SENSORS

S2 SERIES

The photoelectric sensors of the **S2** series are enclosed in sturdy plastic housings, developed to guarantee the complete protection of the control panel and connection terminals.

The free voltage versions present a relay output, while the 10-30 Vdc versions have a double NPN and PNP output, both available with 1 or 2 m proximity, 5 m polarised retroreflex, 3 m polarised retroreflex and 10 or 50 m through beam optic functions.

The red output LED and the green stability LED are visible through the IP66 hermetically-sealed cover, that also protects the terminal block and commands, such as the sensitivity adjustment trimmer and dark/light operating mode selector.

The versions with output timing present a trimmer to regulate the time up to 16 s. and a selector to set 5 different functions.
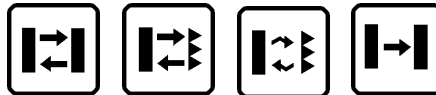
HIGHLIGHTS

• Sensitivity adjustment and Stability LED
• Free voltage power supply and relay output
• 10-30 Vdc power supply with NPN and PNP outputs
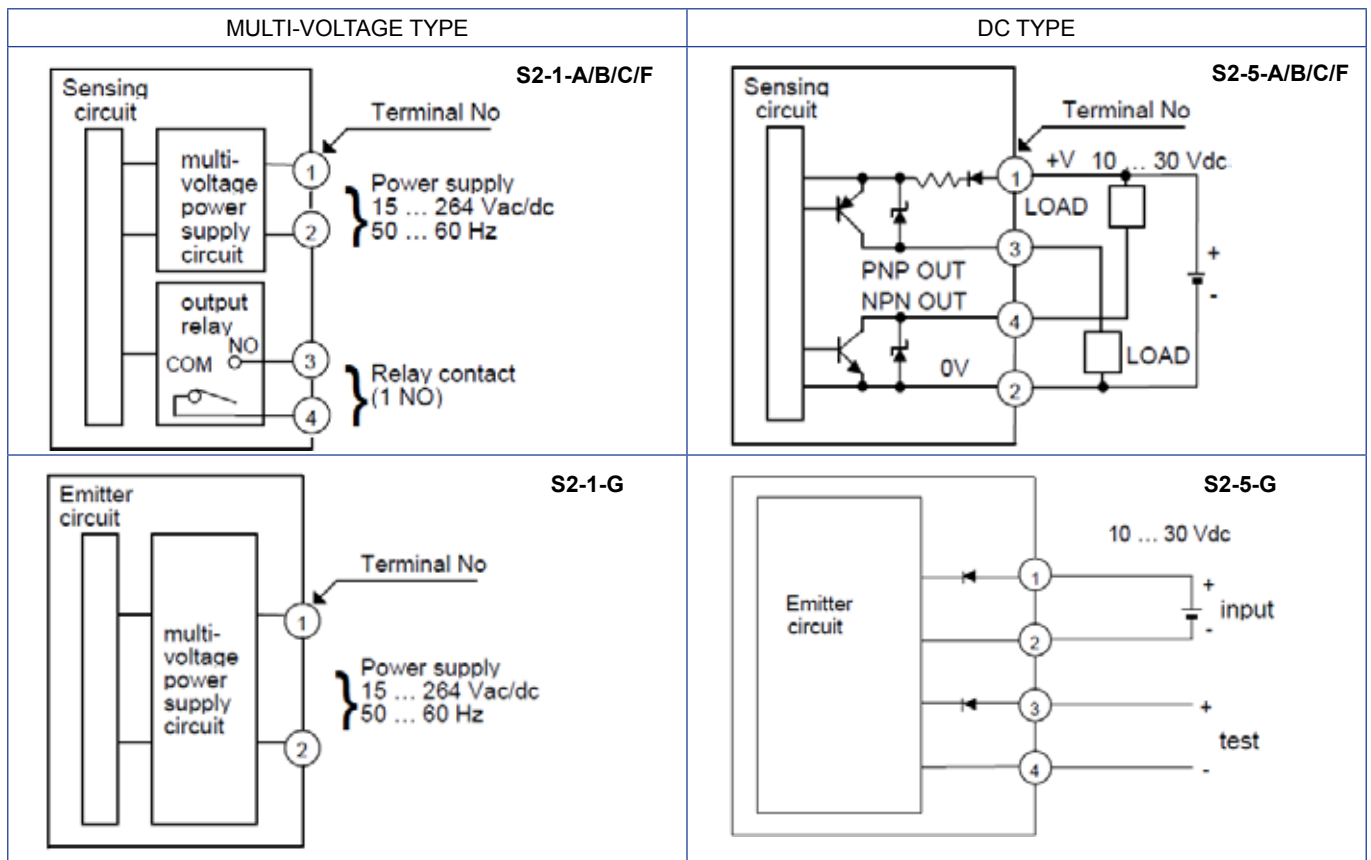• Versions with 5 timing functions

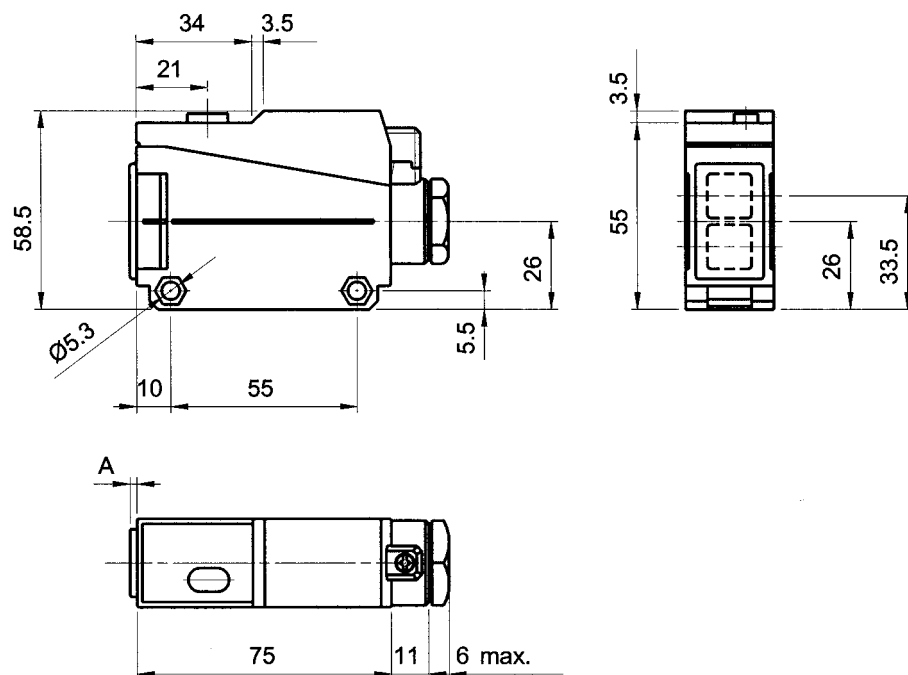## APPLICATIONS

Automotive

Conveyors

Automatic warehouse

CONNECTIONS

| MULTI-VOLTAGE TYPE	DC TYPE

S2-1-A/B/C/F

Sensing circuit

multi-voltage power supply circuit

output relay

Terminal No

1
2 } Power supply 15 … 264 Vac/dc 50 … 60 Hz

NO
COM

3
4 } Relay contact (1 NO)

S2-5-A/B/C/F

Sensing circuit

Terminal No

+V 10 … 30 Vdc
1
LOAD

PNP OUT
3
NPN OUT
4
0V
LOAD
2

S2-1-G

Emitter circuit

multi-voltage power supply circuit

Terminal No

1

Power supply 15 … 264 Vac/dc 50 … 60 Hz

2

S2-5-G

Emitter circuit

10 … 30 Vdc

1 + input
2 -

3 + test
4 -

DIMENSIONS

34   3.5
21
58.5
Ø5.3
10   55
3.5
55
26   33.5
26
5.5
26

A
75   11   6 max.

mm

TECHNICAL DATA

Power supply:	10 ... 30 Vdc, reverse polarity protection
	15 ... 264 Vac/Vdc
Consumption:	30 mA max. (d.c. vers.)
	3 VA max. (a.c. vers.)
Light emission:	infrared LED 880 nm
	red LED 660 nm (B vers.)
Diffuse proximity operating distan-ce:	1 ... 90 cm (C90 vers.)
	1 ... 200 cm (C200 vers.)
Retroreflex operating distance:	0.1 ... 5 m (on R2)
Polarised retroreflex operating distance:	0.15 ... 3 m (on R2)
Through beam operating distance:	0 ... 10 m (G10/F10 vers.)
	0 ... 50 m (G50/F50 vers.)
Setting:	sensitivity trimmer
Indicators:	red OUTPUT LED
	green STABILITY LED
Output type:	NPN and PNP, open collector (d.c. vers.)
	or relay 1 NO contact (a.c. vers.)
Saturation voltage:	1 V max. (NPN vers.)
	2 V max. (PNP vers.)
Output current:	100 mA max., short-circuit protection
	relay 1 A (250 Vac), resistive load
Response time:	1 ms max. (d.c. vers.)
	20 ms max. (a.c. vers.)
Switching frequency:	500 Hz max. (d.c. vers.)
	25 Hz max. (a.c. vers.)
Timing function:	normal, ON-delay, OFF-delay, ON/OFF-
	delay, one-shot all adjustable from 0.6
	to 16 sec.
Operating mode:	dark/light selectable
Connection:	terminal block with 4 screw terminals
	gland for cables with 8 to 10 mm diameter
Electrical protection:	class 1 (a.c. vers.)
	class 2 (d.c. vers.)
Mechanical protection:	IP66
Housing material:	PBT plastic
Lens material:	PMMA plastic
Weight:	100 g max.
Operating temperature:	-25 ... +55°C
Storage temperature:	-25 ... +70°C
Reference standard:	EN 60947-5-2
Certifications:	CE
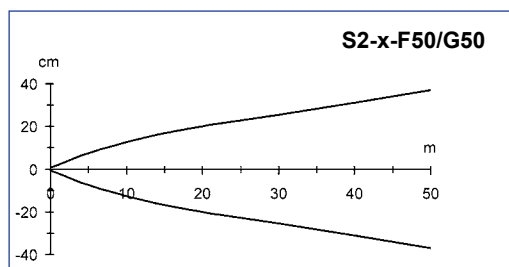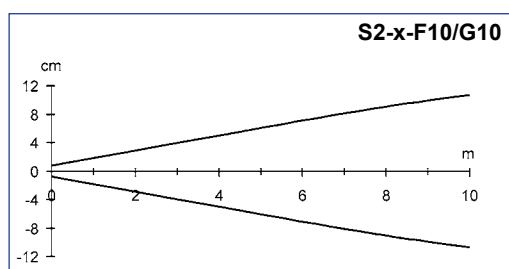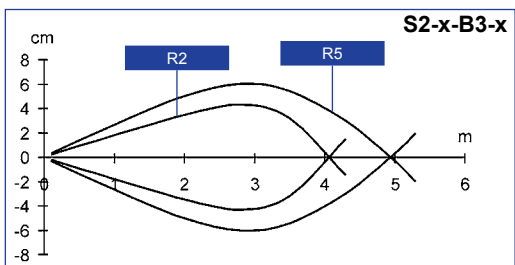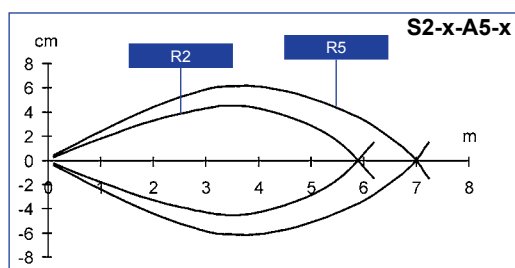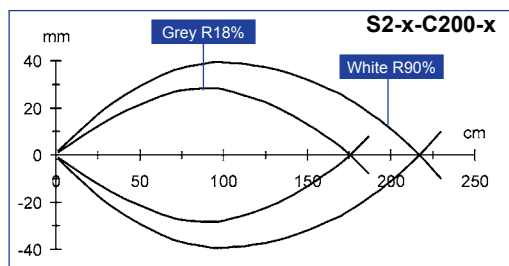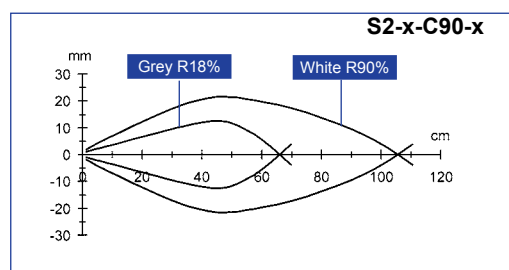
The operating distances indicate the detection distance with excess gain 2.

DETECTION DIAGRAMS

S2-x-C90-x

S2-x-C200-x

S2-x-A5-x

S2-x-B3-x

S2-x-F10/G10

S2-x-F50/G50

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

MODEL SELECTION AND ORDER INFORMATION

VERSIONS WITH 15 ... 264 Vac/Vdc POWER SUPPLY			
MODEL	**FUNCTION**	**OUTPUT**	**CODE N°**
S2-1-C90	proximity	relay	J950530390
S2-1-C90T	proximity	relay with timer	J950535390
S2-1-C200	proximity	relay	J950530393
S2-1-C200T	proximity	relay with timer	J950535393
S2-1-A5	retroreflex	relay	J950330390
S2-1-A5T	retroreflex	relay with timer	J950335390
S2-1-B3	polarised retroreflex	relay	J950320390
S2-1-B3T	polarised retroreflex	relay with timer	J950325390
S2-1-F10	receiver	relay	J950200390
S2-1-F10T	receiver	relay with timer	J950205390
S2-1-F50	receiver	relay	J950200394
S2-1-F50T	receiver	relay with timer	J950205394
S2-1-G10	emitter	-	J950139990
S2-1-G50	emitter	-	J950139995
VERSIONS WITH 10 ... 30 Vdc POWER SUPPLY			
MODEL	**FUNCTION**	**OUTPUT**	**CODE N°**
S2-5-C90	proximity	NPN/PNP	J950530000
S2-5-C90T	proximity	NPN/PNP with timer	J950535000
S2-5-C200	proximity	NPN/PNP	J950530003
S2-5-C200T	proximity	NPN/PNP with timer	J950535003
S2-5-A5	retroreflex	NPN/PNP	J950330000
S2-5-A5T	retroreflex	NPN/PNP with timer	J950335000
S2-5-B3	polarised retroreflex	NPN/PNP	J950320000
S2-5-B3T	polarised retroreflex	NPN/PNP with timer	J950325000
S2-5-F10	receiver	NPN/PNP	J950200000
S2-5-F10T	receiver	NPN/PNP with timer	J950205000
S2-5-F50	receiver	NPN/PNP	J950200004
S2-5-F50T	receiver	NPN/PNP with timer	J950205004
S2-5-G10	emitter	-	J950139900
S2-5-G50	emitter	-	J950139905