

Heat detector with SelfVerify - BD-500/EX

Interactive fire detection systems
Product datasheet

Declaration of conformity 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
- Immune to electromagnetic disturbance
- 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

Applications

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.

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.

Schedule Drawing

No modifications permitted
without reference to the
Notified Body



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	-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-Oslo-Norway ID No. 0470
Type examination certificate	NEMKO 03ATEX218X IECEX NEM 11.0009X
Directives and standards	94/9/EC (ATEX) IEC 60079-0:2007 IEC 60079-11:2006 IEC 60079-26:2006 EN 60079-0:2009 EN 60079-11:2007 EN 60079-26:2007 2004/108/EC (EMC) Emission: EN 50081-1:1992 Immunity: EN 50130-4:1995 EN 61000-6-2:1999
Ex parameters	 II 1G Ex ia IIC T5 Ga U _i = 15,75V I _i = 63,5mA C _i = 21,6nF L _i = 0 P _i = 0,44W



Dimensions

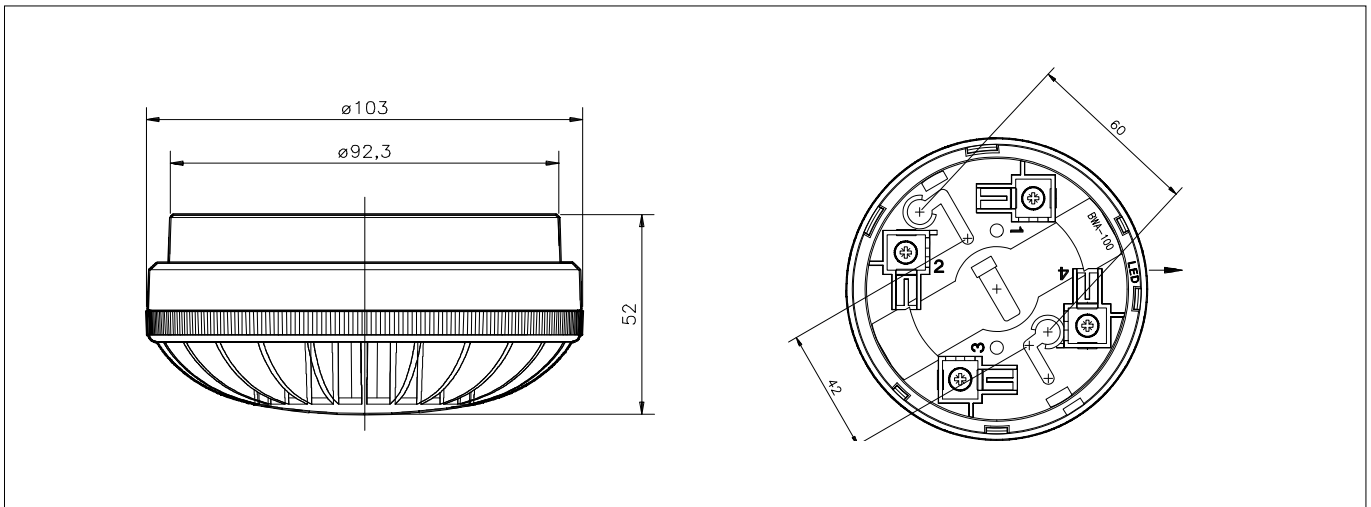


Table 1

Detector class	Typical application temperature °C	Maximum application temperature °C	Minimum static response temperature °C	Maximum static response 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.

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

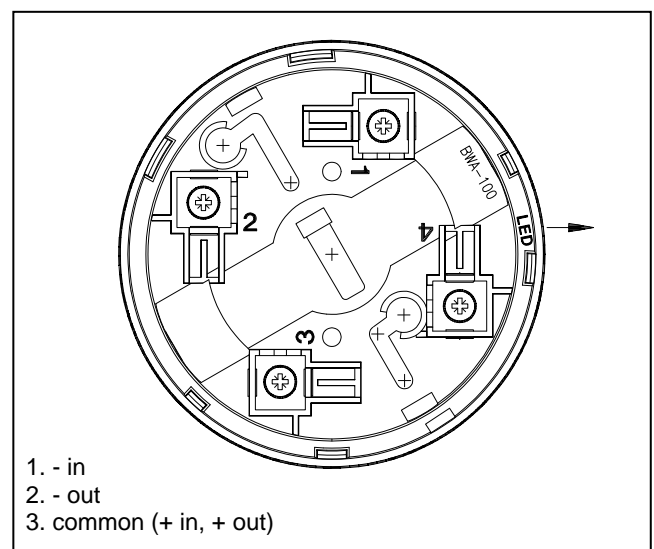
Versions

- 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, Exia version for use in all zones.

* See separate datasheet.

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Connections



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