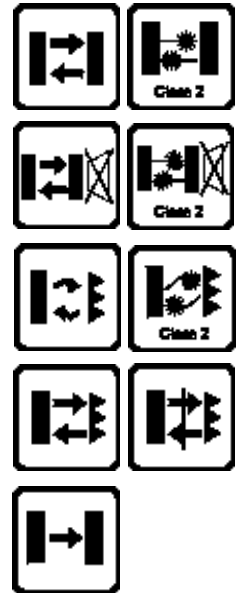


MICROPROCESSOR-BASED MINIATURE SENSORS



- *EASYtouch™ microprocessor Teach-in and Remote setting*
- *Laser retroreflex, proximity and background suppression*
- *Cable or M8 connection, NPN or PNP*
- *ABS housing with IP67 protection*

S40 SERIES

The photoelectric sensors of the **S40** series, in the innovative miniature housing, offer all the main optic functions with the advantages of microprocessor control and automatic Teach-in and Remote setting with *EASYtouch™* procedure.


The series includes different models: 30 cm diffuse proximity and 10 cm background suppression, 4 m retroreflex, 3 m polarised retroreflex, or 0.7 m version for the detection of transparent glass or PET objects, 6 m through beam models, all with visible red emission.

The laser emission is available for retroreflex, proximity and background suppression, offering very high resolution detection.

The sensitivity and operating distance setting are obtained by simply pressing the button, or by cable to allow remote control and the mounting in small or difficult to reach areas.

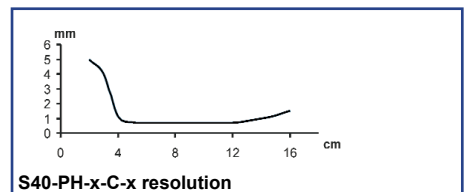
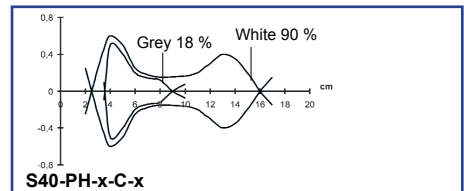
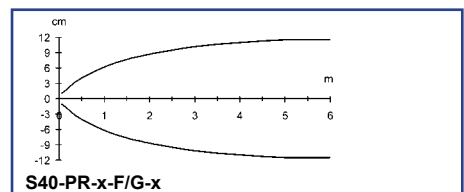
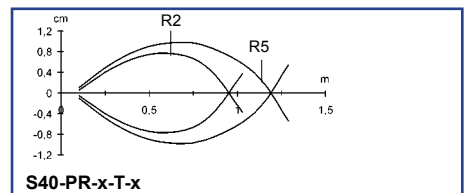
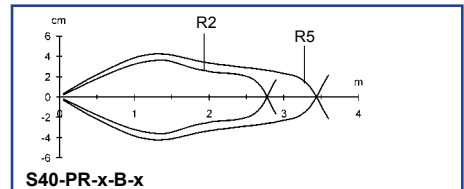
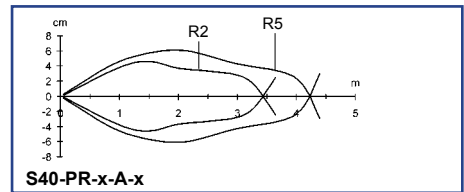
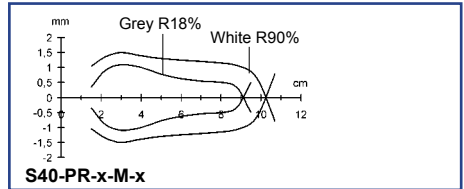
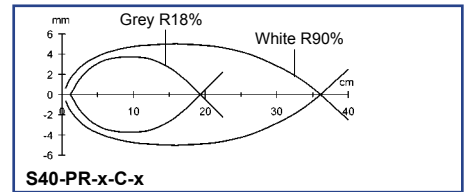
The output can be either PNP or NPN, with cable or M8 connection, depending on the model.

TECHNICAL DATA

| | |
|---|--|
| Power supply: | 10 ... 30 Vdc, reverse polarity protection |
| Consumption: | 35 mA max. |
| Light emission: | red LED 660 nm, red laser 650 nm |
| Diffuse proximity operating distance: | 0.5 ... 30 cm |
| Laser diffuse proximity op. distance: | 4 ... 15 cm |
| Laser proximity resolution: | 0.2 mm (on focus point) |
| Background suppression op. distance: | 15 ... 100 mm |
| Laser background suppr. op. distance: | 20 ... 60 mm |
| Laser background suppr. resolution: | 0.2 mm (on focus point) |
| Background suppr. white/grey diff.: | 7 % |
| Retroreflex operating distance: | 0.1 ... 3 m (on R2) |
| Polarised retroreflex operating distance: .. | 0.1 ... 2.5 m (on R2) |
| Laser polarised retroreflex op. distance: .. | 0.1 ... 6 m (on R2) |
| Laser retroreflex resolution: | 1 mm (on focus point) |
| Retroreflex transparents op. distance: | 0.1 ... 0.7 m (on R2) |
| Through beam operating distance: | 0.1 ... 6 m |
| Setting: | SET push-button Remote by cable |
| Indicators: | yellow OUTPUT LED green POWER LED (G vers.) green READY/ERROR LED |
| Output type: | NPN or PNP, Rpull-down/up 22 k Ω |
| Saturation voltage: | 2.4 V max. |
| Output current: | 100 mA max, short-circuit protection |
| Response time: | 0.5 ms |
| Switching frequency: | 1 kHz max. |
| Operating mode: | dark/light programmable |
| Connection: | 4-pole M8 connector 2 m \varnothing 3.5 mm cable |
| Laser safety class: | class II |
| Electrical protection: | class 2 |
| Mechanical protection: | IP67 |
| Housing material: | ABS |
| Lens material: | PMMA plastic |
| Weight: | 10 g max. (connector vers.) 40 g max. (cable vers.) |
| Operating temperature: | -20 ... +60°C |
| Storage temperature: | -20 ... +80°C |
| Reference standard: | EN 60947-5-2, EN 60825-1 |
| Certifications: | CE  |

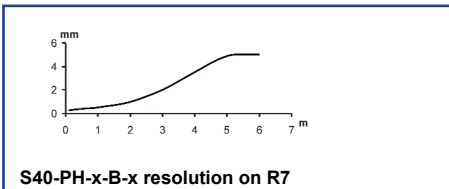
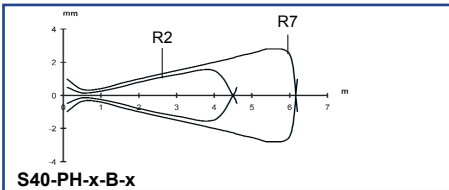
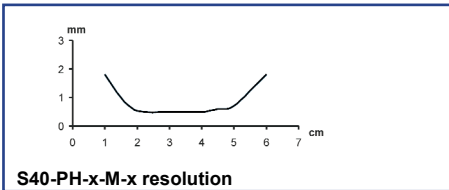
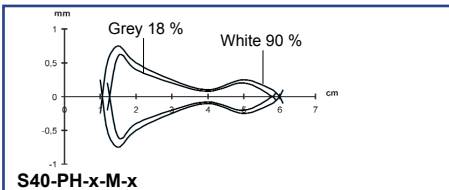
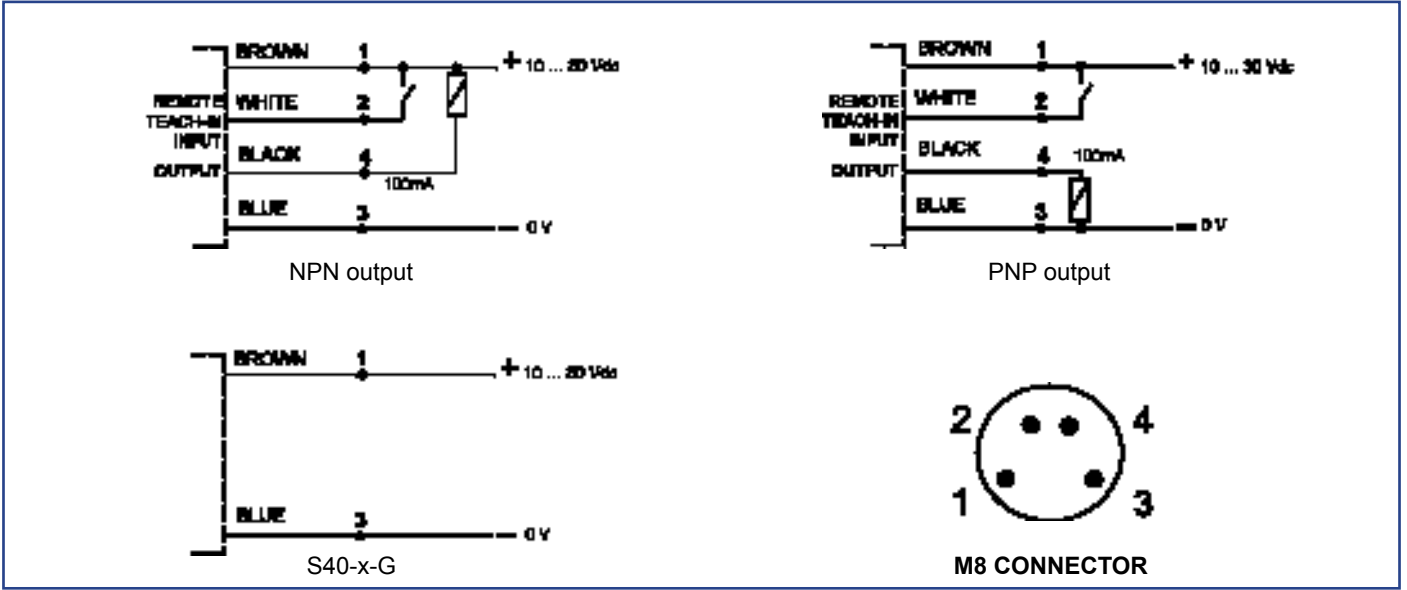
The operating distances indicate the detection distance with excess gain 2.

DETECTION DIAGRAMS

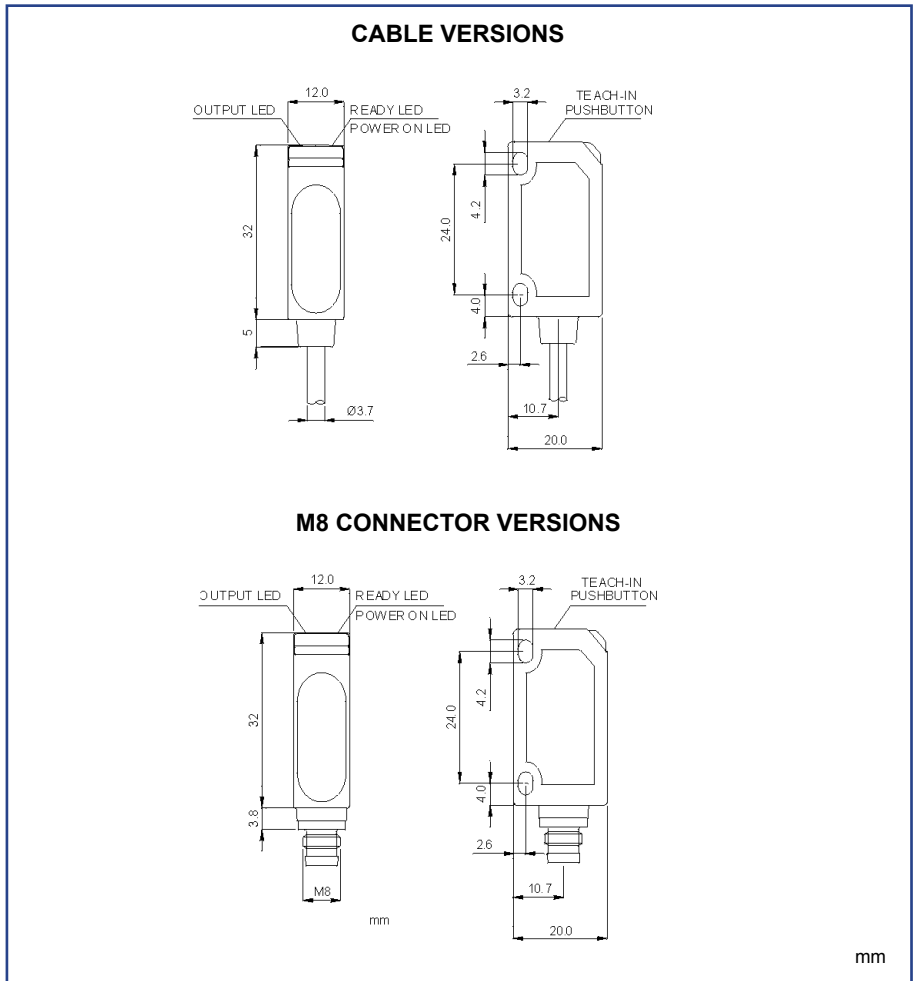


The detection diagrams indicate the typical operating distance with excess gain 1.

CONNECTIONS



DIMENSIONS



MODELS

| MODEL | OPTIC FUNCTION | CONNECTION | OUTPUT | CODE N° |
|-----------------|------------------------------|--------------|--------|-----------|
| S40-PR-2-A03-NH | retroreflex | 2 m cable | NPN | 950401390 |
| S40-PR-2-A03-PH | retroreflex | 2 m cable | PNP | 950401330 |
| S40-PR-2-B03-NH | polarised retroreflex | 2 m cable | NPN | 950401360 |
| S40-PR-2-B03-PH | polarised retroreflex | 2 m cable | PNP | 950401300 |
| S40-PR-2-C03-NH | diffuse proximity | 2 m cable | NPN | 950401370 |
| S40-PR-2-C03-PH | diffuse proximity | 2 m cable | PNP | 950401310 |
| S40-PR-2-FG3-NH | through beam | 2 m cable | NPN | 950401400 |
| S40-PR-2-FG3-PH | through beam | 2 m cable | PNP | 950401340 |
| S40-PR-2-M03-NH | background suppression | 2 m cable | NPN | 950401380 |
| S40-PR-2-M03-PH | background suppression | 2 m cable | PNP | 950401320 |
| S40-PR-2-T03-NH | retroreflex for transparents | 2 m cable | NPN | 950401410 |
| S40-PR-2-T03-PH | retroreflex for transparents | 2 m cable | PNP | 950401350 |
| S40-PR-5-A03-NH | retroreflex | M8 connector | NPN | 950401510 |
| S40-PR-5-A03-PH | retroreflex | M8 connector | PNP | 950401450 |
| S40-PR-5-B03-NH | polarised retroreflex | M8 connector | NPN | 950401480 |
| S40-PR-5-B03-PH | polarised retroreflex | M8 connector | PNP | 950401420 |
| S40-PR-5-C03-NH | diffuse proximity | M8 connector | NPN | 950401490 |
| S40-PR-5-C03-PH | diffuse proximity | M8 connector | PNP | 950401430 |
| S40-PR-5-FG3-NH | through beam | M8 connector | NPN | 950401520 |
| S40-PR-5-FG3-PH | through beam | M8 connector | PNP | 950401460 |
| S40-PR-5-M03-NH | background suppression | M8 connector | NPN | 950401500 |
| S40-PR-5-M03-PH | background suppression | M8 connector | PNP | 950401440 |
| S40-PR-5-T03-NH | retroreflex for transparents | M8 connector | NPN | 950401530 |
| S40-PR-5-T03-PH | retroreflex for transparents | M8 connector | PNP | 950401470 |
| S40-PH-5-B03-NH | laser polarised retroreflex | M8 connector | NPN | 950401240 |
| S40-PH-5-B03-PH | laser polarised retroreflex | M8 connector | PNP | 950401250 |
| S40-PH-5-C03-NH | laser diffuse proximity | M8 connector | NPN | 950401260 |
| S40-PH-5-C03-PH | laser diffuse proximity | M8 connector | PNP | 950401270 |
| S40-PH-5-M03-NH | laser background suppression | M8 connector | NPN | 950401280 |
| S40-PH-5-M03-PH | laser background suppression | M8 connector | PNP | 950401290 |

ACCESSORIES

| MODEL | DESCRIPTION | CODE N° |
|--------|---------------------|-----------|
| ST-505 | 1 pc fixing bracket | 95ACC1300 |

Please refer also to **Sensor Accessories**

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