Alignment S3Z...B01/T51
Position the sensor and reflector 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 the green LED is ON. If necessary, reduce sensitivity using the trimmer, in order to detect very small or transparent targets. In order to improve alignment, repeat the procedure detailed above whilst progressively reducing the sensitivity.

Alignment S3Z...F01/G00
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 the green LED is ON.

Installation
The sensor can be positioned by means of the two housing's threaded holes (M3) using two screws (M3x12 or longer or M2.5 passing screw, 0.5Nm 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).

Connections
S3Z…B01/C01/C11/F01/M01/T51

S3Z…G00

Connections M8

Dimensions

Technical Data

Power supply: 12 ... 24 Vdc (operating limit 10 ... 30 Vdc); reverse polarity protected
Ripple: p-p 10% max.
Current consumption (output current excluded): 30 mA max.
Output:
- DARK; PNP or NPN; (short-circuit protection)
- LIGHT or DARK; PNP or NPN; (short-circuit protection)
- LIGHT; PNP or NPN; (short-circuit protection)
Output current: 100 mA max.
Output saturation voltage: 2 V max.
Response time: 500µs max
Switching frequency: 1KHz max.
500 Hz max.
Indicators:
- OUT LED (YELLOW)
- STABILITY LED (GREEN) mod. B01/C01/C11/F01
- POWER ON LED (GREEN) mod. G00
Setting:
- TRIMMER (250°) 6 turns
- Switching frequency: 1KHz max.
- Operating temperature: -25 ... +50 °C (UL)
- -25 ... +55 °C
- Storage temperature: -40 ... +70 °C
- Operating distance (minimum): 2m on R2 reflector
- see tab.1 50...150 mm 0...70 cm 0...20 m 50...250 mm
- Difference on White 90% / Gray 18% --- 22% @ 200mm.
- Emission type: RED (650 nm) INFRARED (870 nm)
- Ambient light rejection: according to EN 60847-5-2
- 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)
- PNP/NPN Output: dependently from the model
- Housing: Body PC and PBT / indicators cover PC
- Lenses: PMMA PC PMMA
- Protection class: IP67
- Connections: 2 m cable Ø 3.5 mm / M8-4 pole connector
- Weight: 50 g. max. cable versions / 10 g. connector versions

Technical data for connection types:

Table 1.5: S3Z...B01 max. operating distance table (meters)

<table>
<thead>
<tr>
<th>R1</th>
<th>R2</th>
<th>R3</th>
<th>R4</th>
<th>R5</th>
<th>R6</th>
</tr>
</thead>
<tbody>
<tr>
<td>-B01</td>
<td>3</td>
<td>5</td>
<td>4.5</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

The sensors are NOT safety devices, and so MUST NOT be used in the safety control of the machines where installed.

Declaration of Conformity

We Datalogic Automation declare under our sole responsibility that these products are conform to the 2004/108/EC Directive 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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