

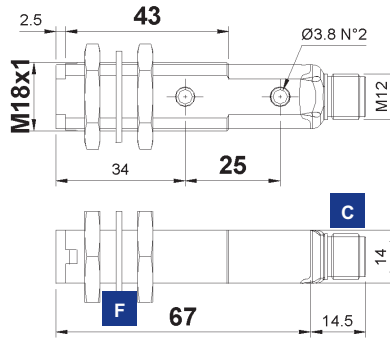
# Y DISTANCE SENSOR WITH RED EMISSION

This sensor gives an analogue 0-10 Vdc output proportional to an object's distance from the face of the sensor over a distance of 100 mm. The light intensity of the yellow indicator LED at the rear of the sensor is proportional to the object's distance, the red LED turns on when the object is outside the measurement field.

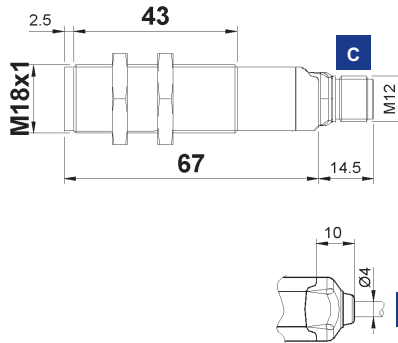


## DIMENSIONS

### PLASTIC HOUSING

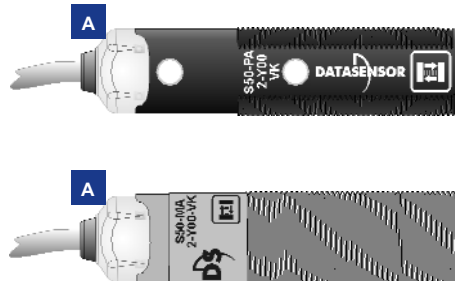


### METAL HOUSING



mm

## INDICATORS AND SETTINGS



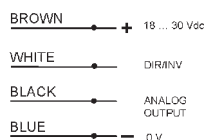
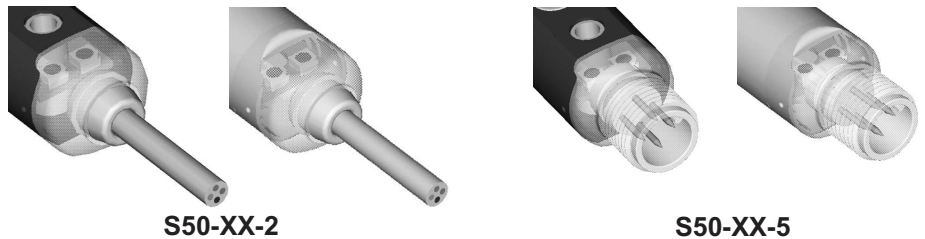
- A** OUTPUT status and field LEDs
- C** M12 connector output
- D** Cable output
- E** Fixing nuts
- F** Fixing gasket

## 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





## TECHNICAL DATA

		S50-PA-2-Y00-VK	S50-PA-5-Y00-VK	S50-MA-2-Y00-VK	S50-MA-5-Y00-VK
<b>Operating distance:</b>	5 ... 10 cm	●	●	●	●
<b>Power supply:</b>	18 ... 30 Vdc <sup>1</sup>	●	●	●	●
<b>Ripple:</b>	≤ 2 Vpp	●	●	●	●
<b>Consumption:</b>	≤ 30 mA	●	●	●	●
<b>Light emission:</b>	red LED 630 nm <sup>2</sup>	●	●	●	●
<b>Spot dimension:</b>	approx. 8 mm at 10 cm	●	●	●	●
<b>Indicators:</b>					
	yellow proportional OUTPUT LED	●	●	●	●
	red field LED	●	●	●	●
<b>Output type:</b>	analogue with 0 ... 10V voltage	●	●	●	●
<b>Output resistance:</b>	2 kΩ	●	●	●	●
<b>Load resistance:</b>	≥ 20 kΩ	●	●	●	●
<b>Response time:</b>	3,33 ms	●	●	●	●
<b>Switching frequency:</b>	150 Hz	●	●	●	●
<b>Resolution:</b>	1 mm / 200 mV	●	●	●	●
<b>Operating mode:</b>	direct / inverse proportionality <sup>3</sup>	●	●	●	●
<b>Connection:</b>					
	2 m Ø 4 mm cable <sup>4</sup>	●	●		
	M12 4-pole connector <sup>5</sup>		●	●	
<b>Electrical protection:</b>	class 2	●	●	●	●
<b>Mechanical protection:</b>	IP67	●	●	●	●
<b>Protection devices:</b>	A, B <sup>6</sup>	●	●	●	●
<b>Housing material:</b>					
	PBT	●	●		
	nickel plated brass			●	●
<b>Lens material:</b>	PMMA	●	●	●	●
<b>Weight:</b>					
	75 g max.	●			
	25 g max.		●		
	110 g max.			●	
	60 g max.				●
<b>Operating temperature:</b>	-25 ... +55°C	●	●	●	●
<b>Storage temperature:</b>	-25 ... +70°C	●	●	●	●
<b>Reference standard:</b>	EN 60947-5-2	●	●	●	●

## SELECTION TABLE

plastic - axial optics - 2 m cable  
S50-PA-2-Y00-VK | 952001340

metal - axial optics - 2 m cable  
S50-MA-2-Y00-VK | 952021120

plastic - axial optics - M12 connector  
S50-PA-5-Y00-VK | 952001350

metal - axial optics - M12 connector  
S50-MA-5-Y00-VK | 952021320

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

## TECHNICAL NOTES

<sup>1</sup> Limit values

<sup>2</sup> Average life of 100.000 h with  $T_A = +25^\circ\text{C}$

<sup>3</sup> Direct proportionality (DIR) is activated when white wire is connected to +Vdc; Inverse proportionality (INV) is activated when white wire is connected to 0 V. The white wire must always be connected.

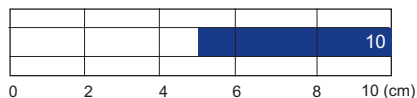
<sup>4</sup> PVC, 4 x 0.14 mm<sup>2</sup>

<sup>5</sup> Compatible with quick connection systems

<sup>6</sup> A - reverse polarity protection  
B - overload and short-circuit protection on the outputs



## DETECTION DIAGRAMS



■ Operating distance

