HEAT DETECTOR W/SELFVERIFY - BD-500/EX

Interactive fire detection systems
Product Datasheet

Technical specifications and instructions

Features

- Interactive
- Plug in detector head
- Heat detector intended for use in humid areas
- Short circuit isolator in each detector
- Conforms to EMC directive
- Automatic addressing
- Additional coating of PCB circuit for environmental protection
- Proven technology
- Configurable to class A1, A1R, A2S, B, C
- Unrivalled reliability due to the SelfVerify function Not influenced by dust, humidity, exhaust gases, electromagnetic fields i.e.: radio transmitters, cellular phones, etc.
- EN 54-5/EN 54-17
- Designed to meet the requirement of the major maritime classification societies
- Comprises a built in indicator (LED)

Description / Application

BD-500/EX is a point heat detector for use in hazardous area zone 0, 1 or 2. It must be connected to the approved barrier BZ-500. The detector is designed for use with Autronica's interactive fire detection systems. SelfVerify function ensures the highest grade of reliability. All units comprising this function are automatically tested with a calibrated test once every 24 hours. Additional coating of PCB and sealing of the sensing element makes this detector suitable for rough areas such as heavy industry, maritime and offshore applications. BD-500/EX is often used in areas where the environment is likely to produce false/unwanted alarms from smoke detectors, such as:

- Boiler rooms
- Workshops, etc.
- Refrigeration rooms, etc.

Schedule Drawing
No modifications permitted without reference to the Notified Body

Principle

Temperature measurement by means of a thermistor for registration and reading of temperature at the detector point. Alarms at temperature according to configured class (Ref. table 1).

SelfVerify: the detector's ability to initiate alarm at correct temperature is regularly checked.

Versions

- BD-200* Heat detector standard
- BD-300* Heat detector with SelfVerify
- BD-500* Heat detector with SelfVerify, environmentally protected.
- BD-500/EX Heat detector with SelfVerify, Ex ia version for use in zone 0, 1 and 2

* See separate datasheet.

CE

Technical specifications	
Weight	140 g
Material	Polycarbonate/ABS
Colour	White
Sensitivity	Ref. table 1
Voltage	10 - 27 VDC
Current consumption Stand by:	 < 0,3 mA
Environm. requirement	EN 54-5
Degree of protection	IP44D
Working temperature (Ta)	-20 - +80°C
Storage temperature	-55 - +80°C
Max. application	Ref. table 1
Humidity (non condensing)	Max. 95% RH
Maintenance	None
Service	Replace if faulty
CPD certificate	1134-CPD-018
Certificates	See website
Notified body	Nemko ID No. 0470 CSA
Type examination certificate	NEMKO 03ATEX218X IECEx NEM 11.0009X
Directives and standards	2014/34/EU (ATEX) EN 60079-0:2012 EN 60079-11:2012 IEC 60079-0:2011 IEC 60079-11:2011 2014/30/EU (EMC) Immunity: EN 50130-4:2011 Emission: EN 61000-6-3:2001 CAN/CSA-C22.2 No. 0-10 CAN/CSA-C22.2 No. 205-12 CAN/CSA-60079-0-11 CAN/CSA-60079-1-11 CAN/CSA-60079-11-11 CAN/CSA-C22.2 No. 60529-05 UL 464, 9th Edition UL 60079-0, 5th Edition UL 60079-1, 6th Edition UL 60079-11, 5th Edition ANSI/IEC 60529:2004 ANSI/ISA-60079-26:2011
Ex parameters	Ex II 1G Ex ia IIC T5 Ga Class 1, Zone 0, AEx ia IIC T5 Ga U_i = 15,75V I_i = 63,5mA C_i = 21,6nF L_i = 0 P_i = 0,44W ***Warning**: Do not rub.*

Product Name	Part number	Description
BWA-100	116-BWA-100	Detector base
BDH-500/EX	116-BDH-500/EX	Detector head
BWP-100/20	116-BWP-100/20	Optional conduit box for M20 glands
BWP-100/25	116-BWP-100/25	Optional conduit box for M25 glands

Table 1

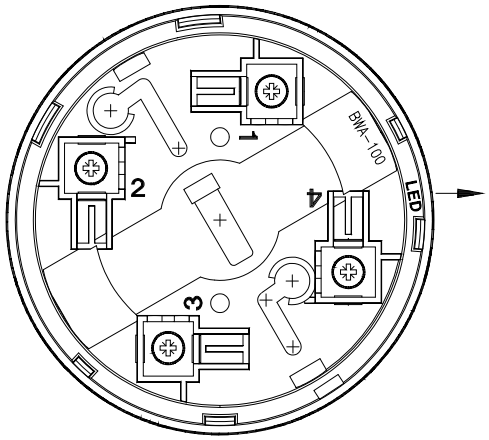
Detector class	Typical application temperature C°	Maximum application temperature C°	Minimum application temperature C°	Maximum static responce temperature C°
A1	25	50	54	65
A1R*	5	50	54	65
A2S*	25	50	54	70
B	40	65	69	85
C	55	80	84	100

* R= Rate of rise.

* S= (Slow) Does not respond below the minimum static response temperature.

Note: The detector may give prewarning on a temperature below the max. application temperature.

Connections



1. - in
2. - out
3. common (+ in, + out)
4. external LED

Dimension Drawing (mm)