



S60...Y Distance sensor

INSTRUCTION MANUAL

CONTROLS

OUTPUT LED

The yellow LED on indicates that the NO output status is closed.

READY/ERROR LED (bicolour)

The bicoloured LED permanently green indicates a normal operating condition and hence the sensor is ready to function correctly (stability condition).

The alternative green/red blinking of the LED signals a wrong detection.

SET PUSHBUTTON

A long pressure on the pushbutton activates the self-setting procedure. The REMOTE input allows the external SET control.

INSTALLATION

The sensor can be positioned by means of the three housing's holes using two screws (M4x25 or longer, 1.5Nm maximum tightening torque) with washers.

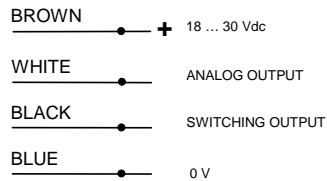
Various orientable fixing brackets to ease the sensor positioning are available (please refer to the accessories listed in the catalogue).

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

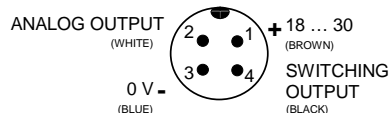
The M12 connector can be oriented at two different positions using the specific fastening spring and rotating the block of 180°.



CONNECTIONS



M12 CONNECTOR



TECHNICAL DATA

Power supply:	18 ... 30 Vdc (limit values)
Ripple:	2 Vpp max.
Consumption:	60 mA max. (output current excluded):
Switching outputs:	PNP or NPN; 30 Vdc max. (short-circuit protection)
Switching output current:	100 mA max.
Switching output saturation voltage:	≤ 2 V
Analog output:	in tensione 0...10 V
Analog output current:	10mA max. (1KΩ minimum resistance load)
Analog output proportionality:	inverse with EASY TOUCH™ / programmable with 2 step detection
Resolution:	1 mm max
Temperature Drift:	0,35 mm/C° (from -10 C° to 55 C°)
Linearity:	± 2.5 mm
Response time:	1 msec. max.
Switching frequency:	500 Hz
Indicators:	OUTPUT LED (YELLOW) / READY/ERROR LED (GREEN/RED)
Setting:	SET pushbutton
Data retention:	non volatile EEPROM memory
Operating temperature:	-10 ... 55 °C
Storage temperature:	-20 ... 70 °C
Electrical protection:	Class 2 (TYPE 1 ENCLOSURE)
Operating distance (typical values):	60...150 mm
Minimum spot dimension:	16...20 mm
Emission type:	red (670 nm)
Ambient light rejection:	according to EN 60947-5-2
Vibrations:	0.5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6)
Short resistance:	11 ms (30 G) 6 shock for every axis (EN60068-2-27)
DARK/LIGHT selection:	LIGHT mode with EASYtouch™ / automatic with two steps acquisition
Housing material:	ABS
Lens material:	PMMA
Mechanical protection:	IP67
Connections:	2 m Ø 4 mm cable / M12 4-pole connector
Weight:	90 g. max. cable vers. / 40 g. max. connector vers.

SETTING

EASYTOUCH™

The sensor uses the patent-covered EASY TOUCH™ technology that allows a rapid and safe self-setting of the product.

Two different setting possibilities are available:

- EASYtouch™: a long pressure of the SET pushbutton allows self-setting.
- 2 step detection, for the DARK/LIGHT selection of digital output and analog output proportionality.

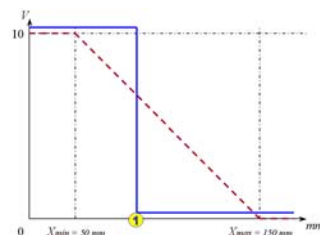
Setting

- EASYtouch™ (switching output setting)

Place the background inside the operating distance. Press the SET pushbutton until the READY/ERROR LED turns off. Release the SET pushbutton and wait for the READY/ERROR LED turns green.

The sensor is now ready to detect all objects in the set range in the LIGHT operating output mode.

The analogue output is set in an inverse proportionality with field ranging from 50 to 150 mm.



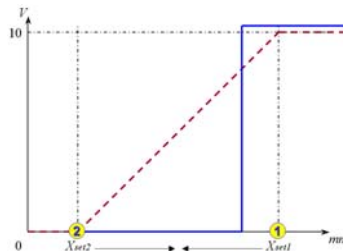
- 2 STEP DETECTION

Output in the DARK switching mode, analog output in direct proportionality:

- Step 1: place the target at the operating distance 1 furthest to the sensor. Press the SET pushbutton and keep it pressed until the READY/ERROR LED turns off and then begins to blink green.
- Step 2: place the target at the operating distance 2 nearest from the sensor. Press for a second time, the SET pushbutton until the READY/ERROR LED turns off.

Release the SET pushbutton and wait for the READY/ERROR LED turns green.

The switching threshold is set by the nearest point of the detection range from 50 to 150mm.



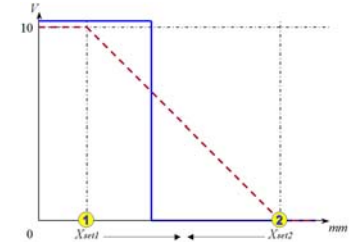
— digital output
- - - analog output

Output in the LIGHT switching mode, analog output in inverse proportionality:

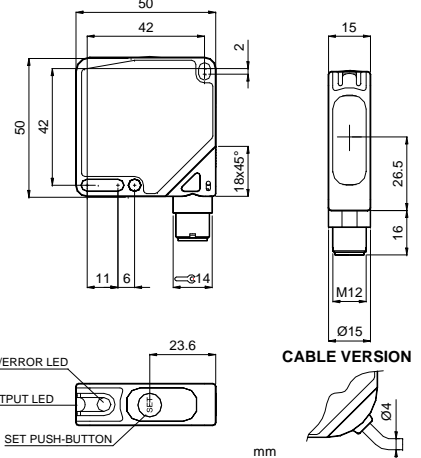
- Step 1: place the target at the operating distance 1 nearest to the sensor. Press the SET pushbutton and keep it pressed until the READY/ERROR LED turns off and then begins to blink green.
- Step 2: place the target at the operating distance 2 furthest from the sensor. Press for a second time, the SET pushbutton until the READY/ERROR LED turns off.

Release the SET pushbutton and wait for the READY/ERROR LED turns green.

The switching threshold is set by the nearest point of the detection range from 50 to 150mm.



DIMENSIONS



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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