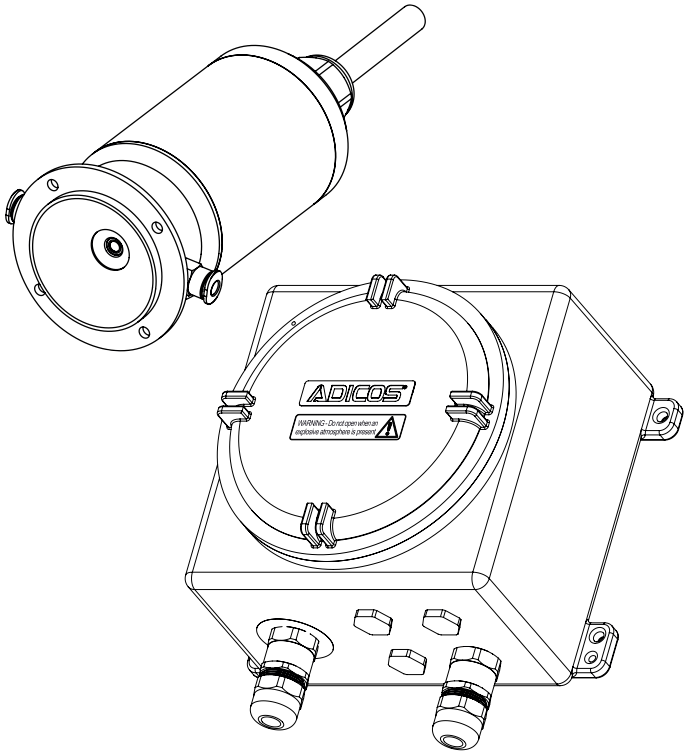
HOTSPOT-X0

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 wit-happroval 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 exisiting 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.

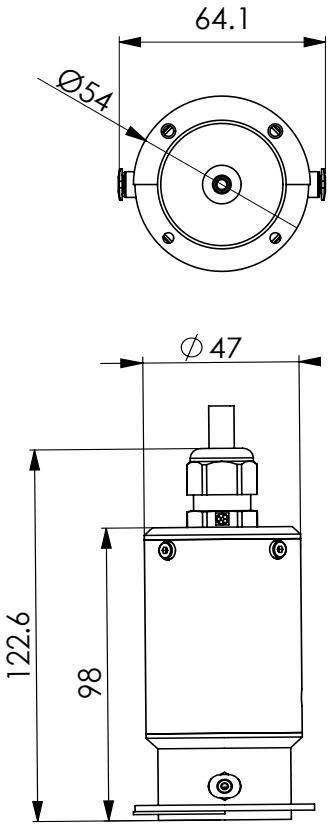
The HOTSPOT-X0 Sensor Unit with the HOTSPOT-X0 Interface-X1 is the world's first IR fire detector with approval for explosive gas atmospheres in ATEX zones 0 to 2.

HOTSPOT-X0 Sensor Unit & Interface-X1 – Spezification

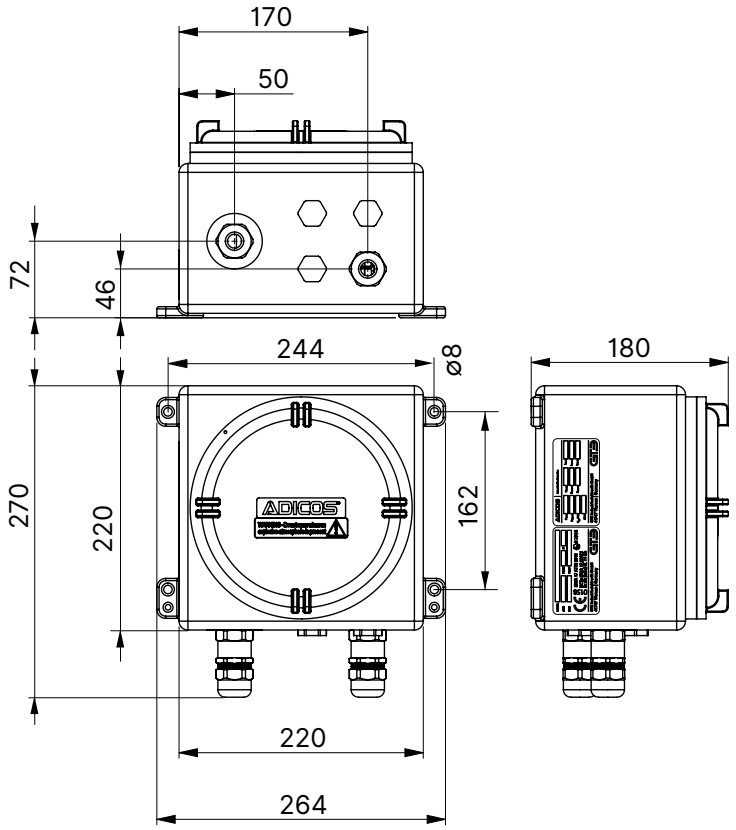
Mechanical dimensions

All dimensions in mm

Sensor Unit
HOTSPOT-X0



Interface
HOTSPOT-X0 Interface-X1



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 (Lenght 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 ... +55 °C

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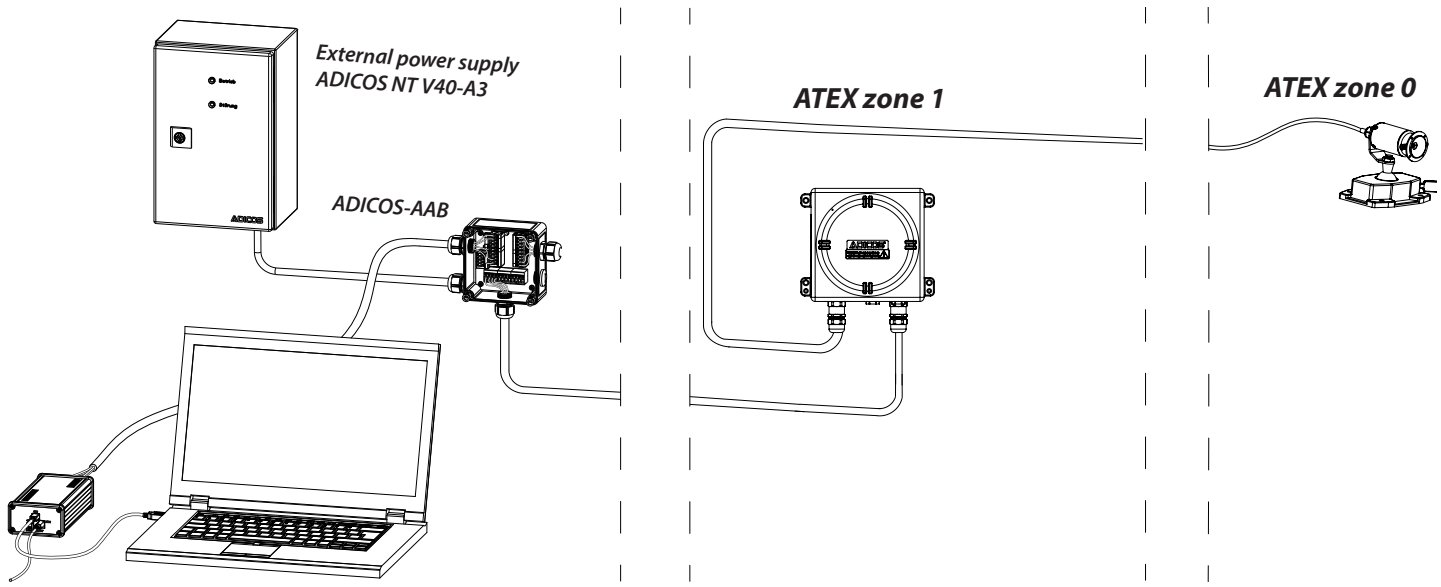
HOTSPOT-X0 Sensor Unit & Interface-X1 – Specification

Characteristics HOTSPOT-X0 Sensor Unit	
Purge air	
Air purity class	Dust ≥ 2 — Water ≥ 3 — Oil ≥ 2 (< 0,1 mg/m³)
Air flow	2 ... 8 l/min
Detector characteristics	
Sensorresolution	32 Pixel x 31 Pixel
Optical angle	52° x 52°
Reaction time	< 1 s
Temporal resolution	0,1 s or 1 s (depends on configuration)

Electrical characteristics HOTSPOT-X0 Interface-X1	
Supply voltage	DC 21.6 ... 30 V
Power consumption	5 VA
Internal fusing	500 mA
M-Bus max. line length	≈ 2 km
M-Bus max. line capacity	≈ 200 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



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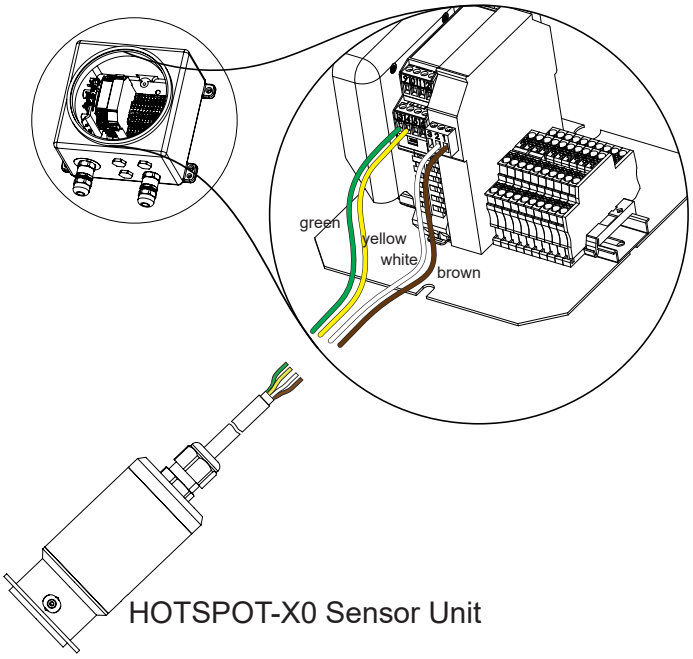
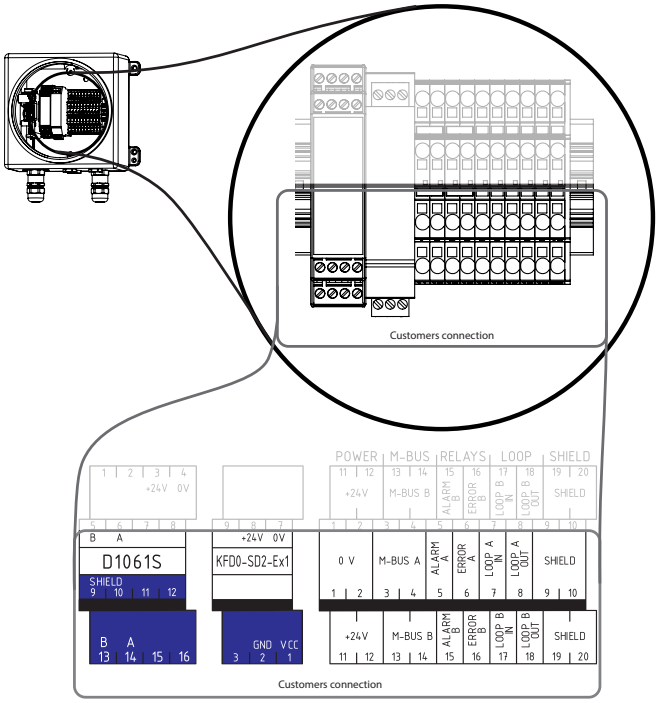
HOTSPOT-X0 Sensor Unit & Interface-X1 – Application

Electrical connection HOTSPOT-X0 Sensor Unit and Interface-X1

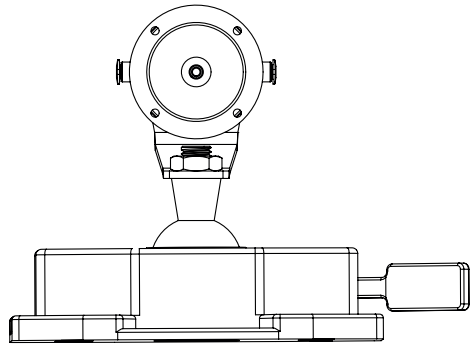
Connection Sensor Unit

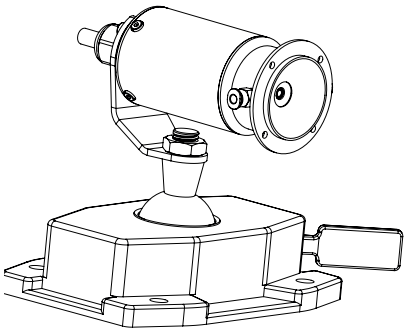


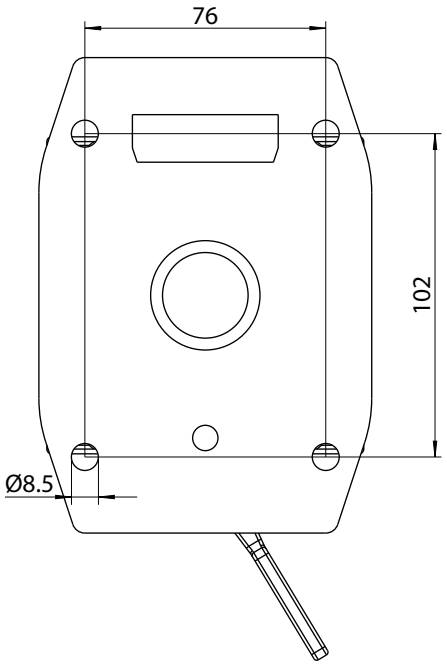
Connection Interface



HOTSPOT Mounting Bracket







All dimensions in mm

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