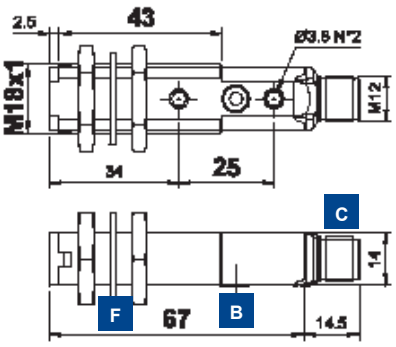
M AXIAL BACKGROUND SUPPRESSION WITH RED EMISSION

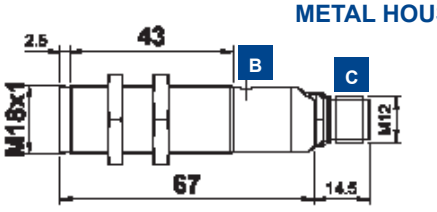
Background suppression proximity allows to precisely adjust the distance over which the object is not detected, with the minimum difference between reflective objects. The *EASYtouch*™ setting procedure fixes automatically the best detection conditions, simply pressing once the teach-in push-button,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

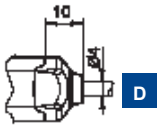
DIMENSIONS

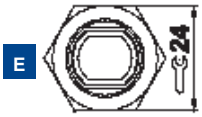
PLASTIC HOUSING



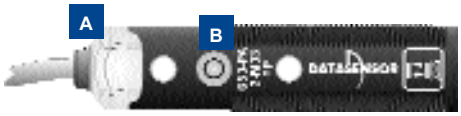
METAL HOUSING







INDICATORS AND SETTINGS



- **A** OUTPUT status and READY / ERROR LEDs
- **B** Teach-in push-button
- **C** M12 connector output
- **D** Cable output
- **E** Fixing nuts
- **F** Fixing gasket

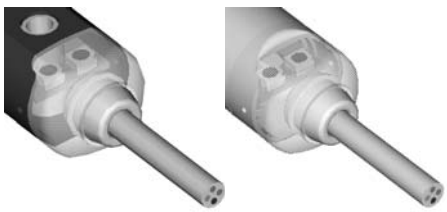
Teach-in button for setting.
EASYtouch™ provides two setting modes: standard or fine, both obtained by pressing the push-button only once. Please refer to instructions manual for operating details.

ACCESSORIES

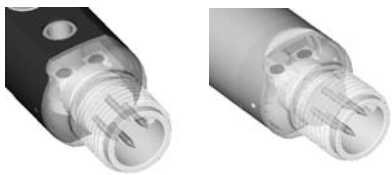
For **dedicated accessories** refer to the **ACCESSORIES** section of this catalogue.

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

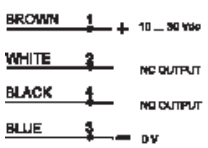
CONNECTIONS



S50-XX-2



S50-XX-5



DATASENSOR

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

TECHNICAL DATA

		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
Operating distance:	5 ... 10 cm	●	●	●	●	●	●	●	●
Power supply:	10 ... 30 Vdc [1]	●	●	●	●	●	●	●	●
Ripple:	≤ 2 Vpp	●	●	●	●	●	●	●	●
Consumption:	≤ 30 mA	●	●	●	●	●	●	●	●
Light emission:	red LED 630 nm [2]	●	●	●	●	●	●	●	●
Spot dimension:	approx. 8 mm at 10 cm	●	●	●	●	●	●	●	●
Setting:	teach-in push-button	●	●	●	●	●	●	●	●
Setting procedure:	teach-in *EASYtouch™*	●	●	●	●	●	●	●	●
Indicators:									
	yellow OUTPUT LED	●	●	●	●	●	●	●	●
	green / red READY / ERROR LED	●	●	●	●	●	●	●	●
Output type:									
	PNP, NO and NC		●		●		●		●
	NPN, NO and NC	●		●		●		●	
Output current:	≤ 100 mA	●	●	●	●	●	●	●	●
Saturation voltage:	≤ 2 V	●	●	●	●	●	●	●	●
Response time:	1 ms	●	●	●	●	●	●	●	●
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, B [5]	●	●	●	●	●	●	●	●
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-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	952021710	NPN
S50-MA-5-M03-PP	952021270	PNP

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

TECHNICAL NOTES

1 *Limit values*

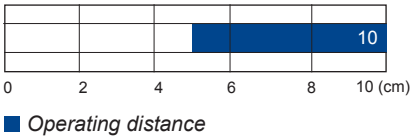
2 *Average life of 100.000 h with T_A = +25 °C*

3 *PVC, 4 x 0.14 mm²*

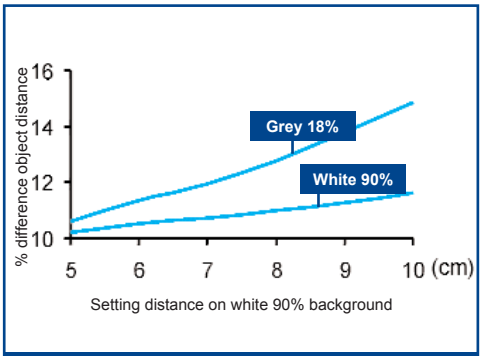
4 *Compatible with quick connection systems*

5 *A - reverse polarity protection*
B - overload and short-circuit protection on the outputs

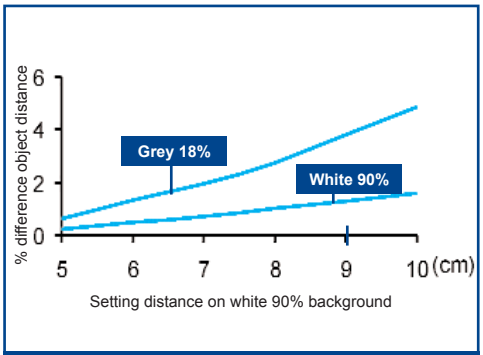
DETECTION DIAGRAMS



■ *Operating distance*



Detection difference with *EASYtouch*™ acquisition



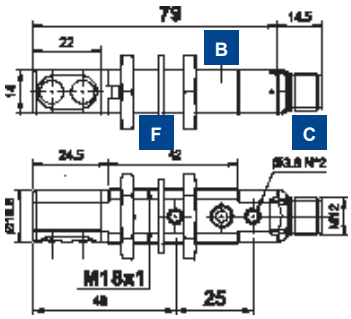
Detection difference with fine acquisition

M RADIAL BACKGROUND SUPPRESSION WITH RED EMISSION

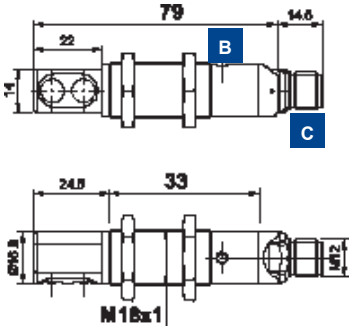
Background suppression proximity allows to precisely adjust the distance over which the object is not detected, with the minimum difference between reflective objects. The *EASYtouch™* setting procedure fixes automatically the best detection conditions, simply pressing once the teach-in push-button,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

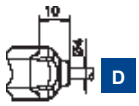
DIMENSIONS

PLASTIC HOUSING

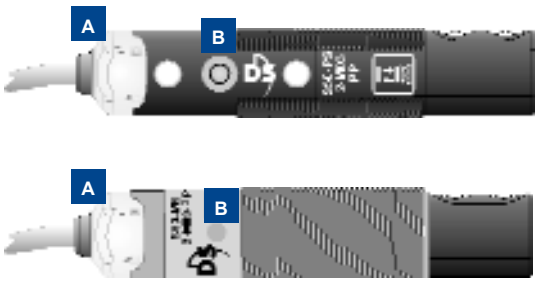


METAL HOUSING





INDICATORS AND SETTINGS



- **A** OUTPUT status and READY / ERROR LEDs
- **B** Teach-in push-button
- **C** M12 connector output
- **D** Cable output
- **E** Fixing nuts
- **F** Fixing gasket

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.

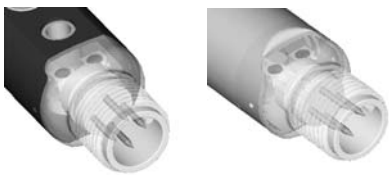
ACCESSORIES

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

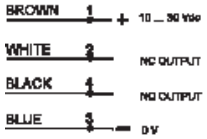
Refer also to **Connectors (A.03)** and **Fixing brackets (A.04)** of the **General Catalogue**.

CONNECTIONS

S50-XX-2



S50-XX-5



DATASENSOR

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

TECHNICAL DATA

		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
Operating distance:	5 ... 10 cm	●	●	●	●	●	●	●	●
Power supply:	10 ... 30 Vdc [1]	●	●	●	●	●	●	●	●
Ripple:	≤ 2 Vpp	●	●	●	●	●	●	●	●
Consumption:	≤ 30 mA	●	●	●	●	●	●	●	●
Light emission:	red LED 630 nm [2]	●	●	●	●	●	●	●	●
Spot dimension:	approx. 10 mm at 10 cm	●	●	●	●	●	●	●	●
Setting:	teach-in push-button	●	●	●	●	●	●	●	●
Setting procedure:	teach-in *EASYtouch™*	●	●	●	●	●	●	●	●
Indicators:									
	yellow OUTPUT LED	●	●	●	●	●	●	●	●
	green / red READY / ERROR LED	●	●	●	●	●	●	●	●
Output type:									
	PNP, NO and NC		●		●		●		●
	NPN, NO and NC	●		●		●		●	
Output current:	≤ 100 mA	●	●	●	●	●	●	●	●
Saturation voltage:	≤ 2 V	●	●	●	●	●	●	●	●
Response time:	1 ms	●	●	●	●	●	●	●	●
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, B [5]	●	●	●	●	●	●	●	●
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	●	●	●	●	●	●	●	●
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.

TECHNICAL NOTES

[1] Limit values

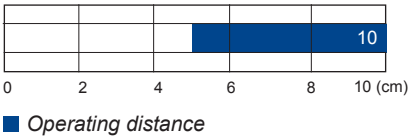
[2] Average life of 100.000 h with T_A = +25 °C

[3] PVC, 4 x 0.14 mm²

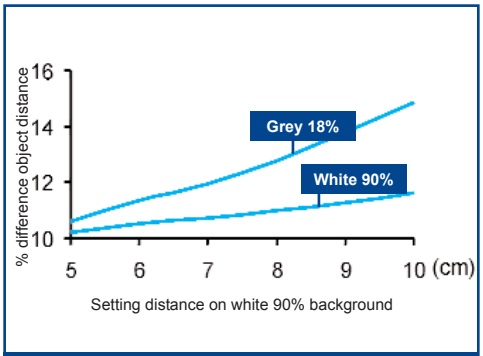
[4] Compatible with quick connection systems

[5] A - reverse polarity protection
B - overload and short-circuit protection on the outputs

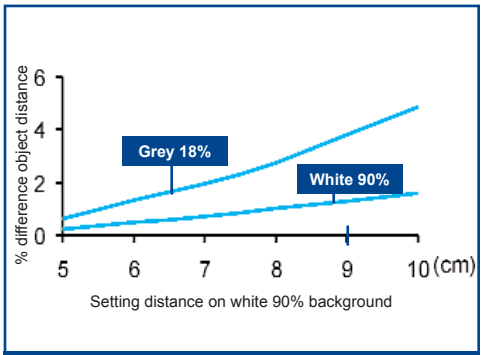
DETECTION DIAGRAMS



Operating distance



Detection difference with *EASYtouch™* acquisition



Detection difference with fine acquisition