

# OPTICAL SMOKE DETECTOR W/SELFVERIFY - BH-500/N

## Interactive fire detection systems Product Datasheet

### Technical specifications and instructions

#### Features

- Interactive
- Comprises the DYFI+ adaptive and self-learning functions
- With SelfVerify function for reduced maintenance/testing and increased reliability
- Selective to misleading environmental phenomena that in a traditional system would lead to an unwanted fire alarm
- Detection of visible smoke
- Built in thermistor for reading of temperature at the detector point
- Short circuit isolator in each detector
- Automatic addressing
- Proven technology
- Immune to electromagnetic disturbance
- Additional coating of PCB
- Designed to meet the requirement of the major maritime classification societies
- Comprises a built in indicator (LED)

#### Description / Application

BH-500/N is a point smoke detector. The detector has a built in thermistor and is designed for use with Autronica's interactive fire detection systems, which can provide temperature information from the detector point. The SelfVerify function ensures the highest grade of reliability because all units comprising this function are automatically tested with a calibrated test once every 24 hours.

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

Additional coating of PCB combined with the adaptivity of BH-500/N, is making this detector suitable for industrial, maritime, offshore and other «rough area» applications.

#### Schedule Drawing

No modifications permitted  
without reference to the  
Notified Body



#### Principle


Photoelectric, operating on the light scatter principle.

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

#### Versions

- BH-200\* Smoke detector standard
- BH-300\* Smoke detector with SelfVerify
- BH-500\* Smoke detector with SelfVerify, environmentally protected
- BH-500/S\* High-sensitive smoke detector (not acc. to EN 54)
- BH-500/EX\* Smoke detector with SelfVerify, Ex ia-version for use in zone 0, 1 and 2
- BH-500/S/EX\* Smoke detector with SelfVerify, Ex ia-version for use in zone 0, 1 and 2, with extra high sensitivity
- BH-500/N Smoke detector with SelfVerify, Ex ic version for use in zone 2
- BH-500/S/N High-sensitive version (not acc. to EN 54)

\* See separate datasheet.

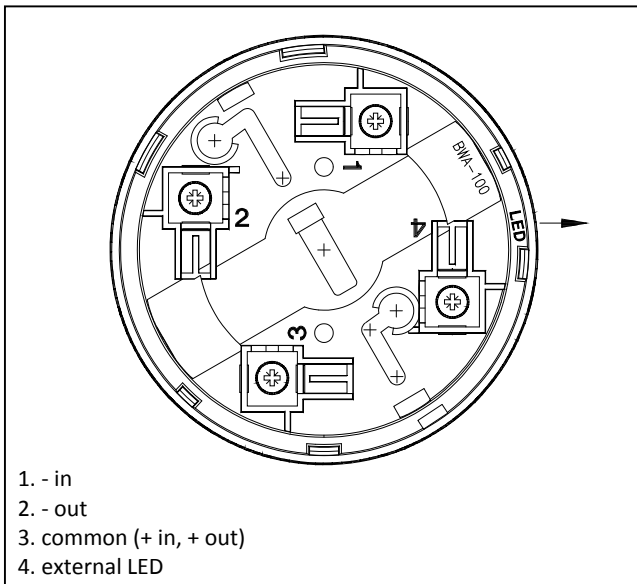
Technical specifications	
Weight	150 g
Material	Polycarbonate/ABS
Colour	White
Sensitivity	See Performance Classes table
Voltage	10 - 27 VDC
Current consumption stand by:	< 0,3 mA
Environm. requirement	EN 54-7
Degree of protection	IP44D
Working temperature (Ta)	- 20 - + 70 °C
Storage temperature	- 55 - + 70 °C
Humidity (non condensing)	Max. 95% RH
Maintenance	None
Service	Replace if faulty
CPD certificate	1134-CPD-016
Certificates	See website
Notified body	Nemko ID No. 0470 CSA
Type examination certificate	NEMKO 03ATEX217X IECEX NEM 11.0017X
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	 II 3G Ex ic IIB T4 Gc Class I, Zone 2, AEx ic IIB T4 Gc  <b>Warning: Do not rub.</b>

Product Name	Part number	Description
BWA-100	116-BWA-100	Detector base
BHH-500/N	116-BHH-500/N	Detector head
BHH-500/S/N	116-BHH-500/S/N	High sensitivity version
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

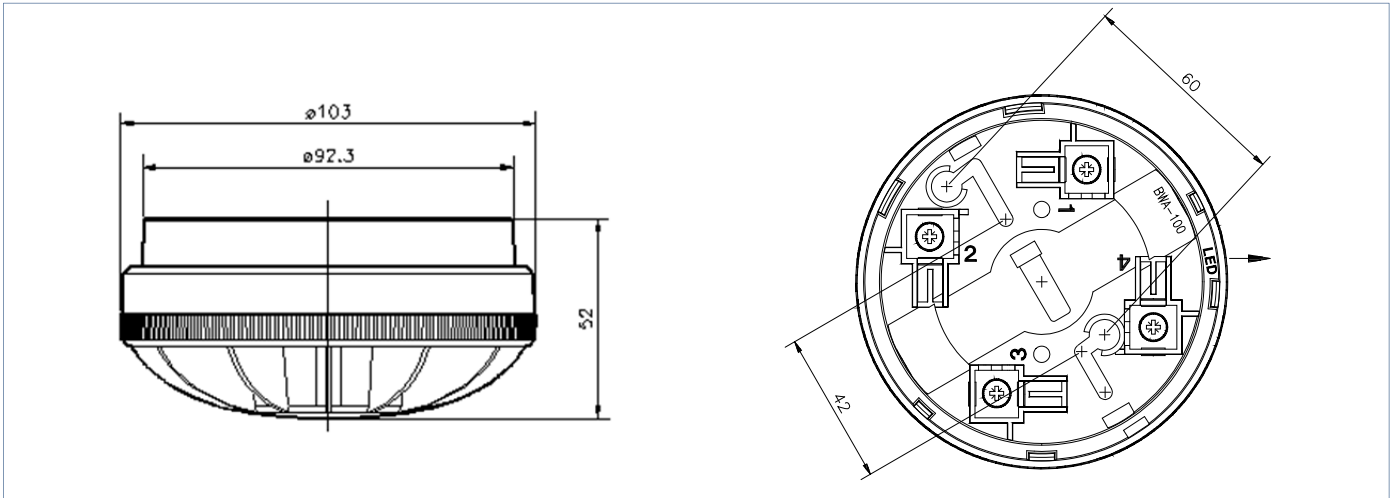
## Performance classes

Performance class	Typical application
Clean	Computer rooms
Normal 1	Offices
Normal 2	Restaurants
Industry	Workshops

## Connections



**Dimension Drawing (mm)**



**Control Drawing**

