

## M12 SENSOR BASIC LINE



- *Diffuse proximity fixed at 10 cm and adjustable up to 30 cm*
- *1 m polarised retroreflex and 5 m through beam*
- *M12 connection and PNP output*
- *Sturdy metal housing with IP67 protection*

## S12M SERIES

The **S12M** series includes a basic line of photoelectric sensors developed in the standard tubular M12 format.

The diffuse proximity is available in different versions: a 10 cm fixed operating distance model with visible red emission, or a model with trimmer adjustable distance from 0 to 30 cm and infrared emission.

The sensitivity adjustment trimmer and visible red emission characterise the 1 m polarised retroreflex models and the 5 m through beam models.

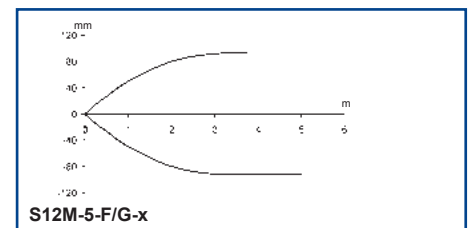
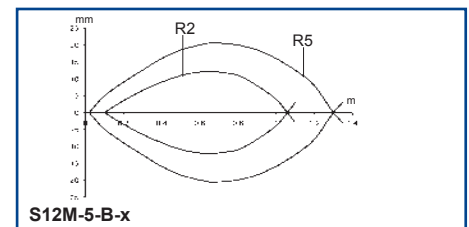
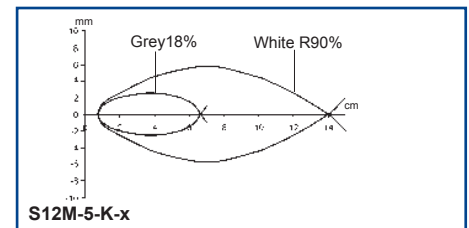
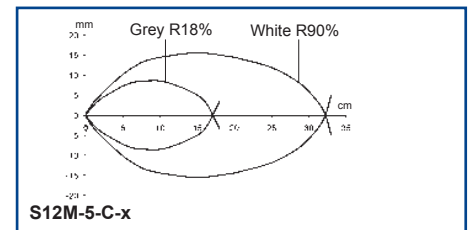
A yellow LED indicating the activation of the PNP output is present in all models. The tubular metal housing includes the M12 connector inside one single block, guaranteeing reduced dimensions and the maximum protection degree.



## TECHNICAL DATA

<b>Power supply:</b> .....	10 ... 30 Vdc, reverse polarity protection
<b>Consumption:</b> .....	20 mA max.
<b>Light emission:</b> .....	red LED 660nm (B, K, F/G vers.) infrared 880 nm (C vers.)
<b>Diffuse proximity operating distance:</b> .....	1 ... 30 cm (C vers.) 1 ... 10 cm (K vers.)
<b>Polarised retroreflex operating distance:</b> ..	0.1 ... 1 m (on R2)
<b>Through beam operating distance:</b> .....	0 ... 5 m
<b>Setting:</b> .....	sensitivity trimmer (B,C,F vers.)
<b>Indicators:</b> .....	yellow OUTPUT LED yellow POWER LED (G vers.)
<b>Output type:</b> .....	PNP, open collector
<b>Saturation voltage:</b> .....	1.6 V max.
<b>Output current:</b> .....	200 mA max., short-circuit protection
<b>Response time:</b> .....	2.5 ms max. 1 ms max. (F vers.)
<b>Switching frequency:</b> .....	150 Hz max. 500 Hz max. (F vers.)
<b>Operating mode:</b> .....	light (C,K vers.) dark (B vers.) dark/light (F vers.)
<b>Connection:</b> .....	4-pole M12 connector
<b>Electrical protection:</b> .....	class 1
<b>Mechanical protection:</b> .....	IP67
<b>Housing material:</b> .....	nickel-plated brass
<b>Lens material:</b> .....	PMMA plastic
<b>Weight:</b> .....	30 g max.
<b>Operating temperature:</b> .....	-15 ... +55°C
<b>Storage temperature:</b> .....	-25 ... +70°C
<b>Reference standard:</b> .....	EN 60947-5-2
<b>Certifications:</b> .....	CE

## DETECTION DIAGRAMS

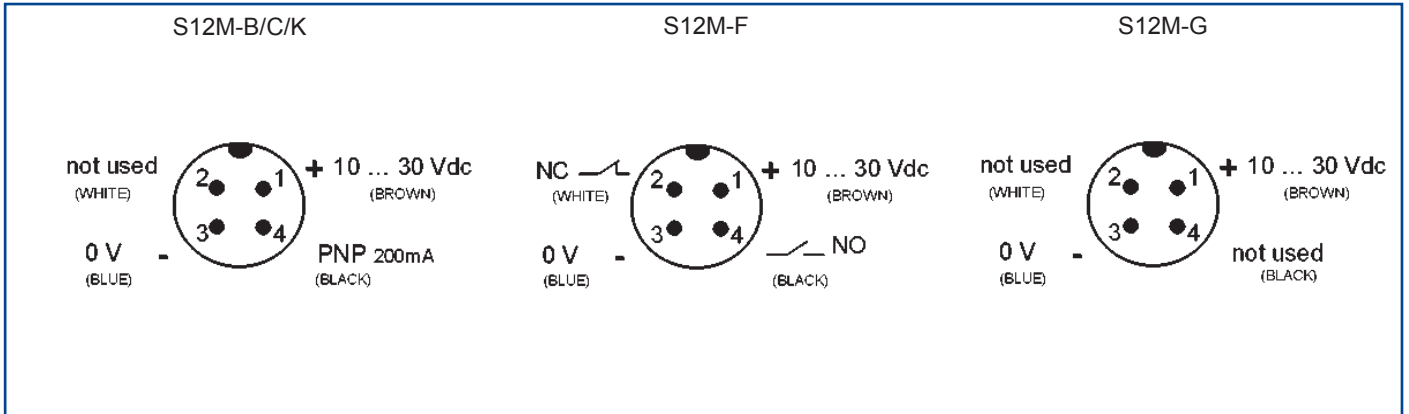


The operating distances indicate the detection distance with excess gain 2.

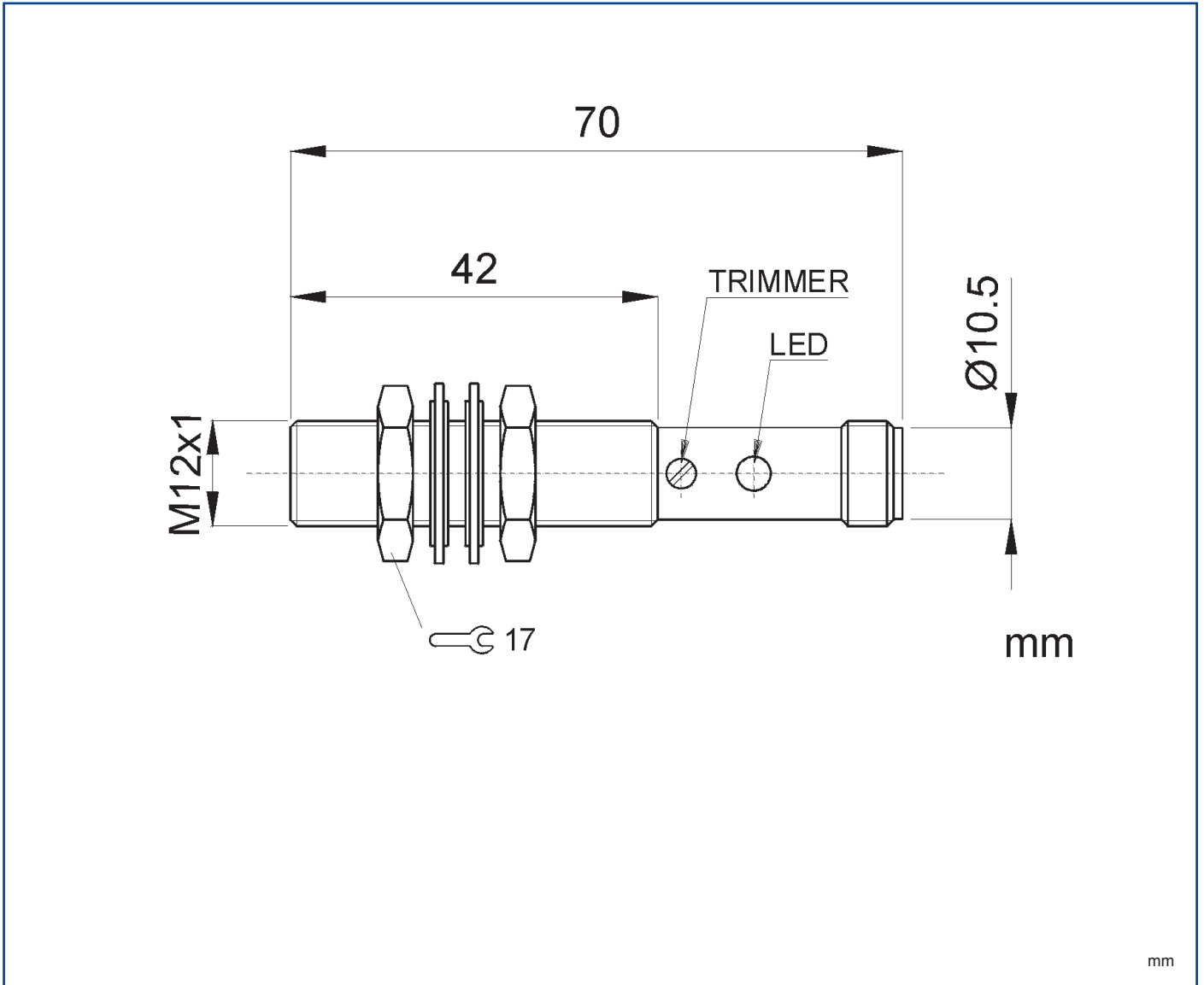


The detection diagrams indicate the typical operating distance with excess gain 1.

## CONNECTIONS



## DIMENSIONS





## MODEL SELECTION AND ORDER INFORMATION

MODEL	FUNCTION	CONNECTION OUTPUT		CODE N°
S12M-5-K-92	diffuse proximity	M12 connector	PNP-light	952401000
S12M-5-C-92	diffuse proximity	M12 connector	PNP-light	952401010
S12M-5-B-82	polarised retroreflex	M12 connector	PNP-dark	952401020
S12M-5-F-32	receiver	M12 connector	PNP-dark/light	952401030
S12M-5-G-02	emitter	M12 connector	-	952401040

*Distributed by:*



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# UNIVERSAL TUBULAR SENSORS