

## DATALOGIC - S300 SAFETY PHOTOCELL

S300-PR-5-G00-EX-SG-ST2

951451320 Through Beam Emitter Safet Sensor Type 2

- Separate safety beams, infrared
- Range 0-50 m
- Operating temperature -40 °C...+55 °C



### PRODUCT DESCRIPTION

Datalogic safety photocell S300 series (transmitter-receiver couple) have been homologated to function with the control units of the SG-BWS series that together form a safety system respectively of Type 2 (PL d, SIL 2) and Type 4 (PL e, SIL 3) conforming with the EN 954-1, EN ISO 13849-1 and EN 62061 standards.

S300 safety photo cell has operating range of 0-50 (Type 2) and 0-40 m (Type 4). All models have a M12 4-pole connectors for transmitter and receiver.

S300 safety photo cells are suitable for outdoor use with temperature range from -40 °C to +50 °C and IP67 housing.

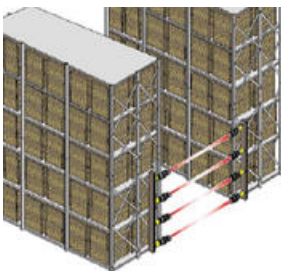
Defogging models with heated front glass are available for applications where sudden changes of the temperature in the nearby of the sensor are causing condensation

LEDs signal both the operating status and correct alignment of the safety photocells

### Application

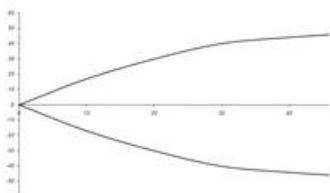
Body protection

Door control

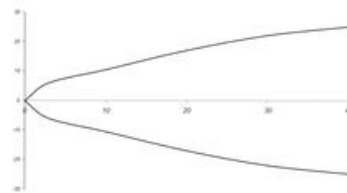


## TECHNICAL DATA

### Detection diagrams




S300-F/G- SG-ST2



S300-F/G- SG-ST4

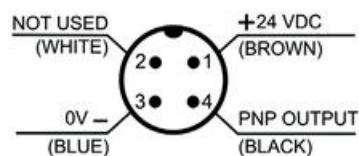
## Technical Data

<b>Supply voltage</b>	24 V DC, stabilised
<b>Tolerance</b>	± 15 %
<b>Consumption</b>	S300...F (receiver): < 25 mA S300...G (transmitter): < 20 mA
<b>Outputs</b>	PNP, NC open collector
<b>Output current</b>	100 mA (resistive load)
<b>Output saturation voltage</b>	2.4 V max
<b>Response time</b>	1 ms
<b>Diagnostic functions</b>	Test input
<b>Switching frequency</b>	500 Hz
<b>Type of light</b>	IR LED 880 nm
<b>EAA</b>	S300 (Type 2): ± 5° / S300 (Type 4): ± 2,5°
<b>Operating distance</b>	0-50 m (Type 2) 0-40 m (Type 4)
<b>Status indication</b>	Tx: 1 led, Power ON (Green) Rx: 2 led's, Output Led (yellow) + Stability Led (green)
<b>Cable connection</b>	Transmitter M12, 4-pole  Receiver M12, 4-pole
<b>Material housing</b>	PBT 30% Glass fiber-reinforced, Lenses and frontal window PC
<b>Weight</b>	140 g
<b>Protection class</b>	IP67
<b>Operating temperature</b>	-40 °C to +55 °C
<b>Storage temperature</b>	-40 °C to +70 °C
<b>Approvals</b>	

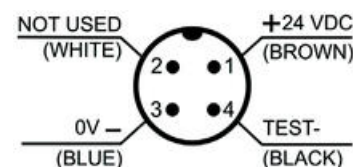
## CONNECTION

### Connection of S300 safety photocell

#### Receiver (Rx, F)



#### Transmitter (Tx, G)



#### Receiver (Rx, F), 4-pole, M12-connector

1	= brown	= +24 V DC (power supply)
2	= white	= not used
3	= blue	= 0 V (power supply)

#### Transmitter (Tx, G), 4-pole, M12-connector

1	= brown	= +24 V DC (power supply)
2	= white	= not used
3	= blue	= 0 V (power supply)

4 = black = PNP output

4 = black = Test input

**NOTE !**

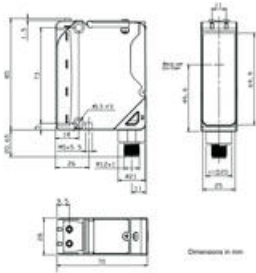
**THE SAFETY PHOTOCELLS ARE CERTIFIED AND MUST BE USED ONLY WITH SAFETY CONTROL UNITS SG-BWS-T4 AND SG-BWS-T4-MT SERIES. NEITHER TECHNICAL AND FUNCTIONING COMPATIBILITY NOR CERTIFICATIONS ARE GUARANTEE IF USING THEM WITH OTHER BRAND CONTROL UNITS OR OLD/OBSOLETE DATALOGIC AUTOMATION CONTROL UNITS**

## MANUAL

### S300 safety photocell

S300 safety photocell, eng

## DIMENSIONS



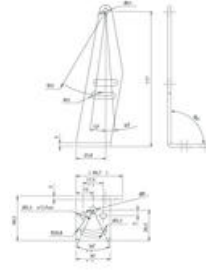
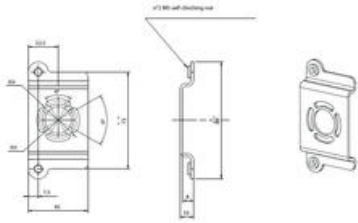
## ORDER NUMBERS & ACCESSORIES

Order no.	Description	Range (m)
S300-PR-5-G00-EX-SG-ST2	Safety photocell S300, Transmitter, 10/30 VDC, Type 2	0 - 50
S300-PR-5-F01-OC-SG-ST2	Safety photocell S300, Receiver, 10/30 VDC, Type 2	0 - 50
S300-PR-5-G00-EX-M-SG-ST2	Safety photocell S300 defogging (heated lenses), Transmitter, 10/30 VDC, Type 2	0 - 50
S300-PR-5-F01-OC-M-SG-ST2	Safety photocell S300 defogging (heated lenses), Receiver, 10/30 VDC, Type 2	0 - 50
S300-PR-5-G00-EX-SG-ST4	Safety photocell S300, Transmitter, 10/30 VDC, Type 4	0 - 40
S300-PR-5-F01-OC-SG-ST4	Safety photocell S300, Receiver, 10/30 VDC, Type 4	0 - 40
S300-PR-5-G00-EX-M-SG-ST4	Safety photocell S300 defogging (heated lenses), Transmitter, 10/30 VDC, Type 4	0 - 40
S300-PR-5-F01-OC-M-SG-ST4	Safety photocell S300 defogging (heated lenses), Receiver, 10/30 VDC, Type 4	0 - 40

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### Accessories

S300 safety photocells do not include brackets, see below for bracket options



Mounting bracket ST-5099

Mounting bracket ST-5100

**Order no.**

**Description**

**Brackets**

ST-5099	Mounting bracket, ROTATIVE, (4 pcs. / kit)
ST-5100	Mounting bracket, standard (4 pcs. / kit)

**Cables**

CS-A1-02-U-05	Cable, M12, straight, 5 metres, female, 4-pole
CS-A1-02-U-15	Cable, M12, straight, 15 metres, female, 4-pole
CS-A1-02-U-25	Cable, M12, straight, 25 metres, female, 4-pole

**Control units**

SG-BWS-T4	Control unit for 1-4 safety photo cell couple, 24 VDC, 2 PNP (safety output)
SG-BWS-T4-MT	Control unit with double muting, 24 VDC, 2 NO (safety relay output)