

# Infrared Sensors (HMD) Compact

## Detection of Hot Material

For steelworks, rolling mills, metalworking industry

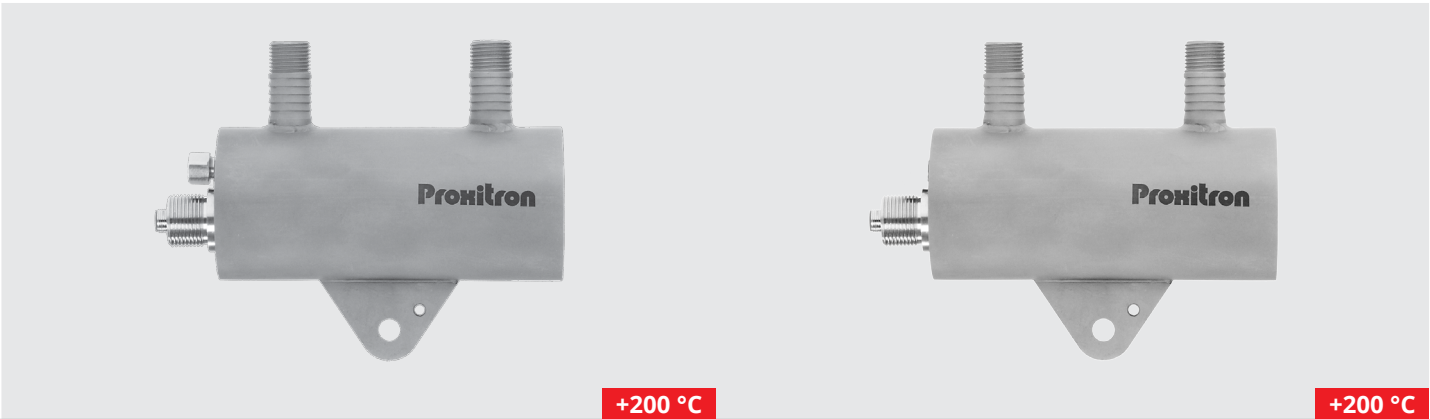


Infrared Sensors (HMD)  
Compact series OXA OKA up to 70 °C ambient temperature



Response temperature	100 - 600 °C	100 - 600 °C
Viewing angle 1° Type	OXA 1016	OKA 1016
Response temperature	250 - 900 °C	250 - 900 °C
Viewing angle 0,5° Type	OXA 0529	OKA 0529
Viewing angle 1° Type	OXA 1029	OKA 1029
Viewing angle 2° Type	OXA 2029	OKA 2029
Viewing angle 7° Type	OXA 7029	OKA 7029
Viewing angle 0,5° x 15° Type	OXA 0629	OKA 0629
Viewing angle 1° x 50° Type	OXA 1629	OKA 1629
Adjustment	software	manual, step-switch
Standard functions	two separate temperature settings	one response temperature
Additional functions	teach, offset, alarm, test	none
Digital interface	RS-485 (MODBUS RTU)	none
Housing [mm]	Ø57 x 170	Ø57 x 170
Housing material	stainless steel	stainless steel
Ambient temperature	70 °C	70 °C

Infrared Sensors (HMD)  
Compact series OXB OKB up to 200 °C ambient temperature



Response temperature	100 - 600 °C	100 - 600 °C
Viewing angle 1° Type	OXB 1016	OKB 1016
Response temperature	250 - 900 °C	250 - 900 °C
Viewing angle 0,5° Type	OXB 0529	OKB 0529
Viewing angle 1° Type	OXB 1029	OKB 1029
Viewing angle 2° Type	OXB 2029	OKB 2029
Viewing angle 7° Type	OXB 7029	OKB 7029
Viewing angle 0,5° x 15° Type	OXB 0629	OKB 0629
Viewing angle 1° x 50° Type	OXB 1629	OKB 1629
Adjustment	software	manual, step-switch
Standard functions	two separate temperature settings	one response temperature
Additional functions	teach, offset, alarm, test	none
Digital interface	RS-485 (MODBUS RTU)	none
Housing [mm]	Ø76 x 170	Ø76 x 170
Housing material	stainless steel	stainless steel
Ambient temperature	200 °C water-cooled	200 °C water-cooled

Accessories for Infrared Sensors (HMD)



Accessory	Connection cable	Adapter for cable protection	Swivel stand
Function	sensor connection	protection hose fixing	mounting
Material	PP	stainless steel	stainless steel
Type	ST043/4-2H	HG 2	HM 2
Description	2 m connection cable for OKA/B	for M20 fitting	massive swivel stand
Type	ST043/5-2H		HM 4
Description	2 m connection cable for OXA/B		light mounting bracket
Type	ST043/5-5H		
Description	5 m connection cable for OXA/B		

Further connection cables available.

Accessories for Infrared Sensors (HMD)



Air purge adapter	Protection tube	Tube	Laser pointer
pollution control	maximize air purge effect, protect against sparks	protection against IR radiation	alignment
stainless steel	stainless steel	stainless steel	stainless steel
OL 34	OL 37	OL 19	DAK 308
for Ø57	length 100 mm	for Ø57	Laser
OL 35	OL 38	OL 21	OL 26
for Ø76	length 150 mm	for Ø76	adapter for Ø57
		OL 36	OL 27
		for air purge adapter	adapter for Ø76

# Infrared Sensors – General Information

Infrared sensors (Hot Metal Detectors) detect hot objects by using the infrared radiation emitted by hot materials. Proxitron temperature switches are characterized by their extremely robust and maintenance-free housing. They withstand for years harsh working conditions such as water vapor, dust, vibrations and radiated heat, as well as consistent high ambient temperatures. Hot Metal Detectors of the OX series can be parameterized in a teaching mode and offer the possibility to set different behaviors for multiple outputs, as well as an offset function with different response and switch-off temperatures, or an alarm function. The sensor is equipped with a comfortable software interface to meet the needs of Industry 4.0.



- Detection of hot objects
- Material tracking on roller conveyors
- Control of slabs, blocks and billets position at continuous casting, torch-cutting and deburring
- Material tracking on conveyors in hot areas
- Strip detection at coiler
- Feeding and ejection control in hot forging
- Wire detection in wire drawing plants
- Material detection in tube and sections mills
- Material tracking in dense environment (dust and vapor)
- Strip detection in processes with spraying mists
- Bottle counting in glass production
- Response temperature from 100 up to 900 °C
- Two switching outputs in one single device
- 6 variants of optics available
- Alarm for sensor overheating or dirt
- Teach and test function
- Fast response time (0,3 ms / 1500 Hz)
- Extremely robust and maintenance-free
- diverse accessories

Viewing angle	Measurement distance a [m]	1	2	3	4	5
0,5°	Spot diameter M [mm]	40	55	70	85	100
1° (100 - 600 °C)	Spot diameter M [mm]	40	60	90	120	150
1° (250 - 900 °C)	Spot diameter M [mm]	40	80	120	160	200
2°	Spot diameter M [mm]	55	110	165	220	275
7°	Spot diameter M [mm]	100	220	340	460	580
0,5° x 15°	Spot size M [mm]	10 x 250	20 x 550	30 x 850	40 x 1150	50 x 1450
1° x 50°	Spot size M [mm]	30 x 900	60 x 1800	90 x 2700	120 x 3600	150 x 4500

## Type code

