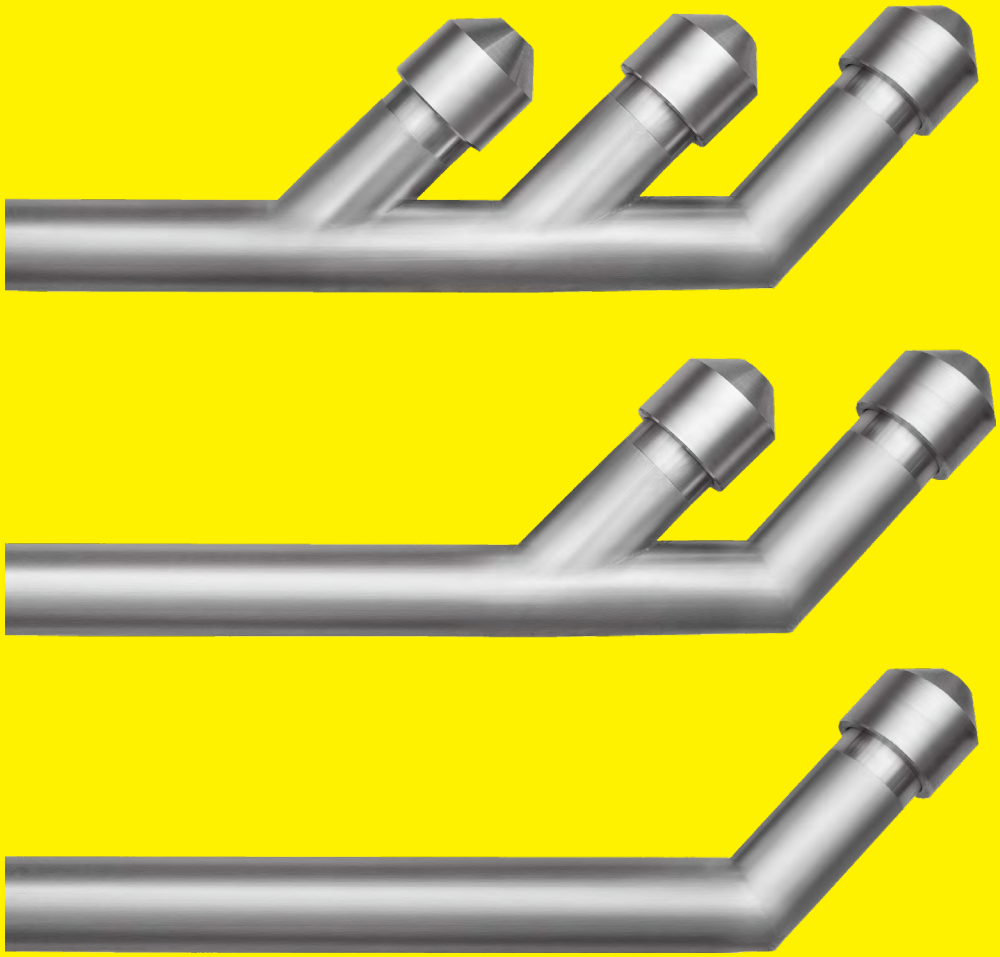
Proxitron

SENSORS MADE IN GERMANY

Infrared Sensors (HMD) in Protection Tube

Detection of hot material

for installation in the roller conveyor, between the rollers



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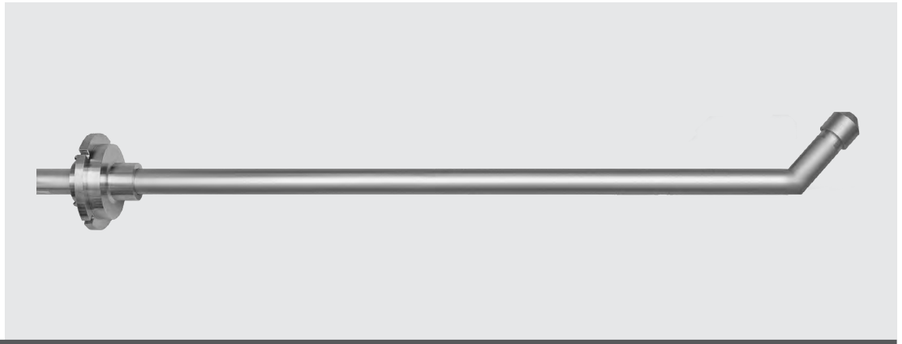

Number of optics	1	1
Tube length [m]	**1**	**2**
Type	**OIL 1001**	**OIL 2001**
Material temperature	450 - 1500 °C	450 - 1500 °C
Possible monitoring	1 of 1	1 of 1
Fibre optic cable length [m]	2	1
Air purge inlet	through electronic box and protection hose	through electronic box and protection hose
Air consumption	approx. 250 l/min (1,5 bar)	approx. 250 l/min (1,5 bar)
Mounting flange	DIN 2576 DN125 PN10	DIN 2576 DN125 PN10
Housing [mm]	1500 x 250 x 250	2500 x 250 x 250
Housing material	stainless steel	stainless steel
Ambient temperature	+250 °C (without air purge)	+250 °C (without air purge)

Number of optics	3	3
Tube length [m]	**1**	**2**
Type	**OIL 1003**	**OIL 2003**
Material temperature	450 - 1500 °C	450 - 1500 °C
Possible monitoring	1 of 3, 2 of 3, 3 of 3	1 of 3, 2 of 3, 3 of 3
Fibre optic cable length [m]	2	1
Air purge inlet	through electronic box and protection hose	through electronic box and protection hose
Air consumption	approx. 250 l/min (1,5 bar)	approx. 250 l/min (1,5 bar)
Mounting flange	DIN 2576 DN125 PN10	DIN 2576 DN125 PN10
Housing [mm]	1500 x 250 x 250	2500 x 250 x 250
Housing material	stainless steel	stainless steel
Ambient temperature	+250 °C (without air purge)	+250 °C (without air purge)

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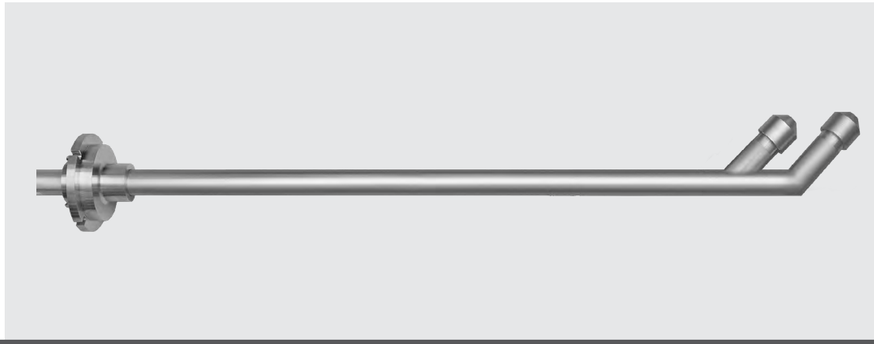

Number of optics	2	2
Tube length [m]	**1**	**2**
Type	**OIL 1002**	**OIL 2002**
Material temperature	450 - 1500 °C	450 - 1500 °C
Possible monitoring	1 of 2, 2 of 2	1 of 2, 2 of 2
Fibre optic cable length [m]	2	1
Air purge inlet	through electronic box and protection hose	through electronic box and protection hose
Air consumption	approx. 250 l/min (1,5 bar)	approx. 250 l/min (1,5 bar)
Mounting flange	DIN 2576 DN125 PN10	DIN 2576 DN125 PN10
Housing [mm]	1500 x 250 x 250	2500 x 250 x 250
Housing material	stainless steel	stainless steel
Ambient temperature	+250 °C (without air purge)	+250 °C (without air purge)

Optical systems evaluation	1	2	3
Type	**OXLF 1L41.3A GK**	**OXLF 2L41.3A GK**	**OXLF 3L41.3A GK**
Response temperature	400 - 1000 °C	400 - 1000 °C	400 - 1000 °C
Suitable for protection tube	OIL 1001, OIL 2001	OIL 1002, OIL 2002	OIL 1003, OIL 2003
Possible monitoring	1 of 1	1 of 2, 2 of 2	1 of 3, 2 of 3, 3 of 3
Parameters setting	software	software	software
Standard function	separate temperature settings for each output	separate temperature settings for each output	separate temperature settings for each output
Additional functions	teach, offset, alarm, test	teach, offset, alarm, test	teach, offset, alarm, test
Digital interface	RS-485 (MODBUS RTU)	RS-485 (MODBUS RTU)	RS-485 (MODBUS RTU)
Housing [mm]	330 x 230 x 111	330 x 230 x 111	330 x 230 x 111
Housing material	aluminium	aluminium	aluminium
Ambient temperature	70 °C	70 °C	70 °C

Infrared Sensors (HMD) in Protection Tube - General Information

Infrared sensors (Hot Metal Detectors) in high temperature protection tube can be integrated into the roller conveyor under the material, and are ideal when mounting above the rollers is not possible due to the plant structure or because of moving cranes. A detection position quite near the hot material ensures accurate switching and reliable operation. The protection tubes are available in different lengths, with one, two or three optics, to meet the different application requirements, and also to offer different combinations for redundant control. Thanks to their integrated air purge and an extremely robust and maintenance-free construction, they feature trouble-free operation also with high material temperatures and heavy dirt formation. The protection tube can be inserted from the side into the conveyor; this mounting method makes service or replacement possible also during operation - no need for plant shutdown. Belonging to the OX series, they 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. These sensors are 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**
- **Material control during hot rolling**
- **Activation of conveyors in hot areas**
- **Material detection in dense environment (dust and vapor)**
- **Strip detection in processes with spraying mists**
- **Robust stainless steel models**
- **Systems with 1, 2 or 3 optics**
- **Protection tubes in 1 or 2 m length**
- **Integrated air purge connection**
- **Variable optic position inside the roller conveyor**
- **Service or replacement during operation**
- **Response temperature from 400 up to 1000 °C**
- **Three switching points in one single device**
- **Alarm for sensor overheating or dirt**
- **Teach and test function**
- **Fast response time (0,3 ms / 1500 Hz)**
- **Extremely robust and maintenance-free**
- **Replaceable fibre optic cable and optics**

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