

## MINIATURE SENSOR BASIC LINE



- *Diffuse or fixed focus proximity for background suppression*
- *Polarised retroreflex and emitter-receiver with narrow beam*
- *Models with trimmer setting*
- *Double NO-NC NPN or PNP output*

## S41 SERIES



The **S41** series offers a basic line of photoelectric sensors in a miniature housing, ideal for applications that require reduced dimensions and costs.

The optic functions include a diffuse proximity adjustable from 0 to 35 cm and a 11 cm fixed focus proximity suitable for background suppression; 2.5 m polarised retroreflex, 1 m retroreflex for transparents and 6 m through beam are available for longer operating distances; the latter is also available in a narrow beam emitter version that allows to place sensors side by side without interferences.

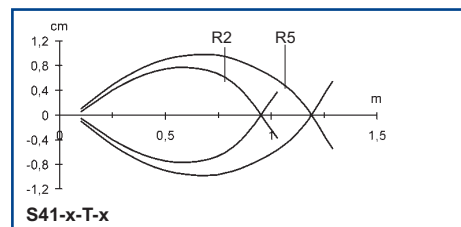
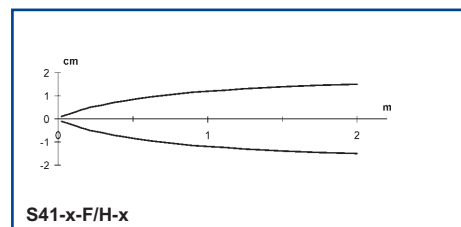
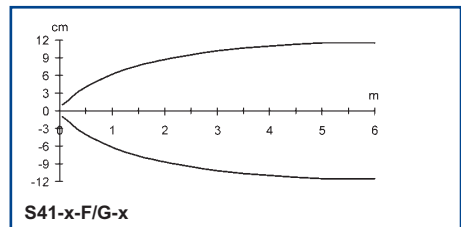
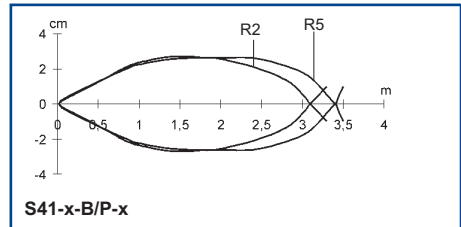
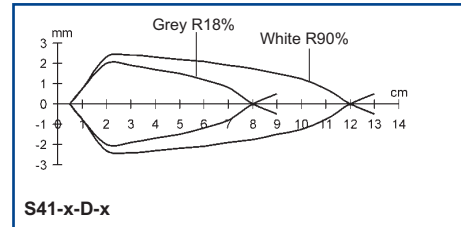
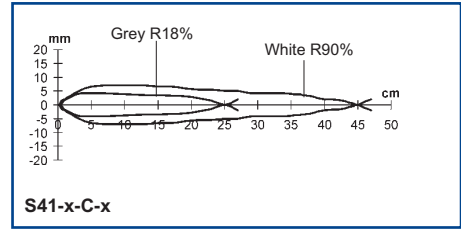
The LED emission is red for the fixed focus proximity and infrared for the other models. Two LED indicators are visible on the sensors: a yellow output LED and a green switching stability LED; the diffuse proximity models and a polarised retroreflex version also present a sensitivity adjustment trimmer.

The normally open and normally closed outputs are both present on different poles; cable or M8 connection is offered according to the model chosen.

## TECHNICAL DATA

<b>Power supply:</b> .....	10 ... 30 Vdc, reverse polarity protection
<b>Consumption:</b> .....	35 mA max.
<b>Light emission:</b> .....	red LED 660 nm (B, D, P, T vers.) infrared LED 880 nm (C, G, H vers.)
<b>Diffuse proximity operating distance:</b> .....	0.2 ... 35 cm (C vers.)
<b>Fixed focus operating distance:</b> .....	11 cm ± 10 % (D vers.)
<b>Polarised retroreflex operating distance:</b> ..	0.1 ... 2.5 m (on R2)
<b>Retroreflex transparent op. distance:</b> .....	0.1 ... 0.7 m (on R2)
<b>Through beam operating distance:</b> .....	0.1 ... 6 m (G vers.), 0.1 ... 1.5 m (H vers.)
<b>Setting:</b> .....	sensitivity trimmer (B, C, T vers.)
<b>Indicators:</b> .....	yellow OUTPUT LED green POWER LED (G, H vers.) green STABILITY LED (B, C, D, F, P vers.)
<b>Output type:</b> .....	NC-NO NPN or PNP
<b>Saturation voltage:</b> .....	2 V max.
<b>Output current:</b> .....	100 mA max., short-circuit protection
<b>Response time:</b> .....	1 ms max.
<b>Switching frequency:</b> .....	500 Hz max.
<b>Connection:</b> .....	M8 4-pole connector 2 m Ø 3.5 mm cable
<b>Electrical protection:</b> .....	class 2
<b>Mechanical protection:</b> .....	IP67 (P, D, F, G, H vers.) IP66 (B, C, T vers.)
<b>Housing material:</b> .....	ABS
<b>Lens material:</b> .....	PMMA plastic
<b>Weight:</b> .....	10 g max. (connector vers.) 40 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> .....	CE  US LISTED  II3D

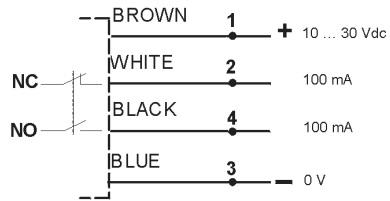
## DETECTION DIAGRAMS



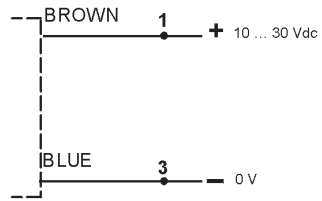
The operating distances indicate the detection distance with excess gain 2.

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

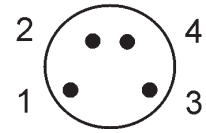
## CONNECTIONS



S41-5-B/C/D/F/P/T



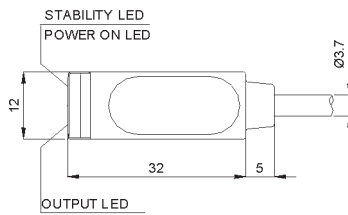
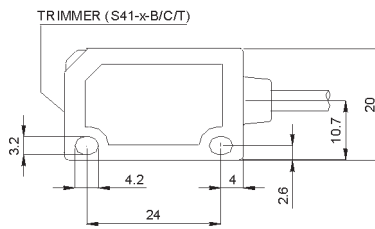
S41-5-G/H



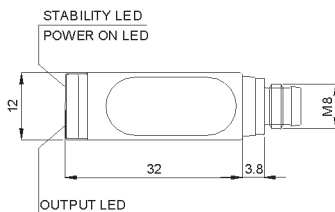
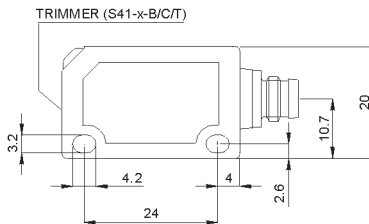
M8 CONNECTOR

## DIMENSIONS

### CABLE VERSIONS



### M8 CONNECTOR VERSIONS



## MODEL SELECTION AND ORDER INFORMATION

MODEL	OPTIC FUNCTION	TRIMMER	CONNECTION	OUTPUT	CODE N°
S41-2-B-P	polarised retroreflex	present	2 m cable	PNP	950701000
S41-2-C-P	diffuse proximity	present	2 m cable	PNP	950701010
S41-2-D-P	fixed focus proximity	absent	2 m cable	PNP	950701020
S41-2-F-P	receiver	absent	2 m cable	PNP	950701030
S41-2-G	emitter	absent	2 m cable	-	950701040
S41-2-H	emitter with narrow beam	absent	2 m cable	-	950701045
S41-2-P-P	polarised retroreflex	absent	2 m cable	PNP	950701100
S41-2-T-P	retroreflex for transparents	present	2 m cable	PNP	950701130
S41-5-B-P	polarised retroreflex	present	M8 connector	PNP	950701050
S41-5-C-P	diffuse proximity	present	M8 connector	PNP	950701060
S41-5-D-P	fixed focus proximity	absent	M8 connector	PNP	950701070
S41-5-F-P	receiver	absent	M8 connector	PNP	950701080
S41-5-G	emitter	absent	M8 connector	-	950701090
S41-5-H	emitter with narrow beam	absent	M8 connector	-	950701095
S41-5-P-P	polarised retroreflex	absent	M8 connector	PNP	950701110
S41-5-T-P	retroreflex for transparents	present	M8 connector	PNP	950701140
S41-2-B-N	polarised retroreflex	present	2 m cable	NPN	950701150
S41-2-C-N	diffuse proximity	present	2 m cable	NPN	950701160
S41-2-D-N	fixed focus proximity	absent	2 m cable	NPN	950701170
S41-2-F-N	receiver	absent	2 m cable	NPN	950701180
S41-2-P-N	polarised retroreflex	absent	2 m cable	NPN	950701190
S41-2-T-N	retroreflex for transparents	present	2 m cable	NPN	950701200
S41-5-B-N	polarised retroreflex	present	M8 connector	NPN	950701210
S41-5-C-N	diffuse proximity	present	M8 connector	NPN	950701120
S41-5-D-N	fixed focus proximity	absent	M8 connector	NPN	950701230
S41-5-F-N	receiver	absent	M8 connector	NPN	950701240
S41-5-P-N	polarised retroreflex	absent	M8 connector	NPN	950701250
S41-5-T-N	retroreflex for transparents	present	M8 connector	NPN	950701260

## ACCESSORY SELECTION AND ORDER INFORMATION

MODEL	DESCRIPTION	CODE N°
R1	Ø 23 mm reflector with Ø 31 mm support	S940700023
R2	Ø 48 mm reflector with Ø 63 mm support	S940700048
R3	18 x 54 mm reflector with 22.5 x 82 mm support	S940700972
R4	47 x 47 mm reflector with 51.5 x 61 mm support	95A151340
R5	Ø 75 mm reflector with Ø 82 mm support	S940700075
R6	36 x 55 mm reflector with 40.5 x 60 mm support	95A151350
ST-505	1 pc fixing bracket	95ACC2800

Please refer to **Sensor Accessories**