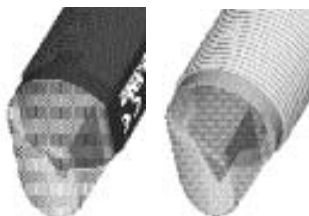


# T RETROREFLEX FOR TRANSPARENTS WITH RED EMISSION

With high sensitivity and reduced hysteresis this retroreflex sensor allows the detection of even a small variation of the light emission received by the sensor, typically created by the presence of transparent objects such as glass or PET containers or plastic film sheets for packaging. The presence of polarising filters avoids false switching on shiny surfaces.



## RADIAL OPTICS



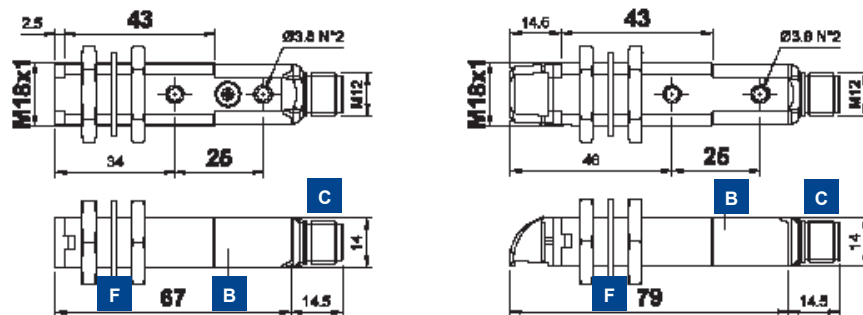
## ACCESSORIES

For dedicated accessories refer to the **ACCESSORIES** section of this catalogue.

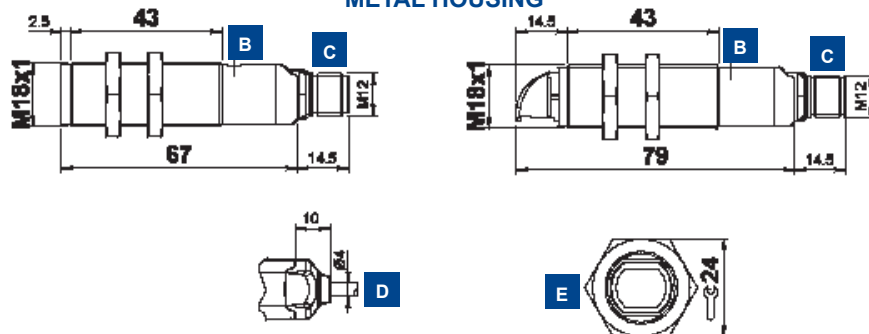
Refer also to **Reflectors (A.01)**, **Connectors (A.03)** and **Fixing brackets (A.04)** of the General Catalogue.

## DIMENSIONS

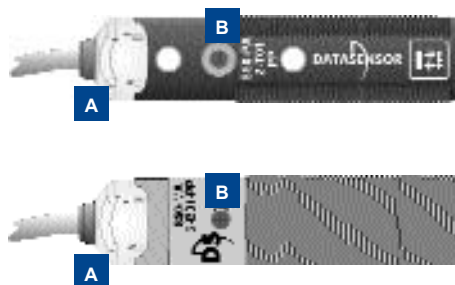
### PLASTIC HOUSING



### METAL HOUSING



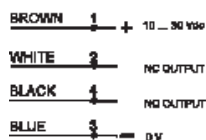
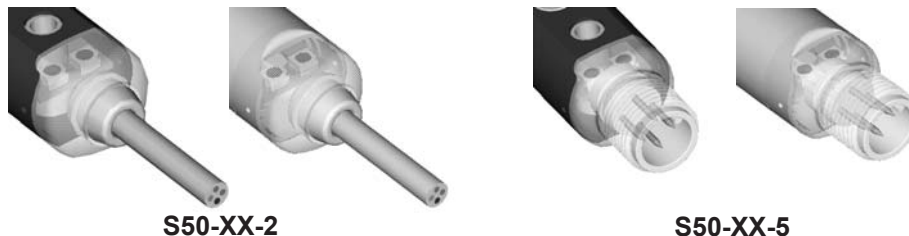
## INDICATORS AND SETTINGS



- A** OUTPUT status LED
- B** Adjustment trimmer
- C** M12 connector output
- D** Cable output
- E** Fixing nuts
- F** Fixing gasket

Single-turn trimmer for sensitivity adjustment. Rotate in a clockwise direction to increase the operating distance.

## CONNECTIONS





TECHNICAL DATA

		S50-PA-2-T01-NN	S50-PA-2-T01-PP	S50-PA-5-T01-NN	S50-PA-5-T01-PP	S50-PR-2-T01-NN	S50-PR-2-T01-PP	S50-PR-5-T01-NN	S50-PR-5-T01-PP	S50-MA-2-T01-NN	S50-MA-2-T01-PP	S50-MA-5-T01-NN	S50-MA-5-T01-PP	S50-MR-2-T01-NN	S50-MR-2-T01-PP	S50-MR-5-T01-NN	S50-MR-5-T01-PP
<b>Operating distance:</b>																	
	axial optics	0.1 ... 1.7 m	●	●	●					●	●	●	●				
	radial optics	0.1 ... 1.7 m				●	●	●	●					●	●	●	●
<b>Power supply:</b>	10 ... 30 Vdc <sup>1</sup>	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Ripple:</b>	≤ 2 Vpp	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Consumption:</b>	≤ 35 mA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Light emission:</b>	red LED 660 nm <sup>2</sup>	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Spot dimension:</b>																	
	axial optics	approx. 45 mm at 1 m	●	●	●					●	●	●	●				
	radial optics	approx. 60 mm at 1 m				●	●	●	●					●	●	●	●
<b>Setting:</b>	sensitivity trimmer <sup>3</sup>	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Indicators:</b>	yellow OUTPUT LED	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Output type:</b>																	
	PNP, NO and NC		●		●		●		●		●		●		●		●
	NPN, NO and NC	●		●		●		●		●		●		●		●	
<b>Output current:</b>	≤ 100 mA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Saturation voltage:</b>	≤ 2 V	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Response time:</b>	0.5 ms	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Switching frequency:</b>	1 kHz	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Operating mode:</b>	dark on NO / light on NC	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Connection:</b>																	
	2 m Ø 4 mm cable <sup>4</sup>	●	●		●	●				●	●			●	●		
	M12 4-pole connector <sup>5</sup>			●	●		●	●			●	●			●	●	
<b>Electrical protection:</b>	class 2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Mechanical protection:</b>	IP67	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Protection devices:</b>	A, B <sup>6</sup>	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Housing material:</b>																	
	PBT	●	●	●	●	●	●	●	●								
	nickel plated brass									●	●	●	●	●	●	●	●
<b>Lens material:</b>	PMMA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Weight:</b>																	
	75 g max.	●	●		●	●											
	25 g max.			●	●		●	●									
	110 g max.									●	●			●	●		
	60 g max.											●	●			●	●
<b>Operating temperature:</b>	-25 ... +55°C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Storage temperature:</b>	-25 ... +70°C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Reference standard:</b>	EN 60947-5-2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

SELECTION TABLE

plastic - axial optics - 2 m cable		
S50-PA-2-T01-NN	952001690	NPN
S50-PA-2-T01-PP	952001260	PNP

metal - axial optics - 2 m cable		
S50-MA-2-T01-NN	952021570	NPN
S50-MA-2-T01-PP	952021090	PNP

plastic - axial optics - M12 connector		
S50-PA-5-T01-NN	952001580	NPN
S50-PA-5-T01-PP	952001270	PNP

metal - axial optics - M12 connector		
S50-MA-5-T01-NN	952021730	NPN
S50-MA-5-T01-PP	952021290	PNP

plastic - radial optics - 2 m cable		
S50-PR-2-T01-NN	952001830	NPN
S50-PR-2-T01-PP	952001280	PNP

metal - radial optics - 2 m cable		
S50-MR-2-T01-NN	952021650	NPN
S50-MR-2-T01-PP	952021190	PNP

plastic - radial optics - M12 connector		
S50-PR-5-T01-NN	952001770	NPN
S50-PR-5-T01-PP	952001290	PNP

metal - radial optics - M12 connector		
S50-MR-5-T01-NN	952021810	NPN
S50-MR-5-T01-PP	952021390	PNP

All the ordering codes and information are summarised in the last pages of this catalogue.

TECHNICAL NOTES

- <sup>1</sup> Limit values
- <sup>2</sup> Average life of 100.000 h with T<sub>A</sub> = +25 °C
- <sup>3</sup> 270° single-turn trimmer
- <sup>4</sup> PVC, 4 x 0.14 mm<sup>2</sup>
- <sup>5</sup> Compatible with quick connection systems
- <sup>6</sup> A - reverse polarity protection  
B - overload and short-circuit protection on the outputs



DETECTION DIAGRAMS

axial on R5	1.4	1.7
axial on R2	1	1.3
radial on R5	1.4	1.7
radial on R2	1	1.3

● Recommended operating distance  
■ Maximum operating distance

High efficiency reflectors can be used to obtain larger operating distances. Refer to **Reflectors** (A.01) of the **General Catalogue**

