



DT1101A-Ex, DT1102A-Ex, DO1101A-Ex

AlgoRex
Synova™

Automatic fire detectors



collective/SynoLINE600, for explosion-hazard area of zones 1 and 2

- **High degree of reliability and stability**
- **High resistance to**
 - electromagnetic interference
 - humidity and corrosion
- **Connection to the detection line via the DC1192 input/output module:**
 - for galvanic isolation in collective/SynoLINE600 fire detection systems
 - for galvanic isolation and connection to the interactive or AnalogPLUS/SynoLOOP fire detection system
- **Comprehensive final examination and quality control**
- **Environmentally safe material**
 - halogen-free plastic material identifiable through embossed code
 - easy to uninstall and disassemble

Smoke detector DO1101A-Ex, collective wide spectrum Ex



- Uniform response behavior for different types of fire
 - New, high performance optoelectronic sensor system
 - High resistance to soiling and temperature fluctuation
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- **Function**
 - Penetrating smoke scatters the light of an infrared beam in the detector. If the light scatter exceeds a certain value, the detector transmits a danger signal to the control unit.
 - Built-in alarm indicator provides on-site signaling of alarm.
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- **Application**
 - For the early warning of smoke-forming flaming fires and smoldering fires in explosion-hazard areas of zones 1 and 2.

Heat detectors DT1101A/02A-Ex



- Response behavior immune to deceptive phenomena with rapid and slow increases in temperature
 - Intelligently designed differential characteristics
 - Maximum temperature alarm activation with quality thermo sensor
 - Reliable heat detector for demanding requirements:
 - DT1101A-Ex: Heat detector with wide application range (up to +50 °C)
 - DT1102A-Ex: Heat detector for high ambient temperatures (up to +70 °C)
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- **Function**
 - The detector measures the ambient temperature with one NTC thermistor and the detector housing temperature with another NTC thermistor. In this way the detector can rapidly and differentially evaluate an increase in temperature independent of the starting temperature.
 - Built-in alarm indicator provides on-site signaling of alarm.
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- **Application**
 - For the monitoring of explosion-hazard areas of zones 1 and 2 where in the event of fire, a rapid increase in temperature can be expected, or other types of detector cannot be used due to operational reasons.

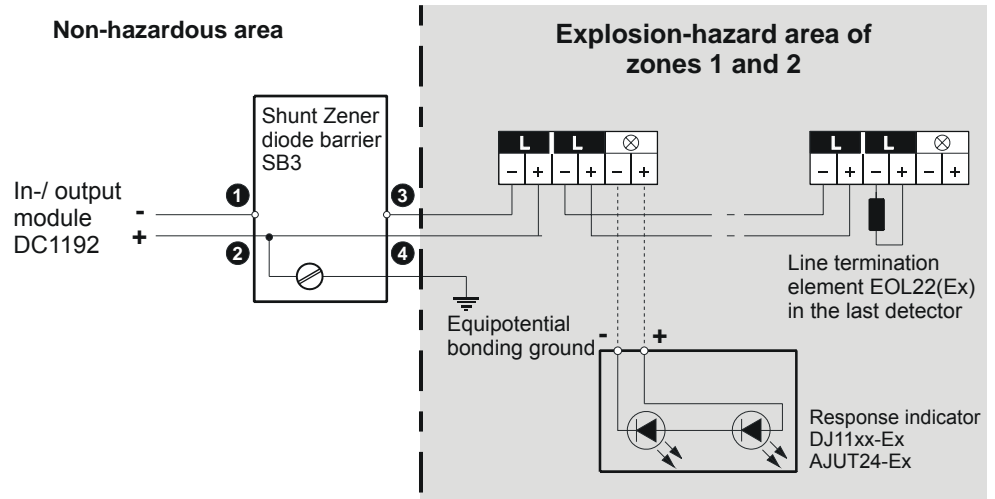
Design

- Mounting with detector base DB1101A
- Range of base accessories for installation even in critical locations
- Connection to the control unit via a two-wire line
- Vibration-proof mounting of detector in the base
- Anti-theft device if required
- One external alarm indicator can be connected
- DO1101A-Ex and DT1101A/02A-Ex fire detectors are designed to the explosion protection category 'Intrinsic safety' EEx i. The standards which cover this are EN50014 (IEC60079-0) and EN50020 (IEC60079-11).

Installation in explosion-hazard areas

Equipment installed in explosion-hazard areas must always comply with local national regulations.

The DC1192 input/output module and the series-connected SB3 shunt Zener diode barrier are used as a galvanic isolation between explosion-hazard and non-hazardous areas.



Further details can be found in the documents:

- Fire protection in explosion-hazard areas, document no. 1204
- Input/output module DC1192, document no. 001571

Maintenance

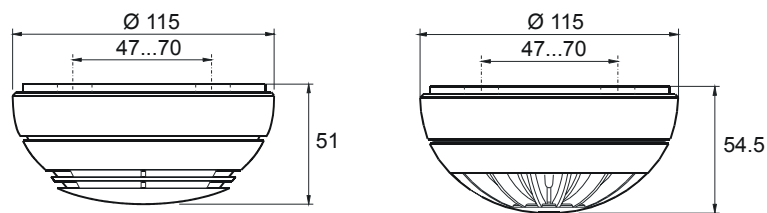
DO1101A-Ex, DT1101A/02A-Ex

- Detectors can be inserted and removed from their bases with a detector exchanger up to a height of 7 m.

DO1101A-Ex

- By means of a periodic factory overhaul (cleaning and re-calibration), smoke detectors are given a new lease of life.

Dimensions



DO1101A-Ex
with base DB1101A

DT1101A/02A-Ex
with base DB1101A

Technical data

	DO1101A-Ex	DT1101A-Ex	DT1102A-Ex
Operating voltage	17... 24 VDC	16... 24 VDC	16... 24 VDC
Operating current (quiescent)	max. 100 µA	max. 100 µA	max. 100 µA
Operating temperature	-25... +60 °C	-25... +50 °C	-25... +70 °C
Storage temperature	-30... +75 °C	-30... +75 °C	-30... +75 °C
Humidity	≤95 % rel.	≤95 % rel.	≤95 % rel.
Protection category IEC60529	IP44	IP44	IP44
Color	white, RAL 9010	white, RAL 9010	white, RAL 9010
Standards			
- for fire detectors	EN54-7	EN54-5: A1R	EN54-5: B
- for explosion-hazard areas	EN50014 (IEC60079-0) EN50020 (IEC60079-11)	EN50014 (IEC60079-0) EN50020 (IEC60079-11)	EN50014 (IEC60079-0) EN50020 (IEC60079-11)
Ex classification	II 2 G EEx ib IIC T4 (-25 °C ≤Ta ≤60 °C)	II 2 G EEx ib IIC T4 (-25 °C ≤Ta ≤50 °C)	II 2 G EEx ib IIC T4 (-25 °C ≤Ta ≤70 °C)
Ex approvals	PTB 02 ATEX 2135 VdS no. G296052 LPCB no. 126am/02	PTB 02 ATEX 2097 VdS no. G296019 LPCB no. 126an/02	PTB 02 ATEX 2097 VdS no. G296019 LPCB no. 126an/04
Connection factor KMK	1.6	1	1
Compatibility	By using the DC1192 input/output module it is compatible with fire detection system control units with collective/SynoLINE600, interactive or AnalogPLUS/SynoLOOP signal evaluation		
QS Standards	Fire protection industry certified quality assurance system according to EN ISO 9001:2000		

DO1101A-Ex

CE 0786
Siemens Schweiz AG, CH-6301 Zug Date: see manufacturing date on the product 0786-CPD-20076
EN 54-7 Point smoke detector; Safety in case of fire DO1101A-Ex Technical data see doc. 1485

DT1101A-Ex

CE 0786
Siemens Schweiz AG, CH-6301 Zug Date: see manufacturing date on the product 0786-CPD-20080
EN 54-5, class A1R Point heat detector; Safety in case of fire DT1101A-Ex Technical data see doc. 1485

DT1102A-Ex

CE 0786
Siemens Schweiz AG, CH-6301 Zug Date: see manufacturing date on the product 0786-CPD-20095
EN 54-5, class B Point heat detector; Safety in case of fire DT1102A-Ex Technical data see doc. 1485

Details for ordering

Type	Part no	Designation	Weight
DO1101A-Ex	5008010001	Smoke detector	0.130 kg
DT1101A-Ex	4852140001	Heat detector	0.105 kg
DT1102A-Ex	4852270001	Heat detector	0.105 kg

Base and accessories see document 001035

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