

# HIGH-PERFORMANCE LIGHT BARRIERS

detection of hot and cold material

for furnaces and highly contaminated environment



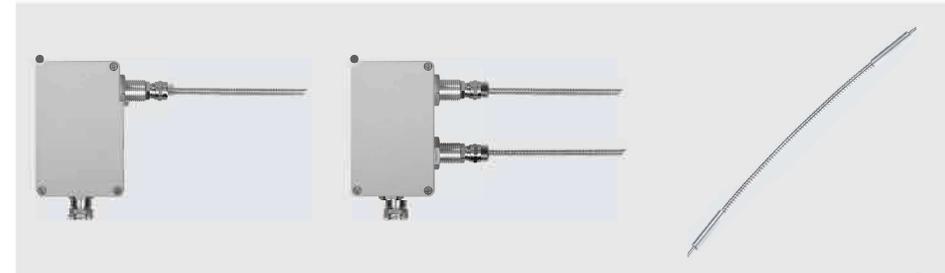
# CONSERO

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## High-performance Light Barriers compact devices



## High-performance Light Barriers with fiber optic cable and separate electronics



Ambient temperature	70 °C	200 °C with water cooling	electronics up to 70 °C	electronics up to 70 °C	fibre optic cable up to 290 °C
Housing [mm]	Ø57 x 170	Ø76 x 170	125 x 150 x 55	125 x 150 x 55	Ø6 x length (2, 4, 5, 6, 8, 10, 15, 20 m)
Housing material	stainless steel	stainless steel	aluminum	aluminum	stainless steel
Type of light	infrared	infrared	infrared	infrared	
Through-beam sensor emitter type	<b>LAA 600</b>	<b>LAB 600</b>	<b>LAD 600</b>	<b>LASD 600</b>	<b>LLK (2,4, 5, 6, 8, 10, 15, 20)</b>
Through-beam sensor receiver type	<b>LSA 600</b>	<b>LSB 600</b>	<b>LSD 600</b>	receiver included in LASD 600	<b>LLK (2,4, 5, 6, 8, 10, 15, 20)</b>
Max. sensing range / operating range	2500 m / 1500 m	2500 m / 1500 m	750 - 150 m / 600 - 120 m***	100 m / 40 m	
Retroreflective sensor type	<b>LRA 600</b>	<b>LRB 600</b>		<b>LRD 600</b>	<b>2x LLK (2,4, 5, 6, 8, 10, 15, 20)</b>
Max. sensing range* / operating range	65 m / 35 m	65 m / 35 m		35 m / 25 m	
Diffuse sensor type	<b>LTA 600</b>	<b>LTB 600</b>		<b>LTD 600</b>	<b>2x LLK (2,4, 5, 6, 8, 10, 15, 20)</b>
Max. sensing range** / operating range	6 m / 4,5 m	6 m / 4,5 m		1,8 m / 1 m	

\*The max range of the retroreflective sensor is referred to the OR 03 reflector

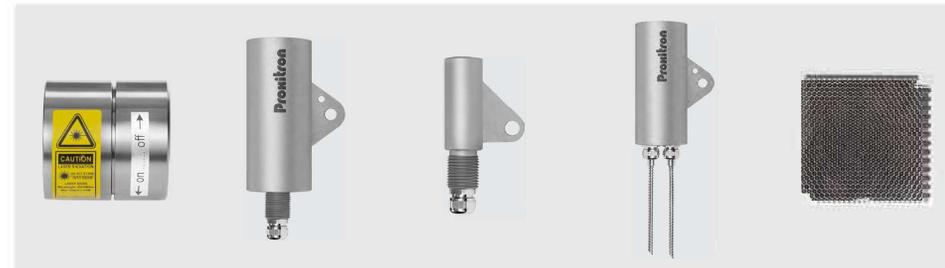
\*\*The max range of diffuse sensor is referred to a Kodak grey card 90% remission

\*\*\*Through-beam light barriers with fiber optic cable can be combined with different optics or even with a compact device (transmitter or receiver) of the 600 series. The achievable range varies accordingly.

## Accessories for High-performance Light Barriers



## Accessories for High-performance Light Barriers



Accessory	Swivel stand	Air purge adapter	Protection tube	Tube	Laser pointer	large optics for LLK	small optics for LLK	double optics for LLK	reflector
Function	mounting	pollution control	maximize air purge effect, protect against sparks	detection of small parts, protect against IR radiation	alignment	through-beam light barrier	through beam light barrier constricted space	retroreflective or diffuse sensor	retroreflective sensor
Material	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	plastics/glass
Type	<b>HM 2</b>	<b>OL 34</b>	<b>OL 37</b>	<b>OL 19</b>	<b>DAK 308</b>	<b>OAA 154</b>	<b>OACF 154</b>	<b>OADF 154</b>	<b>OR 03</b>
Description	massive swivel stand	for Ø57	length 100 mm	for Ø57	Laser	Up to +150 °C	Up to +290 °C	for retroreflective sensor	Up to +60 °C
Type	<b>HM 4</b>	<b>OL 35</b>	<b>OL 38</b>	<b>OL 21</b>	<b>OL 26</b>	<b>OAA 154 H</b>	<b>OAA 154 H</b>	<b>OATF 154</b>	<b>OR 04</b>
Description	light mounting bracket	for Ø76	length 150 mm	for Ø76	adapter for Ø57	Up to +290 °C	Up to +600 °C	for diffuse sensor	Up to +150 °C
Type	<b>HM 6</b>	<b>OL 44</b>		<b>OL 36</b>	<b>OL 27</b>		<b>OACF 671</b>	<b>OACF 672H</b>	<b>OR 05</b>
Description	mounting unit for mirror	for optic OACF		for air purge adapter	adapter for Ø76		fibre optic cable only	fibre optic cable only	Up to +500 °C
					<b>OL 87</b>				<b>OR 09</b>
					adapter for OACF				chemical resistant

Additional accessories, as for ex. dedicated furnace windows, are available for industrial furnaces applications

more reflectors available.

# Light Barriers - General Information

Proxitron light barriers are ideal for the detection of hot and cold objects. They do not react to the infrared radiation coming from other heat sources and therefore can be used to track material inside furnaces. With their extremely high range they set new standards in terms of reliability and functional reserve; this makes their use possible also under the toughest working conditions. Their robust design guarantees safe operation also in case of vibrations. Their optics is made of high-quality, temperature-resistant glass and withstands radiated heat. For higher ambient temperatures housing variants with cooling jacket are available, as well as systems with fibre optic cable, optics and remote electronics.



- Detection of hot and cold objects
- Material tracking in drying ovens
- Jam detection
- Prevention of obstruction caused by collapsed material
- Material tracking on conveyors in hot areas
- Feeding control in high temperature processes
- Vehicle height monitoring in outdoor conditions
- Object detection in dense environment (dust, vapour, water, smoke)
- Detections of parts on conveyor belts in areas with spraying mist
- Extremely high pollution resistance
- Ambient temperature from -40 up to +600 °C
- Extremely fast (1 ms/1000 Hz)
- Robust and maintenance-free
- No LASER protection needed
- Visual LED aid for easy alignment
- Integrated contamination control
- Wide range of accessories



## Type Code

Type (see table previous page)

10 - 55 V DC

90 - 260 V AC

PNP normally closed + PNP normally open

Relay, potential-free changeover contact (only in the fibre optic cable version)

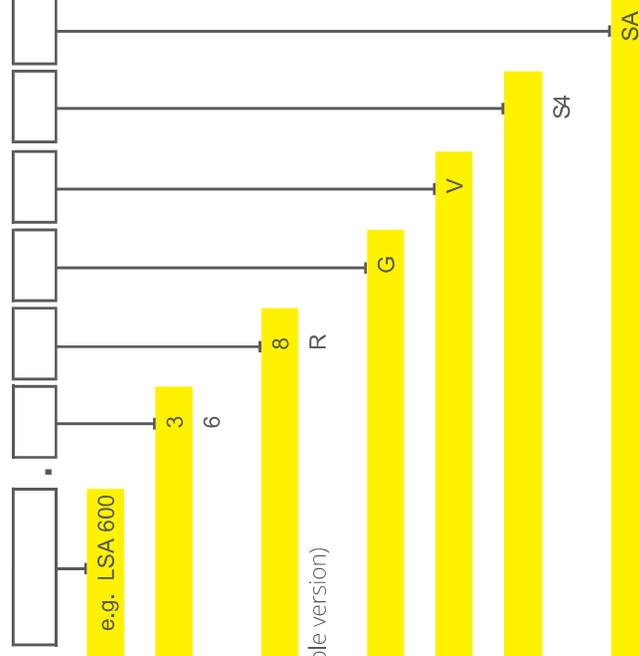
Short circuit protection

Contamination control output

Fixed connection cable or terminal box

Plug M12 x 1

Customer specific version



**Proxitron**

SENSORS MADE IN GERMANY

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