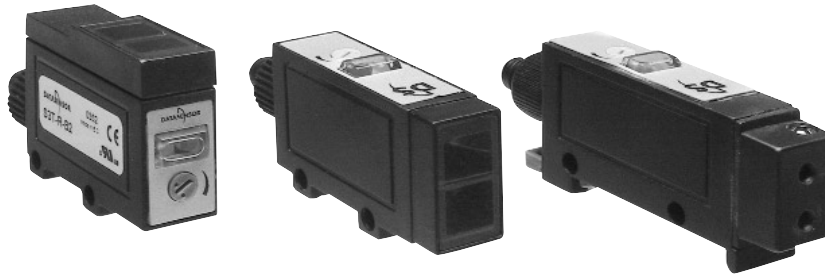
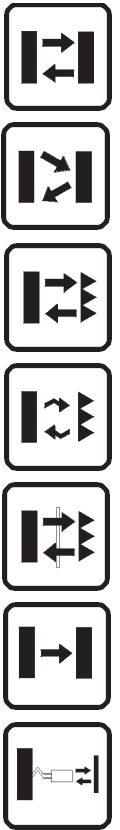


## MINIATURE AMPLIFIED SENSORS



- *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*







## 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.

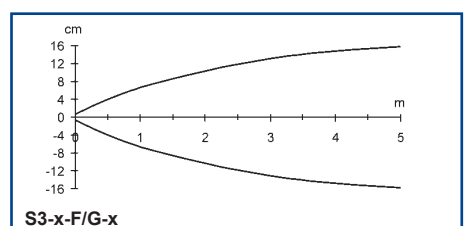
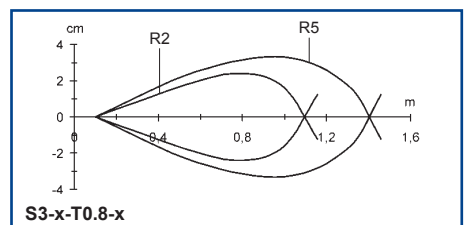
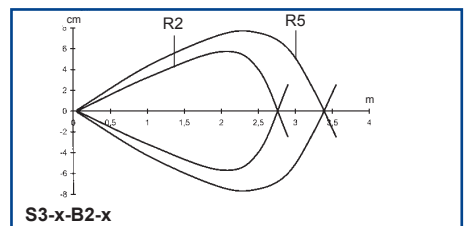
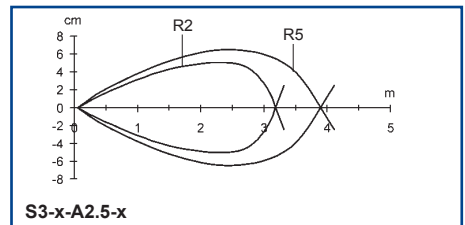
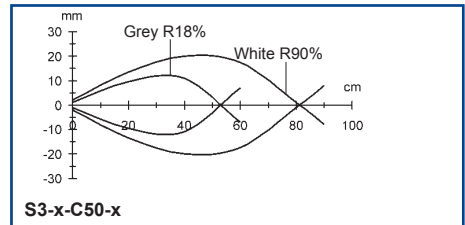
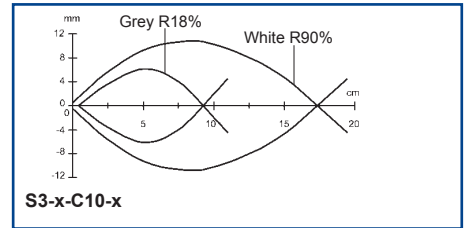
All models offer trimmer sensitivity adjustment and LED stability indicator; the axial and lateral optics guarantee the same performances. Maximum installation versatility and use are obtained thanks to the configurable output and miniature housing.

## 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<br>red 660 nm LED (B2, D12, E1 vers.)   |
| <b>Diffuse proximity operating distance:</b> .....   | 0 ... 10 cm (C10 vers.)<br>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)<br>110 mm through beam (with OF-19-ST)<br><i>refer to OF series for other fibres</i>  |
| <b>Setting:</b> .....                                | sensitivity trimmer   |
| <b>Indicators:</b> .....                             | red OUTPUT LED<br>green STABILITY LED<br>red POWER LED (G5 vers.)   |
| <b>Output type:</b> .....                            | PNP (connector vers.)<br>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.<br>2 ms (F vers.)   |
| <b>Switching frequency:</b> .....                    | 500 Hz max.<br>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<br>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.)<br>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> .....                         |     |

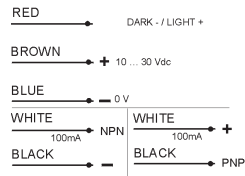
The operating distances indicate the detection distance with excess gain 2.

## DETECTION DIAGRAMS

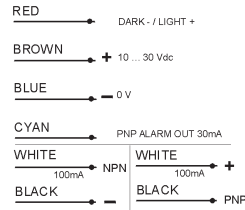


The detection diagrams indicate the typical operating distance with excess gain 1.

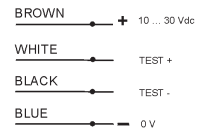
## CONNECTIONS



S3-5-A/B/C/D/E/T

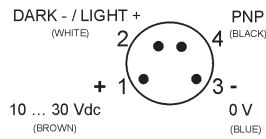


S3-5-F

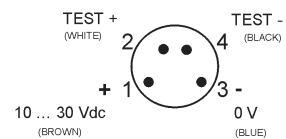


S3-5-G

### M8 CONNECTOR



S3T-x-A/B/C/D/E/T/F

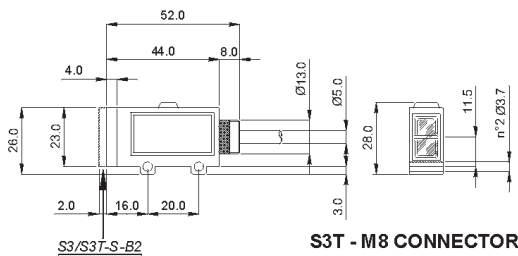


S3T-x-G

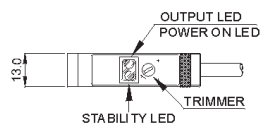
## DIMENSIONS

### AXIAL OPTIC VERSIONS

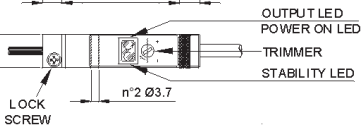
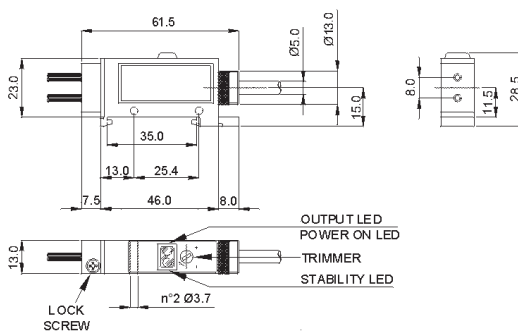
S3-S-A2.5/B2/C10/C50/D12/F5/G5/T0.8



S3T - M8 CONNECTOR

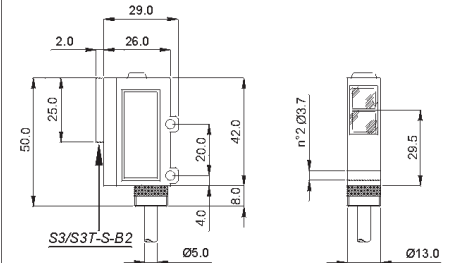


S3-S-E1

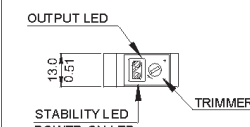


### LATERAL OPTIC VERSIONS

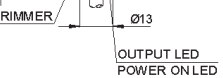
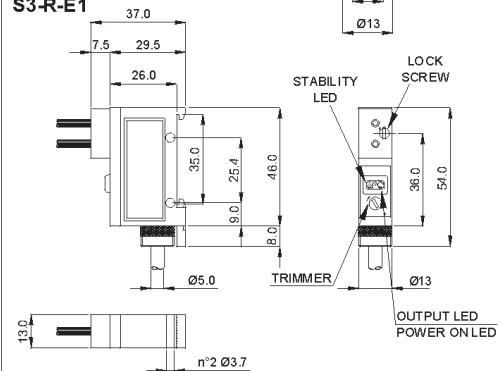
S3-R-A2.5/B2/C10/C50/D12/F5/G5/T0.8



S3T - M8 CONNECTOR



S3-R-E1



## MODELS

| MODEL        | FUNCTION                | OPTICS  | CONNECTION   | OUTPUT  | CODE N°    |
|--------------|-------------------------|---------|--------------|---------|------------|
| S3-R-C10     | diffuse proximity       | lateral | cable        | NPN/PNP | S936530005 |
| S3T-R-C10-P  | diffuse proximity       | lateral | M8 connector | PNP     | S939730201 |
| S3-S-C10     | diffuse proximity       | axial   | cable        | NPN/PNP | S936530004 |
| S3T-S-C10-P  | diffuse proximity       | axial   | M8 connector | PNP     | S939730200 |
| S3-R-C50     | diffuse proximity       | lateral | cable        | NPN/PNP | S936530001 |
| S3T-R-C50-P  | diffuse proximity       | lateral | M8 connector | PNP     | S939530201 |
| S3-S-C50     | diffuse proximity       | axial   | cable        | NPN/PNP | S936530000 |
| S3T-S-C50-P  | diffuse proximity       | axial   | M8 connector | PNP     | S939530200 |
| S3-R-D12     | fixed focus proximity   | lateral | cable        | NPN/PNP | S936620001 |
| S3T-R-D12-P  | fixed focus proximity   | lateral | M8 connector | PNP     | S939620201 |
| S3-S-D12     | fixed focus proximity   | axial   | cable        | NPN/PNP | S936620000 |
| S3T-S-D12-P  | fixed focus proximity   | axial   | M8 connector | PNP     | S939620200 |
| S3-R-A2,5    | retroreflex             | lateral | cable        | NPN/PNP | S936330001 |
| S3T-R-A2,5-P | retroreflex             | lateral | M8 connector | PNP     | S939330201 |
| S3-S-A2,5    | retroreflex             | axial   | cable        | NPN/PNP | S936330000 |
| S3T-S-A2,5-P | retroreflex             | axial   | M8 connector | PNP     | S939330200 |
| S3-R-B2      | polarised retroreflex   | lateral | cable        | NPN/PNP | S936420001 |
| S3T-R-B2-P   | polarised retroreflex   | lateral | M8 connector | PNP     | S939420201 |
| S3-S-B2      | polarised retroreflex   | axial   | cable        | NPN/PNP | S936420000 |
| S3T-S-B2-P   | polarised retroreflex   | axial   | M8 connector | PNP     | S939420200 |
| S3-R-T0,8    | retroreflex for transp. | lateral | cable        | NPN/PNP | S936330009 |
| S3T-R-T0,8-P | retroreflex for transp. | lateral | M8 connector | PNP     | S939330209 |
| S3-S-T0,8    | retroreflex for transp. | axial   | cable        | NPN/PNP | S936330008 |
| S3T-S-T0,8-P | retroreflex for transp. | axial   | M8 connector | PNP     | S939330208 |
| S3-R-E1      | fibre-optic conn.       | lateral | cable        | NPN/PNP | S936820001 |
| S3T-R-E1-P   | fibre-optic conn.       | lateral | M8 connector | PNP     | S939820201 |
| S3-S-E1      | fibre-optic conn.       | axial   | cable        | NPN/PNP | S936820000 |
| S3T-S-E1-P   | fibre-optic conn.       | axial   | M8 connector | PNP     | S939820200 |
| S3-R-F5      | receiver                | lateral | cable        | NPN/PNP | S936200001 |
| S3T-R-F5-P   | receiver                | lateral | M8 connector | PNP     | S939200201 |
| S3-S-F5      | receiver                | axial   | cable        | NPN/PNP | S936200000 |
| S3T-S-F5-P   | receiver                | axial   | M8 connector | PNP     | S939200200 |
| S3-R-G5      | emitter                 | lateral | cable        | -       | S936130001 |
| S3T-R-G5     | emitter                 | lateral | M8 connector | -       | S939130901 |
| S3-S-G5      | emitter                 | axial   | cable        | -       | S936130000 |
| S3T-S-G5     | emitter                 | axial   | M8 connector | -       | S939130900 |

## ACCESSORIES

| MODEL   | DESCRIPTION                        | CODE N°   |
|---------|------------------------------------|-----------|
| S3-SLIT | adhesive slit for emitter-receiver | S73050253 |

Please refer to **Sensor Accessories**

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### HEADQUARTERS

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