

HEAT DETECTOR W/SELFVERIFY - BD-500/N

Interactive fire detection systems Product Datasheet

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/N 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.

The detector is for use in hazardous area zone 2. It must be connected to a loop driver approved for zone 2.

BD-500/N 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.

Related Drawing

No modifications permitted
without reference to Ex
Technical Responsible



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.
- BH-500/N Smoke detector with SelfVerify, Ex ic version for use in zone 2

* See separate datasheet.

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 - +70°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 03ATEX217X IECEX NEM 11.0017X
Directives and standards	Refer to Doc-1004552 (Schedule drawing: "Control Drawing/User Manual/Technical Specifications and Instructions") where this information is listed. A link to this document is included on the product page for this product at www.product.autronicafire.com .
Ex parameters	 II 3G Ex ic IIB T4 Gc Class I, Zone 2, AEx ic IIB T4 Gc Warning: Do not rub.
Approvals	www.autronicafire.com

Product Name	Part number	Description
BWA-100	116-BWA-100	Detector base
BDH-500/N	116-BDH-500/N	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

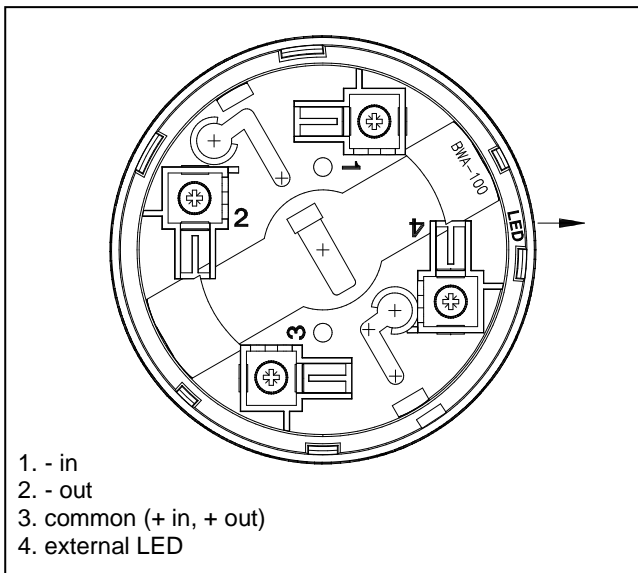
Detector class	Typical application temperature C°	Maximum application temperature C°	Minimum application temperature C°	Maximum static response temperature C°
A1	25	50	54	65
A1R*	5	50	54	65
A2S*	25	50	54	70
B	40	65	69	85
C	55	80	84	100

* R= Rate of rise.

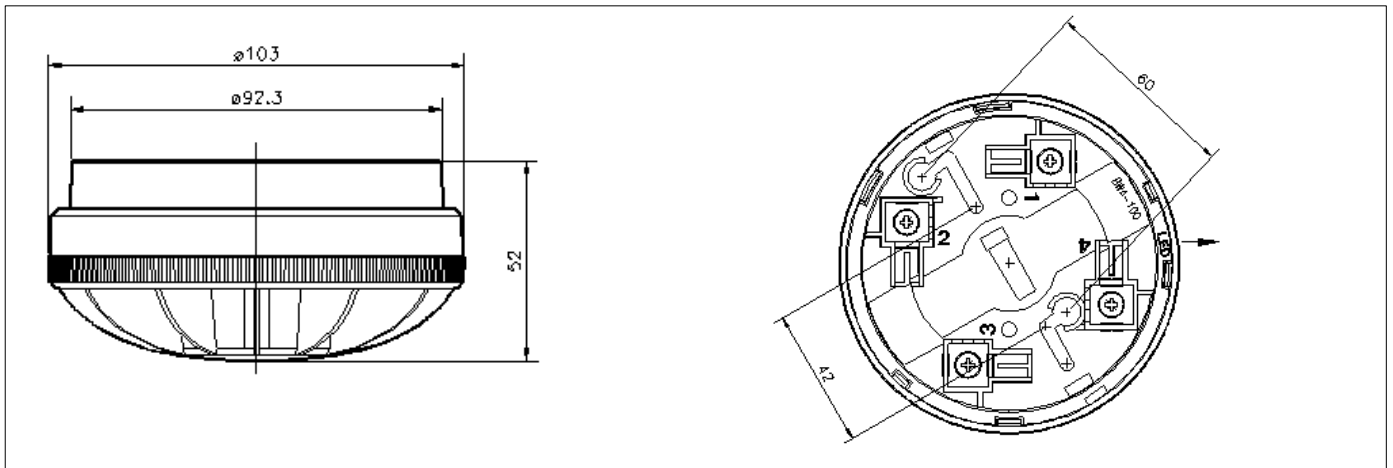
* S= (Slow) Does not respond below the minimum static response temperature.

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

Connections



Dimension Drawing (mm)



Control Drawing

