

HOTSPOT-X0

Sensor Unit and Interface-X1

Infrared heat detector for the industrial sector with approval for explosive gas atmospheres, composed of

- Sensor Unit ADICOS HOTSPOT-X0, with approval for ATEX zone 0,
- ADICOS HOTSPOT-X0 Interface-X1 between the sensor unit and the fire detection system with approval for ATEX zone 1 and 2.

Characteristics

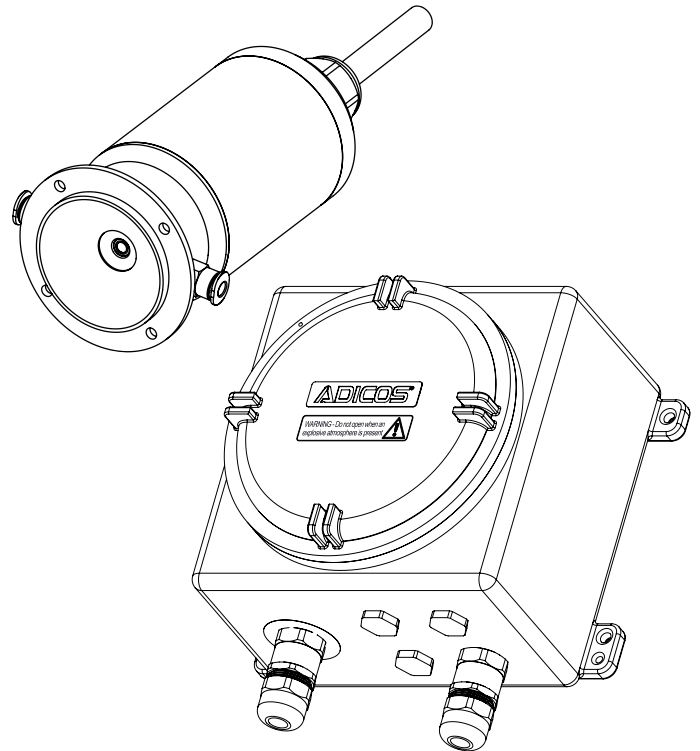
- Robust design with stainless steel enclosure (Sensor Unit) and aluminum enclosure (Interface-X1)
- High resistance to humidity and dust: Sensor Unit IP66/67 and Interface-X1 IP66)
- Central data acquisition and visualization via PC software
- Can be integrated into existing fire alarm systems
- Suitable for process monitoring
- Type-tested both according to ATEX und IECEx

Sensor Unit:

- Detection of embers
- Extremely fast response
- Adjustable alarm thresholds for up to 16 zones
- Independent of building thermal conditions
- Integrated purge air adapter
- Low wiring effort due to common data and power transmission in a pre-wired cable

Applications

- Early fire detection in chemical industry, gas power plants, and in all other areas of explosive gas atmospheres
- Type tested and certified for use in explosive atmospheres according to ATEX and IECEx.
HOTSPOT-X0 Sensor Unit: ATEX-Zone 0, 1 and 2
HOTSPOT-X0 Interface-X1: ATEX zone 1 and 2



The Advanced Discovery System (ADICOS®) is used for early detection of fires in industrial environments. It is comprised of various separate detector units. By parameterizing and arranging the detectors appropriately, the system fulfills a predefined detection goal. The ADICOS system ensures reliable early detection of embers and smoldering fires even in adverse environments.

The ADICOS HOTSPOT-X0 Sensor Unit is an infrared detector unit. In combination with the ADICOS HOTSPOT-X0 Interface-X1 it enables an optical and spatially resolved fire and heat detection in potentially explosive atmospheres of ATEX zones 0, 1, and 2.

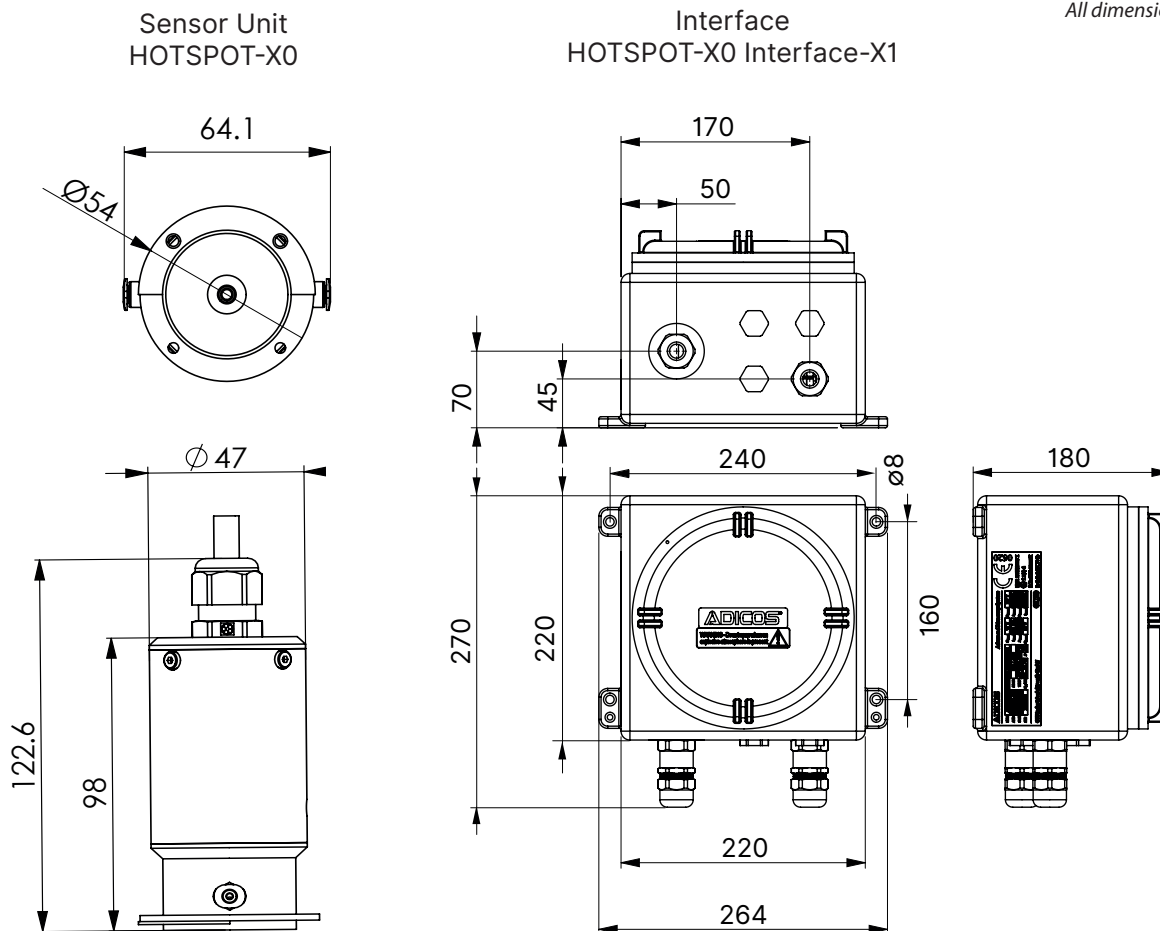
The ADICOS HOTSPOT-X0 Interface-X1 is an interface between the ADICOS HOTSPOT-X0 Sensor Unit and the fire control panel within potentially explosive atmospheres of ATEX zones 0, 1, and 2. Additionally it can be used as a junction box (AAB) within these ATEX zones.

The HOTSPOT-X0 Sensor Unit with the HOTSPOT-X0 Interface-X1 is the world's first IR fire detector with approval for explosive gas atmospheres in ATEX zones 0 to 2.

HOTSPOT-X0 Sensor Unit & Interface-X1 – Spezifikation

Mechanical dimensions

All dimensions in mm



Mechanical characteristics

	Sensor Unit	Interface
Enclosure	Stainless Steel	Aluminum
Weight	0,6 kg (without cable gland)	7,7 kg (Aluminum)
Dimensions	123 mm x 54 mm x 65 mm (Length x Ø Diameter x Width), (Length: cable gland incl., Width: diameter, purge air adapter incl.)	270 mm x 264 mm x 180 mm (Length x Width x Height) (Length: cable gland incl., Width: Mounting brackets incl.)
Degree of protection	IP 66/67	IP 66
Explosionsschutz	Ex II 1G Ex ia IIC T4 Ga	Ex II 2(1)G Ex db [ia Ga] IIC T4 Gb
Device group	II, Kategorie 1G	II, Kategorie 2G

Thermal characteristics

Relative humidity	≤ 95 % RH (non-condensing)	≤ 95 % RH (non-condensing)
Temperature range	-20 ... +65 °C	-20 ... +60 °C

HOTSPOT-X0 Sensor Unit & Interface-X1 – Spezifikation

Characteristics HOTSPOT-X0 Sensor Unit

Purge air

Air purity class Dust ≥ 2 — Water ≥ 3 — Oil ≥ 2 ($< 0,1 \text{ mg/m}^3$)

Air flow 2 ... 8 l/min

Detector characteristics

Sensor resolution 32 Pixel x 31 Pixel

Optical angle $53^\circ \times 52^\circ$

Reaction time $< 1 \text{ s}$

Temporal resolution 0,1 s oder 1 s (je nach Konfiguration)

Electrical characteristics HOTSPOT-X0 Interface-X1

Supply voltage DC 21,6 ... 30 V

Power consumption 5 VA

Internal fusing 750 mA

M-Bus max. line length $\approx 2 \text{ km}$

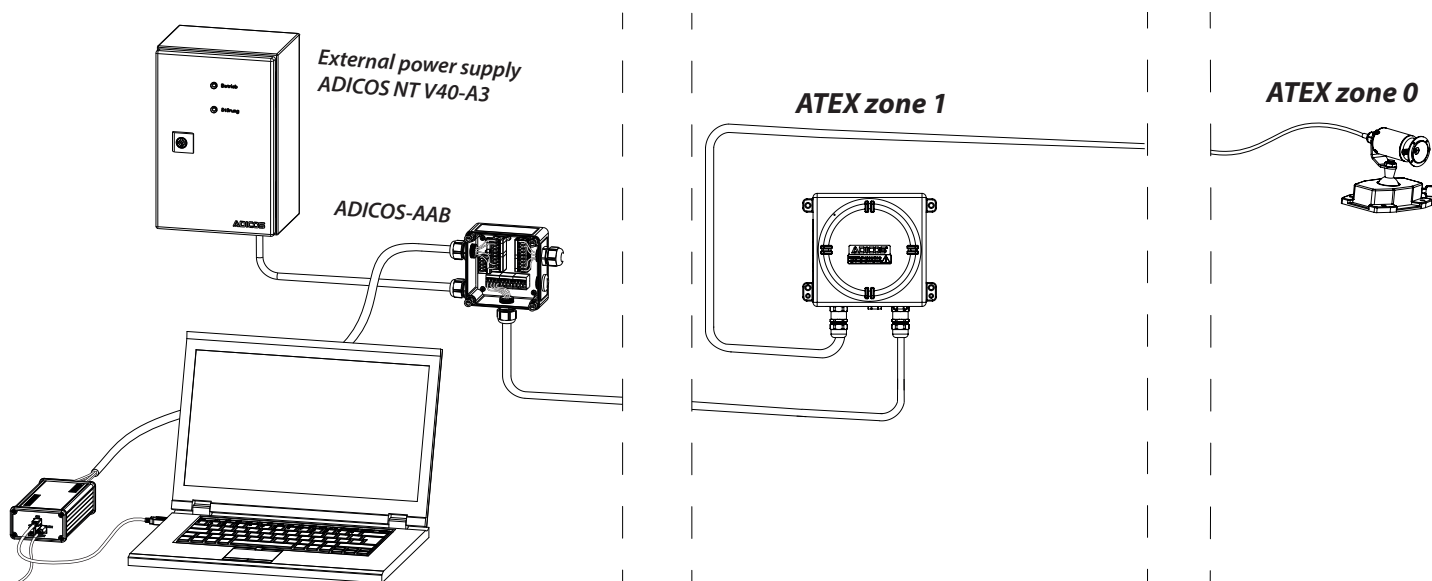
M-Bus max. line capacity $\approx 200 \text{ nF}$

M-Bus baudrate 4800 baud

Limit contact alarm relay 40 V bzw. 20 mA max. (Alarm NO relay)

Limit contact error relay 40 V bzw. 20 mA max. (Error NC relay)

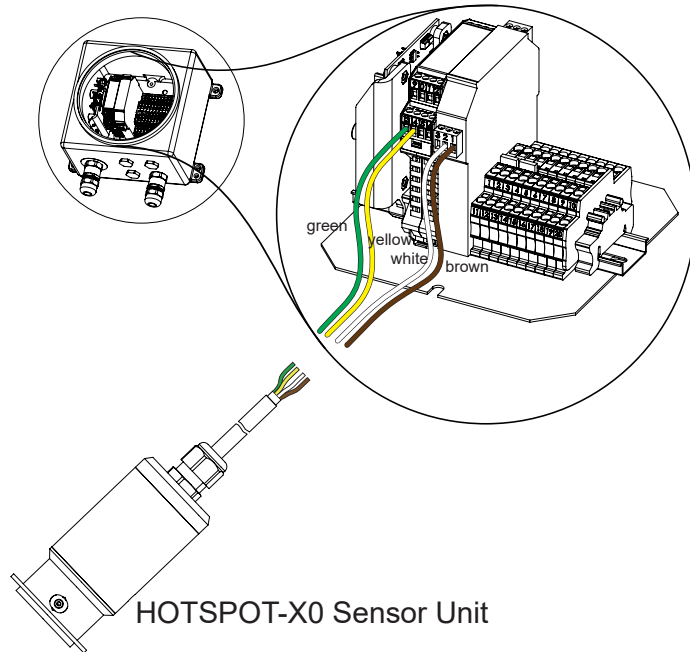
ADICOS topology concept



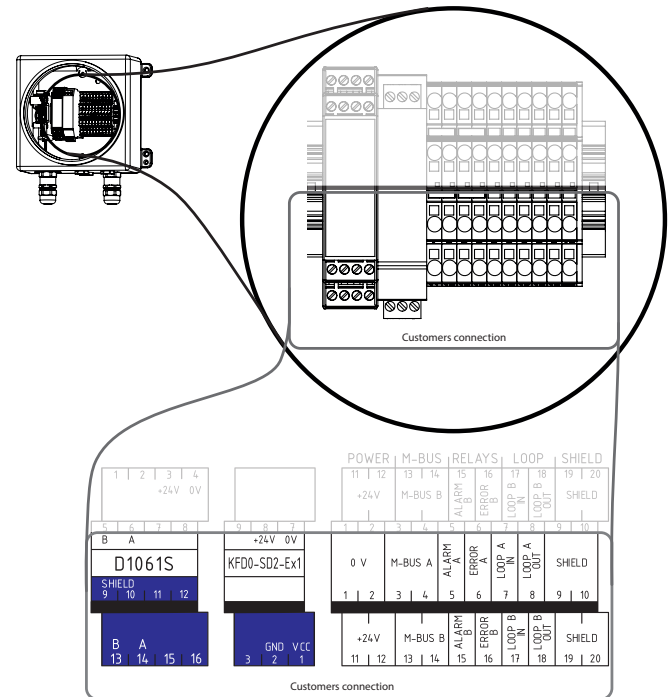
HOTSPOT-X0 Sensor Unit & Interface-X1 – Application

Electrical connection HOTSPOT-X0 Sensor Unit and Interface-X1

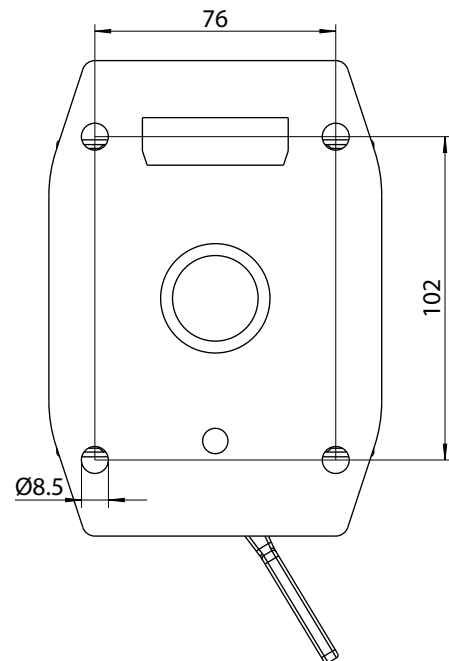
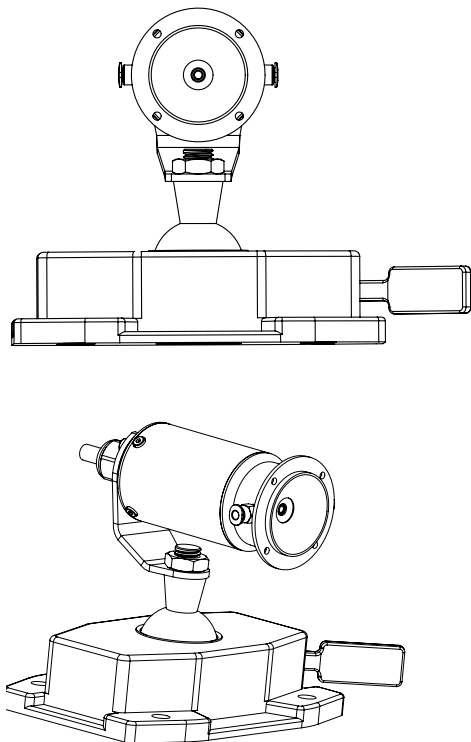
Connection Sensor Unit



Connection Interface



HOTSPOT Mounting Bracket



All dimensions in mm