

HOTSPOT-X20

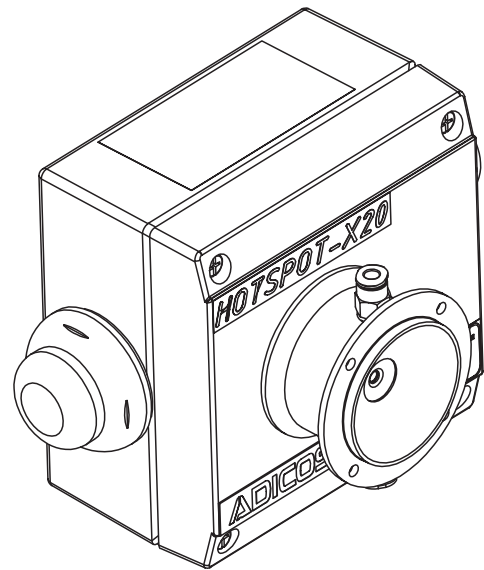
Thermographic detector for early fire detection in the industrial sector, with freely parameterizable infrared camera system and integrated signal evaluation, up to ATEX zone 20

Characteristics

- Robust design due to aluminum enclosure
- High resistance to humidity and dust (IP64)
- 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-assembled cable
- Central data acquisition and visualization via PC software
- Can be integrated into existing fire alarm systems
- Type-tested according to ATEX und IECEx
- Flange for front mounting on housings of any kind instead of the conventional camera

Applications

- Production sites for coal, biomass, wood, paper, plastic, substitute fuel, etc.
- Storage facilities and bunkers of self-igniting materials
- Drives, crushers, dryers, chutes and conveying hoppers
- Silos and mills
- Hazardous areas with classification ATEX zones 21 and 20



ADICOS HOTSPOT-X20 are infrared detectors of the Advanced Discovery System („ADICOS“), which was specifically designed to provide for reliable early fire detection in industrial surroundings.

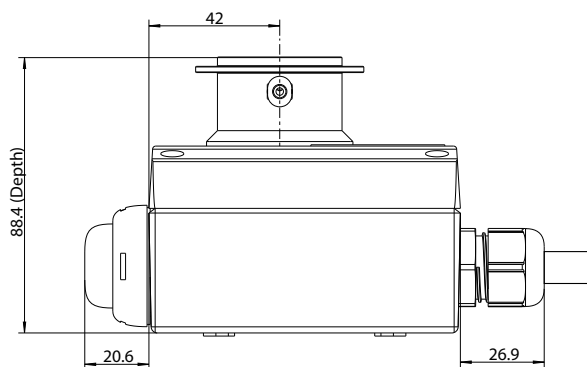
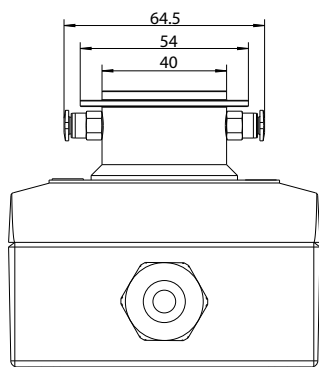
HOTSPOT detectors are parametrizable compact Infrared camera systems with integrated signal processing and evaluation. Their sturdy design protects them against surrounding dust and humidity. This enables them to operate in rough industrial environments, especially dust-explosive atmospheres up to ATEX zone 20. They are suitable for monitoring self-igniting bulk solids, detecting plant components that heat up during operation, and monitoring conveyed materials.

The HOTSPOT-X20 has a thermopile array with approx. 1000 heat-sensitive pixels that can be individually parameterized. To protect the infrared lens, the device is equipped with a purge air connector.

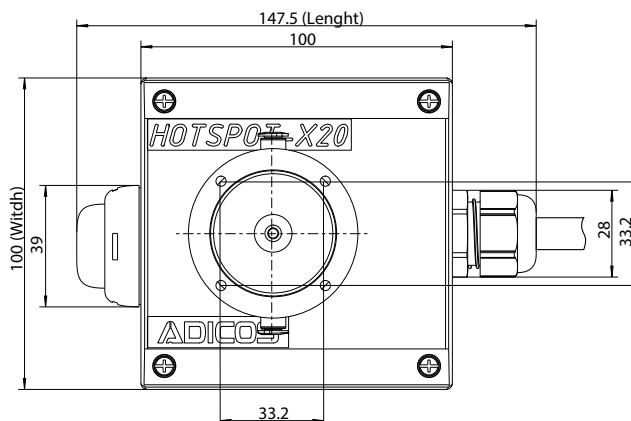
Communication between the individual system elements can be controlled via the ADICOS M bus. The ADICOS central software graphically displays detector states and temperature curves and allows individual parameterization of sensitivities and alarm thresholds for each individual detector.

HOTSPOT-X20 - Specifications

Mechanical dimensions



All dimensions in mm



Connection cable Ø11 prewired
 Front-side mounting holes: 4 x M4 x 1.5
 Purge air connectors: 2 x Ø4 mm

Mechanical characteristics

Enclosure	Coated aluminium diecast (corrosion-resistant)
Weight	2 kg (with 7 m connection cable)
Degree of protection	IP 64
Dimensions	148 mm x 100 mm x 88 mm (Length x Width x Depth) (Length: cable gland included)
Explosion protection	Ex ta IIIC 105°C Da (Certified according to ATEX und IECEx)
Device group	II, Category ID

Thermal characteristics

Relative humidity	≤ 95 % (non-condensing)
Temperature range	-10 ... +50 °C

Electrical characteristics

Supply voltage	DC 21,6 ... 40 V
Power consumption (with heating)	10 VA
Internal fusing	750 mA
M-Bus max. line length	≈ 2 km
M-Bus max. line capacity	≈ 200 nF
M-Bus baudrate	4800 baud
Limit contact alarm relay	20 mA max. (Alarm NO relay)
Limit contact error relay	40 V / 20 mA max. (Error NC relay)
Max. contact rating failure/alarm relay	DC 40 V ; 70mA

Purge air requirements

Air purity class	Dust ≥ 2 — Water ≥ 3 — Oil ≥ 2 (< 0,1 mg/m³)
Air flow	2 - 8 l/min (Testing may be necessary!)

Technical changes reserved!

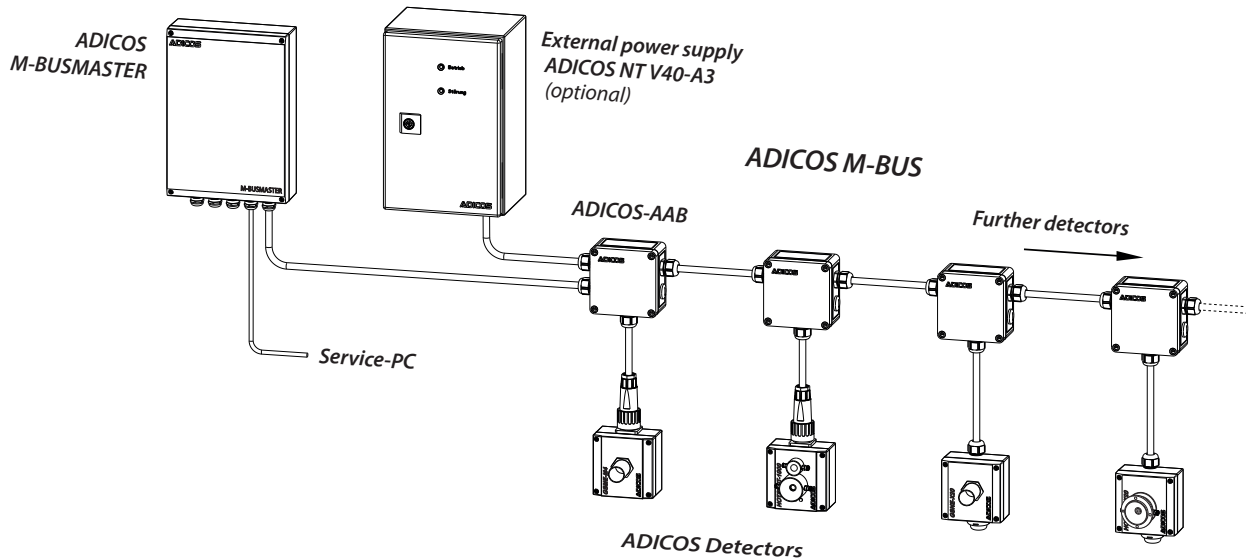
410-2410-004 EN32 - 03/2023 | Page 2 / 4

HOTSPOT-X20 - Specifications

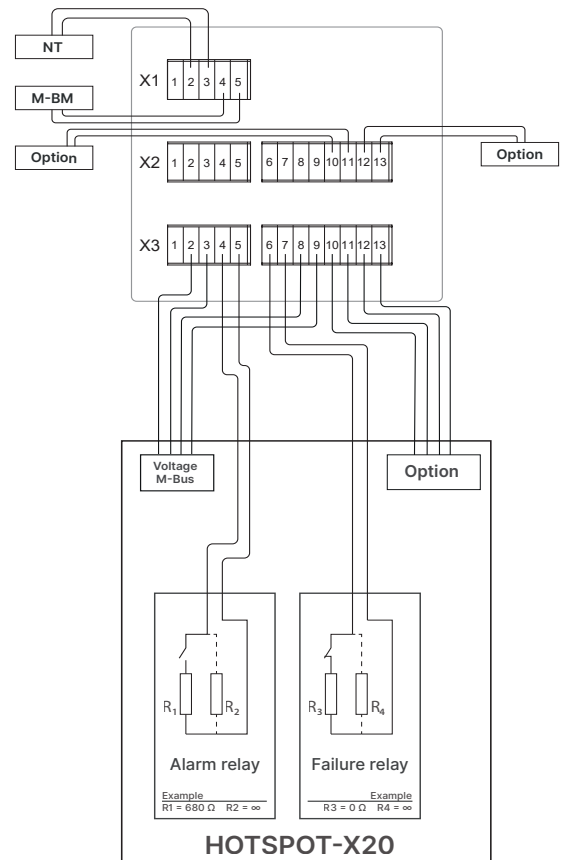
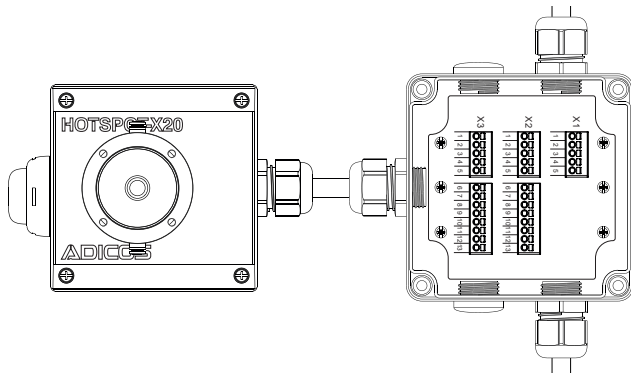
Detector characteristics

Sensor resolution	32 Pixel x 31 Pixel
Optical angle	53° x 52°
Reaction time	< 1 s
Temporal resolution	0,1 s oder 1 s (depends on configuration)

ADICOS topology concept



Electrical connection



Wire	Color	Signal	Limit value contact
1	black	Operating voltage	
1	white	DC 21.6 ... 40 V non-polarised	
2	black	Relay output X6 e	Alarm NO
2	white	Relay output X6 a	Alarm NO
3	black	Relay output X7 a	Fault NC
3	white	Relay output X7 e	Fault NC
4	black	M-Bus	
4	white	max. 40 V non-polarised	

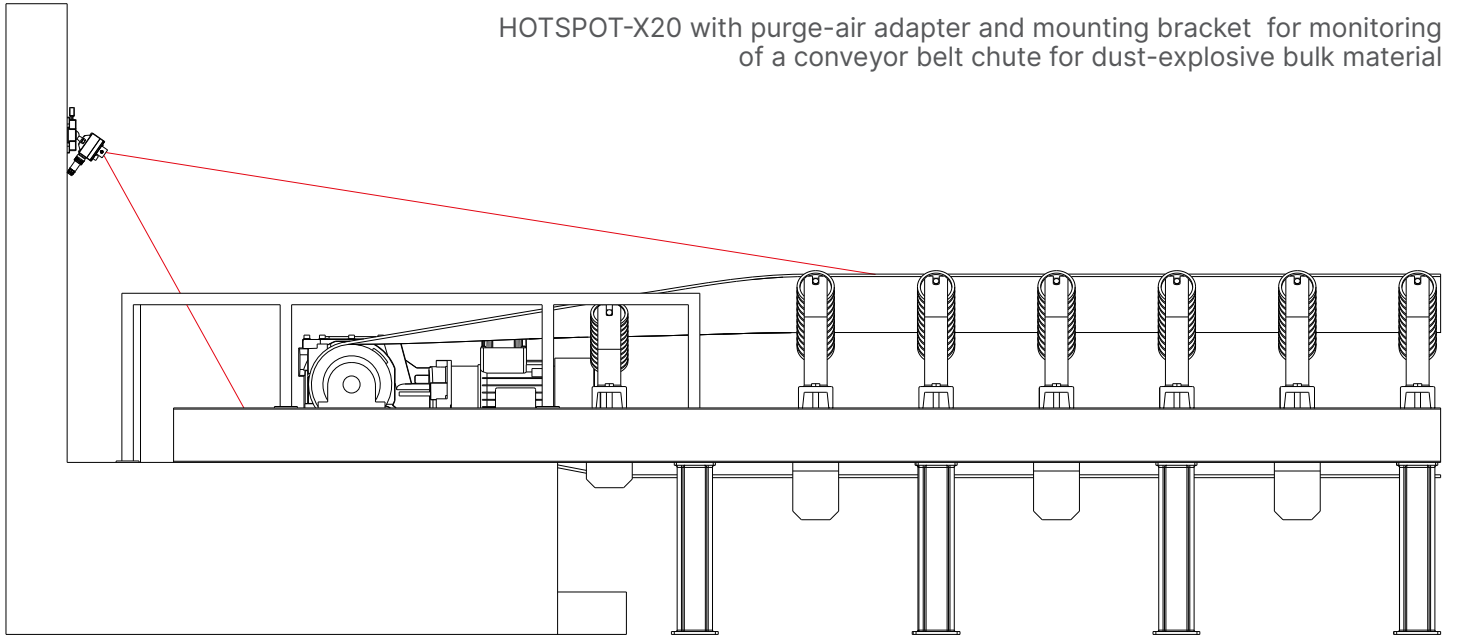
Option Auxiliary Relay

Wire	Color	Auxiliary relay
5	black	-
5	white	Normally closed
6	black	Normally open
6	white	Common

Legend:
NT External power supply
M-BM ADICOS M-BUSMASTER
Option Fire alarm panel or Pre-alarm auxiliary relays

HOTSPOT-X20 - Application

Application example



HOTSPOT mounting bracket with ball joint

