



S300-PR...F-ST2/ST4

Receiver



S300-PR...G-ST2/ST4

Emitter

ISTRUCTION MANUAL

INSTRUCTIONS FOR USE

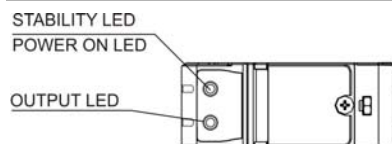


The emitter/receiver safety sensors are homologated only to be connected to the SG-BWS-T4 safety control units.

Different use is potentially dangerous and not allowed, please take care to follow the instructions of manual Series SG-BWS-T4.

For the connection modalities, please refer to the SG-BWS-T4 instruction manual.

CONTROLS



OUTPUT LED (yellow) (S300...F)

The yellow LED ON indicates the output status.

STABILITY LED (green) (S300...F)

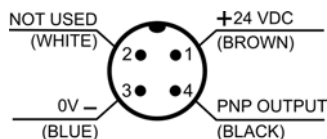
The green LED ON indicates that the sensor has working with a enough safety margin.

POWER ON LED (S300...G)

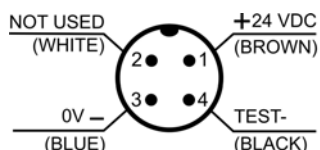
The green LED indicates that the sensor is operating.

CONNECTIONS

S300...F



S300...G



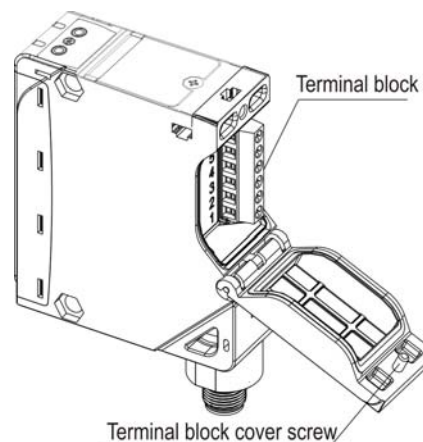
TECHNICAL DATA

DC MODELS	S300...2/5-G/F-ST2/ST4
Power supply:	24 VDC $\pm 15\%$ Class 2 (UL508)
Ripple:	10 % max
Current consumption (output current excluded):	S300...F: <25mA S300...G: < 20 mA
Outputs:	PNP NC open collector
Output current:	100 mA (resistive load)
Output saturation voltage:	2.4 V max
Diagnostic functions	Test- input
Response time:	1 ms
Switching frequency:	500 Hz
Weight:	140 g

Common data

	S300...G	S300...F
Emission type:	INFRARED LED (880nm)	-
Operating distance (typical value):	S300...ST2: 0..50m S300...ST4: 0..40m	-
EAA:	S300...ST2: $\pm 5^\circ$ / S300...ST4: $\pm 2.5^\circ$	-
Indicators:	POWER ON LED (GREEN)	OUTPUT LED (YELLOW), STABILITY LED (GREEN)
Operating temperature:	-40...55 $^\circ\text{C}$	-
Storage temperature:	-40...70 $^\circ\text{C}$	-
Dielectric strength:	<input checked="" type="checkbox"/> 1500 VAC, 1 min between electronics and housing	-
Insulating resistance:	> 20 M Ω , <input type="checkbox"/> 500 VDC between electronics and housing	-
Ambient light rejection:	EN 60947-5-2	-
Vibration:	0.5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6)	-
Shock resistance:	11 ms (30 G) 6 shock for every axis (EN60068-2-27)	-
Housing:	PBT 30% Glass fiber-reinforced	-
Lenses:	frontal window and lens in PC	-
Protection class:	IP67 (IEC / EN60529) / cable gland EN50262	-
UL requirements:	Class 2 power supply; 60-70 $^\circ\text{C}$ copper conductor 24-20 AWG; Type 1 Enclosure	-
Connections:	see the "CONNECTIONS" paragraph	

INSTALLATION



The sensor can be positioned by means of the two housing holes using two screws (M5x35 or longer, 1.2Nm maximum tightening torque).

The sensor bottom surface has been provided of two mechanical threaded insert M5x5.5. These metal insert are commercial components.

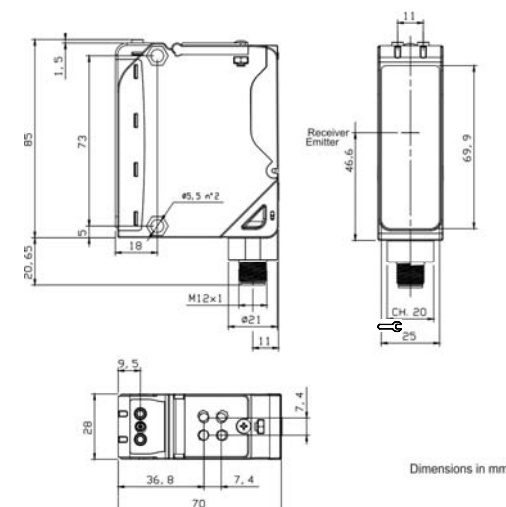
Various orientable fixing brackets to ease the sensor positioning are available (please refer to the accessories listed in the general catalogue). The operating distance is measured from the front surface of the sensor optics.

Tighten all screws surely to maintain the water-proof characteristics for IP67 (IEC/EN60529).

Excessive tightening causes damage. Tighten the screws within the tightening torque range shown in the table.

TIGHTENING TORQUE (Nm)	
Terminal screws(6pc)	0.5 max
Covers screws	0.5...0.8

DIMENSIONS



SETTING

Sensitivity setting (S300..F and S300...G)

Position the sensors on opposite sides. Find the points where the yellow LED (OUT) is switched ON and OFF in both vertical and horizontal positions, and fix the sensor in the centre between these points. Optimum operation is obtained when both LEDs switch ON.

DECLARATION OF CONFORMITY

We Datalogic Automation declare under our sole responsibility that these products are conform to the 2004/108/CE and successive amendments.

WARRANTY

Datalogic Automation warrants its products to be free from defects. Datalogic Automation will repair or replace, free of charge, any product found to be defective during the warranty period of 36 months from the manufacturing date. This warranty does not cover damage or liability deriving from the improper application of Datalogic Automation products.

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