TUBULAR SENSORS E E E C T R

DATALOGIC

S50 SERIES

The S50 series offers all optical functions within a M18 housing. With the universal sensing functions of proximity, polarised retroreflex and through beam, which are also available with class 1 laser emission, as well as the more advanced functions of background suppression, contrast and luminescence, the S50 really is one housing for all applications. The S50 setting is carried out-by either by potentiometer, which is sealed to IP67, or using the patented EASYtouch™ push-button teach system, which gives rapid and precise automatic setting of the switching points.

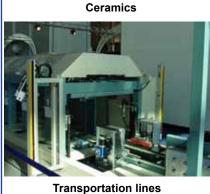
The S50 series is available both in flat plastic format ideal for M18 nut or screw mounting through the sensor body, as well as a cylindrical metal housing. Axial or radial optics are available in both housings with integral cable or M12 connection conforming to EN 60947-5-2, the European wiring standard. The performance, versatility and extensive optical sensing options, positions the S50 series as the new bench mark for customers focused on the evolution of technology and development of standards.



HIGHLIGHTS

- Complete range of optic functions, universal, application and laser class 1
- Flat plastic tubular housing for improved versatility or metal cylindrical housing
- Versions with axial or radial optics, with fixed, trimmer or EASYtouch™ teach-in adjustment
- Cable or M12 connection with EN standard NPN or PNP NO-NC configuration

APPLICATIONS





Beverage & Bottling



Packaging lines



G/F INFRARED EMISSION

Longer operating distances can be obtained utilising separate emitter and receiver units. The infrared emission is modulated to avoid interference with other light sources and the emitter is fitted with test inputs for remote system interrogation.



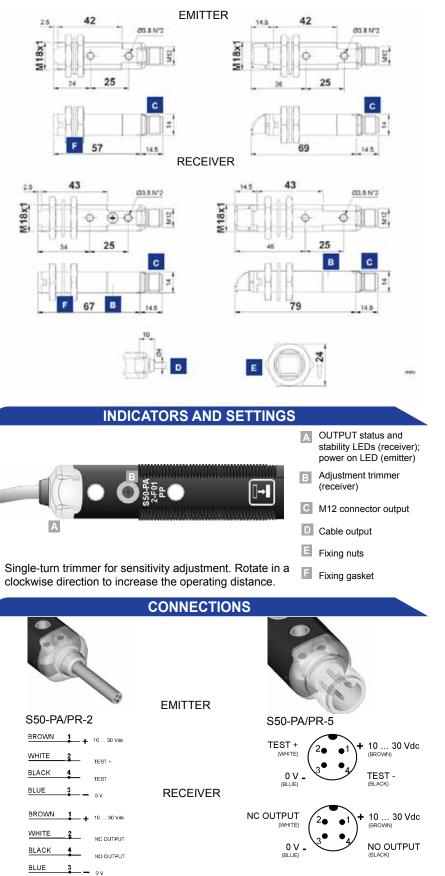
RADIAL OPTICS

ACCESSORIES For dedicated accessories refer to the ACCESSORIES section of this

Refer also to **Connectors and Fi**xing **brackets of the General** Catalogue.

catalogue.

DIMENSIONS



TECHNICAL DATA

TECHNICAL DA													
TECHNICAL NOTES ¹ Limit values ² Average life of 100.000 h with TA = +25 °C ³ 270° single-turn trimmer ⁴ Emitter off with Test+ on Vdc and Test- on 0 V ⁵ PVC, 4 x 0.14 mm ² ⁶ Compatible with quick connection systems ⁷ A - reverse polarity protection B - overload and short-circuit protection on receiver outputs			S50-PA-2-F01-PP	S50-PA-2-G00-XG	S50-PR-2-F01-NN	S50-PR-2-F01-PP	S50-PR-2-G00-XG	S50-PA-5-F01-NN	S50-PA-5-F01-PP	S50-PA-5-G00-XG	S50-PR-5-F01-NN	S50-PR-5-F01-PP	S50-PR-5-G00-XG
Operating distance:													
axial optics	0 30 m	•	•	•				•	•	•			
radial optics	0 25 m				٠	•	•				•	•	•
Power supply:	10 30 Vdc1	•	•	•	٠	•	•	•	•	•	•	•	•
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	•	•	•	•	•	•
Consumption:													
emitter	≤ 35 mA			•			•			•			•
receiver	≤ 30 mA	•	•		•	•		•	•		•	•	
Light emission:	infrared LED 880 nm ²			•			•			•			•
Spot dimension:													
axial optics	approx. 500 mm at 15 m			•						•			
radial optics	approx. 470 mm at 10 m						•						•
Setting:	sensitivity trimmer 3	•	•		٠	•		•	•		•	•	
Indicators:	yellow OUTPUT LED	•	•		•	•		•	•		•	•	
	green STABILITY LED	•	•		٠	•		•	•		•	•	
	green POWER ON LED			•			•			•			•
Output type:	PNP, NO and NC		•			•			•			•	
	NPN, NO and NC	•			•			•			•		
Output current:	≤ 100 mA	•	•		٠	•		•	•		•	•	
Saturation voltage:	≤ 2 V	•	•		٠	•		٠	•		•	•	
Response time:	2 ms	•	•		٠	•		٠	•		•	•	
Switching frequency:	250 Hz	•	•		٠	•		٠	•		•	•	
Operating mode:	dark on NO / light on NC	•	•		٠	•		٠	•		•	•	
Auxiliary functions:	Test + and Test -4			•			•			•			•
Connection:	2 m Ø 4 mm cable⁵	•	•	•	٠	•	•						
	M12 4-pole connector ⁶							•	•	•	•	•	•
Electrical protection:	class 2	•	•	•	•	•	•	•	•	•	•	•	•
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	•	•	•	٠
Protection devices:	A, B ⁷	•	•	•	•	•	•	•	٠	•	•	•	٠
Housing material:	PBT	•	•	•	•	•	•	•	•	•	•	•	•
Lens material:	PMMA	•	•	•	٠	•	•	٠	•	•	•	•	•
Weight:	75 g max.	•	•	•	•	•	•						
	25 g max.							•	•	•	•	•	•
Operating temperature:	-25 +55°C	•	•	•	•	•	•	٠	•	•	•	•	•
Storage temperature:	-25 +70°C	•	•	•	٠	•	•	٠	٠	•	•	•	•
Reference standard:	EN 60947-5-2	•	•	•	•	•	٠	•	•	•	•	•	•

SELECTION TABLE

receiver - axial optics - 2	m cable	
S50-PA-2-F01-NN 9	52001660	NPN
S50-PA-2-F01-PP 9	52001150	PNP

emitter - axial optics -	2 m cable	
S50-PA-2-G00-XG	952001190	

receiver - radial optics	s - 2 m cable	
S50-PR-2-F01-NN	952001820	NPN
S50-PR-2-F01-PP	952001170	PNP

e	emitter - radial optics -	2 m cable	
;	S50-PR-2-G00-XG	952001210	

receiver - axial optics - M12 connector					
	S50-PA-5-F01-NN	952001550	NPN		
	S50-PA-5-F01-PP	952001160	PNP		

emitter - axial optics -	M12 connector	
S50-PA-5-G00-XG	952001200	

receiver - radial optics - M12 connector					
S50-PR-5-F01-NN	952001760	NPN			
S50-PR-5-F01-PP	952001180	PNP			

emitter - radial optics -	- M12 connector
S50-PR-5-G00-XG	952001220

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

CECUL US LISTED (EX) II3DG* *Only on axial optic models

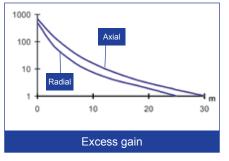
 axial
 25
 30

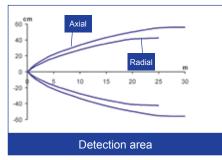
 radial
 20
 25

 0
 15
 30 (m)

Recommended operating distance
 Maximum operating distance







G/F INFRARED EMISSION

Longer operating distances can be obtained utilising separate emitter and receiver units. The infrared emission is modulated to avoid interference with other light sources and the emitter is fitted with test inputs for remote system interrogation.



RADIAL OPTICS

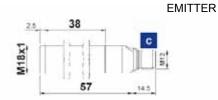


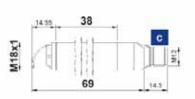
ACCESSORIES

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

Refer also to **Connectors and Fi**xing **brackets of the Genera**l Catal**ogue**.

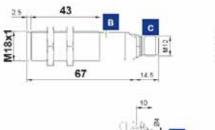
DIMENSIONS

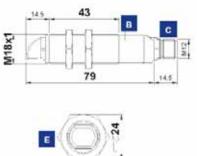




RECEIVER

INDICATORS AND SETTINGS

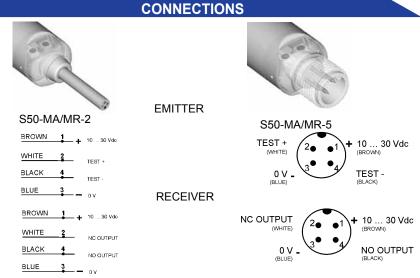




 A OUTPUT status and stability LEDs (receiver); power on LED (emitter)
 B Adjustment trimmer (receiver)

- C M12 connector output
- D Cable output
- E Fixing nuts

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



TECHNICAL DATA

¹ Limit values		-	•	с	7	•	U	7	•	U	7	•	σ
² Average life of 100.000 h with TA = +25 °C		Ž	ā,	Š	Ž	ā-	Ř	Ž	Ë,	Ř	Ž	ä	×-
³ 270° single-turn trimmer ⁴ Emitter off with Test+ on Vdc and Test- on 0 V			È	ទុ	È	È	ទុ	È	È	ទុ	È	È	õ
5 PVC, 4 x 0.14 mm ²			40	4-2	Ŕ	4' 2'	4 7	4-5	-9- ₽-	¢ ₽	ŝ	ά. Υ	-2- -2-
⁶ Compatible with quick conner ⁷ A - reverse polarity protection		S50-MA-2-F01-NN	S50-MA-2-F01-PP	S50-MA-2-G00-XG	S50-MR-2-F01-NN	S50-MR-2-F01-PP	S50-MR-2-G00-XG	S50-MA-5-F01-NN	S50-MA-5-F01-PP	S50-MA-5-G00-XG	S50-MR-5-F01-NN	S50-MR-5-F01-PP	S50-MR-5-G00-XG
	protection on receiver outputs	S50											
Operating distance:													
axial optics	0 20 m	•	•	•				•	•	•			
radial optics	0 15 m				•	•	•				•	•	•
Power supply:	10 30 Vdc1	•	•	•	•	•	•	•	•	•	•	•	•
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	•	•	•	•	•	•
Consumption:													
emitter	≤35 mA			•			•			•			•
receiver	≤ 30 mA	•	•		•	•		•	•		•	•	
Light emission:	infrared LED 880 nm ²			•			•			٠			•
Spot dimension:													
axial optics	approx. 500 mm at 15 m			•						•			
radial optics	approx. 470 mm at 10 m						•						•
Setting:	sensitivity trimmer ³	•	•		•	•		•	•		•	•	
Indicators:			•		•	•		•	•		•	•	
	green STABILITY LED		•		•	•		•	•		•	•	
	green POWER ON LED			•			•			•			•
Output type:	PNP, NO and NC		•			•			•			•	
	NPN, NO and NC	•			٠			•			•		
Output current:	≤ 100 mA	•	•		•	•		•	•		•	•	
Saturation voltage:	≤ 2 V	•	•		•	•		٠	•		•	•	
Response time:	2 ms	•	•		•	•		•	٠		•	•	
Switching frequency:	250 Hz	•	•		•	•		٠	•		•	•	
Operating mode:	dark on NO / light on NC	•	•		•	•		•	•		•	•	
Auxiliary functions:	Test + and Test -4			•			•			•			•
Connection:	2 m Ø 4 mm cable⁵	•	•	•	•	•	•						
	M12 4-pole connector ⁶							•	•	•	•	•	•
Electrical protection:	class 2	•	•	•	•	•	•	•	•	•	•	•	•
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	•	•	•	•
Protection devices:	A, B ⁷	•	•	•	•	•	•	•	•	•	•	•	•
Housing material:	nickel plated brass	•	•	•	•	•	•	•	•	•	•	•	•
Lens material:	PMMA	•	•	•	•	•	•	•	•	•	•	•	•
Weight:	110 g max.	•	•	•	•	•	•						
_	60 g max.							•	•	•	•	•	•
Operating temperature:	-25 +55°C	•	•	•	•	•	•	•	•	•	•	•	•
Storage temperature:	-25 +70°C	•	•	•	•	•	•	•	•	•	•	•	•
	EN 60947-5-2	•	•		•					•		•	•

SELECTION TABLE

receiver - axial optics - 2 m cable					
S50-MA-2-F01-NN	952021700	NPN			
S50-MA-2-F01-PP	952021250	PNP			

emitter - axial optics - 2 m cable				
S50-MA-2-G00-XG	952021060			

receiver - radial optics - 2 m cable							
S50-MR-2-F01-NN	952021640	NPN					
S50-MR-2-F01-PP	952021170	PNP					

emitter - radial optics -	2 m cable
S50-MR-2-G00-XG	952021180

receiver - axial optics - M12 connector								
	S50-MA-5-F01-NN	952021700	NPN					
	S50-MA-5-F01-PP	952021250	PNP					

emitter - axial optics -	M12 connector
S50-MA-5-G00-XG	952021260

receiver - radial optics - M12 connector								
S50-MR-5-F01-NN	952021800	NPN						
S50-MR-5-F01-PP	952021370	PNP						

emitter - radial optics - M12 connector					
S50-MR-5-G00-XG	952021380				

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

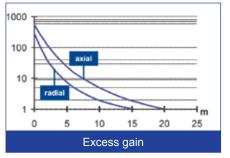
*Only on axial optic models

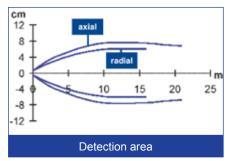
 axial
 15
 20

 radial
 10
 15

 0
 5
 10
 15
 20 (m)

Recommended operating distance Maximum operating distance





G/F LASER RED EMISSION

The high operating distance typical of emitter and receiver pairs is notably increased thanks to the use of visible red laser emission. The laser beam can be easily aligned and offers excellent detection resolution of even small objects. The class 1 laser emission guarantees maximum safety for the operators in all applications.



RADIAL OPTICS

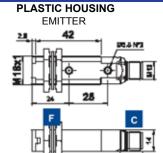


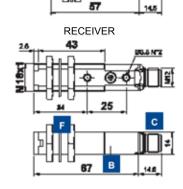
ACCESSORIES

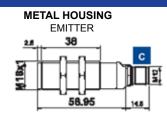
For **dedicated accessories** refer to the **ACCESSORIES section** of this catalogue.

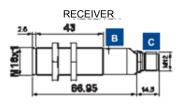
Refer also to **Connectors and Fi**xing **brackets of the Genera**l Catal**ogue**.





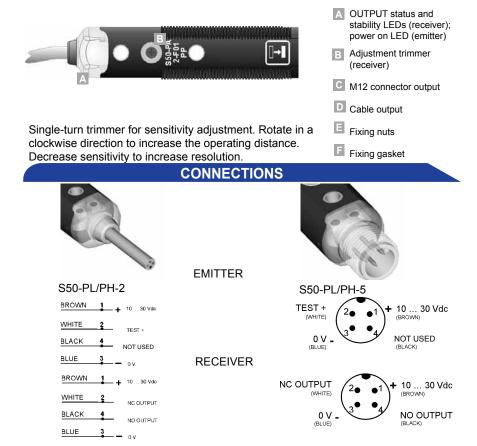




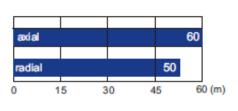




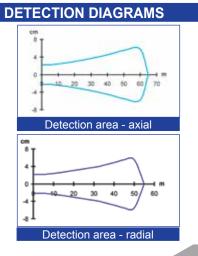
INDICATORS AND SETTINGS

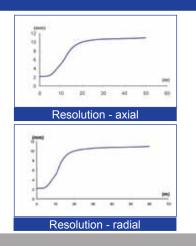


TECHNICAL D	ΑΤΑ													SELECTION T	ABLE	
TECHNICAL NOTES														emitter - axial optics - 2		
¹ Limit values ² Average life of 100.000 h wi	th T = +25 °C							(1)	_			_				
³ 270° single-turn trimmer	^	S50-PL-2-G00-XG	S50-PL-2-F01-NN	S50-PL-2-F01-PP	S50-PL-5-G00-XG	S50-PL-5-F01-NN	S50-PL-5-F01-PP	S50-PH-2-G00-XG	S50-PH-2-F01-NN	S50-PH-2-F01-PP	S50-PH-5-G00-XG	S50-PH-5-F01-NN	S50-PH-5-F01-PP	S50-PL-2-G00-XG	952001420	
⁴ Emitter off with Test+ conne not connected or connected 1	cted to +Vcc; Emitter on with Test+ to 0V	ğ	Ĕ	F0	ğ	5	F01	ğ	Ę	Ę	ğ	Ę	Ĕ			
⁵ PVC, 4 x 0.14 mm ²		2	Ŕ	'n	Ϋ́	Ϋ́	-' 2'	Ϋ́	42 H	Ϋ́	μ. Η	μ'n	μ	receiver - axial optics - 2	m cable	
⁶ Compatible with quick conn ⁷ A - reverse polarity protection		4	Ę	Ę	Ę	Ę	I0	Ę	F	4	Ę	Ę	4	S50-PL-2-F01-NN	952021890	NPN
	it protection on receiver outputs	S5(S5(S5(S5I	S5	S5(S5	S5(S5(S5	S5	S5	S50-PL-2-F01-PP	952021400	PNP
Operating distance:														330-FL-2-101-FF	952021400	FINE
axial optics	0 60 m	•	•	•	•	•	٠									
radial optics	0 50 m							•	•	•	•	•	•	emitter - radial optics - 2	m cable	
Power supply:	10 30 Vdc1	•	•	•	•	•	٠	•	•	•	•	•	•	S50-ML-2-G00-XG	952002060	
Ripple:	≤ 2 Vpp	•	•	•	•	•	٠	٠	•	•	•	•	•			1
Consumption:																
emitter	≤ 35 mA	•			•			•			•			receiver - axial optics - 2	m cable	1
receiver	≤ 30 mA		•	•		٠	•		•	٠		•	•	S50-ML-2-F01-NN	952002030	NPN
Light emission:	red Laser 650 nm ²	•			•			•			•			S50-ML-2-F01-PP	952002020	PNP
	class 1 EN 60825-1															1
	class II CDRH21 CFR .104010															
Resolution:	approx. 2.5 mm at 5 m		•	•		•	٠		•	•		•	•	emitter -axial optics - M1	2 connector	1
	approx. 5 mm at 10 m		•	•		•	•		•	•		•	•	S50-PL-5-G00-XG	952001430	
	approx. 10 mm over 20 m		•	•		•	٠		•	•		•	•			
Setting:	sensitivity trimmer ³		•	٠		•	•		•	•		٠	•	receiver - axial optics - N	112 connector	
Indicators:	yellow OUTPUT LED		•	•		•	•		•	•		٠	•	· · · · ·		NEN
	green POWER ON LED	•	•	•	•	•	٠	•	•	•	•	•	•	S50-PL-5-F01-NN	952001860	NPN
Output type:	PNP, NO and NC			•			٠			•			•	S50-PL-5-F01-PP	952001410	PNP
	NPN, NO and NC		•			•			•			٠				
Output current:	≤ 100 mA		•	•		•	٠		•	•		•	•	emitter - radial optics - N	112 connector	
Saturation voltage:	≤ 2 V		•	•		•	•		•	•		•	•	S50-ML-5-G00-XG		
Response time:	333 µs		•	•		•	٠		•	•		•	•	550-IVIL-5-G00-AG	952022070	
Switching frequency:	1.5 kHz		•	•		•	٠		•	•		•	•			
Operating mode:	dark on NO / light on NC		•	•		•	•		•	•		٠	•	receiver - axial optics - N	/12 connector	
Auxiliary functions:	Test + ⁴	•			•			•			•			S50-ML-5-F01-NN	952002050	NPN
Connection:	2 m Ø 4 mm cable⁵	•	•	٠				٠	•	•				S50-ML-5-F01-PP	952002040	PNP
	M12 4-pole connector ⁶				•	•	•				•	٠	•			
Electrical protection:	class 2	•	•	•	•	•	•	٠	•	•	•	•	•	All the ordering codes		
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	•	•	•	•	summarised in the las	t pages of this c	atalogue.
Protection devices:	A, B ⁷	•	•	•	•	٠	•	•	•	•	•	•	•	The use of the MICR	O-18 fixing bra	cket
Housing material:	PBT	•	•	•	•	٠	•							(cod. 95ACC1380) is	•	
	Nickel plated brass							•	•	•	•	•	•	correct optic axis ali		
Lens material:	PMMA / glass	•	•	•	•	•	•	•	•	•	•	•	•	emission.		
Weight:	75 g max.	•	•	•				•	•	•						
	25 g max.				•	•	•				•	•	•			
Operating temperature:	-10 +50°C	٠	•	•	•	•	•	•	•	•	•	•	•			
Storage temperature:	-25 +70°C	•	•	•	•	•	•	•	•	•	•	•	•	_		
Reference standard:	EN 60947-5-2,	•	•	•	•	٠	•	•	•	•	•	•	•			2*
	EN 60825-1,	•			•			•			•					
	CDRH21 CFR 1040.10											1		*Only on axial optic m	odels	



Operating distance





G/F LASER RED EMISSION

The high operating distance typical of emitter and receiver pairs is notably increased thanks to the use of visible red laser emission. The laser beam can be easily aligned and offers excellent detection resolution of even small objects. The class 1 laser emission guarantees maximum safety for the operators in all applications.



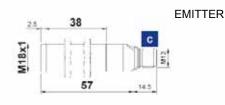


ACCESSORIES

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

Refer also to **Connectors and Fi**xing **brackets of the General** Catal**ogue**.

DIMENSIONS

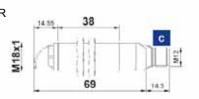


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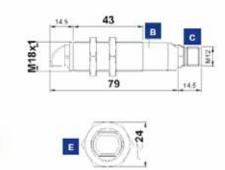
67

23

M18x1



RECEIVER

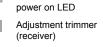


INDICATORS AND SETTINGS



14

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

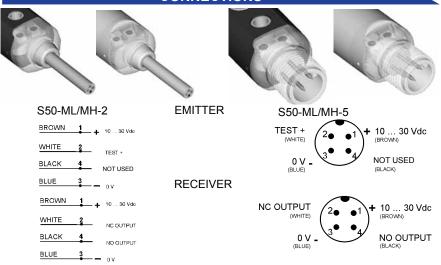


OUTPUT status and

M12 connector output

- Cable output
- Fixing nuts
- F Fixing gasket

CONNECTIONS



TECHNICAL D	ATA													
TECHNICAL NOTES ¹ Limit values ² Average life of 50.000 h wit ³ 270° single-turn trimmer	h T _A = +25 °C	U S	Z	e.	U S	Z	P	ບ X	Z	Ь	۵ XG	Z	Р	
⁴ Emitter off with Test+ connected or connected	ected to +Vcc; Emitter on with Test+ d to 0V	S50-ML-2-G00-XG	S50-ML-2-F01-NN	S50-ML-2-F01-PP	S50-ML-5-G00-XG	S50-ML-5-F01-NN	S50-ML-5-F01-PP	S50-MH-2-G00-XG	S50-MH-2-F01-NN	S50-MH-2-F01-PP	S50-MH-5-G00-XG	S50-MH-5-F01-NN	S50-MH-5-F01-PP	
⁵ PVC, 4 x 0.14 mm ² ⁶ Compatible with quick conr	nection systems	Ĭ	Ţ	Ť	Ļ	Ť	٩Ľ	Η̈́	Ŧ	Ŧ	Ť	Ť	Ť	
⁷ A - reverse polarity protection B - overload and short-circu	on uit protection on receiver outputs	S50-I												
Operating distance:														L
axial optics	0 60 m	٠	•	•	•	•	•							
radial optics	0 50 m							•	•	•	•	•	•	
Power supply:	10 30 Vdc 1	٠	•	•	٠	•	•	•	•	•	•	•	•	
Ripple:	≤ 2 Vpp	٠	•	•	•	•	•	•	•	•	•	•	•	⁻
Consumption:														
emitter	≤ 35 mA	٠			•			•			•			
receiver	≤ 30 mA		•	•		•	•		•	•		•	•	
Light emission:	red Laser 650 nm ²	٠			٠			•			•			
	class 1 EN 60825-1													
	class II CDRH21 CFR .1040.10													
Resolution:	approx. 2.5 mm at 5 m		•	•		•	•		•	•		•	•	
	approx. 5 mm at 10 m		•	•		•	•		•	•		•	•	
	approx. 10 mm over 20 m		•	•		•	•		•	•		•	•	
Setting:	sensitivity trimmer ³		•	•		•	•		•	•		•	•	
Indicators:	yellow OUTPUT LED		•	•		•	•		•	•		•	•	
	green POWER ON LED	•	•	•	•	•	•	•	•	•	•	•	•	
Output type:	PNP, NO and NC			•			•			•			•	
	NPN, NO and NC		•			•			•			•		
Output current:	≤ 100 mA		•	•		•	•		•	•		•	•	
Saturation voltage:	≤ 2 V		•	•		•	•		•	•		•	•	
Response time:	333 µs		•	•		•	•		•	•		•	•	L
Switching frequency:	1.5 kHz		•	•		•	•		•	•		•	•	
Operating mode:	dark on NO / light on NC		•	•		•	•		•	•		•	•	
Auxiliary functions:	Test +4	•			•			•			•			
Connection:	2 m Ø 4 mm cable⁵	•	•	•				•	•	•				
	M12 4-pole connector ⁶				•	•	•				•	•	•	L
Electrical protection:	class 2	•	•	•	•	•	•	•	•	•	•	•	•	Α
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	•	•	•	•	s
Protection devices:	A, B ⁷	•	•	•	•	•	•	•	•	•	•	•	•	т
Housing material:	Nichel plated brass	•	•	•	•	•	•	•	•	•	•	•	•	
Lens material:	PMMA / glass	•	•	•	•	•	•	•	•	•	•	•	•	c, (
Weight:	75 g max.	•	•	•				•	•	•			<u> </u>	e
	25 g max.				•	•	•				•	•	•	ľ
Operating temperature:	-10 +50°C	•	•	•	•	•	•	•	•	•	•	•	•	
Storage temperature:	-25 +70°C	•	•	•	•	•	•	•	•	•	•	•	•	
Reference standard:	EN 60947-5-2,	•	•	•	•	•	•	•	•	•	•	•	•	1
	EN 60825-1,	•			•						•			
	CDRH21 CFR 1040.10	-			- T			-			- T			*

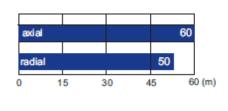
		emitter - axial optics - 2	m cable	
Z	4	S50-ML-2-G00-XG	952021430	
S50-MH-5-F01-NN	S50-MH-5-F01-PP			
-9- H	-9- H	receiver - axial optics - 2	2 m cable	
50-M	50-M	S50-ML-2-F01-NN	952021840	NPN
Ö	Ö	S50-ML-2-F01-PP	952021420	PNP
•	•	emitter - radial optics - 2	2 m cable	
•	•	S50-MH-2-G00-XG	952022060	
•	•			
		receiver - radial optics -	2 m cable	
•	•	S50-MH-2-F01-NN	952022030	NPN
		S50-MH-2-F01-PP	952022020	PNP
•	•	emitter - axial optics - N	112 connector	
•	•	S50-ML-5-G00-XG	952021470	
•	•			
•	•	receiver - axial optics -	M12 connector	
•	•	S50-ML-5-F01-NN	952021870	NPN
-	•	S50-ML-5-F01-PP	952021460	PNP
•				
•	•	emitter - radial optics -	M12 connector	
•	•	S50-MH-5-G00-XG	952022070	
•	•			
•	•	receiver - radial optics -	- M12 connector	
		S50-MH-5-F01-NN	952022050	NPN
		S50-MH-5-F01-PP	952022040	PNP
•	•	All the ordering codes	and information	aro

SELECTION TABLE

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

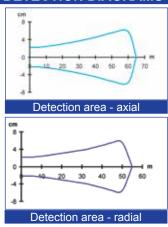
The use of the MICRO-18 fixing bracket (cod. 95ACC1380) is recommended for the correct optic axis alignment of the laser emission.

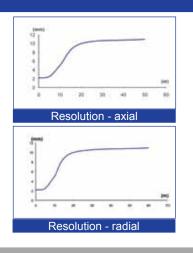
*Only on axial optic models



Operating distance







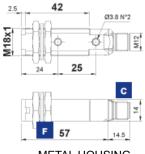
A INFRARED EMISSION

With retroreflex sensors the object is detected when it interrupts the light beam generated between the sensor and its associated prismatic reflector. This retroreflex system, created between the sensor and the reflector, offers the advantage of electrically connecting one single unit instead of two, as in the emitter-receiver system.

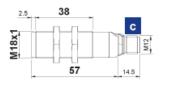


DIMENSIONS

PLASTIC HOUSING



METAL HOUSING





INDICATORS AND SETTINGS

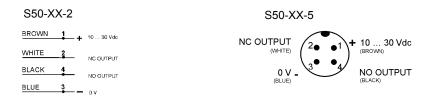


ACCESSORIES

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

Refer also to Connectors and Fixing brackets of the General Catalogue.





TECHNICAL DATA

ILCHNICAL D									
TECHNICAL NOTES ¹ Limit values ² Average life of 100.000 h with ³ PVC, 4 x 0.14 mm ² ⁴ Compatible with quick conne ⁵ A - reverse polarity protectior B - overload and short-circuit	ction systems	S50-PA-2-A00-NN	S50-PA-2-A00-PP	S50-PA-5-A00-NN	S50-PA-5-A00-PP	S50-MA-2-A00-NN	S50-MA-2-A00-PP	S50-MA-5-A00-NN	S50-MA-5-A00-PP
Operating distance:	0.1 5 m	•	•	•	•	•	•	•	٠
Power supply:	10 30 Vdc 1	•	•	•	•	•	•	•	•
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	•	•
Consumption:	≤ 35 mA	•	•	•	•	•	•	•	•
Light emission:	infrared LED 880 nm ²	•	•	•	•	٠	•	•	•
Spot dimension:	approx. 100 mm at 2 m	•	•	•	•	•	•	•	•
Indicators:	yellow OUTPUT LED	•	•	•	•	•	•	•	•
Output type:	PNP, NO and NC		•		•		•		•
	NPN, NO and NC	•		•		٠		•	
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 ³	•	•			•	•		
	M12 4-pole connector ⁴			•	•			٠	•
Electrical protection:	class 2	•	•	•	•	•	•	•	•
Mechanical protection:	IP67	•	•	•	•	•	•	•	•
Protection devices:	A, B ⁵	•	•	•	•	•	•	•	•
Housing material:	PBT	•	•	•	•				
	nickel plated brass					•	•	•	•
Lens material:	PMMA	•	•	٠	•	•	•	•	•
Weight:	75 g max.	•	•						
	25 g max.			٠	•				
	110 g max.					•	•		
	60 g max.							•	•
Operating temperature:	-25 +55°C	•	•	•	•	•	•	•	•
Storage temperature:	-25 +70°C	•	•	•	•	•	•	•	•
Reference standard:	EN 60947-5-2	•	•	•	•	•	•	•	•

SELECTION TABLE

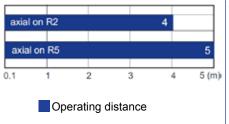
plastic - axial optics - 2 m cable								
S50-PA-2-A00-NN	952002090	NPN						
S50-PA-2-A00-PP	952002080	PNP						

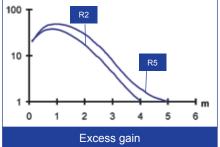
metal - axial optics - 2		
S50-MA-2-A00-NN	952022090	NPN
S50-MA-2-A00-PP	952022080	PNP

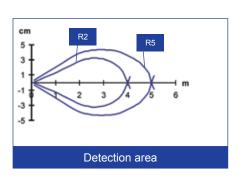
plastic - axial optics - I						
S50-PA-5-A00-NN	952002110	NPN				
S50-PA-5-A00-PP	952002100	PNP				

metal - axial optics - M12 connector										
S50-MA-5-A00-NN	NPN									
S50-MA-5-A00-PP	952022100	PNP								

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







B INFRARED EMISSION

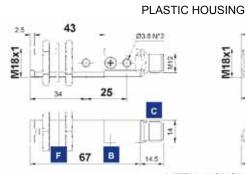
With retroreflex sensors the object is detected when it interrupts the light beam generated between the sensor and its associated prismatic reflector. Highpolarisation optic filters also allow reliable detection of very reflective objects, such as mirrored surfaces that, differently from the prismatic reflector, reflect the light beam without rotating the polarisation plane.

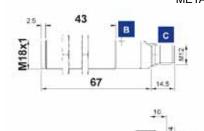


DIMENSIONS

D

M18×1







E

43

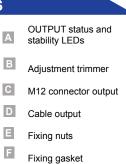
Ø3.8 N°2

112

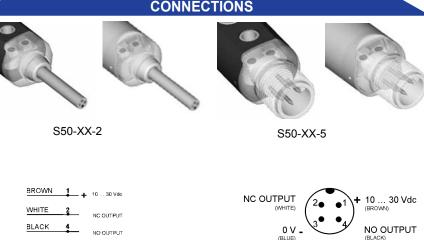
INDICATORS AND SETTINGS RADIAL OPTICS Α Single-turn trimmer for sensitivity adjustment. Rotate in a clockwise direction to increase the operating distance CONNECTIONS ACCESSORIES For dedicated accessories refer to the ACCESSORIES section of this catalogue. Refer also to Reflectors (A.01), Con-

BLUE

3 -- ov



mm



Versions and options: refer to MODEL ALPHABETICAL INDEX of this catalogue.

nectors (A.03) and Fixing brackets (A.04) of the General Catalogue.

TECHNICAL DATA

TECHNICAL NOTES ¹ Limit values ² Average life of 100.000 h w ³ 270° single-turn trimmer ⁴ PVC, 4 × 0.14 mm ² ⁵ Compatible with quick conn ⁶ A - reverse polarity protectic B - overload and short-circu	S50-PA-2-B01-NN	S50-PA-2-B01-PP	S50-PA-5-B01-NN	S50-PA-5-B01-PP	S50-PR-2-B01-NN	S50-PR-2-B01-PP	S50-PR-5-B01-NN	S50-PR-5-B01-PP	S50-MA-2-B01-NN	S50-MA-2-B01-PP	S50-MA-5-B01-NN	S50-MA-5-B01-PP	S50-MR-2-B01-NN	S50-MR-2-B01-PP	S50-MR-5-B01-NN	S50-MR-5-B01-PP	
Operating distance:																	
axial optics	0.1 4.5 m	•	•	•	•					٠	•	•	•				
radial optics	0.1 3 m					•	•	•	•					•	•	•	•
Power supply:	10 30 Vdc1	•	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Consumption:	≤35 mA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Light emission:	red LED 660 nm ²	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Spot dimension:																	
axial optics	approx. 45 mm at 1 m	•	•	•	•					•	•	•	•				
radial optics	approx. 60 mm at 2 m					•	•	•	•					•	•	•	•
Setting:	sensitivity trimmer ³	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Indicators:	yellow OUTPUT LED	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	green STABILITY LED	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Output type:	PNP, NO and NC		•		•		•		•		•		•		•		•
	NPN, NO and NC	•		•		•		•		•		•		•		•	
Output current:	≤100 mA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Saturation voltage:	≤ 2 V	•	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•
Response time:	0.5 ms	•	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•
Switching frequency:	1 kHz	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Operating mode:	dark on NO / light on NC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Connection:	2 m Ø 4 mm cable ⁴	•	•			•	•			•	•			•	•		
	M12 4-pole connector⁵			•	•			•	•			•	•			•	•
Electrical protection:	class 2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Protection devices:	A, B ⁶	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Housing material:	PBT	•	•	•	•	•	•	•	•								
	nickel plated brass									•	•	•	•	•	•	•	•
Lens material:	PMMA	•	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•
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:	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
		·												<u> </u>			

SELECTION TABLE

plastic - axial optics - 2 m cable										
S50-PA-2-B01-NN	952001610	NPN								
S50-PA-2-B01-PP	952001010	PNP								
metal - axial optics - 2	2 m cable									
S50-MA-2-B01-NN	952021500	NPN								
S50-MA-2-B01-PP	952021000	PNP								

plastic - axial optics - M12 connector											
S50-PA-5-B01-NN	952001500	NPN									
S50-PA-5-B01-PP	952001020	PNP									

metal - axial optics - M12 connector											
	S50-MA-5-B01-NN	952021660	NPN								
	S50-MA-5-B01-PP	952021200	PNP								

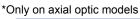
plastic - radial optics - 2 m cable										
S50-PR-2-B01-NN	952001780	NPN								
S50-PR-2-B01-PP	952001030	PNP								

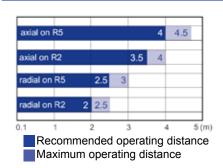
metal - radial optics - 2 m cable										
S50-MR-2-B01-NN	952021600	NPN								
S50-MR-2-B01-PP	952021140	PNP								

plastic - radial optics - M12 connector											
S50-PR-5-B01-NN	952001720	NPN									
S50-PR-5-B01-PP	952001040	PNP									

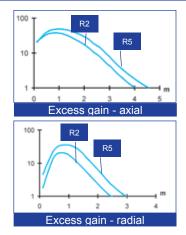
metal - radial optics - M12 connector											
S50-MR-5-B01-NN	952021760	NPN									
S50-MR-5-B01-PP	952021340	PNP									

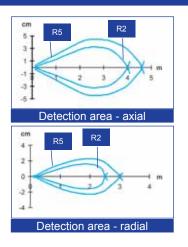
All the ordering codes and information are summarised in the last pages of this catalogue.





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





B LASER RED EMISSION

The visible red laser emission increases the operating distance and resolution of the polarised retroreflex sensor. Specific R7 or R8 reflectors with 0.8 mm microprisms are available for highresolution detection of small objects. The class 1 laser emission guarantees maximum safety for the operators in all applications.



PLASTIC HOUSING 43 Ø3.8 N*2 Ø3.8 N°2 M18x1 M18x⁻ 2 5 25 25 8 C C в 79 67 METAL HOUSING 43 43 22 8 в С C M18x1 18x1 112 67 79 14.5 10 D mm

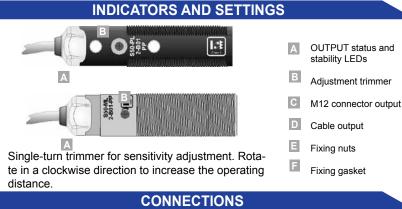
DIMENSIONS

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.





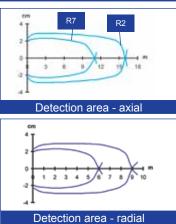


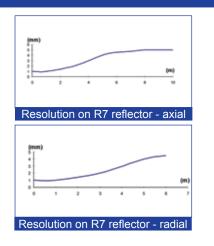
TECHNICAL D	ATA																	SELECTION TABLE						
TECHNICAL NOTES														_				plastic - axial optics - 2 m cable						
¹ Limit values ² Average life of 100.000 h w	vith T _A = +25 °C	NN N	đ	N N	d,	NN-	ď	NN-	ď	Å Å	d 4	- N N	44	-NA	d 4	-NN	44	S50-PL-2-B01-NN 952001870 NPN						
 ³ 270° single-turn trimmer ⁴ PVC, 4 x 0.14 mm² ⁵ Compatible with quick connection systems 		S50-PA-2-B01-NN	S50-PA-2-B01-PP	S50-PA-5-B01-NN	S50-PA-5-B01-PP	S50-PR-2-B01-NN	S50-PR-2-B01-PP	S50-PR-5-B01-NN	S50-PR-5-B01-PP	S50-MA-2-B01-NN	S50-MA-2-B01-PP	S50-MA-5-B01-NN	S50-MA-5-B01-PP	S50-MR-2-B01-NN	S50-MR-2-B01-PP	S50-MR-5-B01-NN	S50-MR-5-B01-PP	S50-PL-2-B01-PP 952001360 PNP						
⁶ A - reverse polarity protection B - overload and short-circular B - overload and short-circular	on uit protection on receiver outputs	0-P	4-0	0-P	4-0	4-0	4-0	14-0	4-0	Ň	N-0	N-0	N-0	N-0	N-0	N-0	IN-0	plastic - radial optics - 2 m cable						
	· · · · · · · · · · · · · · · · · · ·	S5	S50-PH-2-B01-NN 952001950 NPN																					
Operating distance:																		S50-PH-2-B01-PP 952001940 PNP						
axial optics	0.1 16 m	•	•	•	•					•	•	•	•					S50-PH-2-B01-PP 952001940 PNP						
radial optics	0.1 9 m					٠	•	•	•					•	•	•	•	metal - axial optics - 2 m cable						
Power supply:	10 30 Vdc1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-ML-2-B01-NN 952021820 NPN						
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
Consumption:	≤ 35 mA	٠	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	S50-ML-2-B01-PP 952021400 PNP						
Light emission:	red Laser 650 nm ²	٠	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	metal - radial optics - 2 m cable						
	class 1 EN 60825-1																							
	class II CDRH21 CFR 1040.10																	S50-MH-2-B01-NN 952021950 NPN						
Resolution:	2 mm max. at 3 m (on R7)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-MH-2-B01-PP 952021940 PNP						
	5 mm max. over 7 m (on R2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
Setting:	sensitivity trimmer ³	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	plastic -axial optics - M12 connector						
Indicators:	yellow OUTPUT LED	٠	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	S50-PL-5-B01-NN 952001840 NPN						
	green STABILITY LED	٠	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	S50-PL-5-B01-PP 952001370 PNP						
Output type:	PNP, NO and NC		•		•		•		•		•		•		•		•							
	NPN, NO and NC	٠		•		٠		•		•		•		•		•		plastic -radial optics - M12 connector						
Output current:	≤ 100 mA	٠	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	S50-PH-5-B01-NN 952001970 NPN						
Saturation voltage:	≤ 2 V	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-PH-5-B01-PP 952001960 PNP						
Response time:	333 ms	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
Switching frequency:	1.5 kHz	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	metal - axial optics - M12 connector						
Operating mode:	dark on NO / light on NC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-ML-5-B01-NN 952021850 NPN						
Connection:	2 m Ø 4 mm cable ⁴	•	•			•	•			•	•			•	•									
	M12 4-pole connector ⁵			•	•			•	•			•	•			•	•	S50-ML-5-B01-PP 952021440 PNP						
Electrical protection:	class 2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	metal - radial optics - M12 connector						
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
Protection devices:	A, B ⁶	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-MH-5-B01-NN 952021970 NPN						
Housing material:	PBT	•	•	•	•	•	•	•	•									S50-MH-5-B01-PP 952021960 PNP						
	nickel plated brass									•	•	•	•	•	•	•	•	All the ordering codes and information are sum-						
Lens material:	PMMA / glass	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	marised in the last pages of this catalogue.						
Weight:	75 g max.	•	•	•	•					•	•			•	•			The use of the MICRO-18 fixing bracket (cod.						
	25 g max.					•	•	•	•			•	•			•	•	95ACC1380) is recommended for the correct						
	110 g max.									•	•	•	•					optic axis alignment of the laser emission.						
	60 g max.													•	•	•	•							
Operating temperature:	-10 +50°C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-						
Storage temperature:	-25 +70°C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
Reference standard:	EN 60947-5-2, EN 60825-1,	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
	CDRH21 CFR 1040.10	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	*Only on axial optic models						

axial on R2 16 11 axial on R7 radial on R2 9 radial on R7 6 12 16 (m) 8

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

Operating distance







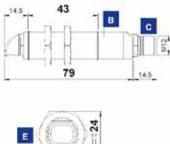
T RED EMISSION

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.



43 25 Ø3.8 N*2 M18×1 18x1 25 C 2 в F 79 67 14.5 METAL HOUSING 43 в С M18×1 M18x1 112 67 16.5





Ø3.8 N°2

C

mm

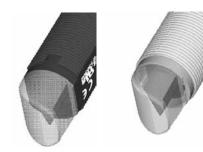
NO OUTPUT

2

25

в

RADIAL OPTICS



ACCESSORIES

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

Refer also to **Connectors and Fi**xing **brackets of the General** Catalogue.



Α

BLACK

BLUE

4

3 ____ ov

NO OUTPUT

INDICATORS AND SETTINGS





Versions and options: refer to MODEL ALPHABETICAL INDEX of this catalogue.

OV-

DIMENSIONS

PLASTIC HOUSING

TECHNICAL D	ΑΤΑ																	SELEC
TECHNICAL NOTES ¹ Limit values ² Average life of 100.000 h w ³ 270° single-turn trimmer ⁴ PVC, 4 x 0.14 mm ² ⁵ Compatible with quick conn ⁶ A - reverse polarity protection B - overload and short-circu	ection systems	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	plastic - ax S50-PA-2- S50-PA-2- metal - axia
Operating distance:																		S50-MA-2-
axial optics	0.1 1.7 m	•	٠	•	•					•	•	•	•					S50-MA-2-
radial optics	0.1 1.7 m					•	•	•	•					•	•	•	•	000 10772
Power supply:	10 30 Vdc 1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	plastic - ax
Consumption:	≤ 35 mA	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	S50-PA-5-
Light emission:	red LED 660 nm ²	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-PA-5-
Spot dimension:																		
axial optics	approx. 45 mm at 1 m	•	•	•	•					•	•	•	•					
radial optics	approx. 60 mm at 1 m					•	•	•	•					•	•	•	•	metal - axia
Setting:	sensitivity trimmer 3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-MA-5-
Indicators:	yellow OUTPUT LED	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-MA-5-
Output type:	PNP, NO and NC		•		•		•		٠		•		•		•		•	
	NPN, NO and NC	•		•		•		•		•		•		•		•		
Output current:	≤ 100 mA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	plastic - rad
Saturation voltage:	≤ 2 V	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-PR-2-
Response time:	0.5 ms	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	S50-PR-2-
Switching frequency:	1 kHz	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Operating mode:	dark on NO / light on NC	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	
Connection:	2 m Ø 4 mm cable 4	•	•			•	•			•	•			•	•			metal - rad
	M12 4-pole connector 5			•	•			•	٠			•	•			•	•	S50-MR-2-
Electrical protection:	class 2	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	S50-MR-2-
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Protection devices:	A, B ⁶	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	
Housing material:	PBT	•	•	•	•	•	•	•	•									plastic - rac
	nickel plated brass									•	•	•	•	•	•	•	•	S50-PR-5-
Lens material:	PMMA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-PR-5-
Weight:	75 g max.	•	•			•	•											L
	25 g max.			•	•			•	٠									
	110 g max.									•	•			•	•			metal - rad
	60 g max.											•	•			•	•	S50-MR-5-
Operating temperature:	-25 +55°C	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	S50-MR-5-
Storage temperature:	-25 +70°C	•	•	•	•	٠	•	•	٠	•	•	•	•	•	•	•	•	L
Reference standard:	EN 60947-5-2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	All the orde

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							
1	S50-PR-2-T01-NN	952001830	NPN					
	S50-PR-2-T01-PP	952001280	PNP					

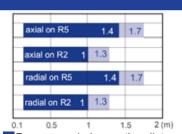
metal - radial optics - 2 m cable							
S50-MR-2-T01-NN	952021650	NPN					
S50-MR-2-T01-PP	952021190	PNP					

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

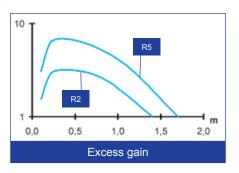
metal - radial optics - M12 connector						
S50-MR-5-T01-NN	952021810	NPN				
S50-MR-5-T01-PP	952021390	PNP				

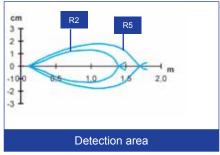
All the ordering codes and information are summarised in the last pages of this catalogue.





Recommended operating distance Maximum operating distance High efficiency reflectors can be used to obtain larger operating distances. Refer to **Reflectors** of the **General Catalogue.**



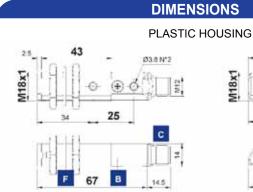


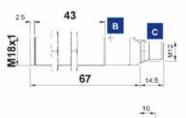
C SHORT INFRARED EMISSION

This diffuse proximity sensor represents a reliable, simple and cost-effective solution for the direct detection of any object inside the fixed operating distance.

Its particularly compact dimensions permit the installation in very small spaces.





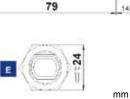




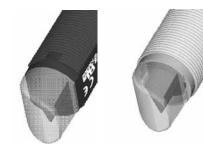
Ø3.8 N°2

1112

D



RADIAL OPTICS

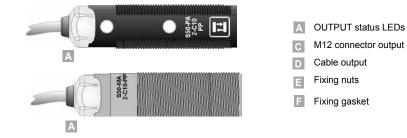


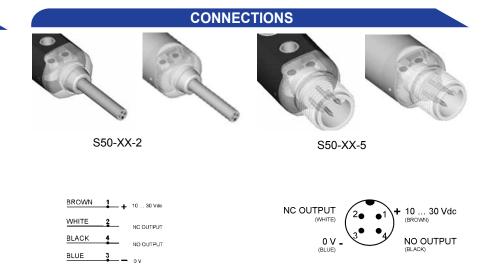
ACCESSORIES

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

Refer also to Connectors and Fixing brackets of the General Catalogue.







TECHNICAL D	ΑΤΑ																
TECHNICAL NOTES ¹ Limit values ² Average life of 100.000 h wi ³ PVC, 4 × 0.14 mm ² ⁴ Compatible with quick conn ⁵ A - reverse polarity protectic B - overload and short-circu	ection systems	S50-PA-2-C10-NN	S50-PA-2-C10-PP	S50-PA-5-C10-NN	S50-PA-5-C10-PP	S50-PR-2-C10-NN	S50-PR-2-C10-PP	S50-PR-5-C10-NN	S50-PR-5-C10-PP	S50-MA-2-C10-NN	S50-MA-2-C10-PP	S50-MA-5-C10-NN	S50-MA-5-C10-PP	S50-MR-2-C10-NN	S50-MR-2-C10-PP	S50-MR-5-C10-NN	S50-MR-5-C10-PPx
Operating distance:																	
axial optics	0 10 cm	•	•	•	•					•	•	•	•				
radial optics	0 8 cm					•	•	•	•					•	•	•	•
Power supply:	10 30 Vdc 1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•
Consumption:	≤ 35 mA	٠	•	•	•	•	•	•	٠	•	•	•	•	•	•	٠	٠
Light emission:	infrared LED 880 nm ²	•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•
Spot dimension:																	
axial optics	approx. 80 mm at 10 cm	•	•	•	•					•	•	•	•				
radial optics	approx. 55 mm at 10 cm					•	•	•	٠					•	•	٠	•
Indicators:	yellow OUTPUT LED	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Output type:	PNP, NO and NC		•		•		•		•		•		•		•		•
	NPN, NO and NC	•		•		•		•		•		•		•		٠	•
Output current:	≤ 100 mA	٠	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•
Saturation voltage:	≤ 2 V	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Response time:	0.5 ms	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Switching frequency:	1 kHz	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	٠	•
Operating mode:	dark on NO / light on NC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•
Connection:	2 m Ø 4 mm cable ³	•	•			•	•			•	•			•	•		
	M12 4-pole connector ^₄			•	•			•	•			•	•			•	•
Electrical protection:	class 2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Protection devices:	A, B⁵	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Housing material:	PBT	•	•	•	•	•	•	•	•								
	nickel plated brass									•	•	•	•	•	•	•	•
Lens material:	PMMA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
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-C10-NN	952001630	NPN				
S50-PA-2-C10-PP	952001240	PNP				

	metal - axial optics - 2 m cable								
	S50-MA-2-C10-NN	952021520	NPN						
_	S50-MA-2-C10-PP	952021020	PNP						

	plastic - axial optics - M12 connector									
	S50-PA-5-C10-NN	952001520	NPN							
_	S50-PA-5-C10-PP	952001250	PNP							

metal - axial optics -		
S50-MA-5-C10-NN	952021680	NPN
S50-MA-5-C10-PP	952021220	PNP

	plastic - radial optics - 2 m cable										
1	S50-PR-2-C10-NN	952001800	NPN								
	S50-PR-2-C10-PP	952001490	PNP								

metal - radial optics - 2 m cable											
S50-MR-2-C10-NN	952021620	NPN									
S50-MR-2-C10-PP	952021490	PNP									

plastic - radial optics	- M12 connector					
S50-PR-5-C10-NN	952001740	NPN				
S50-PR-5-C10-PP	952001480	PNP				
metal - radial optics -	M12 connector					
S50-MR-5-C10-NN	952021780	NPN				
S50-MR-5-C10-PP	952021480	PNP				

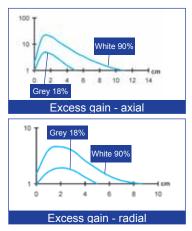
All the ordering codes and information are summarised in the last pages of this catalogue.

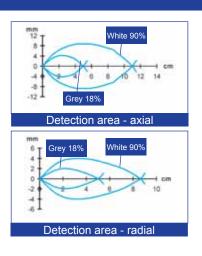
*Only on axial optic models

Only on axial optic models



Recommended operating distance Maximum operating distance





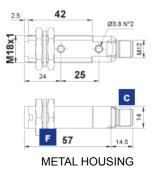
C MID INFRARED EMISSION

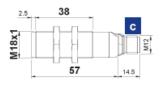
This version of diffuse proximity sensor has a detection distance that can be set using the sensitivity adjustment trimmer. The green stability LED indicates whether the received signal is above to the minimum signal for stable output switching.



DIMENSIONS

PLASTIC HOUSING







INDICATORS AND SETTINGS





Fixing gasket

F

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

CONNECTIONS S50-XX-2 S50-XX-5 BROWN 1 + 10 ... 30 Vdo NC OUTPUT 10 ... 30 Vdc WHITE 2 NC OUTPUT BLACK 4____ OV-NO OUTPUT NO OUTPUT BLUE 3 ____ ov

Versions and options: refer to MODEL ALPHABETICAL INDEX of this catalogue.

ACCESSORIES

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

Refer also to **Connectors and Fi**xing **brackets of the General** Catalogue.

TECHNICAL D	ATA								
TECHNICAL NOTES ¹ Limit values ² Average life of 100.000 h with ³ 270° single-turn timmer ⁴ PVC, 4 x 0.14 mm ² ⁶ Compatible with quick conne ⁶ A - reverse polarity protectior B - overload and short-circuit	ction systems	S50-PA-2-C21-NN	S50-PA-2-C21-PP	S50-PA-5-C21-NN	S50-PA-5-C21-PP	S50-MA-2-C21-NN	S50-MA-2-C21-PP	S50-MA-5-C21-NN	S50-MA-5-C21-PP
Operating distance:	0 40 cm	٠	•	•	•	٠	•	٠	•
Power supply:	10 30 Vdc ¹	٠	•	•	•	•	•	٠	•
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	٠	•
Consumption:	≤ 35 mA	٠	•	•	•	•	•	٠	•
Light emission:	infrared LED 880 nm ²	٠	٠	•	•	•	•	•	•
Spot dimension:	approx. 100 mm at 300 cm	٠	•	•	•	•	•	•	•
Setting:	sensitivity trimmer ³	٠	•	•	•	•	٠	٠	•
Indicators:	yellow OUTPUT LED	•	•	•	٠	•	•	٠	•
	green STABILITY LED	•	•	•	٠	•	•	٠	•
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:	light on NO / dark on NC	•	•	•	•	•	•	•	•
Connection:	2 m Ø 4 mm cable ⁴	•	•			•	•		
	M12 4-pole connector5			•	•			•	•
Electrical protection:	class 2	•	•	•	•	•	•	•	•
Mechanical protection:	IP67	•	•	•	•	•	•	•	•
Protection devices:	A, B ⁶	•	•	•	•	•	•	•	•
Housing material:	PBT	•	•	•	•				
-	nickel plated brass					•	•	•	•
Lens material:	PMMA	•	•	•	•	•	•	•	•
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	•	•	•	•	•	•	•	•
itererence standard.		-	-	-	-		-	-	-

SELECTION TABLE

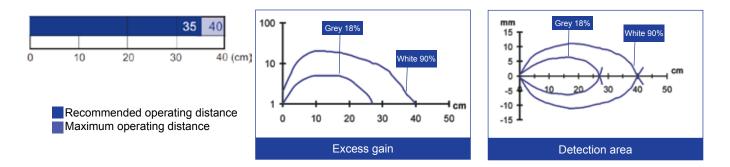
plastic - axial optics - 2	plastic - axial optics - 2 m cable											
S50-PA-2-C21-NN	952002170	NPN										
S50-PA-2-C21-PP	952002160	PNP										

metal - axial optics - 2	m cable	
S50-MA-2-C21-NN	952022130	NPN
S50-MA-2-C21-PP	952022120	PNP

plastic - axial optics -	M12 connector	
S50-PA-5-C21-NN	952002190	NPN
S50-PA-5-C21-PP	952002180	PNP

metal - axial optics - N	112 connector	
S50-MA-5-C21-NN	952022150	NPN
S50-MA-5-C21-PP	952022140	PNP

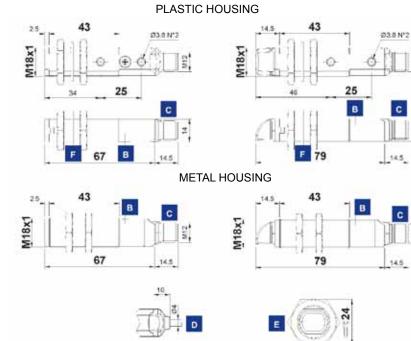
All the ordering codes and information are summarised in the last pages of this catalogue.



C LONG INFRARED EMISSION

This version of diffuse proximity sensor has a detection distance that can be set using the sensitivity adjustment trimmer. The green stability LED indicates whether the received signal is above to the minimum signal for stable output switching.





DIMENSIONS

Ξų.

2

С

14.5

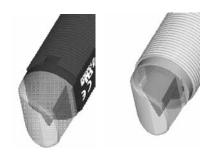
С

14.5

mm

Ĩ,

RADIAL OPTICS



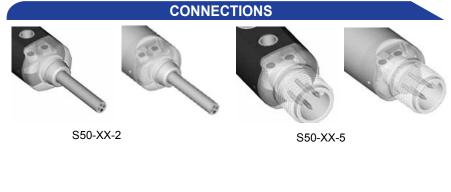
ACCESSORIES

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

Refer also to Connectors and Fixing brackets of the General Catalogue.









COLOTATACO

TECHNICAL D	ΑΤΑ																	SELECTION
TECHNICAL NOTES ¹ Limit values ² Average life of 100.000 h wi ³ 270° single-turn trimmer	th $T_A = +25 \text{ °C}$	S50-PA-2-C01-NN	S50-PA-2-C01-PP	S50-PA-5-C01-NN	S50-PA-5-C01-PP	S50-PR-2-C01-NN	S50-PR-2-C01-PP	S50-PR-5-C01-NN	S50-PR-5-C01-PP	S50-MA-2-C01-NN	S50-MA-2-C01-PP	S50-MA-5-C01-NN	S50-MA-5-C01-PP	S50-MR-2-C01-NN	S50-MR-2-C01-PP	S50-MR-5-C01-NN	S50-MR-5-C01-PP	plastic - axial optics S50-PA-2-C01-NN
⁴ PVC, 4 x 0.14 mm ² ⁵ Compatible with quick conn	ection systems	P P	P P	ပု	ပုံ	0 7	0 7	Ϋ́	μ	40	5	4	4	5	5	4	4	S50-PA-2-C01-PP
6 A - reverse polarity protection	on	Å	Ă	Ą	Ă	Ŗ	Ŗ	Å	Ę	Ą	ΡĂ	Ψ A	₽₽-	Å	ÅR	ÅR	Ř	metal - axial optics -
B - overload and short-circu	it protection on receiver outputs	S50	S50-MA-2-C01-NN															
Operating distance:																		
axial optics	0 70 cm	•	•	•	•					•	•	•	•					S50-MA-2-C01-PP
radial optics	0 40 cm					•	•	•	•					•	•	•	•	plastic - axial optics
Power supply:	10 30 Vdc 1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Ripple:	≤2 Vpp	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-PA-5-C01-NN
Consumption:	≤ 35 mA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-PA-5-C01-PP
Light emission:	infrared LED 880 nm 2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Spot dimension:																		metal - axial optics -
axial optics	approx.200 mm at 60 cm	•	•	•	•					•	•	•	•					S50-MA-5-C01-NN
radial optics	approx.35 mm at 40 cm					•	•	•	•					•	•	•	•	S50-MA-5-C01-PP
Setting:	sensitivity trimmer 3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Indicators:	yellow OUTPUT LED	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	plastic - radial optics
	green STABILITY LED	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-PR-2-C01-NN
Output type:	PNP, NO and NC		•		•		•		•		•		•		•		•	S50-PR-2-C01-PP
	NPN, NO and NC	•		•		•		•		•		•		•		•		
Output current:	≤ 100 mA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	metal - radial optics
Saturation voltage:	≤ 2 V	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-MR-2-C01-NN
Response time:	0.5 ms	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1
Switching frequency:	1 kHz	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-MR-2-C01-PP
Operating mode:	dark on NO / light on NC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	plastic - radial optics
Connection:	2 m Ø 4 mm cable⁴	•	•			•	•			•	•			•	•			
	M12 4-pole connector⁵			•	•			•	•			•	•			•	•	S50-PR-5-C01-NN
Electrical protection:	class 2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-PR-5-C01-PP
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Protection devices:	A, B ⁶	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	metal - radial optics
Housing material:	PBT	•	•	•	•	•	•	•	•									S50-MR-5-C01-NN
	nickel plated brass									•	•	•	•	•	•	•	•	S50-MR-5-C01-PP
Lens material:	PMMA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Weight:	75 g max.	•	•			•	•											All the ordering co
	25 g max.			•	•			•	•									are summarised in this catalogue.
	110 g max.									•	•			•	•			this catalogue.
	60 g max.	\square										•	•			•	•	1
Operating temperature:	-25 +55°C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Storage temperature:	-25 +70°C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Reference standard:	EN 60947-5-2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	*Only on axial opt

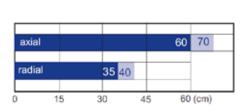
N TABLE cs - 2 m cable Ν 952001620 NPN Þ 952001050 PNP s - 2 m cable N 952021510 NPN P 952021010 PNP cs - M12 connector 952001510 NPN Ν Р 952001060 PNP s - M12 connector 952021670 NPN IN P 952021210 PNP tics - 2 m cable 952001790 NPN IN Ρ 952001070 PNP cs - 2 m cable IN 952021610 NPN P 952021150 PNP tics - M12 connector 952001730 NPN IN P 952001080 PNP cs - M12 connector NPN IN 952021770

codes and information d in the last pages of

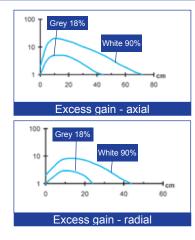
952021350

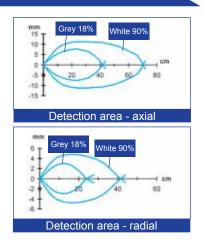
PNP





Recommended operating distance Maximum operating distance





D RED EMISSION

The fixed focus proximity sensor offers a simple fixed background suppression distance beyond which no object is detected. The fixed triangulation of the optics greatly reduces the detection distance of reflective objects. The visible red emission facilitates sensor installation.

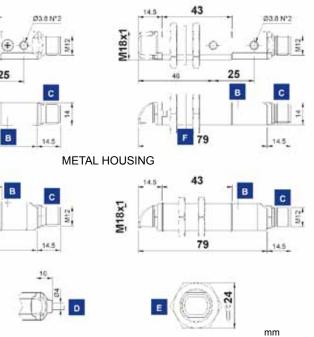


ACCESSORIES

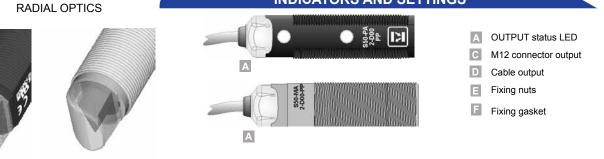
catalogue.

DIMENSIONS

PLASTIC HOUSING



INDICATORS AND SETTINGS



25

67

67

43

M18x1

BLACK

BLUE

4

3 _ ov

NO OUTPUT

CONNECTIONS For dedicated accessories refer to the ACCESSORIES section of this Refer also to Connectors and Fixing brackets of the General Catalogue. S50-XX-2 S50-XX-5 BROWN 10 ... 30 Vdo NC OUTPUT 10 ... 30 Vdc (WHITE) WHITE 2 NC OUTPUT

Versions and options: refer to MODEL ALPHABETICAL INDEX of this catalogue.

OV-

NO OUTPUT

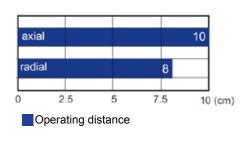
NPN

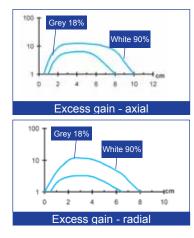
PNP

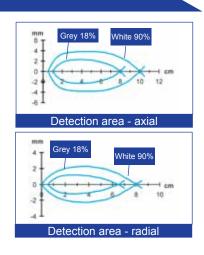
TECHNICAL D	ΑΤΑ																	SELECTION	TABLE
TECHNICAL NOTES ¹ Limit values		z	٩	z	ē	z	٩.	z	٩	z	<u>م</u>	z	<u>م</u>	z	<u>a</u>	. <u>z</u>	<u>م</u>	plastic - axial optics -	
² Average life of 100.000 h w ³ PVC, 4 x 0.14 mm ²	ith T _A = +25 °C	Š	L L	-V-	P P	-	Ľ,	-	Ľ.	ē	5	5	5	6	ġ		5	S50-PA-2-D00-NN	952001640
⁴ Compatible with quick conn		Ä	Ğ,	Ğ	Ģ	Ą	Ą	Ģ	Ģ	P 2	5	Ģ	-9-	5	5	, G	9.9	S50-PA-2-D00-PP	952001090
⁵ A - reverse polarity protection B - overload and short-circular	it protection on receiver outputs	Å	PA	Å	Ā	Å	Å	Ř	Ř	Ϋ́	ÅΡ	ΜĀ	ΜĀ	ЯŘ	N N	Ë	MR.		
		S50-PA-2-D00-NN	S50-PA-2-D00-PP	S50-PA-5-D00-NN	S50-PA-5-D00-PP	S50-PR-2-D00-NN	S50-PR-2-D00-PP	S50-PR-5-D00-NN	S50-PR-5-D00-PP	S50-MA-2-D00-NN	S50-MA-2-D00-PP	S50-MA-5-D00-NN	S50-MA-5-D00-PP	S50-MR-2-D00-NN	S50-MR-2-D00-PP	S50-MR-5-D00-NN	S50-MR-5-D00-PP	metal - axial optics -	2 m cable
Operating distance:																		S50-MA-2-D00-NN	952021530
axial optics	0.5 10 cm	•	•	•	•					•	•	•	•					S50-MA-2-D00-PP	952021030
radial optics	0 8 cm					•	•	•	•					•	•	•	•]	<u> </u>
Power supply:	10 30 Vdc 1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	plastic - axial optics -	M12 connector
Consumption:	≤ 35 mA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-PA-5-D00-NN	952001530
Light emission:	red LED 630 nm ²	•	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	S50-PA-5-D00-PP	952001100
Spot dimension:]	
axial optics	approx. 20 mm at 10 cm	•	•	•	•					•	•	•	•						
radial optics	approx. 25 mm at 8 cm					•	•	•	•					•	•	•	•	metal - axial optics -	
Indicators:	yellow OUTPUT LED	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-MA-5-D00-NN	952021690
Output type:	PNP, NO and NC		•		•		•		•		•		•		•		•	S50-MA-5-D00-PP	952021230
	NPN, NO and NC	•		•		•		•		•		•		•		•			,
Output current:	≤ 100 mA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	plastic - radial optics	2 m ophio
Saturation voltage:	≤ 2 V	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Response time:	0.5 ms	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-PR-2-D00-NN	952001810
Switching frequency:	1 kHz	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-PR-2-D00-PP	952001110
Operating mode:	dark on NO / light on NC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		,
Connection:	2 m Ø 4 mm cable	•	•			•	•			•	•			•	•			metal - radial optics -	2 m cable
	M12 4-pole connector			•	•			•	•			•	•			•	•		1
Electrical protection:	class 2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-MR-2-D00-NN	952021630
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	S50-MR-2-D00-PP	952021160
Protection devices:	A, B⁵	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Housing material:	PBT	•	•	•	•	•	•	•	•									plastic - radial optics	- M12 connector
	nickel plated brass									•	•	•	•	•	•	•	•	S50-PR-5-D00-NN	952001750
Lens material:	PMMA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Weight:	75 g max.	•	•			•	•											S50-PR-5-D00-PP	952001120
	25 g max.			•	•			•	•									-	
	110 g max.									•	•			•	•	·		metal - radial optics -	M12 connector
	60 g max.											٠	•			•		S50-MR-5-D00-NN	952021790
Operating temperature:	-25 +55°C	•	•	•	•	•	•	•	•	٠	•	•	•	•	•	-	•		
Storage temperature:	-25 +70°C	•	•	•	•	•	•	•	•	٠	•	٠	•	•	•	•	•	S50-MR-5-D00-PP	952021360
Reference standard:	EN 60947-5-2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	All the ordering co	des and inform

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







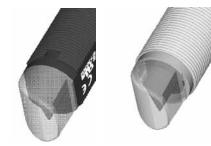


C LASER RED EMISSION

The visible red laser emission allows the accurate detection of very small objects. The sensors operate as a proximity device up to 35 cm and can be used as a contrast sensor for high contrast mark detection. The class 1 laser emission guarantees maximum safety for the operators in all applications.



RADIAL OPTICS



ACCESSORIES

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

Refer also to Connectors and Fixing brackets of the General Catalogue.



PLASTIC HOUSING

Ø3.8 N*2

C

14.5

С

14.5

10

M12

25

в

в

67

67

43

M18x1



mm

INDICATORS AND SETTINGS



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





BROWN 1 + 10 ... 30 Vdo NC OUTPUT 10 ... 30 Vdc WHITE (WHITE) NC OUTPUT BLACK OV-4 NO OUTPUT NO OUTPUT BLUE 3 ____ ov

TECHNICAL DA	TA																	
TECHNICAL NOTES												_				_		
¹ Limit values ² Average life of 100.000 h with	T. = +25 °C	N,	Ę	S50-PH-2-C01-NN	đ	Ņ	Ę	S50-PH-5-C01-NN	đ	S50-ML-2-C01-NN	S50-ML-2-C01-PP	S50-MH-2-C01-NN	S50-MH-2-C01-PP	S50-ML-5-C01-NN	S50-ML-5-C01-PP	S50-MH-5-C01-NN	S50-MH-5-C01-PP	
3270° single-turn trimmer	· · A	S50-PL-2-C01-NN	S50-PL-2-C01-PP	5	S50-PH-2-C01-PP	S50-PL-5-C01-NN	S50-PL-5-C01-PP	5	S50-PH-5-C01-PP	5	6	G	G	6	5	ŝ	ŝ	
⁴ PVC, 4 x 0.14 mm ² ⁵ Compatible with quick connect	ction systems	Ŗ	Ŗ		47 47	μ	μ	-0- +	-2-1 -1-2	Ŗ	4 1 1	ż	Ϋ́	ĥ	ų	ŝ	ŝ	۱L
⁶ A - reverse polarity protection	protection on receiver outputs	Ę	Ę	Ę	ġ	Ę	Ę	Ę	ġ	ž	Ā	ž	N.	Ā	N.	ž	ž	
D - overload and short-circuit		S5(
Operating distance:																		
axial optics	0 35 cm	•	•			•	•			•	•			•	•			ίL
radial optics	0 25 cm			٠	•			•	٠			•	•			•	•	
Power supply:	10 30 Vdc 1	•	•	٠	•	•	٠	•	٠	•	•	•	٠	•	•	•	•	
Ripple:	≤2 Vpp	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	⊢⊢
Consumption:	≤35 mA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	İL
Light emission:	red Laser 650 nm ²	•	•	•	٠	٠	•	•	•	•	•	•	•	•	•	•	•	
	class 1 EN 60825-1																	
	class II CDRH21 CFR 1040.10																	۱L
Resolution:	approx. 0.3 mm at 5 cm	•	•	•	•	•	•	•	•	٠	•	•	•	•	٠	•	•	
	approx. 0.3 mm at 10 cm	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	
	approx. 0.5 mm at 20 cm	•	•	•	•	•	•	•	•	٠	•	•	•	•	٠	•	•	
	approx. 2 mm at 30 cm	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Setting:	sensitivity trimmer	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Indicators:	yellow OUTPUT LED	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	green STABILITY LED	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Output type:	PNP, NO and NC		•		•		•		•		•		•		•		•	
	NPN, NO and NC	•		•		•		•		•		•		•		•		ĺŀ
Output current:	≤ 100 mA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	lL
Saturation voltage:	≤2 V	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Response time:	333 ms	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Switching frequency:	1.5 kHz	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1
Operating mode:	light on NO / dark on NC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	IL
Connection:	2 m Ø 4 mm cable⁴	•	•			•	•			•	•			•	•			
	M12 4-pole connector⁵			•	•			•	•			•	•			•	•	
Electrical protection:	class 2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	١ſ
Protection devices:	A, B ⁶	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	Ā
Housing material:	PBT	•	•	•	•	•	•	•	•	•	•			•	•			r r
J	nickel plated brass									•	•	•	•	•	•	•	•	T
Lens material:	PMMA / glass	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	g
Weight:	75 g max.	•	•	•	•													¢
	25 g max.					•	•	•	•									
	110 g max.									•	•	•	•					
	60 g max.								—					•	•	•	•	
Operating temperature:	-10 +50°C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Storage temperature:	-25 +70°C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1
Reference standard:	EN 60947-5-2, EN 60825-1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	CDRH21 CFR 1040.10	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	*

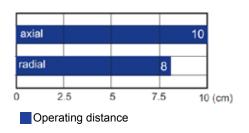
SELECTION TABLE

plastic - axial optics - 2 m cable								
S50-PL-2-C01-NN	952001880	NPN						
S50-PL-2-C01-PP	952001380	PNP						
plastic - radial optics	- 2 m cable	-						
S50-PH-2-C01-NN	952001990	NPN						
S50-PH-2-C01-PP	952001990	PNP						
550-PH-2-C01-PP	952001980	PNP						
metal - axial optics -	2 m cable							
S50-ML-2-C01-NN	952021830	NPN						
S50-ML-2-C01-PP	952021410	PNP						
metal - radial optics -	2 m cable							
S50-MH-2-C01-NN	952021990	NPN						
S50-MH-2-C01-PP	952021980	PNP						
plastic - axial optics -	M12 connector							
plastic - axial optics - S50-PL-5-C01-NN		NPN						
	M12 connector 952001850 952001390	NPN PNP						
S50-PL-5-C01-NN S50-PL-5-C01-PP	952001850 952001390							
S50-PL-5-C01-NN	952001850 952001390							
S50-PL-5-C01-NN S50-PL-5-C01-PP	952001850 952001390							
S50-PL-5-C01-NN S50-PL-5-C01-PP plastic - radial optics	952001850 952001390 - M12 connector	PNP						
S50-PL-5-C01-NN S50-PL-5-C01-PP plastic - radial optics S50-PH-5-C01-NN	952001850 952001390 - M12 connector 952002010 952002000	PNP NPN						
S50-PL-5-C01-NN S50-PL-5-C01-PP plastic - radial optics S50-PH-5-C01-NN S50-PH-5-C01-PP	952001850 952001390 - M12 connector 952002010 952002000	PNP NPN						
S50-PL-5-C01-NN S50-PL-5-C01-PP plastic - radial optics S50-PH-5-C01-NN S50-PH-5-C01-PP metal - axial optics -	952001850 952001390 - M12 connector 952002010 952002000 M12 connector	PNP NPN PNP						
S50-PL-5-C01-NN S50-PL-5-C01-PP plastic - radial optics S50-PH-5-C01-NN S50-PH-5-C01-PP metal - axial optics - S50-ML-5-C01-NN	952001850 952001390 - M12 connector 952002010 952002000 M12 connector 952021860 952021450	PNP NPN PNP						
S50-PL-5-C01-NN S50-PL-5-C01-PP plastic - radial optics S50-PH-5-C01-NN S50-PH-5-C01-PP metal - axial optics - S50-ML-5-C01-PP	952001850 952001390 - M12 connector 952002010 952002000 M12 connector 952021860 952021450	PNP NPN PNP						
S50-PL-5-C01-NN S50-PL-5-C01-PP plastic - radial optics S50-PH-5-C01-NN S50-PH-5-C01-PP metal - axial optics - S50-ML-5-C01-NN S50-ML-5-C01-PP metal - radial optics -	952001850 952001390 - M12 connector 952002010 952002000 M12 connector 952021860 952021450 M12 connector	NPN NPN PNP NPN PNP						

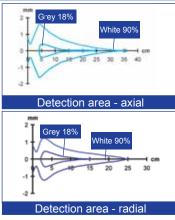
All the ordering codes and information are summarised in the last pages of this catalogue.

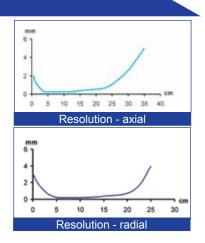
The use of the MICRO-18 fixing bracket (cod. 95ACC1380) is recommended for the correct optic axis alignment of the laser emission.

CECUUS LISTED (EX II3DG*









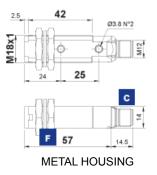
MAXIAL RED EMISSION

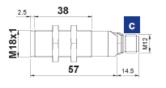
Background suppression proximity allows to precisely adjust the distance over which the object is not detected, with the minimum difference between reflective objects. The EASYtouchTM setting procedure fixes automatically the best detection conditions, simply pressing once the teach-in push-button, in presence of the reference to detect.



DIMENSIONS

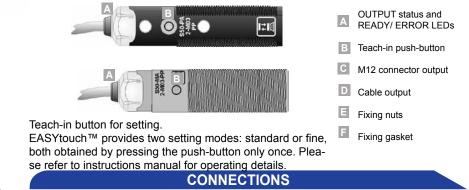
PLASTIC HOUSING







INDICATORS AND SETTINGS



ACCESSORIES

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

Refer also to **Connectors and Fi**xing **brackets of the General** Catalogue.

BLACK 4 NO OUTPUT OV - NO OUTPUT (BLACK)

S50-XX-5

10 ... 30 Vdc

NC OUTPUT

S50-XX-2

1

+ 10 ... 30 Vdd

NC OUTPUT

BROWN

WHITE

TECHNICAL DATA

TECHNICAL NOTES														
¹ Limit values		-	•	-	_	z	۵.	z	۵.					
² Average life of 100.000 h with	n TA = +25 °C	Ž	ä	ž	Ë	Ч Ч	ч Ч	З-N	ч Ч					
³ PVC, 4 x 0.14 mm ² ⁴ Compatible with quick conner	ction systems	ğ	ы	ğ	ЮЙ	ş	ş	ş	ş					
5A - reverse polarity protection	1	5	5	4	-5-1	Ř	₩	γ́Ω	÷ ₽-2					
B - overload and short-circuit	protection on receiver outputs	S50-PA-2-M03-NN	S50-PA-2-M03-PP	S50-PA-5-M03-NN	S50-PA-5-M03-PP	S50-MA-2-M03-NN	S50-MA-2-M03-PP	S50-MA-5-M03-NN	S50-MA-5-M03-PP					
		S5C	S50	S5 C	S5(S50	S50	S50	S50					
Operating distance:	5 10 cm	•	٠	•	•	•	٠	٠	•					
Power supply:	10 30 Vdc ¹	•	•	•	•	•	•	•	•					
Ripple:	≤ 2 Vpp	•	٠	•	•	•	٠	•	•					
Consumption:	≤30 mA	•	٠	•	•	٠	•	•	•					
Light emission:	red LED 630 nm ²	•	٠	•	•	•	٠	•	•					
Spot dimension:	teach-in push-button							•	•					
Setting:	teach-in EASYtouch™	•	٠	•	•	•	٠	•	•					
Indicators:	yellow OUTPUT LED	•	•	•	•	•	•	٠	•					
	green / red READY / ERROR LED	•	٠	•	•	•	٠	٠	•					
Output type:	PNP, NO and NC		•		•		•	•						
	NPN, NO and NC	•		•		•		•						
Output current:	≤100 mA	•	•	•	٠	•	•	•	• •					
Saturation voltage:	≤ 2 V	•	٠	•	•	•	٠	• •						
Response time:	1 ms	•	•	•	•	•	•	• • •						
Switching frequency:	500 Hz	•	٠	•	•	•	٠	•	•					
Operating mode:	dark on NO / light on NC	•	٠	•	•	•	٠	•	•					
Connection:	2 m Ø 4 mm cable ³	• •												
	M12 4-pole connector ⁴								•					
Electrical protection:	class 2	•	٠	٠	•	•	٠	٠	•					
Mechanical protection:	IP67	•	٠	•	•	•	٠	٠	•					
Protection devices:	A, B⁵	•	٠	•	•	•	٠	٠	•					
Housing material:	PBT / PVC	•	•	•	•									
	nickel plated brass					٠	٠	•	•					
Lens material:	glass	•	٠	•	•	•	٠	•	•					
Weight:	90 g max.	•	٠											
	40 g max.			•	•									
	125 g max.					٠	٠							
	75 g max.							•	•					
Operating temperature:	-25 +55°C	•	•	•	•	•	•	•	• •					
Storage temperature:	-25 +70°C	•	•	•	•	•	٠	•	•					
Reference standard:	EN 60947-5-2	•	•	•	•	•	•	•	•					

SELECTION TABLE

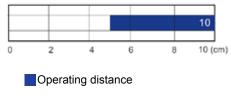
plastic - axial optics - 2 m cable									
S50-PA-2-M03-NN	952001670	NPN							
S50-PA-2-M03-PP	952001230	PNP							

metal - axial optics - 2 m cable									
S50-MA-2-M03-NN	952021550	NPN							
S50-MA-2-M03-PP	952021070	PNP							

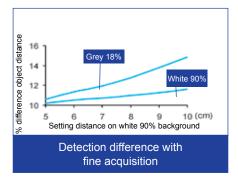
plastic - axial optics - M12 connector									
S50-PA-5-M03-NN	952001560	NPN							
S50-PA-5-M03-PP	952001000	PNP							

metal - axial optics - M12 connector										
S50-MA-5-M03-NN	NPN									
S50-MA-5-M03-PP	952021270	PNP								

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







M RADIAL RED EMISSION

This version of diffuse proximity sensor has a detection distance that can be set using the sensitivity adjustment trimmer. The green stability LED indicates whether the received signal is above to the minimum signal for stable output switching.

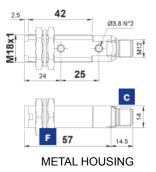


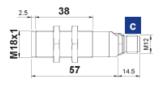
ACCESSORIES

catalogue.

DIMENSIONS

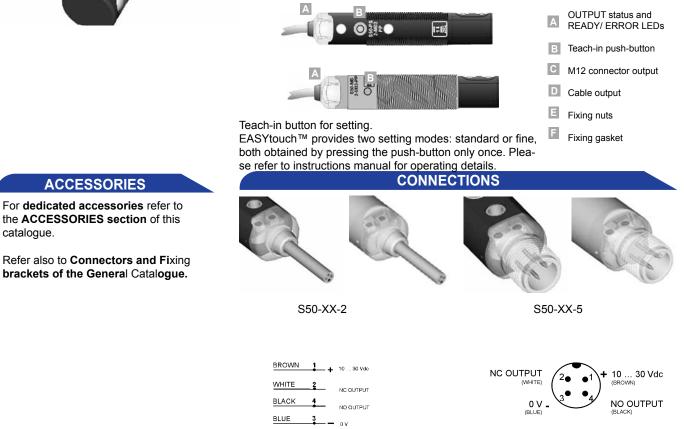
PLASTIC HOUSING







INDICATORS AND SETTINGS



TECHNICAL DATA

TECHNICAL NOTES										plastic - 2 m cable
¹ Limit values ² Average life of 100.000 h with ⁻	TA = +25 °C	S50-PS-2-M03-NN	S50-PS-2-M03-PP	S50-PS-5-M03-NN	S50-PS-5-M03-PP	S50-MS-2-M03-NN	S50-MS-2-M03-PP	S50-MS-5-M03-NN	S50-MS-5-M03-PP	S50-PS-2-M03-NN 9520
³ PVC, 4 x 0.14 mm ² ⁴ Compatible with quick connection	ion systems	Mo3	M03	M03	M03	Ň	Ň	N0	Ň	S50-PS-2-M03-PP 9520
⁵ A - reverse polarity protection		5	2-	4	4	ά'	8-2	ς. Υ	ς Υ	
B - overload and short-circuit p	rotection on receiver outputs	Å	Ä	Å	Å	ž	Ë,	Ž	Ÿ	
		S5(metal - 2 m cable							
Operating distance:	5 10 cm	•	•	•	•	•	•	•	•	S50-MS-2-M03-NN 9520
Power supply:	10 30 Vdc 1	•	٠	•	•	•	•	•	•	S50-MS-2-M03-PP 9520
Ripple:	≤ 2 Vpp	•	•	•	٠	•	•	•	•	
Consumption:	≤30 mA	•	•	•	•	•	•	•	•	plastia M12 connector
Light emission:	red LED 630 nm ²	•	•	•	•	•	•	•	•	plastic - M12 connector
Spot dimension:	approx. 10 mm at 10 cm	•	•	•	•	•	•	•	•	S50-PS-5-M03-NN 9520
Setting:	teach-in push-button	•	•	•	•	•	•	•	•	S50-PS-5-M03-PP 9520
Setting procedure:	teach-in EASYtouchTM	•	•	•	•	•	•	•	•	LL
Indicators:	yellow OUTPUT LED	•	•	•	•	•	•	•	•	metal - M12 connector
	green / red READY / ERROR LED	•	•	•	•	•	•	•	•	
Output type:	PNP, NO and NC		•		•		•		•	S50-MS-5-M03-NN 9520
	NPN, NO and NC	•		•		•		•		S50-MS-5-M03-PP 9520
Output current:	≤100 mA	•	•	•	•	•	•	•	•	· · · · · ·
Saturation voltage:	≤ 2 V	•	•	•	•	•	•	•	•	All the ordering codes ar
Response time:	1 ms	•	•	•	•	•	•	•	•	summarised in the last p
Switching frequency:	500 Hz	•	•	•	•	•	•	•	•	
Operating mode:	dark on NO / light on NC	•	•	•	•	•	•	•	•	
Connection:	2 m Ø 4 mm cable ³	•	•			•	•			
	M12 4-pole connector ⁴			•	•			•	•	
Electrical protection:	class 2	•	•	•	•	•	•	•	•	
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	
Protection devices:	A, B⁵	•	•	•	•	•	•	•	•	
Housing material:	PBT / PVC	•	•	•	•					
	nickel plated brass					•	•	•	•	
Lens material:	glass	•	•	•	•	•	•	•	•	
Weight:	90 g max.	•	•							
	40 g max.			•	•					
	125 g max.					•	•			
	75 g max.							•	•	
Operating temperature:	-25 +55°C	•	•	•	•	•	•	•	•	_
Storage temperature:	-25 +70°C	•	٠	•	•	•	•	•	•	
Reference standard:	EN 60947-5-2	•	•	•	•	•	•	•	•	

SELECTION TABLE

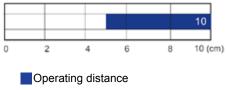
plastic - 2 m cable		
S50-PS-2-M03-NN	952001900	NPN
S50-PS-2-M03-PP	952001910	PNP

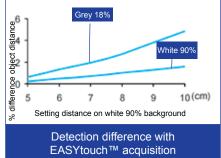
metal - 2 m cable		
S50-MS-2-M03-NN	952021900	NPN
S50-MS-2-M03-PP	952021910	PNP

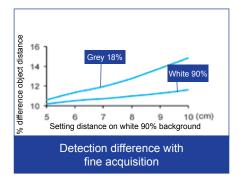
plastic - M12 connector									
S50-PS-5-M03-NN	952001920	NPN							
S50-PS-5-M03-PP	952001930	PNP							

metal - M12 connector										
S50-MS-5-M03-NN	952021920	NPN								
S50-MS-5-M03-PP	952021930	PNP								

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







E 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.

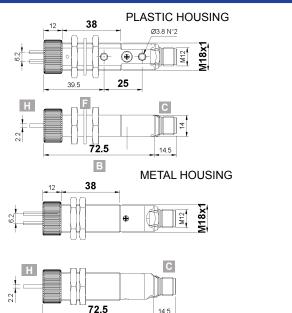


ACCESSORIES

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

Refer also to Connectors and Fixing brackets of the General Catalogue.

DIMENSIONS







D Cable output E Fixing nuts F Fixing gasket

H Fibre fixing nut

Α

OUTPUT status and

STABILITY LEDs B Adjstument trimmer C M12 connector output

INDICATORS AND SETTINGS



В

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

WHITE

BLACK

BLUE

NC OUTPUT

NO OUTPUT

3 – ov

CONNECTIONS





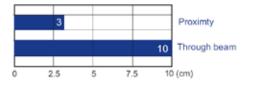
TECHNICAL DAT	A									SELECTION 1	ABLE	
TECHNICAL NOTES										plastic - axial optics - 2	m cable	
¹ Limit values ² Average life of 100.000 h with T _A	of 100.000 h with T. = +25 °C						đ	Z	đ	S50-PA-2-E01-NN	952001650	NPN
³ 270° single-turn trimmer ⁴ PVC, 4 x 0.14 mm ²		S50-PA-2-E01-NN	S50-PA-2-E01-PP	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			PNP
⁵ Compatible with quick connectio	n systems	4	片	·	щ Ч	5-1	-2-1	-9-	-9-	S50-PA-2-E01-PP	952001130	PNP
⁶ A - reverse polarity protection B - overload and short-circuit pro-	tection on receiver outputs	Å	Å	Ă	Å	Ą	ΡĀ	Ą	₽₽.			
B - ovendad and short-circuit pre		S50	S50	metal - axial optics - 2	m cable							
Operating distance:						F			1	S50-MA-2-E01-NN	952021880	NPN
proximity	3 cm (OF-42-ST-20 standard fibres)	•	•	•	•	•	•	•	•	S50-MA-2-E01-PP	952021040	PNP
through beam	10 cm (OF-43-ST-20 standard fibres)	•	•	•	•	•	•	•	•			1
Power supply:	10 30 Vdc ¹	•	•	•	٠	•	•	•	•			
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	•	•	plastic - axial optics - M	112 connector	1
Consumption:	≤ 35 mA	•	•	•	•	•	•	•	•	S50-PA-5-E01-NN	952001540	NPN
Light emission:	red LED 660 nm ²	•	•	•	•	•	•	•	•	S50-PA-5-E01-PP	952001140	PNP
Setting:	sensitivity trimmer ³	•	•	•	•	•	•	•	•			1
Indicators:	yellow OUTPUT LED	•	•	•	•	•	•	•	•	matel evial entire M	10	
	green STABILITY	•	•	•	•	•	•	•	•	metal - axial optics - M	12 connector	
Output type:	PNP, NO and NC		•		•		•		•	S50-MA-5-E01-NN	952021890	NPN
	NPN, NO and NC	•		•		•		•		S50-MA-5-E01-PP	952021240	PNP
Output current:	≤ 100 mA	•	•	•	٠	•	•	•	•			J
Saturation voltage:	≤ 2 V	•	•	•	•	•	•	•	•	All the ordering code	e and informatio	n are
Response time:	0.5 ms	•	•	•	•	•	•	•	•	summarised in the la		
Switching frequency:	1 kHz	•	•	•	•	•	•	•	•		ast pages of this	catalogue.
Operating mode:	dark on NO / light on NC	•	•	•	•	•	•	•	•]		
Connection:	2 m Ø 4 mm cable⁴	•	•			•	•]		
	M12 4-pole connector ⁵			•	•			•	•]		
Electrical protection:	class 2	•	•	•	•	•	•	•	•	1		
Mechanical protection:	IP67	•	•	•	•	•	•	•	•	1		
Protection devices:	A, B ⁶	•	•	•	•	•	•	•	•	1		
Housing material:	PBT	•	•	•	•					1		
	nickel plated brass					•	•	•	•	1		
Fibre fixing nut material:	ABS	•	•	•	•	•	•	•	•	1		
Weight:	75 g max.	•	•]		
	25 g max.			•	•					1		
	110 g max.					•	•			1		
	60 g max.							•	•]		
Operating temperature:	-25 +55°C	•	•	•	•	•	•	•	•	1		
Storage temperature:	-25 +70°C	•	•	•	•	•	•	•	•			
Reference standard:	EN 60947-5-2	•	•	•	•	•	•	•	•		STED	

DETECTION DIAGRAMS

Grey 18%

100

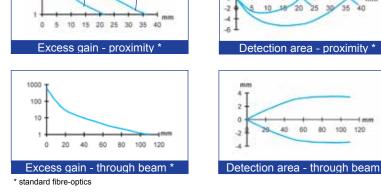
10



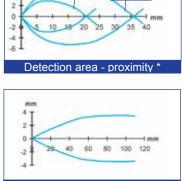
Operating distance with standard fibres

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 of the **General Catalogue**



White 90%



Grey 18%

White 90%

mn

6 T

à

W WHITE EMISSION

The white light LED emission is designed for the detection of a large number of coloured or grey-scale contrasts, in order to detect print registration marks or similar. The EASYtouch[™] setting procedures automatically selects the best detection conditions, simply by pressing the teach-in push-button once, in the presence of a reference mark. By pressing the teach-in push-button and holding it down until the green light on the rear of the sensor flashes, in the presence of the reference mark and then pressing the button again in the presence of the contrast you wish to ignore, a higher level of accuracy is obtained.



ACCESSORIES

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

Refer also to **Connectors and Fi**xing **brackets of the Genera**l Catal**ogue**.

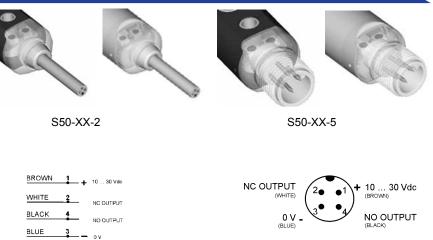
DIMENSIONS PLASTIC HOUSING 43 Ø3.8 N'2 š M12 25 C в 67 METAL HOUSING 43 2.5 в C M18x1 M122 67 INDICATORS AND SETTINGS OUTPUT status and Α **READY/ ERROR LEDs** 2 B Teach-in push-button C M12 connector output Α

Teach-in button for setting.

EASYtouch™ provides two setting modes: standard or fine, both obtained by pressing the push-button only once. Please refer to instructions manual for operating details.

CONNECTIONS

D Cable outputE Fixing nuts



TECHNICAL DATA										SELECTION	TABLE	
TECHNICAL NOTES										plastic - axial optics -	2 m cable	
¹ Limit values ² Average life of 100.000 h with TA =	+25 °C	N,	Ę	Ч.	đ	S50-MA-2-W03-NN	S50-MA-2-W03-PP	S50-MA-5-W03-NN	S50-MA-5-W03-PP	S50-PA-2-W03-NN	952001710	N
³ PVC, 4 x 0.14 mm ² ⁴ Compatible with quick connection s	uctome	S50-PA-2-W03-NN	S50-PA-2-W03-PP	S50-PA-5-W03-NN	S50-PA-5-W03-PP	N03	V03	N03	ŝ	S50-PA-2-W03-PP	952001320	F
⁵ A - reverse polarity protection		-2-	-2-	5		-2-1	-2-1	-2-1	-9-1	350-FA-2-W03-FF	952001320	
B - overload and short-circuit protect	ction on receiver outputs	₽	₽	Ą	₽.	Ę	Ř	Ř	Ę			
		S50	S5 0	S5 0	S50	S 50	S50	S50	S50	metal - axial optics - 2	2 m cable	
Operating distance:	10 mm	•	•	•	•	•	•	•	•	S50-MA-2-W03-NN	952021590	N
Depth of field (max.):	± 2 mm	•	•	•	•	•	•	•	•	S50-MA-2-W03-PP	952021110	F
Power supply:	10 30 Vdc ¹	•	•	•	•	•	•	•	•			
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	•	•	alastic suist satisf		
Consumption:	≤ 25 mA	•	•	•	•	•	•	•	•	plastic - axial optics -	M12 connector	- 1
Light emission:	white LED 400 - 700 nm ²	•	•	•	•	•	•	•	•	S50-PA-5-W03-NN	952001600	Ν
Spot dimension:	approx. 4.5 mm at 10 mm	•	•	•	•	•	•	•	•	S50-PA-5-W03-PP	952001330	F
Minimum detectable object:	0.5 mm	•	•	•	•	•	•	•	•			_
Setting:	teach-in push-button	•	•	•	•	٠	٠	•	•	motal avial antian	112 connector	
Setting procedure:	teach-in EASYtouch™		•		•		•		•	metal - axial optics - I		
Indicators:	yellow OUTPUT LED	•		•		•		•		S50-MA-5-W03-NN	952021750	N
	green / red READY / ERROR LED	•	•	•	•	•	•	•	•	S50-MA-5-W03-PP	952021310	F
Output type:	PNP, NO and NC	•	•	•	•	•	•	•	•			_
	NPN, NO and NC	•	•	•	•	•	•	•	•	All the ordering coo	les and informatio	n
Output current:	≤ 100 mA	•	•	•	•	•	٠	•	•	summarised in the		
Saturation voltage:	≤ 2 V	•	•	•	•	•	•	•	•		last pages of this	Cu
Response time:	100 ms	•	•	•	•	•	•	•	•			
Switching frequency:	5 kHz	•	•	•	•	•	٠	•	•			
Operating mode:	dark with EASYtouch™	•	•	•	•	•	•	•	•			
	automatic dark / light with fine acq.	•	•	•	•	•	•	•	•			
Connection:	2 m Ø 4 mm cable ³	•	•			•	•					
	M12 4-pole connector⁴			•	•			•	•			
Electrical protection:	class 2	•	•	•	•	•	•	•	•			
Mechanical protection:	IP67	•	•	•	•	•	•	•	•			
Protection devices:	A, B	•	•	•	•	•	•	•	•			
Housing material:	PBT	•	•	•	•							
	nickel plated brass					•	•	•	•			
Lens material:	PMMA	•	•	•	٠	•	•	•	•			
Weight:	75 g max.	•	٠									
	25 g max.			٠	•							
	110 g max.					٠	•					
	60 g max.							•	•			
Operating temperature:	-25 +55°C	•	•	•	٠	•	•	•	•	_		
Storage temperature:	-25 +70°C	•	٠	٠	•	٠	•	•	•		France	~
Reference standard:	EN 60947-5-2	•	•	•							ISTED 🗠 🗸 II J D 🕻	2

ON TABLE

plastic - axial optics	- 2 m cable		
S50-PA-2-W03-NN	952001710	NPN	
S50-PA-2-W03-PP	952001320	PNP	

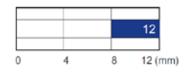
	metal - axial optics - 2	m cable	
1	S50-MA-2-W03-NN	952021590	NPN
	S50-MA-2-W03-PP	952021110	PNP

plastic - axial optics - I		
S50-PA-5-W03-NN	952001600	NPN
S50-PA-5-W03-PP	952001330	PNP

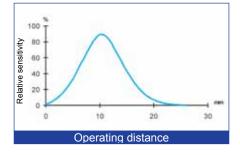
metal - axial optics - M	112 connector	
S50-MA-5-W03-NN	952021750	NPN
S50-MA-5-W03-PP	952021310	PNP

codes and information are the last pages of this catalogue.

DETECTION DIAGRAMS



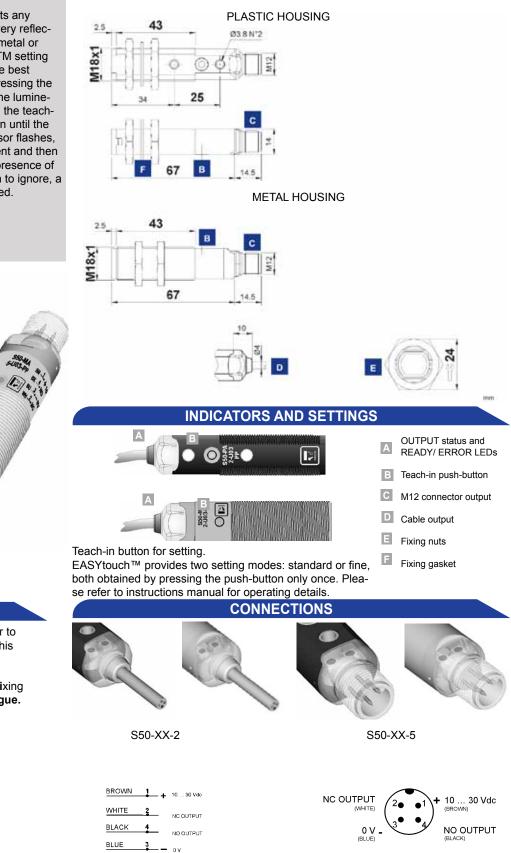
Operating distance



UUVEMISSION

The UV light LED emission detects any luminescent reference, even on very reflective surfaces, such as ceramics, metal or mirrored glass. The EASYtouchTM setting procedures fixes automatically the best detection conditions, simply by pressing the teach-in push-button once, with the luminescent object present. By pressing the teachin push-button and holding it down until the green light on the rear of the sensor flashes, with the luminescent object present and then pressing the button again in the presence of a luminescent reference you wish to ignore, a higher level of accuracy is obtained.

DIMENSIONS



Versions and options: refer to MODEL ALPHABETICAL INDEX of this catalogue.



ACCESSORIES

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

Refer also to **Connectors and Fi**xing **brackets of the General** Catal**ogue**.

TECHNICAL NOTES										plastic - axial optics -	2 m cable	
¹ Limit values ² Average life of 100.000 h with TA =	+25 °C	z	6	z	6	Х,	đ	N,	Ę	S50-PA-2-U03-NN	952001700	N
³ PVC, 4 x 0.14 mm ²		ä	ä	ä	3	ğ	ß	ß	ğ			
⁴ Compatible with quick connection s ⁵ A - reverse polarity protection	ystems	S50-PA-2-U03-NN		Υ.	Ŀ.	5	5	-5-	S50-MA-5-U03-PP	S50-PA-2-U03-PP	952001300	P
B - overload and short-circuit protect	ction on receiver outputs	Ą	Ą	S50-PA-5-U03-NN	Ą	Ā	ΔĀ.	S50-MA-5-U03-NN	ΡĀ			
			S50-PA-2-U03-PP	S50	S50-PA-5-U03-PP	S50-MA-2-U03-NN	S50-MA-2-U03-PP	S50	S50	metal - axial optics - 2	2 m cable	
Operating distance:	8 20 mm	•	•	•	•	•	•	•	•	S50-MA-2-U03-NN	952021580	N
Power supply:	10 30 Vdc ¹	•	•	٠	•	•	•	•	•	S50-MA-2-U03-PP	952021100	P
Ripple:	≤ 2 Vpp	•	•	•	•	•	•	•	•			
Consumption:	≤ 25 mA	•	•	•	•	•	•	٠	•	and a set of the set o		
Light emission:	UV LED 370 nm ²	•	•	•	•	•	•	•	•	plastic - axial optics -	M12 connector	
Spot dimension:	approx. 3 mm at 20 mm	•	•	•	•	•	•	•	•	S50-PA-5-U03-NN	952001590	N
Minimum detectable object:	0.5 mm	•	•	•	•	•	•	•	•	S50-PA-5-U03-PP	952001310	P
Setting:	teach-in push-button	•	•	•	•	•	•	٠	•			
Setting procedure:	teach-in EASYtouch™	•	•	•	•	•	•	•	•	motal avial antian	112 connector	
Indicators:	yellow OUTPUT LED	•	•	•	•	•	•	•	•	metal - axial optics - I		
	green / red READY / ERROR LED	•	•	•	•	•	•	•	•	S50-MA-5-U03-NN	952021740	N
Output type:	PNP, NO and NC		•		٠		•		•	S50-MA-5-U03-PP	952021300	P
	NPN, NO and NC	•		•		•		٠				
Output current:	≤ 100 mA	•	•	•	•	•	•	•	•	All the ordering co	hes and informa	ation a
Saturation voltage:	≤ 2 V	•	•	•	•	•	•	•	•	summarised in the		
Response time:	500 ms	•	•	•	•	•	•	•	•		luot pugeo ol ti	no ou
Switching frequency:	1 kHz	•	•	•	•	•	•	•	•			
Operating mode:	dark with EASYtouch™	•	•	•	•	•	•	•	•			
	automatic dark / light with fine acq.	•	•	•	•	•	•	•	•			
Connection:	2 m Ø 4 mm cable ³	•	•			•	•					
	M12 4-pole connector ⁴			•	•			•	•			
Electrical protection:	class 2	•	•	•	•	•	•	•	•			
Mechanical protection:	IP67	•	•	•	•	•	•	•	•			
Protection devices:	A, B⁵	•	•	•	•	•	•	•	•			
Housing material:	PBT	•	•	•	•							
	nickel plated brass					•	•	•	•			
Lens material:	PMMA	•	•	•	•	•	•	•	•			
Weight:	75 g max.	•	•									
	25 g max.			•	•							
	110 g max.					٠	•					
	60 g max.							•	•			
Operating temperature:	-25 +55°C	•	•	•	•	٠	•	•	•		_	
Storage temperature:	-25 +70°C	•	•	•	•	•	•	•	•	CE cWus		
Reference standard:	EN 60947-5-2	•	•	•	•	•	•	•	•		LISTED ~~ IIS	DG

SELECTION TABLE

plastic - axial optics - 2	2 m cable	
S50-PA-2-U03-NN	952001700	NPN
S50-PA-2-U03-PP	952001300	PNP

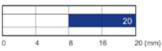
	metal - axial optics - 2		
1	S50-MA-2-U03-NN	952021580	NPN
	S50-MA-2-U03-PP	952021100	PNP

	plastic - axial optics - I		
1[S50-PA-5-U03-NN	952001590	NPN
	S50-PA-5-U03-PP	952001310	PNP

metal - axial optics - M	112 connector	
S50-MA-5-U03-NN	952021740	NPN
S50-MA-5-U03-PP	952021300	PNP

and information are pages of this catalogue.

DETECTION DIAGRAMS



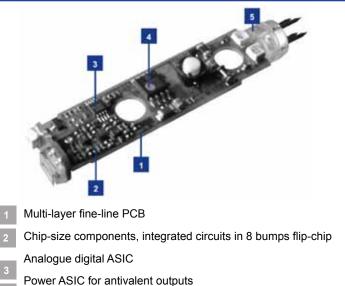
100 Relative sensitivity 80 60 40 20 0 10 20 0 Operating distance

30

40

Operating distance

TECHNOLOGY



M12 custom connector compatible with quick connection systems. The four terminals are cone-shaped to facilitate the direct insertion in the cable conductors $(4 \times 0.5 \text{ mm}^2)$



Housing and fixing nuts in indeformable plastic providing excellent resistance against hostile environments. Indelible laser marking

A modular product developed for the automation of the assembling and testing process necessary to guarantee intrinsic quality, repeatability and reliability. One-piece-flow management for improved service



EASYtouch[™] is a Datasensor patent-covered technology that allows a rapid and safe setting of micro-controlled sensors equipped with a teach-in push-button. A pressure longer than two seconds of the push-button allows a good adjustment of the sensitivity threshold. EASYtouch[™] is the easiest and fastest calibration procedure available on the market. The instructions on how to best use EASYtouch[™] are given in the product's instruction manual.

ACCESSORIES

The series is compatible with all the **Datalogic Automation** accessories already developed for tubular sensors. In the **General Catalogue** refer to:

- CS connectors
- $\boldsymbol{\mathsf{R}}$ reflectors
- OF fibre-optics
- ST fixing brackets

New accessories dedicated to the **S50** series have been developed to cover all the fixing requirements and to improve the functioning. In particular **EASYin™** is an innovative fixing system that can be used only for the plastic flat version, that allows a fast and safe positioning of the sensor, facilitating the adjustment as well as the locking and unlocking.

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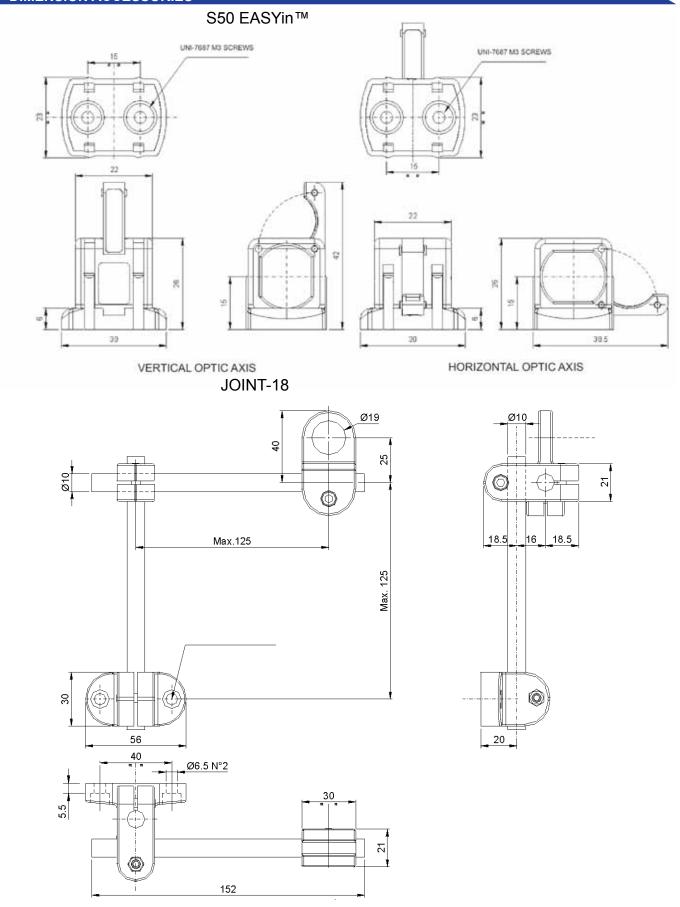
ACCESSORY SELECTION AND ORDER INFORMATION

MODEL	DESCRIPTION	ORDER N°
ST-5010	M18/14 fixing bracket	95ACC5230
ST-5011	M18 fixing bracket	95ACC5240
ST-5012	M18 fixing bracket	95ACC5250
ST-5017	M18 fixing bracket	95ACC5270
S50 EASY-IN	M18/14 EASYin™ adjustable fixing support	95ACC5300
JOINT-18	M18 jointed support	95ACC5220
SWING-18	adjustable support for plastic tubular M18 sensors	895000006
MICRO-18	support with micrometric regulation for tubular M18 sensors	95ACC1380
SP-40	fixed support for tubular M18 sensors	95ACC1370
MEK-PROOF	front protection	G500001

Refer also to Accessories for Sensors of the General Catalogue

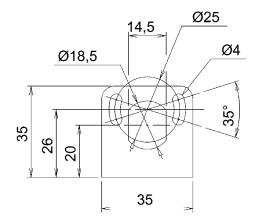


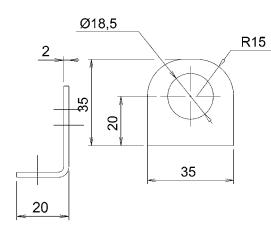


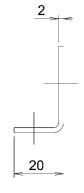


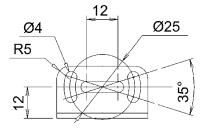
ST-5010

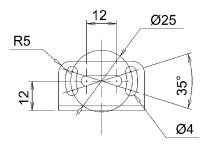
ST-5011





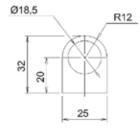




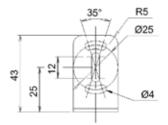


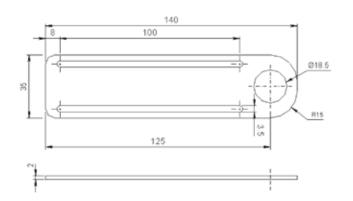
ST-5012





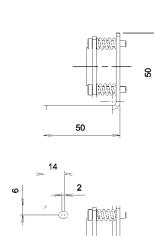






MICRO-18

SWING-18

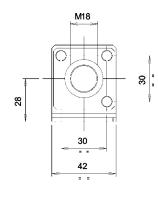


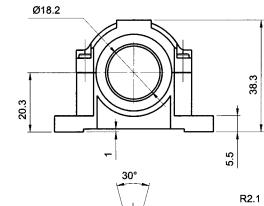
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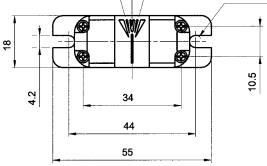
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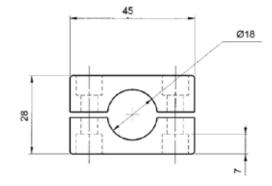
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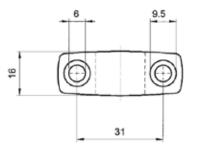






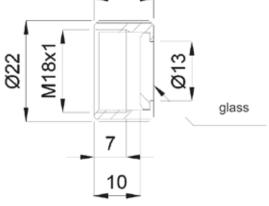
SP-40





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MEK PROOF



MODEL SELECTION AND ORDER INFORMATION

PLASTIC FLAT HOUS	ING WITH AX		
MODEL	CODE N°	OPTIC FUNCTION	PAGE
S50-PA-2-A00-NN	952002090	retroreflex	10
S50-PA-2-A00-PP	952002080	retroreflex	10
S50-PA-2-B01-NN	952001610	polarised retroreflex	12
S50-PA-2-B01-PP	952001010	polarised retroreflex	12
S50-PA-2-C01-NN	952001620	long diffuse proximity	22
S50-PA-2-C01-PP	952001050	long diffuse proximity	22
S50-PA-2-C10-NN	952001630	short diffuse proximity	18
S50-PA-2-C10-PP	952001240	short diffuse proximity	18
S50-PA-2-C21-NN	952002170	midi diffuse proximity	20
S50-PA-2-C21-PP	952002160	midi diffuse proximity	20
S50-PA-2-D00-NN	952001640	fixed focus proximity	24
S50-PA-2-D00-PP	952001090	fixed focus proximity	24
S50-PA-2-E01-NN	952001650	fibre-optic amplifier	34
S50-PA-2-E01-PP	952001130	fibre-optic amplifier	34
S50-PA-2-F01-NN	952001660	receiver	2
S50-PA-2-F01-PP	952001150	receiver	2
S50-PA-2-G00-XG	952001190	emitter	2
S50-PA-2-M03-NN	952001670	background suppression	28
S50-PA-2-M03-PP	952001230	background suppression	28
S50-PA-2-T01-NN	952001690	retroreflex for transparents	16
S50-PA-2-T01-PP	952001260	retroreflex for transparents	16
S50-PA-2-U03-NN	952001700	luminescence sensor	38
S50-PA-2-U03-PP	952001300	luminescence sensor	38
S50-PA-2-W03-NN	952001710	contrast sensor	36
S50-PA-2-W03-PP	952001320	contrast sensor	36
S50-PA-5-A00-NN	952002110	retroreflex	10
S50-PA-5-A00-PP	952002100	retroreflex	10
S50-PA-5-B01-NN	952001500	polarised retroreflex	12
S50-PA-5-B01-PP	952001020	polarised retroreflex	12
S50-PA-5-C01-NN	952001510	long diffuse proximity	22
S50-PA-5-C01-PP	952001060	long diffuse proximity	22
S50-PA-5-C10-NN	952001520	short diffuse proximity	18
S50-PA-5-C10-PP	952001250	short diffuse proximity	18
S50-PA-5-C21-NN	952002190	midi diffuse proximity	20
S50-PA-5-C21-PP	952002180	midi diffuse proximity	20
S50-PA-5-D00-NN	952001530	fixed focus proximity	24
S50-PA-5-D00-PP	952001100	fixed focus proximity	24
S50-PA-5-E01-NN	952001540	fibre-optic amplifier	34
S50-PA-5-E01-PP	952001140	fibre-optic amplifier	34
S50-PA-5-F01-NN	952001550	receiver	2
S50-PA-5-F01-PP	952001160	receiver	2
S50-PA-5-G00-XG	952001200	emitter	2
S50-PA-5-M03-NN	952001560	background suppression	28
S50-PA-5-M03-PP	952001000	background suppression	28
S50-PA-5-T01-NN	952001580	retroreflex for transparents	16
S50-PA-5-T01-PP	952001270	retroreflex for transparents	16
S50-PA-5-U03-NN	952001590	luminescence sensor	38

PLASTIC FLAT HOUSING WITH AXIAL OPTICS			
MODEL	CODE N°	OPTIC FUNCTION	PAGE
S50-PA-5-U03-PP	952001310	luminescence sensor	38
S50-PA-5-W03-NN	952001600	contrast sensor	36
S50-PA-5-W03-PP	952001330	contrast sensor	36
PLASTIC FLAT HOU	ISING WITH RA	DIAL OPTICS	
S50-PR-2-B01-NN	952001780	polarised retroreflex	12
S50-PR-2-B01-PP	952001030	polarised retroreflex	12
S50-PR-2-C01-NN	952001790	long diffuse proximity	22
S50-PR-2-C01-PP	952001070	long diffuse proximity	22
S50-PR-2-C10-NN	952001800	short diffuse proximity	18
S50-PR-2-C10-PP	952001490	short diffuse proximity	18
S50-PR-2-D00-NN	952001810	fixed focus proximity	24
S50-PR-2-D00-PP	952001110	fixed focus proximity	24
S50-PR-2-F01-NN	952001820	receiver	2
S50-PR-2-F01-PP	952001170	receiver	2
S50-PR-2-G00-XG	952001210	emitter	2
S50-PR-2-T01-NN	952001830	retroreflex for transparents	16
S50-PR-2-T01-PP	952001280	retroreflex for transparents	16
S50-PR-5-B01-NN	952001720	polarised retroreflex	12
S50-PR-5-B01-PP	952001040	polarised retroreflex	12
S50-PR-5-C01-NN	952001730	long diffuse proximity	22
S50-PR-5-C01-PP	952001080	long diffuse proximity	22
S50-PR-5-C10-NN	952001740	short diffuse proximity	18
S50-PR-5-C10-PP	952001480	short diffuse proximity	18
S50-PR-5-D00-NN	952001750	fixed focus proximity	24
S50-PR-5-D00-PP	952001120	fixed focus proximity	24
S50-PR-5-F01-NN	952001760	receiver	2
S50-PR-5-F01-PP	952001180	receiver	2
S50-PR-5-G00-XG	952001220	emitter	2
S50-PR-5-T01-NN	952001770	retroreflex for transparents	16
S50-PR-5-T01-PP	952001290	retroreflex for transparents	16
PLASTIC FLAT HOL	ISING WITH LA	TERAL OPTICS	
S50-PS-2-M03-NN	952001900	background suppression	30
S50-PS-2-M03-NN	952001900	background suppression	30
S50-PS-5-M03-NN	952001910	background suppression	30
000-F 0-0-IVIU0-ININ	902001920	backyrounu suppression	30

PLASTIC FLAT HOUSING WITH LASER AXIAL OPTICS

952001930

S50-PS-5-M03-PP

S50-PL-2-B01-NN	952001870	laser retroreflex	14
S50-PL-2-B01-PP	952001360	laser retroreflex	14
S50-PL-2-C01-NN	952001880	laser proximity	26
S50-PL-2-C01-PP	952001380	laser proximity	26
S50-PL-2-F01-NN	952001890	laser receiver	6
S50-PL-2-F01-PP	952001400	laser receiver	6
S50-PL-2 G00-XG	952001420	laser emitter	6
S50-PL-5-B01-NN	952001840	laser retroreflex	14
S50-PL-5-B01-PP	952001370	laser retroreflex	14
S50-PL-5-C01-NN	952001850	laser proximity	26
S50-PL-5-C01-PP	952001390	laser proximity	26
S50-PL-5-F01-NN	952001860	laser receiver	6
S50-PL-5-F01-PP	952001410	laser receiver	6
S50-PL-5-G00-XG	952001430	laser emitter	6

background suppression

30

MODEL SELECTION AND ORDER INFORMATION

PLASTIC FLAT HOUSING WITH LASER RADIAL OPTICS			
MODEL	CODE N°	OPTIC FUNCTION	PAGE
S50-PH-2-B01-NN	952001950	laser retroreflex	14
S50-PH-2-B01-PP	952001940	laser retroreflex	14
S50-PH-2-C01-NN	952001990	laser proximity	26
S50-PH-2-C01-PP	952001980	laser proximity	26
S50-PH-2-F01-NN	952002030	laser receiver	6
S50-PH-2-F01-PP	952002020	laser receiver	6
S50-PH-2 G00-XG	952002060	laser emitter	6
S50-PH-5-B01-NN	952001970	laser retroreflex	14
S50-PH-5-B01-PP	952001960	laser retroreflex	14
S50-PH-5-C01-NN	952002010	laser proximity	26
S50-PH-5-C01-PP	952002000	laser proximity	26
S50-PH-5-F01-NN	952002050	laser receiver	6
S50-PH-5-F01-PP	952002040	laser receiver	6
S50-PH-5-G00-XG	952002070	laser emitter	6

METAL CYLINDRICAL HOUSING WITH AXIAL OPTICS			
S50-MA-2-A00-NN	952022090	retroreflex	10
S50-MA-2-A00-PP	952022080	retroreflex	10
S50-MA-2-B01-NN	952021500	polarised retroreflex	12
S50-MA-2-B01-PP	952021000	polarised retroreflex	12
S50-MA-2-C01-NN	952021510	long diffuse proximity	22
S50-MA-2-C01-PP	952021010	long diffuse proximity	22
S50-MA-2-C10-NN	952021520	short diffuse proximity	18
S50-MA-2-C10-PP	952021020	short diffuse proximity	18
S50-MA-2-C21-NN	952022130	midi diffuse proximity	20
S50-MA-2-C21-PP	952022120	midi diffuse proximity	20
S50-MA-2-D00-NN	952021530	fixed focus proximity	24
S50-MA-2-D00-PP	952021030	fixed focus proximity	24
S50-MA-2-E01-NN	952021880	fibre-optic amplifier	34
S50-MA-2-E01-PP	952021040	fibre-optic amplifier	34
S50-MA-2-F01-NN	952021540	receiver	4
S50-MA-2-F01-PP	952021050	receiver	4
S50-MA-2-G00-XG	952021060	emitter	4
S50-MA-2-M03-NN	952021550	background suppression	28
S50-MA-2-M03-PP	952021070	background suppression	28
S50-MA-2-T01-NN	952021570	retroreflex for transparents	16
S50-MA-2-T01-PP	952021090	retroreflex for transparents	16
S50-MA-2-U03-NN	952021580	luminescence sensor	38
S50-MA-2-U03-PP	952021100	luminescence sensor	38
S50-MA-2-W03-NN	952021590	contrast sensor	36
S50-MA-2-W03-PP	952021110	contrast sensor	36
S50-MA-5-A00-NN	952022110	retroreflex	10
S50-MA-5-A00-PP	952022100	retroreflex	10
S50-MA-5-B01-NN	952021660	polarised retroreflex	12
S50-MA-5-B01-PP	952021200	polarised retroreflex	12
S50-MA-5-C01-NN	952021670	long diffuse proximity	22
S50-MA-5-C01-PP	952021210	long diffuse proximity	22
S50-MA-5-C10-NN	952021680	short diffuse proximity	18
S50-MA-5-C10-PP	952021220	short diffuse proximity	18

MODEL	CODE N°	OPTIC FUNCTION	PAG
S50-MA-5-C21-NN	952022150	midi diffuse proximity	20
S50-MA-5-C21-PP	952022140	midi diffuse proximity	20
S50-MA-5-D00-NN	952021690	fixed focus proximity	24
S50-MA-5-D00-PP	952021230	fixed focus proximity	24
S50-MA-5-E01-NN	952021890	fibre-optic amplifier	34
S50-MA-5-E01-PP	952021240	fibre-optic amplifier	34
S50-MA-5-F01-NN	952021700	receiver	4
S50-MA-5-F01-PP	952021250	receiver	4
S50-MA-5-G00-XG	952021260	emitter	4
S50-MA-5-M03-NN	952021710	background suppression	28
S50-MA-5-M03-PP	952021270	background suppression	28
S50-MA-5-T01-NN	952021730	retroreflex for transparents	16
S50-MA-5-T01-PP	952021290	retroreflex for transparents	16
S50-MA-5-U03-NN	952021740	luminescence sensor	38
S50-MA-5-U03-PP	952021300	luminescence sensor	38
S50-MA-5-W03-NN	952021750	contrast sensor	36
S50-MA-5-W03-PP	952021310	contrast sensor	36
METAL CYLINDRIC	AL HOUSING V	VITH RADIAL OPTICS	
S50-MR-2-B01-NN	952021600	polarised retroreflex	12
S50-MR-2-B01-PP	952021140	polarised retroreflex	12
S50-MR-2-C01-NN	952021610	long diffuse proximity	22
S50-MR-2-C01-PP	952021150	long diffuse proximity	22
S50-MR-2-C10-NN	952021620	short diffuse proximity	18
S50-MR-2-C10-PP	952021490	short diffuse proximity	18
S50-MR-2-D00-NN	952021630	fixed focus proximity	24
S50-MR-2-D00-PP	952021160	fixed focus proximity	24
S50-MR-2-F01-NN	952021640	receiver	4
S50-MR-2-F01-PP	952021170	receiver	4
S50-MR-2-G00-XG	952021180	emitter	4
S50-MR-2-T01-NN	952021650	retroreflex for transparents	16
S50-MR-2-T01-PP	952021190	retroreflex for transparents	16
S50-MR-5-B01-NN	952021760	polarised retroreflex	12
S50-MR-5-B01-PP	952021340	polarised retroreflex	12
S50-MR-5-C01-NN	952021770	long diffuse proximity	22
S50-MR-5-C01-PP	952021350	long diffuse proximity	22
S50-MR-5-C10-NN	952021780	short diffuse proximity	18
S50-MR-5-C10-PP	952021480	short diffuse proximity	18
S50-MR-5-D00-NN	952021790	fixed focus proximity	24
S50-MR-5-D00-PP	952021360	fixed focus proximity	24
S50-MR-5-F01-NN	952021800	receiver	4
S50-MR-5-F01-PP	952021370	receiver	4
S50-MR-5-G00-XG	952021380	emitter	4
S50-MR-5-T01-NN	952021810	retroreflex for transparents	16
S50-MR-5-T01-PP	952021390	retroreflex for transparents	16

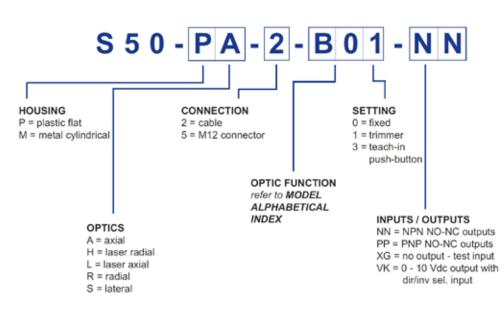
MODEL SELECTION AND ORDER INFORMATION

METAL CYLINDRICAL HOUSING WITH LATERAL OPTICS			
MODEL	CODE N°	OPTIC FUNCTION	PAGE
S50-MS-2-M03-NN	952021900	background suppression	30
S50-MS-2-M03-PP	952021910	background suppression	30
S50-MS-5-M03-NN	952021920	background suppression	30
S50-MS-5-M03-PP	952021930	background suppression	30

METAL CYLINDRICAL HOUSING WITH LASER AXIAL OPTICS			
S50-ML-2-B01-NN	952021820	laser retroreflex	14
S50-ML-2-B01-PP	952021400	laser retroreflex	14
S50-ML-2-C01-NN	952021830	laser proximity	26
S50-ML-2-C01-PP	952021410	laser proximity	26
S50-ML-2-F01-NN	952021840	laser receiver	8
S50-ML-2-F01-PP	952021420	laser receiver	8
S50-ML-2-G00-XG	952021430	laser emitter	8
S50-ML-5-B01-NN	952021850	laser retroreflex	14
S50-ML-5-B01-PP	952021440	laser retroreflex	14
S50-ML-5-C01-NN	952021860	laser proximity	26
S50-ML-5-C01-PP	952021450	laser proximity	26
S50-ML-5-F01-NN	952021870	laser receiver	8
S50-ML-5-F01-PP	952021460	laser receiver	8
S50-ML-5-G00-XG	952021470	laser emitter	8

METAL CYLINDRICAL HOUSING WITH LASER RADIAL OPTICS			
MODEL	CODE N°	OPTIC FUNCTION	PAGE
S50-MH-2-B01-NN	952021940	laser retroreflex	14
S50-MH-2-B01-PP	952021950	laser retroreflex	14
S50-MH-2-C01-NN	952021990	laser proximity	26
S50-MH-2-C01-PP	952021980	laser proximity	26
S50-MH-2-F01-NN	952022030	laser receiver	8
S50-MH-2-F01-PP	952022020	laser receiver	8
S50-MH-2-G00-XG	952022060	laser emitter	8
S50-MH-5-B01-NN	952021970	laser retroreflex	14
S50-MH-5-B01-PP	952021960	laser retroreflex	14
S50-MH-5-C01-NN	952022010	laser proximity	26
S50-MH-5-C01-PP	952022000	laser proximity	26
S50-MH-5-F01-NN	952022050	laser receiver	8
S50-MH-5-F01-PP	952022040	laser receiver	8
S50-MH-5-G00-XG	952022070	laser emitter	8

MODEL CODING TABLE



Note: Not all code combinations are available. Please refer to alphabetical model index for the list of available models.

The company endeavours to continuously improve and renew its products; for this reason the technical data and contents of this catalogue may undergo variations without prior notice. For correct installation and use, the company can guarantee only the data indicated in the instruction manual supplied with the products.