AN) and for external areas. Labelled **"Feuerwehr".** Equipped with a test mode circuit and an externally visible red detector LED which indicates the current detector condition. Light-metal, plastic-coated housing for surface-mounting. Perforations already made in the rear wall. One PG 11 in each case above and below with cable and sealing glands. Door to be opened downwards, with glass panel. Can only be closed in alarm standby condition.	**551.023** **222 695**	

Technical Data

Voltage supply – from detection circuit	pulsating 20...36 V
Power consumption	250 µA
Loop system	2-wire
Ambient temperature	
Storage	-30...+80 °C
Operation	-20...+60 °C
Relative humidity	≤ 95 %
Protection type	IP 54
Housing material	aluminium
Colour	red (RAL 3001)
Dimensions (W x H x D)	135 x 135 x 34 mm
Weight	approx. 0.550 kg

Product	*Ordering data*	*Illustration*

Manual call point LOOP 500

Order-No. Ident-No. **551.024 222 696**

Manual call points to DIN 14654, Form H, and EN 54, Part 11.

For use in the address network (AN) and for external areas.

Labelled **"international symbol".**

Equipped with a test mode circuit and an externally visible red detector LED which indicates the current detector condition.

Light-metal, plastic-coated housing for surface-mounting.

Perforations already made in the rear wall. One PG 11 in each case above and below with cable and sealing glands.

Door to be opened downwards, with glass panel. Can only be closed in alarm standby condition.

Technical Data

Voltage supply – from detection circuit	pulsating 20...36 V
Power consumption	250 µA
Loop system	2-wire
Ambient temperature	
Storage	-30...+80 °C
Operation	-20...+60 °C
Relative humidity	≤ 95 %
Protection type	IP 54
Housing material	aluminium
Colour	red (RAL 3001)
Dimensions (W x H x D)	135 x 135 x 34 mm
Weight	approx. 0.550 kg

Spring button call point

Order-No. Ident-No. **551.011 213 116**

Manual call points for use in the address network (AN) and to EN 54 Part 11.

Labelled glass panel with "**international symbols**" printed on the housing.

Activated by breaking the glass panel. Surface mounting with surface-mounting frame 551.011.

Technical Data

Voltage supply – from detection loop	pulsating 20...36 V
Power consumption	250 µA
Housing material	plastic
Housing colour	signal red, RAL 3001
Loop system	2-wire
Connection terminals for	max. 2.5 mm²
Ambient temperature	
Storage	-30...+80 °C
Operation	-20...+60 °C
Relative humidity	≤ 95 %
Protection type	IP 44
Dimensions (W x H x D)	87 x 87 x 32 mm
Weight	approx. 0.105 kg
VdS-approved	Test Report BMA 96009

Product	*Ordering data*	*Illustration*

Short-circuit isolator LOOP 500

Order-No. 561.021
Ident-No. 220 447

For use in a loop of the LOOP 500 system.

A maximum of 16 isolators are possible, irrespective of the number of devices on a loop. If a short circuit occurs, the isolator independently disconnects the loop segment concerned. This process is transmitted as a message to the control panel. When the short circuit is eliminated, the loop segment is automatically reconnected.

An isolator must be inserted following 32 automatic or 10 manual call points, or when the loop transfers to a different fire section (VdS guideline 2095).

Technical Data

Voltage supply – from detection circuit	pulsating 20...35 V
Power consumption – from detection circuit	max. 2 mA
Ambient temperature	
Storage	-30...+85 °C
Operation	-20...+60 °C
Relative humidity	≤ 95 % (non-condensing)
Protection type	IP 30
Housing material	ABS
Colour	white (RAL 9001)
Dimensions (W x H x D)	120 x 44 x 24 mm
Weight	approx. 0.1 kg
Approvals	
VdS	G 295 056

Short-circuit isolator IZ-1

Order-No. 561.020
Ident-No. 213 114

For use in a loop of the LOOP 500 system.

The maximum number of isolators depends on the number of devices in the loop, see Table:

Number of devices	Max. number of isolators
126	4
100	6
80	10

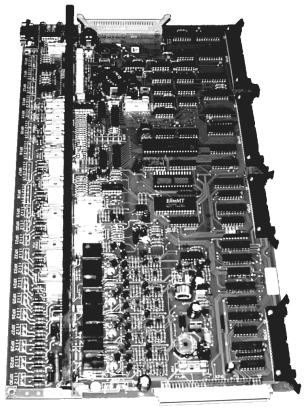
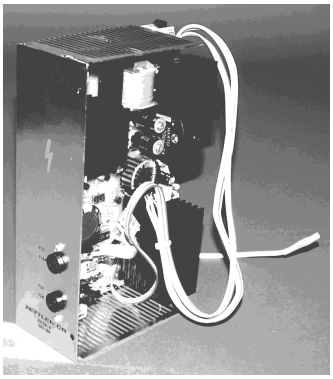
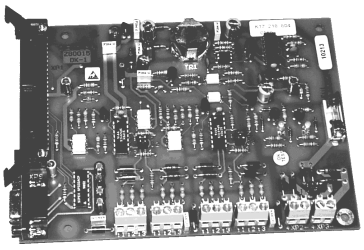
If a short circuit occurs, the isolator independently disconnects the loop segment concerned. This process is transmitted as a message to the control panel. When the short circuit is eliminated, the loop segment is automatically reconnected.

The required use of isolators is stipulated in the national guidelines for fire alarm systems and European standard EN54 Part 13 (currently in draft form).

Technical Data

Voltage supply – from detection circuit	pulsating 20...35 V
Power consumption – from detection circuit	max. 2 mA
Ambient temperature	
Storage	-30...+85 °C
Operation	-20...+60 °C
Relative humidity	≤ 95 % (non-condensing)
Protection type	IP 30
Housing material	ABS
Colour	white (RAL 9001)
Dimensions (W x H x D)	120 x 44 x 24 mm
Weight	approx. 0.1 kg

Product		*Ordering data*	*Illustration*
Addressable indication light LOOP 500 For local display of activated detectors Technical Data Operating voltage Power consumption Colour Dimensions (W x H x D) Weight Approvals VdS	Order-No. Ident-No. DC 6.24 V approx. 10/20 mA white 84 x 84 x 38 mm approx. 0.050 kg G 296 029	**571.048** **217 959**	
Signalling unit Signalling unit for MS3 detectors and sensors. Technical data Operating voltage Current consumption at 12 V at 6 V Frequency Sound pressure at 12 V at distance of 30 cm	Order-No. Ident-No. 6...20 VDC max. 8 mA max. 4 mA 2.2...3.2 kHz approx. 98 dB/A	**571.052** **218 017**	

Product		*Ordering data*	*Illustration*
Motherboard	Order-No. Ident-No.	**541.119** **213 132**	
Control and indicating unit pcb	Order-No. Ident-No.	**541.120** **213 133**	
Power supply unit 24 V DC / 8 A	Order-No. Ident-No.	**541.121** **213 134**	
Interface motherboard DK-1 for parallel control and indicating unit	Order-No. Ident-No.	**541.139** **218 804**	

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