

# Infrared Sensors (HMD) with fibre optic cable

Detection of Hot Material

For steelworks, rolling mills, metalworking industry





Type Adjustment

Standard functions

Additional functions

Digital interface

Housing [mm]

Housing material

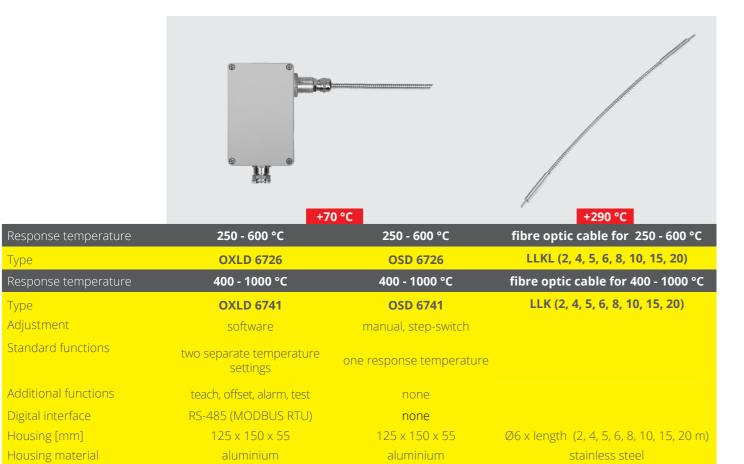
Ambient temperature

70 °C

### Infrared Sensors (HMD) with fibre optic cable Electronics and fibre optic cable

### Infrared Sensors (HMD) with fibre optic cable Optics





	Promitron					
	+150 °C	+290 °C	+290 °C	+600 °C		
Viewing angle	1,5°	1,5°	1,5°	1,5 °		
Туре	OAA 154	OAA 154 H	OACF 154	OACF 154 H		
Viewing angle	<b>2</b> °	2°	2°	2°		
Туре	OAA 204	OAA 204 H	OACF 204	OACF 204 H		
Viewing angle	4°	4°	7°	7°		
Туре	OAA 404	OAA 404 H	OACF 704	OACF 704 H		
Viewing angle	2° x 25°		22°			
Туре	OAA 264		OACF 671			
Housing [mm]	Ø57 x 120	Ø57 x 120	Ø25 x 100	Ø25 x 100		
Housing material	stainless steel	stainless steel	stainless steel	stainless steel		
Ambient temperature	150 °C	290 °C	290 °C	600 °C at front side only		

## Accessories for Infrared Sensors (HMD)

290 °C

70 °C



Accessories for Ir	ifrared Se	nsors (HMD)
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Accessory	cable protection set	Swivel stand	Air purge adapter	Protection tube for OL 34	Tube	Laser pointer
Function	protect fibre optic cable against shocks and humidity	mounting	pollution control	maximize air purge effect, protect against sparks	protection against IR radiation	alignment
Material	steel, TPE, PVC, silicone	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
Туре	KSL 1	HM 2	OL 34	OL 37	OL 19	DAK 308
Description	up to 100 °C	massive swivel stand	for optics OAA Ø57	length 100 mm	for optics OAA Ø57	Laser
Туре	KSL 2	HM 4	OL 44	OL 38	OL 36	OL 26
Description	up to 260 °C	light mounting bracket	for optics OACF Ø25	length 300 mm	for air purge adapter OL 34	adapter for optics OAA Ø57
Туре	KSL 3					OL 28
Description	up to 145 °C					adapter for optics OACF Ø25

# Infrared Sensors with fibre optic cable - General Information

Infrared sensors (Hot Metal Detectors) with fibre optic cable can be mounted quite near the hot object to be detected, with no need for water cooling. This ensures accurate switching point and undisturbed operation. Depending on the application, different optics and fibre optic cables in several lengths can be combined to build up an extremely robust and maintenance-free design layout. Sensors 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 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, 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 250 up to 1000 °C
- Two switching outputs in one single device
- 8 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
Optics OAA Ø57						
1,5°	Spot diameter M [mm]	40	65	100	135	170
2°	Spot diameter M [mm]	40	75	130	185	240
4°	Spot diameter M [mm]	70	130	210	290	370
2° x 25°	Spot size M [mm]	40 x 350	75 x 950	130 x 1550	185 x 2150	240 x 2750
Optics OACF Ø25						
1,5°	Spot diameter M [mm]	25	45	80	115	150
2°	Spot diameter M [mm]	40	95	150	205	260
7°	Spot diameter M [mm]	70	170	270	370	470
22°	Spot diameter M [mm]	380	765	1150	1535	1920

Spot dimensions are referred to sensors with 400 - 1000 °C response temperature. For sensors with 250 - 600 °C response temperature, spot dimensions are approx. 50% smaller.

Type code	•			
Type (see table previous page)	z. B. OXLD 6726			
10 - 55 V DC	3			
PNP normally closed + PNP normally open		8		
PNP n.c / n.o. output behavior can be set		А		
Short circuit protection		G		
Test input to simulate object detection			K	
Terminal blocks connection				
Customer specific version			L S <i>i</i>	A