



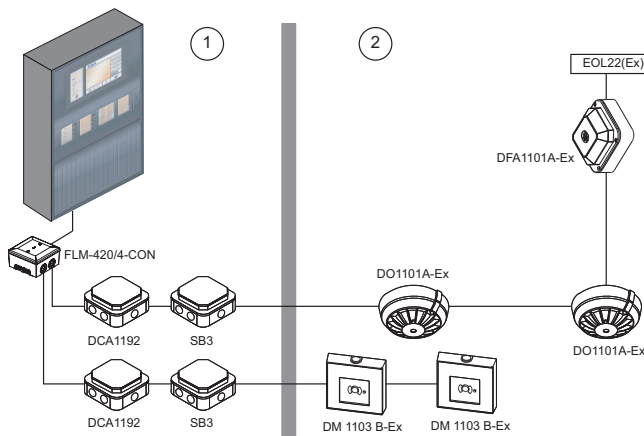
DO1101A-Ex Optical Smoke Detector for Ex Areas



- ▶ **Elegant, compact and robust design**
- ▶ **Deception-proof operating behaviour**
- ▶ **High level of resistance to temperature fluctuations, humidity, corrosion and contamination**
- ▶ **High resistance to interference through current gain**

The DO1101A-Ex is an Optical Smoke Detector for the detection of smoldering and flaming fires in potentially explosive areas in zones 1 and 2.

System Overview



Pos.	Description
1	Non-Ex area
2	Ex area zone 1 or 2

Functions

The optical sensor in the smoke detector uses the scattered-light method. An LED transmits light to the measuring chamber, where it is absorbed by the labyrinth structure. In the event of a fire, smoke enters the measuring chamber and the smoke particles scatter the light from the LED. The amount of light hitting the photo diode is converted into a proportional electrical signal.

The entire electronic system is protected inside the detector. The base is only used for the detector contact.

Certifications and Approvals

Region	Certification
Germany	VdS G 296052 DO 1101A-Ex
	PTB 02 ATEX 2135 DO1101A-Ex
Europe	CE DO 1101A-Ex
	CPD 0786-CPD-20076 DO1101A-Ex
Hungary	TMT TMT-89/09/2004-2010 szamu DO 1101A-Ex
Russia	GOST POCC DE.C313.B06297
	C-CH.IIB13.B.00188 DO1103A-EX

Parts Included

Qty.	Components
1	DO1101A-Ex Optical Smoke Detector

Technical Specifications

Electrical

Operating voltage	16 V DC . . . 28 V DC
Standby current consumption	0.1 mA

Mechanics

Individual display	LED red
Connection terminals	0.2 mm ² . . . 2.5 mm ²

Dimensions (D x H)

- Detector Ø 116 mm x 51 mm
- Detector incl. base Ø 116 mm x 61 mm

Housing material

- Detector Plastic, ABS
- Base Plastic (ASA)

Color (detector and base) White, RAL 9010

Weight incl. base 185 g

Environmental conditions

Protection class as per EN 60529	IP 43
Permissible operating temperature	-25 °C . . . +60°C
Permissible storage temperature	-40°C . . . +75°C
Permissible relative humidity	≤ 95%

Planning

Monitoring area as per EN 54-7 Max. 120 m² (Heed local guidelines!)

Special features

Detection principle Scattered light measurement

Explosion classification in line with IEC 60079 and EN 50020 Exe ib IIC T4 (Ta ≤ 60 °C)

Ordering Information

DO1101A-Ex Optical Smoke Detector for Ex Areas	DO1101A-Ex
Accessories	
Base for DO1101A-Ex Smoke Detector standard Base with integrated rubber seal and terminal block	DO1101A-EX-BASE
DBZ 1191 Additional Base for the standard base of the DO1101A-Ex	DBZ1191
DBZ 1192 Additional Base for Damp Rooms for the standard base of the DO1101A-Ex	DBZ1191+BOX
DBZ 1193A Detector Identification Purchase order quantity must be 10 or multiple of 10.	DOW1171-IDENT
SB3 Safety Barrier incl. DCA1192 Input/Output Module limits the electrical energy between non-inherently safe and inherently safe circuits	SB3

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