

**S3 SERIES**

The photoelectric sensors of the **S3** series are characterised by particularly compact dimensions still offering excellent performances and a wide variety of models.

The wide range of optic functions include diffuse proximity with distance adjustable up to 10 cm or 50 cm, or 12 mm fixed focus proximity. The retroreflex versions reach 3 m and are also available in the polarised version suitable for detecting shiny objects, or low hysteresis models to detect transparent objects. The 5 m through beam models complete the series, together with versions for the different fibre-optics available as accessories. All models offer trimmer sensitivity adjustment and LED stability indicator; the axial and lateral optics guarantee the same performances. Maximum installation versatility and use are obtained thanks to the configurable output and miniature housing.

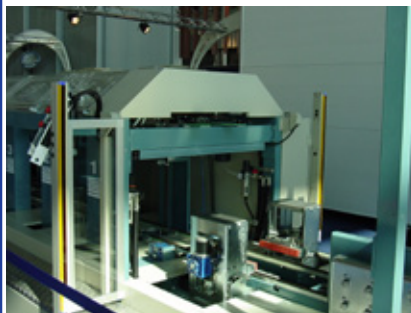


**HIGHLIGHTS**

- Miniature housing with axial or lateral optics
- Wide range of optic functions including fibre versions
- Sensitivity adjustment and stability LED
- NPN/PNP and dark/light configurable output

**APPLICATIONS**

**Ceramics**



**Transportation lines**





**Beverage & Bottling**



**Packaging lines**

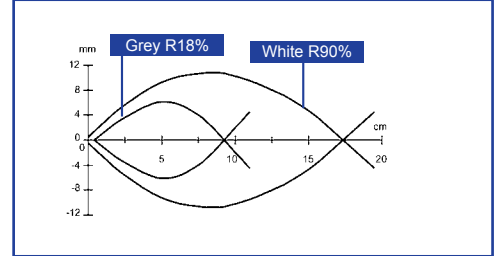


## TECHNICAL DATA

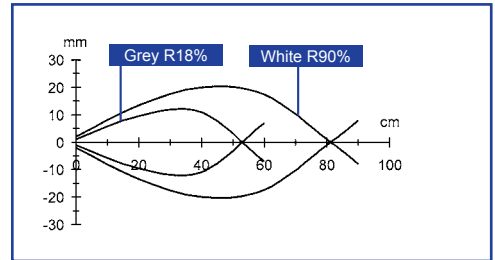
<b>Power supply:</b>	10 ... 30 Vdc, reverse polarity protection
<b>Consumption:</b>	30 mA max.
<b>Light emission:</b>	infrared 880 nm LED red 660 nm LED (B2, D12, E1 vers.)
<b>Diffuse proximity operating distance:</b>	0 ... 10 cm (C10 vers.) 0 ... 50 cm (C50 vers.)
<b>Fixed focus operating distance:</b>	12 mm with 1 mm spot (D12 vers.)
<b>Retroreflex operating distance:</b>	0.1 ... 2.5 m (on R2)
<b>Polarised retroreflex operating distance:</b>	0.1 ... 2 m (on R2)
<b>Retroreflex for transparents op. distance:</b>	0.2 ... 0.8 m (on R2)
<b>Through beam operating distance:</b>	0 ... 5 m
<b>Operating distance with fibre-optics:</b>	33 mm proximity (with OF-18-ST) 110 mm through beam (with OF-19-ST) refer to OF series for other fibres
<b>Setting:</b>	sensitivity trimmer
<b>Indicators:</b>	red OUTPUT LED green STABILITY LED red POWER LED (G5 vers.)
<b>Output type:</b>	PNP (connector vers.) NPN/PNP configurable (cable vers.)
<b>Saturation voltage:</b>	1.5 V max.
<b>Output current:</b>	100 mA max., short-circuit protection
<b>Response time:</b>	1 ms max. 2 ms (F vers.)
<b>Switching frequency:</b>	500 Hz max. 250 Hz max. (F vers.)
<b>Operating mode:</b>	dark/light configurable
<b>Auxiliary functions:</b>	'test +' and 'test -' inputs (G vers.)
<b>Connection:</b>	M8 4-pole connector 2 m Ø 5 mm cable
<b>Electrical protection:</b>	class 2
<b>Mechanical protection:</b>	IP66
<b>Housing material:</b>	ABS
<b>Lens material:</b>	PMMA plastic
<b>Weight:</b>	20 g max. (connector vers.) 90 g max. (cable vers.)
<b>Operating temperature:</b>	-25 ... +55°C
<b>Storage temperature:</b>	-25 ... +70°C
<b>Reference standard:</b>	EN 60947-5-2
<b>Certifications:</b>	 

## DETECTION DIAGRAMS

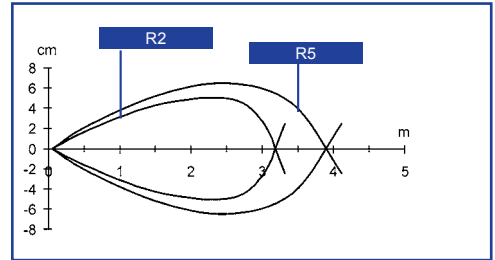
**S3-x-C10-x**



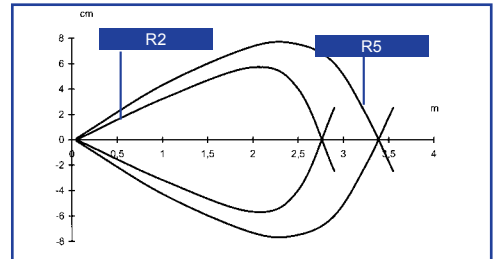
**S3-x-C50-x**



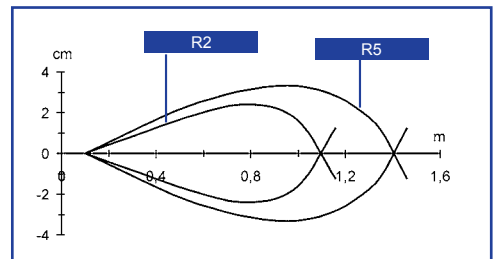
**S3-x-A2.5-x**



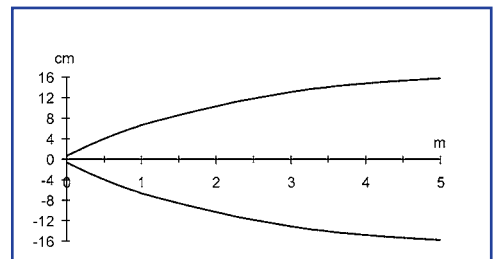
**S3-x-B2-x**



**S3-x-T0.8-x**



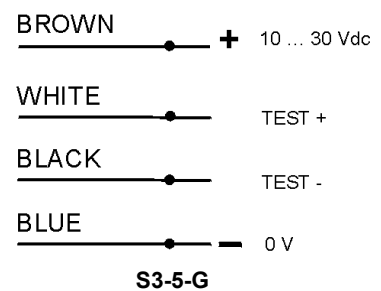
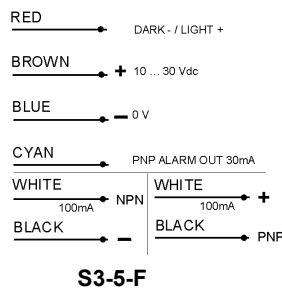
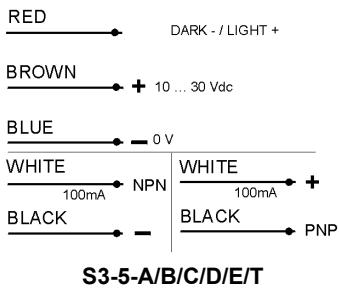
**S3-x-F/G-x**



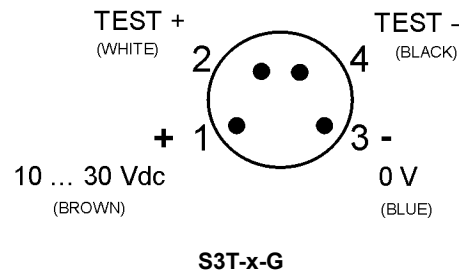
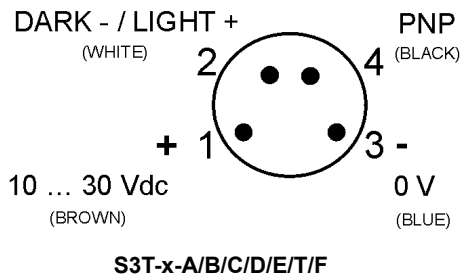
The operating distances indicate the detection distance with excess gain 2.

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

**CONNECTIONS**



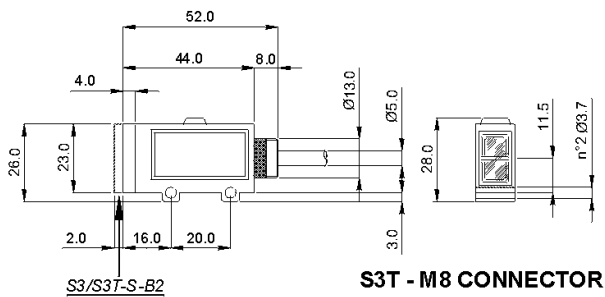
**M8 CONNECTOR**



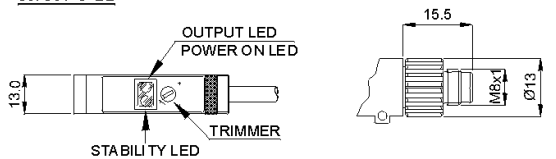
**DIMENSIONS**

**AXIAL OPTIC VERSIONS**

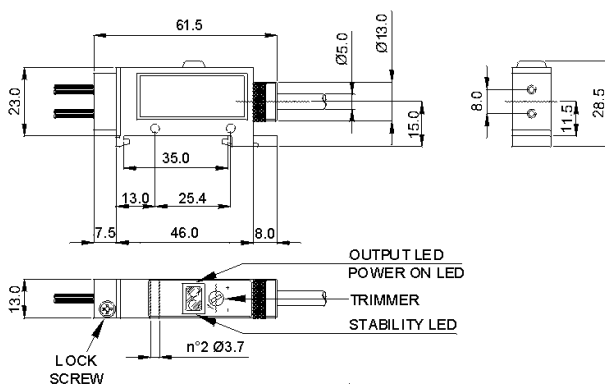
**S3-S-A2.5/B2/C10/C50/D12/F5/G5/T0.8**



**S3T - M8 CONNECTOR**

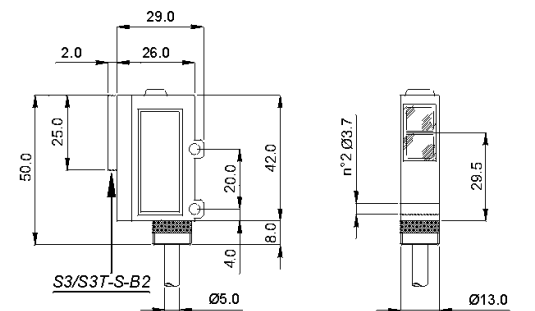


**S3-S-E1**

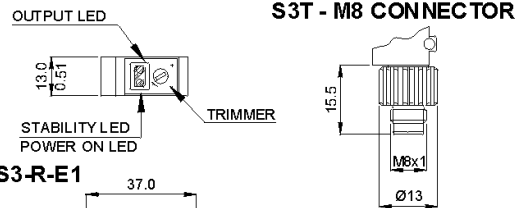


**LATERAL OPTIC VERSIONS**

**S3-R-A2.5/B2/C10/C50/D12/F5/G5/T0.8**



**S3T - M8 CONNECTOR**



**S3-R-E1**

