

# MultiSensor with SelfVerify - BH-520/EX

Interactive fire detection systems

Product datasheet

## Declaration of conformity and instructions

### Features

- Interactive
- Multisensor detectors ensure fast response to various fire developments
- Smoke detector for detection of combustion gases mainly consisting of visible (large) particles. Heat sensor assisted for early detection of flaming fires
- Comprises DYFI+ adaptive and self learning function
- With SelfVerify function for reduced maintenance/testing and increased reliability
- Built in thermistor for reading of temperature at the detector point
- Selective towards misleading environmental phenomena that in a traditional system would lead to an unwanted fire alarm
- Short circuit isolator in each detector
- Additional coating of PCB
- Automatic addressing
- Proven technology
- Designed to meet the requirement of the major maritime classification societies

### Applications

BH-520/EX is a multisensor detector for use in hazardous area zones 0, 1 or 2. It must be connected the approved barrier BZ-500. A rise in temperature will change the detection platform by increasing the smoke sensitivity in order to improve the detection of combustion gases from flaming fires producing barely a minimum of visible smoke particles. The MultiSensor principle combined with advanced signal processing in the detector ensures an early response to any type of fire development.

BH-520/EX is designed for use with Autronica's interactive fire detection systems.

Additional coating of PCB combined with the adaptivity and the all round smoke sensitivity of BH-520/EX makes this detector suitable for industrial, maritime and offshore applications where there is a potential flaming or/and smouldering fire hazard.

### Principle

Dual - 2 - sensor detector. Photoelectric, operating on the light scatter principle and temperature measurement by means of a thermistor.

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

#### Schedule Drawing

No modifications permitted  
without reference to the  
Notified Body



### Technical specifications

Weight	165 g
Material	Polycarbonate/ABS
Colour	White
Sensitivity	See Table 1
Voltage	10 - 27 VDC
Current consumption stand by	< 0,3 mA
Environm. requirement	EN 54-7
Degree of protection	IP44D
Working temperature	- 20 - +70 °C
Storage temperature	- 55 - +70 °C
Humidity (non condensing)	Max. 95 % RH
Maintenance	None
Service	Replace if faulty
CPD certificate	1134-CPD-017
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	⊕ Ex II 1G Ex ia IIC T5 Ga Ui = 15,75V Ii = 63,5mA Ci = 21,6nF Li = 0 Pi = 0,44W



**Table 1 – Performance classes**

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

**Table 2 – Operation classes**

Operation class	Alarm type
Multisensor w/heat	Smoke alarm or heat alarm
Multisensor	Smoke alarm (heat assisted)
Heat only	Heat alarm (class A1)

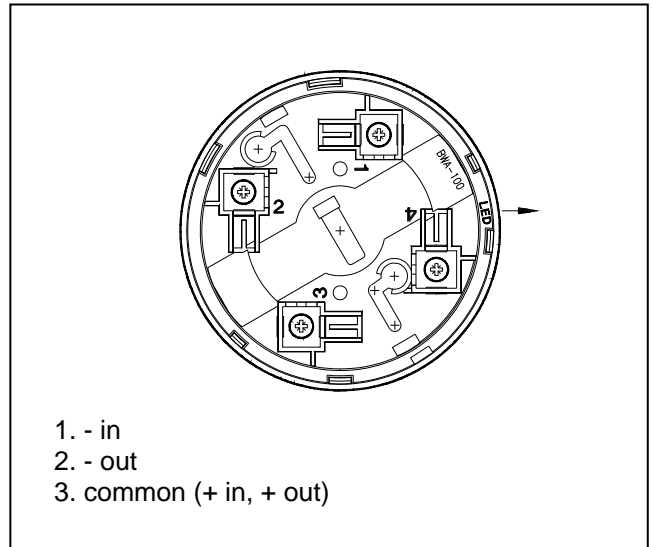
Part number	Description
116-BWA-100	Detector base
116-BHH-520/EX	Detector head
116-BWP-100/20	Optional conduit box for M20 glands
116-BWP-100/25	Optional conduit box for M20 glands

**Versions**

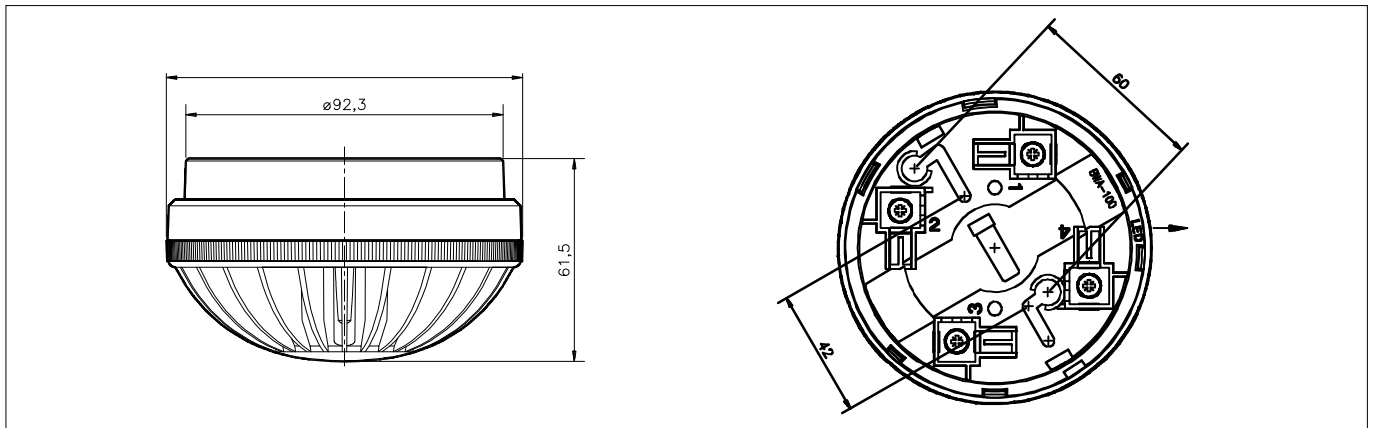
- BH-220\*      MultiSensor, standard
- BH-320\*      MultiSensor with SelfVerify
- BH-520\*      MultiSensor with SelfVerify, environmentally protected
- BH-520/Ex    MultiSensor with SelfVerify, Exia version for use in all zones

\* See separate datasheet

**Connections**



**Dimensions**



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