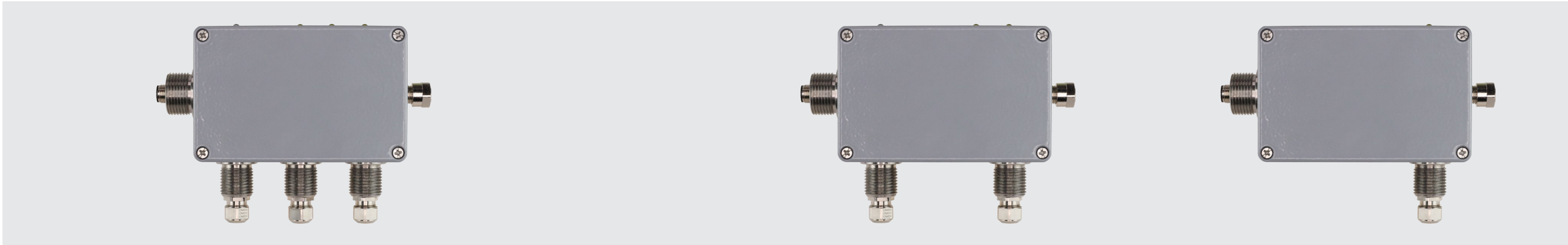


Infrared Sensors (HMD) Heavy-Duty

Hot Object Detection in Extreme Conditions

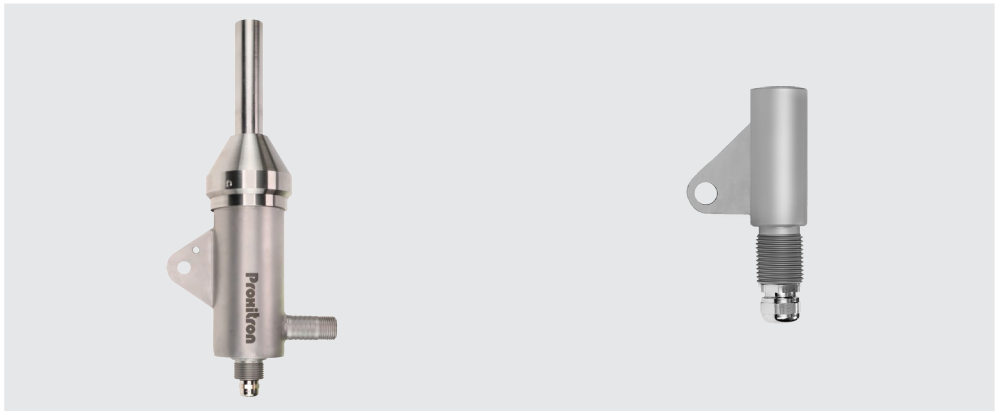
Reliable Detection in Steam, Water and High Ambient Temperatures





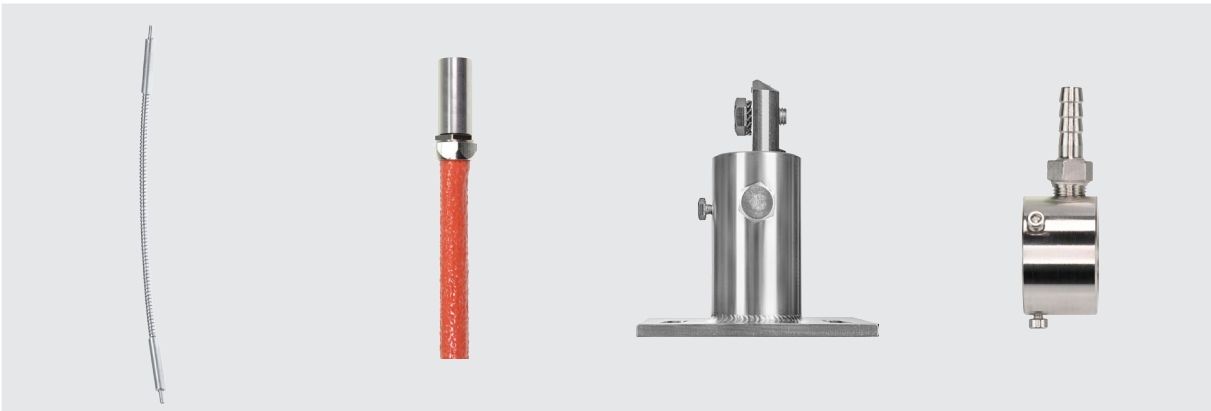
Optical systems supported	3	2	1
Type	OXLD 3L41.3A GK S8		
adjustable response temperature	400 - 1000 °C		
suitable fiber optic cable (length)	LLK (2 m, 4 m, 5 m, 6 m, 8 m, 10 m, 15 m, 20 m)		
Type	OXLD 3L26.3A GK S8		
adjustable response temperature	250 - 600 °C		
suitable fiber optic cable (length)	LLKL (2 m, 4 m, 5 m, 6 m, 8 m, 10 m, 15 m, 20 m)		
Redundancy mode	none / 1 of 3 / 2 of 3 / 3 of 3		
Parameters setting	software		
Standard function	separate temperature settings for each output		
Additional functions	teach, offset, alarm, test, redundancy		
Digital interface	RS-485 (MODBUS RTU)		
Housing [mm]	125 x 119 x 57		
Housing material	aluminium / stainless steel		
Ambient temperature	70 °C		

Optics for Infrared Sensors (HMD) Heavy-Duty



Angle of view	8,5°	1,5 °
Type	OAA 854 HD L	OACF 154 H
Angle of view		2 °
Type		OACF 204 H
Housing [mm]	Ø74x 320	Ø25 x 100
Housing material	stainless steel with integrated air purge	stainless steel
Ambient temperature	290 °C without air purge	290 °C (600 °C at optical side)

Accessories for Heavy-Duty Infrared Sensors (HMD)



Accessorie	fiber optic cable	protection tube set	Swivel stand	Air purge adapter
Application	Connection between op-tics and evaluation unit	Mechanical and moisture protection	Mounting	Contamination protection
Material	stainless steel	Steel, TPE, silicone	stainless steel	stainless steel
Type	LLK (2, 4, 5, 6, 8, 10, 15, 20)	KSL 2	HM 2	OL 44
Description	detection 400 - 1000 °C	up to 260 °C	swivel stand for OAA	for optic OACF
Type	LLKL (2, 4, 5, 6, 8, 10, 15, 20)	KSL 3	HM 4	
Beschreibung	detection 250 - 600 °C	up to 145 °C	mounting bracket for OACF	

General Information – Heavy-Duty Infrared Sensors (HMD)

The Heavy-Duty series infrared sensors (Hot Metal Detectors) are designed for use in exposed areas with high material temperatures and demanding environmental conditions. Detecting objects in close proximity to the hot material ensures reliable operation even in the presence of water, steam or spray mist.

Different optics and fiber-optic cable lengths can be flexibly combined and supplemented with additional protection systems to suit specific operating conditions. Depending on the application, one, two or three optics can be used, allowing different safety and redundancy concepts to be implemented.

The use of purge air, combined with the extremely robust and maintenance-free design, ensures reliable operation even at high material temperatures and in heavily contaminated environments. The compact design and flexible fiber-optic cable also allow easy installation where space is limited.

OX series evaluation systems can be conveniently configured via software. Freely configurable switching outputs, teach-in, separate response and switch-off temperatures, and an alarm function provide flexible adaptation to the application. The software interface also enables convenient parameterization and diagnostics and facilitates integration of the sensors into modern automation systems.

- **Detection of hot objects on roller conveyors**
- **Control of slabs, blocks and billets position**
- **Activation of conveyors in hot areas**
- **Installation close to hot material**
- **Material monitoring through dust or steam**
- **Heavy-duty optics for water and spray mist**
- **Ambient temperature up to +600 °C at the optics**
- **Robust stainless steel models**
- **Interchangeable fiber-optic cables and optics**
- **Evaluation systems for 1, 2 or 3 optics**
- **Redundant detection with 2 or 3 optics**
- **Response temperature from +250 up to +1000 °C**
- **Alarm for sensor overheating or dirt**
- **Teach and test function**
- **Fast response time (0,3 ms / 1500 Hz)**
- **Extremely robust and maintenance-free**

