

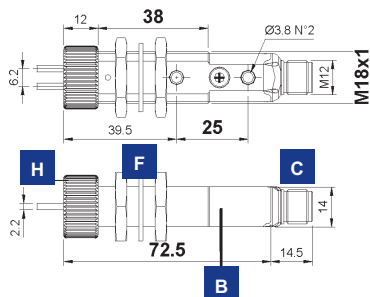
FIBRE-OPTIC AMPLIFIER WITH RED EMISSION

The amplifier is built to accept any standard 2.2 mm Ø fibre-optic which can be for either diffused or through beam operation. A locking ring when tightened holds the fibres firmly in position. The sensitivity is adjusted by an IP67 rated trimmer. The proximity or through beam fibres are mainly used in applications where space is of a premium and for detection of small objects. Special fibres are also available for high temperature and high wear applications. For further information on the extensive range of fibre-optic accessories please see the OF datasheet.

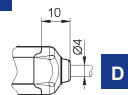
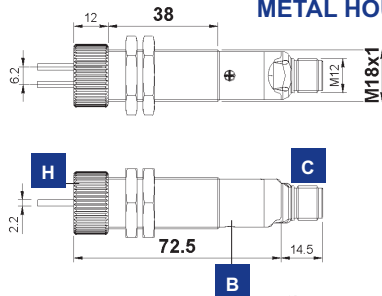


DIMENSIONS

PLASTIC HOUSING

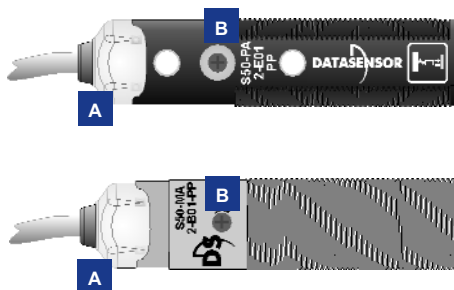


METAL HOUSING



mm

INDICATORS AND SETTINGS



- A** OUTPUT status and STABILITY LEDs
- B** Adjustment trimmer
- C** M12 connector output
- D** Cable output
- E** Fixing nuts
- F** Fixing gasket
- H** Fibre fixing nut

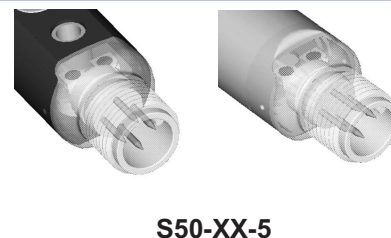
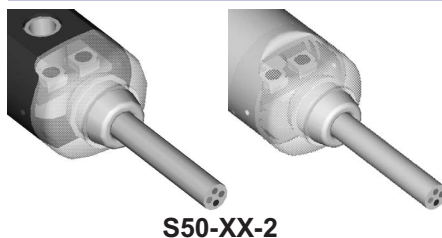
Single-turn trimmer for sensitivity adjustment. Rotate in a clockwise direction to increase the operating distance.

ACCESSORIES

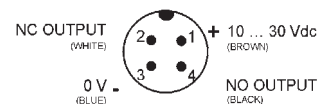
For dedicated accessories refer to the ACCESSORIES section of this catalogue.

Refer also to Fibre-optics (A.02), Connectors (A.03) and Fixing brackets (A.04) of the General Catalogue.

CONNECTIONS



BROWN	1	+	10 ... 30 Vdc
WHITE	2		NC OUTPUT
BLACK	4		NO OUTPUT
BLUE	3	-	0 V





TECHNICAL DATA

		S50-PA-2-E01-NN	S50-PA-2-E01-PP	S50-PA-5-E01-NN	S50-PA-5-E01-PP	S50-MA-2-E01-NN	S50-MA-2-E01-PP	S50-MA-5-E01-NN	S50-MA-5-E01-PP
Operating distance:									
proximity	3 cm (OF-42-ST-20 standard fibres)	●	●	●	●	●	●	●	●
through beam	10 cm (OF-43-ST-20 standard fibres)	●	●	●	●	●	●	●	●
Power supply:	10 ... 30 Vdc ¹	●	●	●	●	●	●	●	●
Ripple:	≤ 2 Vpp	●	●	●	●	●	●	●	●
Consumption:	≤ 35 mA	●	●	●	●	●	●	●	●
Light emission:	red LED 660 nm ²	●	●	●	●	●	●	●	●
Setting:	sensitivity trimmer ³	●	●	●	●	●	●	●	●
Indicators:									
	yellow OUTPUT LED	●	●	●	●	●	●	●	●
	green STABILITY	●	●	●	●	●	●	●	●
Output type:									
	PNP, NO and NC		●	●	●	●	●	●	●
	NPN, NO and NC	●	●	●	●	●	●	●	●
Output current:	≤ 100 mA	●	●	●	●	●	●	●	●
Saturation voltage:	≤ 2 V	●	●	●	●	●	●	●	●
Response time:	0.5 ms	●	●	●	●	●	●	●	●
Switching frequency:	1 kHz	●	●	●	●	●	●	●	●
Operating mode:	dark on NO / light on NC	●	●	●	●	●	●	●	●
Connection:									
	2 m Ø 4 mm cable ⁴	●	●	●	●	●	●	●	●
	M12 4-pole connector ⁵			●	●	●	●	●	●
Electrical protection:	class 2	●	●	●	●	●	●	●	●
Mechanical protection:	IP67	●	●	●	●	●	●	●	●
Protection devices:	A, B ⁶	●	●	●	●	●	●	●	●
Housing material:									
	PBT	●	●	●	●				
	nickel plated brass					●	●	●	●
Fibre fixing nut material:	ABS	●	●	●	●	●	●	●	●
Weight:									
	75 g max.	●	●						
	25 g max.			●	●				
	110 g max.					●	●		
	60 g max.							●	●
Operating temperature:	-25 ... +55°C	●	●	●	●	●	●	●	●
Storage temperature:	-25 ... +70°C	●	●	●	●	●	●	●	●
Reference standard:	EN 60947-5-2	●	●	●	●	●	●	●	●

SELECTION TABLE

plastic - axial optics - 2 m cable		
S50-PA-2-E01-NN	952001650	NPN
S50-PA-2-E01-PP	952001130	PNP

metal - axial optics - 2 m cable		
S50-MA-2-E01-NN	952021880	NPN
S50-MA-2-E01-PP	952021040	PNP

plastic - axial optics - M12 connector		
S50-PA-5-E01-NN	952001540	NPN
S50-PA-5-E01-PP	952001140	PNP

metal - axial optics - M12 connector		
S50-MA-5-E01-NN	952021890	NPN
S50-MA-5-E01-PP	952021240	PNP

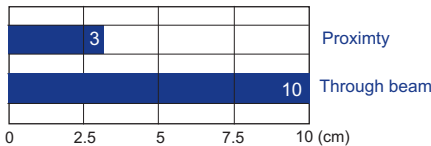
All the ordering codes and information are summarised in the last pages of this catalogue.

TECHNICAL NOTES

- Limit values
- Average life of 100.000 h with $T_A = +25^\circ\text{C}$
- 270° single-turn trimmer
- PVC, 4 x 0.14 mm²
- Compatible with quick connection systems
- A - reverse polarity protection
B - overload and short-circuit protection on the outputs



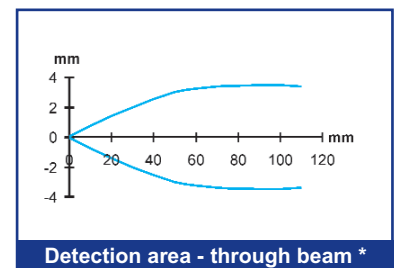
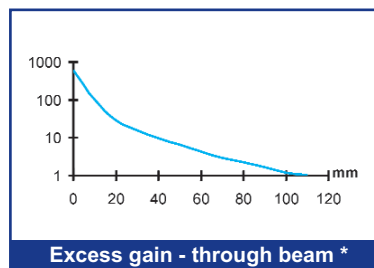
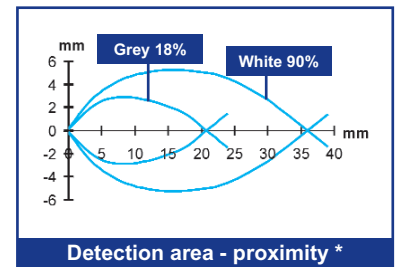
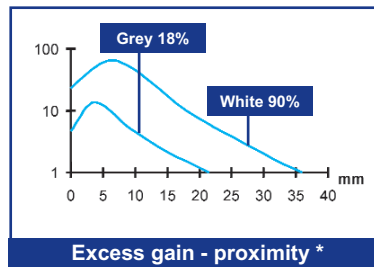
DETECTION DIAGRAMS



■ Operating distance with standard fibres

Standard fibre-optics:
OF-42-ST-20 proximity
OF-43-ST-20 through beam

High efficiency fibre-optics or accessory lenses can be used to obtain larger operating distances. Refer to **Fibre-optics (A.02)** of the **General Catalogue**.



* standard fibre-optics