50 x 50 mm COMPACT SENSORS



- ***New models of contrast sensor and foreground suppression***
- ***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 contrast sensor model, with white light emission and 22 mm operating distance, as well as a proximity model 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.

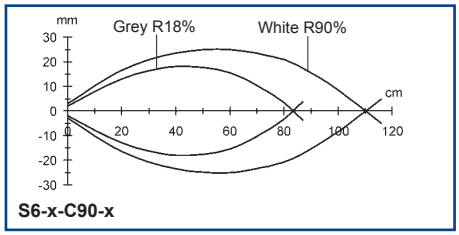
DATASENSOR
value through detection

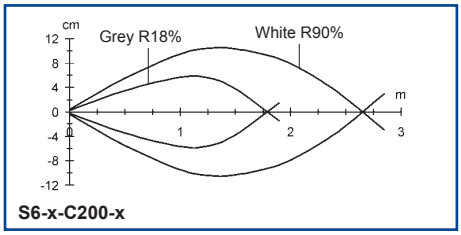
TECHNICAL DATA

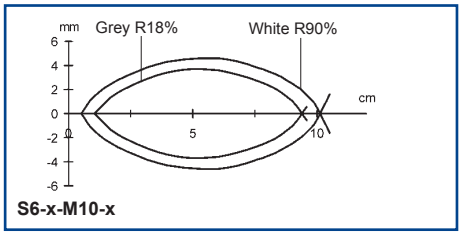
Power supply: ..... 10 **...** 30 Vdc (d.c. vers.), reverse polarity protection
15 **...** 264 Vac (free voltage vers.)
Consumption: ..... 30 mA max. (d.c. vers.)
40 mA max. (free voltage vers.)
Light emission: ..... infrared LED 880 nm
red LED 660 nm (B3, T1, M10 vers.)
white LED (W22 vers.)
Diffuse 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)
Contrast sensor operating distance: ..... 22 ± 2 mm
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.)
100 µs (W vers.)
30 ms max. (free voltage vers.)
Switching frequency: ..... 500 Hz max., 250 Hz max.(F/G vers. in d.c.)
5 KHz (W vers.)
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 (c UL us d.c.vers.)

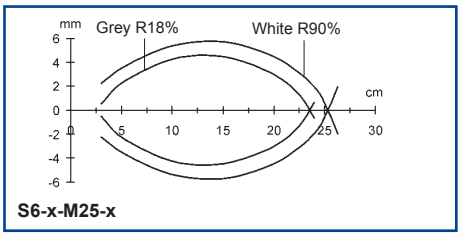
The operating distances indicate the detection distance with excess gain 2.

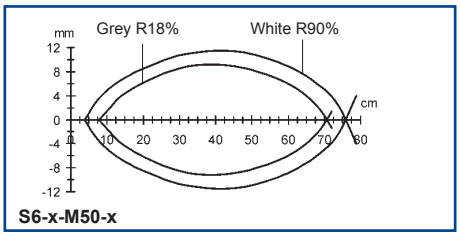
DETECTION DIAGRAMS

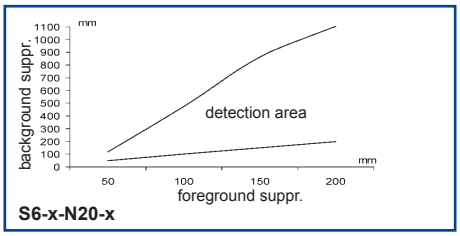


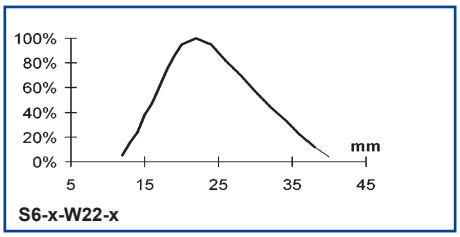






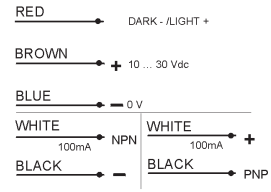




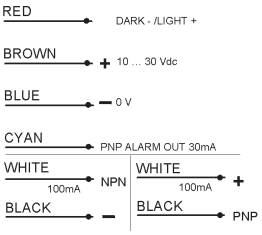


The detection diagrams indicate the typical operating distance with excess gain 1.

CONNECTIONS

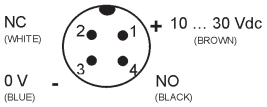


S6-5-A6/B5/C90/C200/M25/T1

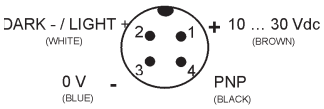


S6-5-F20

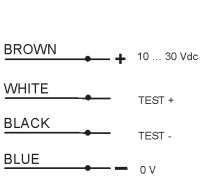
M12 CONNECTOR



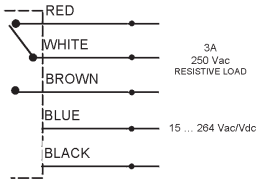
S6R-5



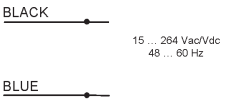
S6T-5-A6/B5/C90/C200/F20/M25/T1



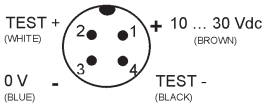
S6-5-G20



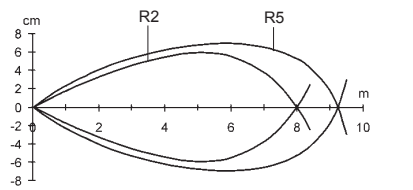
S6-1-A6/B5/C90/C200/F20/T1

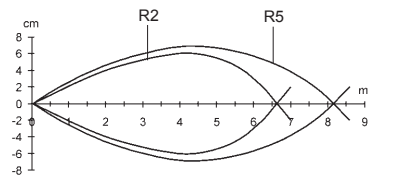


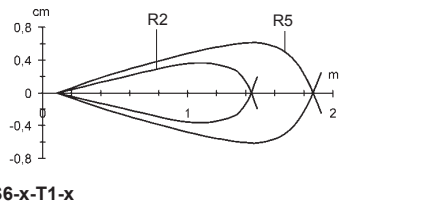
S6-1-G20

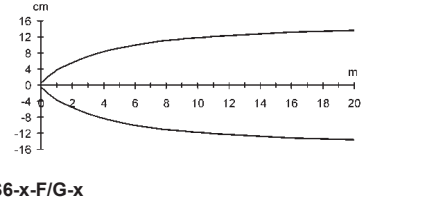


S6T-5-G20

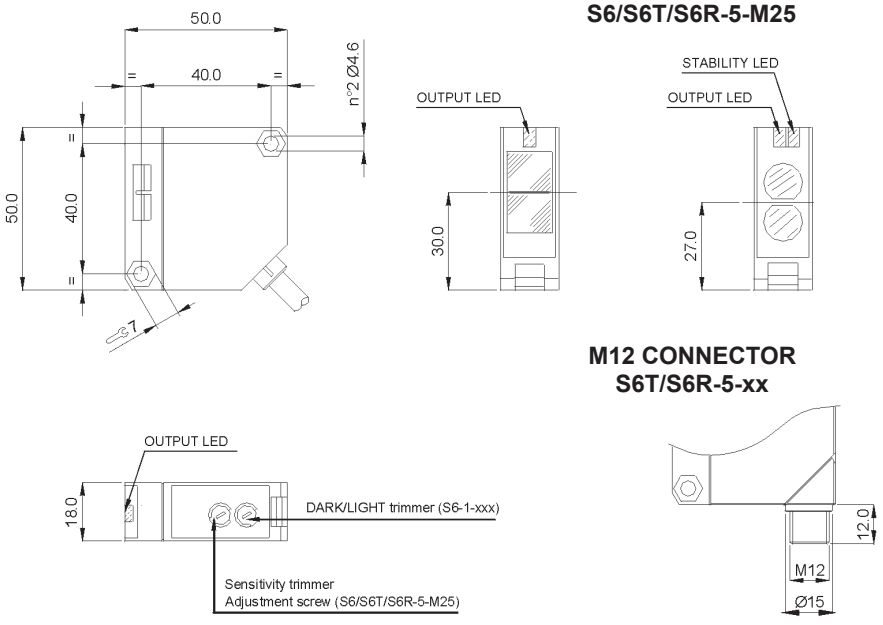








DIMENSIONS



DATASENSOR

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
S6R-5-W22-P	contrast sensor	M12 connector	PNP NO-NC	950201060
S6R-5-W22-N	contrast sensor	M12 connector	NPN NO-NC	956101120
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***

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UNIVERSAL MIDI SENSORS

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