

50 x 50 mm COMPACT SENSORS



- *New background and foreground suppression models*
- *Free voltage versions with relay output*
- *10-30 Vdc version with transistor output*
- *Standard cable or M12 connection*

S6 SERIES

The **S6** series, thanks to the excellent detection performances and the variety of power supply and connection possibilities, offers the most complete universal sensor range in the compact 50x50 mm housing.

The operating distance can be set to the optimal value in each model: 2 m diffuse proximity, 25 or 50 cm background suppression, 5 m polarised retroreflex, 1 m retroreflex versions for transparent objects and 20 m through beam.

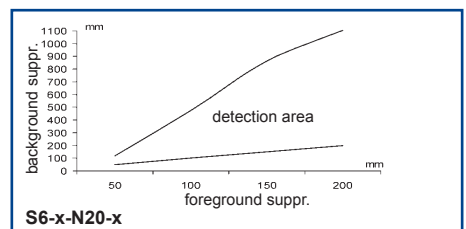
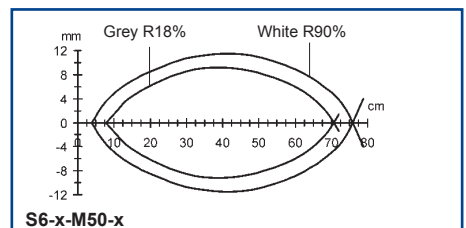
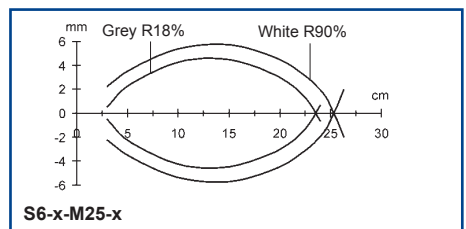
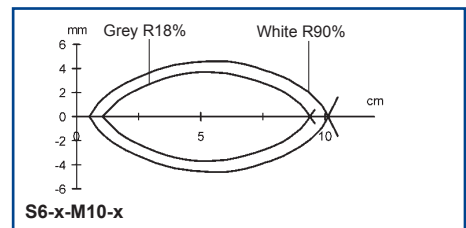
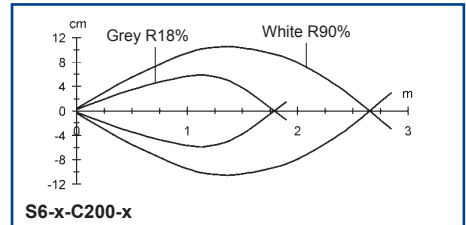
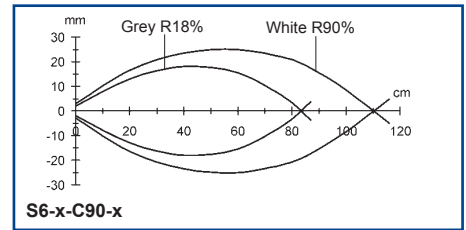
New proximity models with 5 to 20 cm foreground suppression and 12 to 110 cm background suppression are available.

The free voltage versions have a relay output and cable connection. The versions with 10-30 Vdc power supply present cable connection and NPN/PNP output or M12 connector, with either PNP output with dark/light configuration and NPN or PNP double NO-NC output complying to the EN 60947-5-2 standard.

TECHNICAL DATA

| | |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Power supply: | 10 ... 30 Vdc (d.c. vers.), reverse polarity protection 15 ... 264 Vac (free voltage vers.) |
| Consumption: | 30 mA max. (d.c. vers.) 40 mA max. (free voltage vers.) |
| Light emission: | infrared LED 880 nm red LED 660 nm (B3, T1, M10 vers.) |
| Diffuse proximity operating distance: | 1 ... 90 cm (C90 vers.) 5 ... 200 cm (C200 vers.) |
| Background suppression op. distance: | 10 ... 50 cm (M50 vers.) 3 ... 25 cm (M25 vers.), 10 cm (M10 vers.) |
| Foreground suppression op. distance: | 5 ... 20 cm (Backgr. suppr.: 12 ... 110 cm) |
| Retroreflex operating distance: | 0.1 ... 6 m (on R2) |
| Polarised retroreflex operating distance: .. | 0.1 ... 5 m (on R2) |
| Retroreflex transparents op. distance: | 0.1 ... 1 m (on R2) |
| Through beam operating distance: | 0 ... 20 m |
| Setting: | sensitivity trimmer (G vers. excluded) distance adj. screw (M25, M50, N20 vers.) |
| Indicators: | red OUTPUT LED green STABILITY LED (M, N vers.) red POWER LED (G5 vers.) |
| Output type: | NPN/PNP configurable (d.c. vers.) PNP (S6T vers.) NPN or PNP NO-NC (S6R vers.) relay SPDT 250V/3A (free voltage vers.) |
| Saturation tension: | 1.5 V max. (d.c. vers.) |
| Output current: | 100 mA max., short-circuit protection 3 A max. resistive load (free voltage vers.) |
| Response time: | 1 ms max. (d.c. vers.), 2 ms max. (F vers.) 30 ms max. (free voltage vers.) |
| Switching frequency: | 500 Hz max., 250 Hz max. (F/G vers. in d.c.) 16 Hz max. (free voltage vers.) |
| Operating mode: | dark/light configurable |
| Auxiliary functions: | 'test +' and 'test -' inputs (G vers. in d.c.) |
| Connection: | 4-pole M12 connector (S6T/S6R vers.) 2 m Ø 6 mm cable (S6 vers.) |
| Electrical protection: | class 1 (free voltage vers.) class 2 (d.c. vers.) |
| Mechanical protection: | IP65 |
| Housing material: | ABS |
| Lens material: | PMMA plastic |
| Weight: | 40 g max. (connector vers.) 160 g max. (cable vers.) |
| Operating temperature: | -25 ... +55°C |
| Storage temperature: | -25 ... +70°C |
| Reference standard: | EN 60947-5-2 |
| Certifications: | CE (UL US LISTED d.c.vers.) |

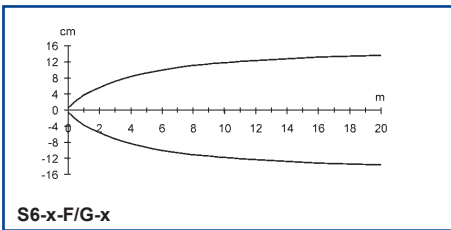
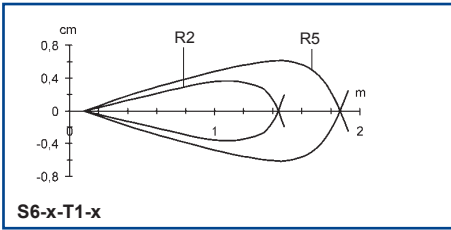
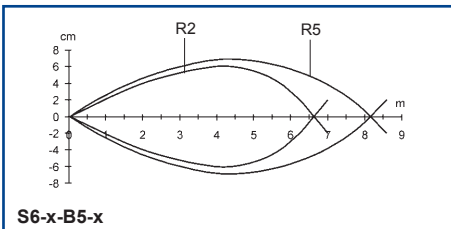
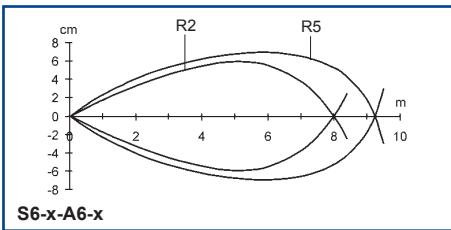
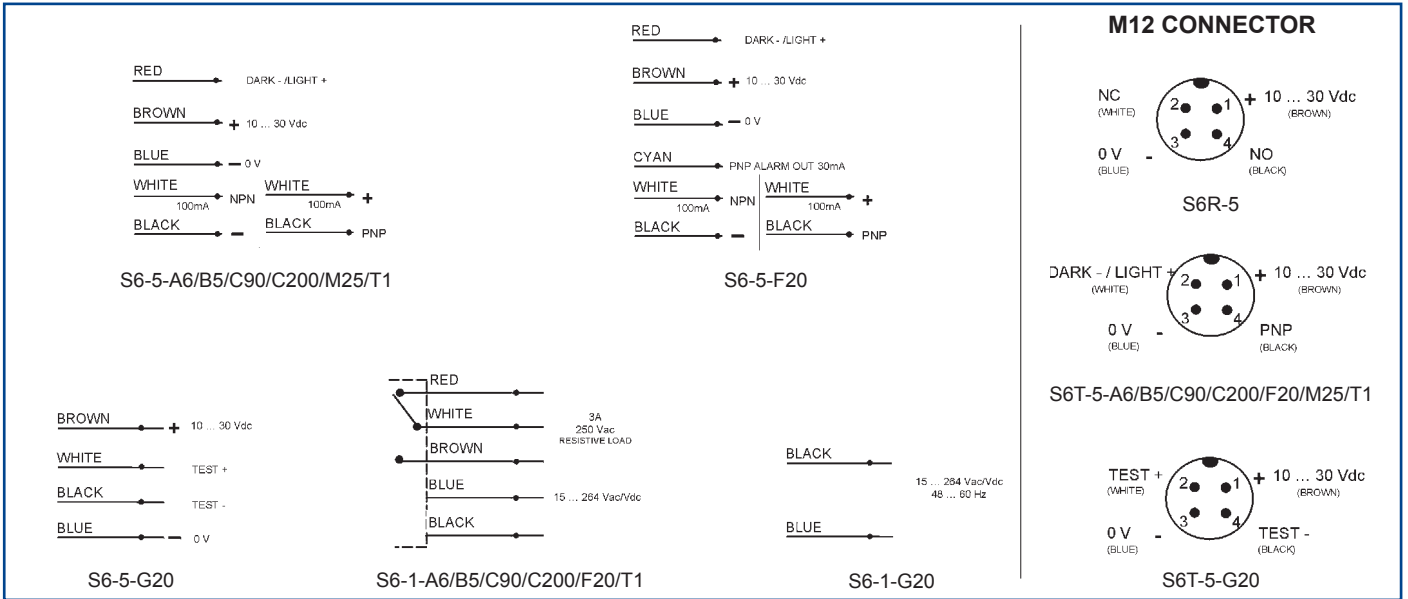
DETECTION DIAGRAMS



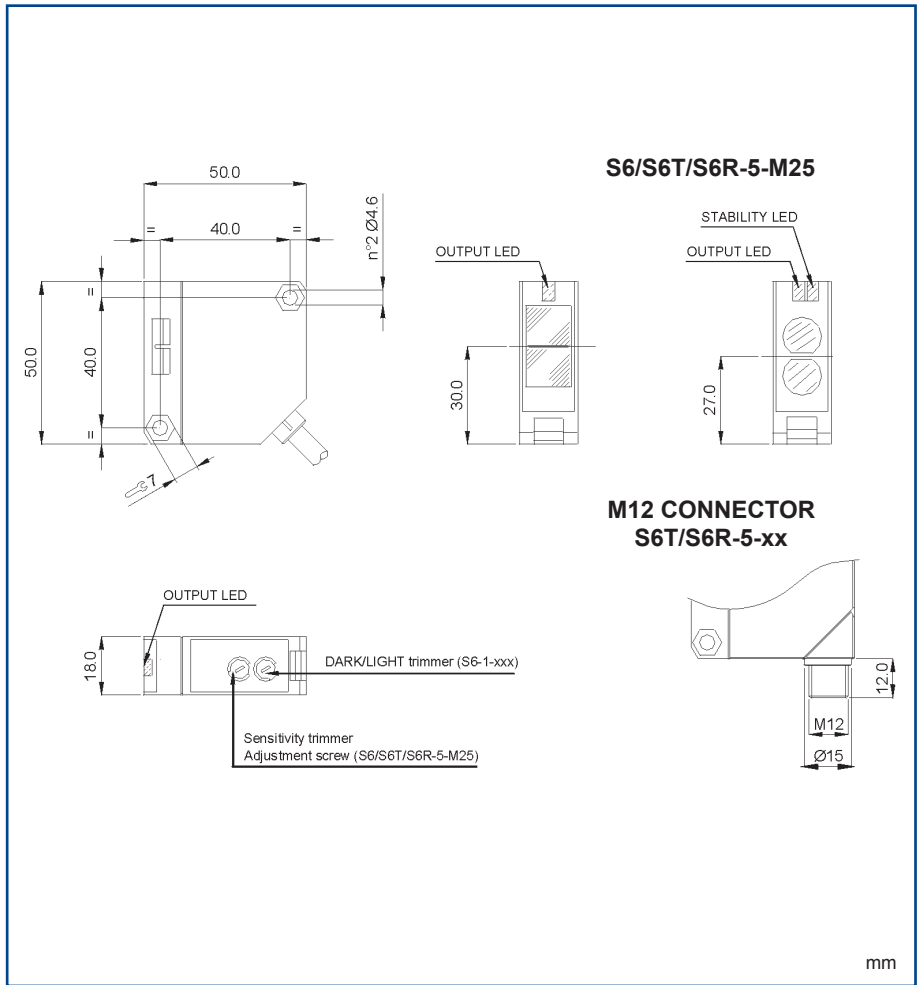
The operating distances indicate the detection distance with excess gain 2.

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

CONNECTIONS



DIMENSIONS



MODELS

VERSIONS WITH 15 ... 264 Vac/Vdc POWER SUPPLY

| MODEL | FUNCTION | CONNECTION | OUTPUT | CODE N° |
|-----------|------------------------------|------------|--------|------------|
| S6-1-C90 | diffuse proximity | cable | relay | S937530090 |
| S6-1-C200 | diffuse proximity | cable | relay | 950151140 |
| S6-1-A6 | retroreflex | cable | relay | S937330090 |
| S6-1-B5 | polarised retroreflex | cable | relay | S937420090 |
| S6-1-T1 | retroreflex for transparents | cable | relay | 950201030 |
| S6-1-F20 | receiver | cable | relay | S937200090 |
| S6-1-G20 | emitter | cable | - | S937130090 |

VERSIONS WITH 10 ... 30 Vdc POWER SUPPLY

| MODEL | FUNCTION | CONNECTION | OUTPUT | CODE N° |
|--------------|------------------------------|---------------|-----------|------------|
| S6-5-C90 | diffuse proximity | cable | NPN/PNP | S937530000 |
| S6R-5-C90-P | diffuse proximity | M12 connector | PNP NO-NC | 950201190 |
| S6R-5-C90-N | diffuse proximity | M12 connector | NPN NO-NC | 956101040 |
| S6T-5-C90-P | diffuse proximity | M12 connector | PNP ** | 961031020 |
| S6-5-C200 | diffuse proximity | cable | NPN/PNP | 950201150 |
| S6R-5-C200-P | diffuse proximity | M12 connector | PNP NO-NC | 950201200 |
| S6R-5-C200-N | diffuse proximity | M12 connector | NPN NO-NC | 956101050 |
| S6R-5-M10-P | background suppression | M12 connector | PNP NO-NC | 950201230 |
| S6R-5-M10-N | background suppression | M12 connector | NPN NO-NC | 956101070 |
| S6-5-M25 | background suppression | cable | NPN/PNP | S937830000 |
| S6R-5-M25-P | background suppression | M12 connector | PNP NO-NC | 950201220 |
| S6R-5-M25-N | background suppression | M12 connector | NPN NO-NC | 956101080 |
| S6T-5-M25-P | background suppression | M12 connector | PNP ** | 961041000 |
| S6R-5-M50-P | background suppression | M12 connector | PNP NO-NC | 950201250 |
| S6R-5-M50-N | background suppression | M12 connector | NPN NO-NC | 956101090 |
| S6R-5-N20-P | foreground suppression | M12 connector | PNP NO-NC | 950201260 |
| S6R-5-N20-N | foreground suppression | M12 connector | NPN NO-NC | 956101100 |
| S6-5-A6 | retroreflex | cable | NPN/PNP | S937330000 |
| S6R-5-A6-P | retroreflex | M12 connector | PNP NO-NC | 950201170 |
| S6R-5-A6-N | retroreflex | M12 connector | NPN NO-NC | 956101020 |
| S6T-5-A6-P | retroreflex | M12 connector | PNP ** | 961031000 |
| S6-5-B5 | polarised retroreflex | cable | NPN/PNP | S937420000 |
| S6R-5-B5-P | polarised retroreflex | M12 connector | PNP NO-NC | 950201180 |
| S6R-5-B5-N | polarised retroreflex | M12 connector | NPN NO-NC | 956101030 |
| S6T-5-B5-P | polarised retroreflex | M12 connector | PNP ** | 961031010 |
| S6-5-T1 | retroreflex for transparents | cable | NPN/PNP | 950201020 |
| S6R-5-T1-P | retroreflex for transparents | M12 connector | PNP NO-NC | 950201210 |
| S6R-5-T1-N | retroreflex for transparents | M12 connector | NPN NO-NC | 956201240 |
| S6-5-F20 | receiver | cable | NPN/PNP | S937200010 |
| S6R-5-F20-P | receiver * | M12 connector | PNP NO-NC | 950201160 |
| S6R-5-F20-N | receiver | M12 connector | NPN NO-NC | 956101060 |
| S6T-5-F20-P | receiver | M12 connector | PNP ** | 961211010 |
| S6-5-G20 | emitter | cable | - | S937130000 |
| S6T-5-G20 | emitter | M12 connector | - | 961211000 |

* use with S6T-5-G20 emitter

** with dark/light configuration input

ACCESSORIES

Please refer to **Sensor Accessories**

Distributed by:

HEADQUARTERS

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