

## S15 SERIES INSTRUCTION MANUAL

### CONTROLS

#### OUTPUT LED (S15-...A00/B00/C00/C10/F00)

The yellow LED ON indicates the output status.

#### POWER ON LED (S15-...G00)

The green LED indicates that the sensor is operating.

### INSTALLATION

The sensor can be fixed by means of the M18x1 threaded body using CH.24 nuts (1.5Nm maximum tightening torque) or low-profile flared nut provided specifically supplied.

Various orientable fixing brackets are available to ease sensor positioning (please refer to the accessories listed in the general catalogue).

The operating distance is measured from the front surface of the sensor lens.

**C models:** the object has to be moved closer or further away from the front surface of the sensor lens to improve detection.

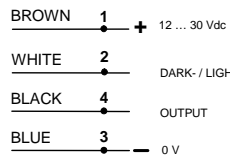
In case of lateral translation, the object must move as indicated in the figure.



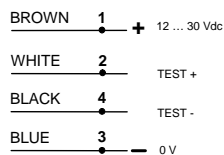
### CONNECTIONS

The connections are compliant to the EN 60947-5-2 standard.

#### S15-...A00/B00/C00/C10/F00

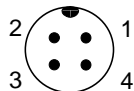


#### S15-...G00

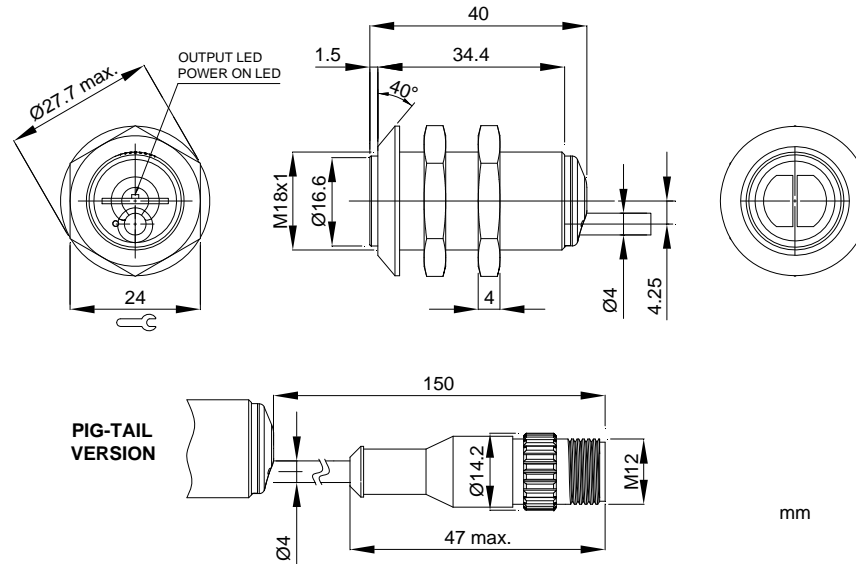


\*in case of white wire or pin 2 not connected the sensor operates in LIGHT mode for proximity models (C00/C10) and in DARK mode for retroreflex (A00/B00) and receiver (F00) models.

#### Pig-tail con connettore M12



### DIMENSIONS



### TECHNICAL DATA

Power supply:	12 ... 30 VDC (limit values)
Ripple:	2 Vpp max.
Current consumption (output current excluded):	20 mA max.
Outputs:	N.O.; PNP or NPN (short-circuit protection)
Output current:	100 mA max.
Output saturation voltage:	2 V max.
Response time:	1 ms (4 ms F00 mod.)
Switching frequency:	500 Hz (120 Hz F00 mod.)
Indicators:	OUTPUT LED (YELLOW) excluded G00 mod. POWER ON LED (GREEN) (G00 mod.)
Operating temperature:	-25 ... 55 °C
Storage temperature:	-25 ... 70 °C
Insulating strength:	500 Vac 1 min between electronics and housing
Insulating resistance:	>20 MΩ 500 Vdc between electronics and housing
Operating distance (typical values):	A00: 0.1...4 m on R2 B00: 0.1...3 m on R2 C00: 1...35 cm / C10: 1...10 cm F00/G00: 0...20 m
Emission type:	red (660 nm) (B00 mod.) / infrared (880 nm) (A00/C00/C10/G00 mod.)
Ambient light rejection:	according to EN 60947-5-2
Vibrations:	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)
DARK/LIGHT selection:	white wire or pin 2 connected to +12...30V LIGHT mode; to 0V DARK mode white wire or pin 2 not connected LIGHT mode (C00/C10 mod.); DARK mode (A00/B00/F00 mod.)
Housing material:	ABS
Lens material:	PMMA
Mechanical protection:	IP69K
Connections:	2 m Ø 4 mm cable 150 mm cable Ø 4 mm with M12-4 pole connector (pig-tail)
Weight:	55 g. max. cable version / 35 g. max pig-tail version

### SETTING

The following procedures are valid for the LIGHT mode.

#### S15-...A00/B00 setting

Position the sensors on opposite sides.

Move the sensor both vertically and horizontally, determine the power on and off points of the yellow LED (OUT) and then mount the sensor in the middle of the defined points.

#### S15-...C00/C10 setting

Align sensor and object to detect.

These sensors have a fixed operating distance. Please consider this during positioning.

#### S15-...F00/G00 setting

Move the sensor both vertically and horizontally, determine the power on and off points of the yellow LED (OUT) and then mount the sensor in the middle of the defined points.

### TEST FUNCTION (S15-...G00)

The TEST+ and TEST- inputs can be used to switch off the emitter light and verify that the system is correctly operating.

The receiver output should switch when the test is activated while the beam is uninterrupted. The inputs activating voltage range is 12 ... 30 Vdc, whilst respecting the polarity.

The emission is switched off connecting TEST+ to VDC and TEST- to 0V.

	<b>EX-II-3-D T6</b>	
	Temperature class:	T6 (<85°C)
	Max. Power consumption:	600 mW at 30 Vdc
	Max. Internal capacitance:	170 nF
	Internal inductance:	negligible

#### DECLARATION OF CONFORMITY

We DATASENSOR S.p.A. declare under our sole responsibility that these products are conform to the 2004/108/CE, 2006/95/CE Directives and successive amendments.

#### WARRANTY

DATASENSOR S.p.A. warrants its products to be free from defects. DATASENSOR S.p.A. 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 DATASENSOR products.

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DATASENSOR S.p.A. cares for the environment: 100% recycled paper.

DATASENSOR S.p.A. reserves the right to make modifications and improvements without prior notification.

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