

E0000498 and E0001526B Sensors

Information on the use of Balluff retroreflective measure sensors



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Problem

Two types of sensor are used for edge detection on the Stuga machines

Sensor Details

	E0000498	E0001526B																																																																								
Photo																																																																										
Description	Diffused Optoelectronic Sensor (laser Point) with M8 Socket	Photoelectric Sensor 20-350mm w/Flying Lead																																																																								
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Datasheet	<p>Photoelectric Sensors BOS 5K-PU-LH12-S75 Order Code: BOS01JK</p> <p>BALLUFF</p> <table border="0"> <tr> <td>Environmental conditions</td> <td>Optical features</td> </tr> <tr> <td>Ambient temperature: -10...55 °C</td> <td>Ambient light max.: 5000 Lux</td> </tr> <tr> <td>EN 60068-2-27, Shock: Half-sinus, 50 g_r, 11 ms, 3x10</td> <td>Average power P₀ max.: 390 μW</td> </tr> <tr> <td>EN 60068-2-6, Vibration: 10...55 Hz, amplitude 1.5 mm, 3x2 h</td> <td>Beam characteristic: Focus, typical at 260 mm</td> </tr> <tr> <td>IP rating: IP67</td> <td>Laser class per IEC 60825-1: 1</td> </tr> <tr> <td>Functional safety</td> <td>Light spot size: 0.2 x 0.3 mm at focal point</td> </tr> <tr> <td>MTTF (40 °C): 3 a</td> <td>Light type: Laser red light</td> </tr> <tr> <td>Interface</td> <td>Principle of optical operation: Diffuse sensor, triangulation</td> </tr> <tr> <td>Switching output: PNP normally open/normally closed (NO/NC)</td> <td>Pulse duration t max.: 1.4 μs</td> </tr> <tr> <td>Material</td> <td>Pulse frequency: 20 kHz</td> </tr> <tr> <td>Housing material: PC</td> <td>Pulse power P_{ip} max.: 4.5 mW</td> </tr> <tr> <td>Material sensing surface: PBT</td> <td>Smallest part typ.: 0.2 mm at 170 mm</td> </tr> <tr> <td>Material sensing surface: PURAA</td> <td>Special optical feature: Background suppression</td> </tr> <tr> <td>Mechanical data</td> <td>Switching function, optical: Light/dark switching</td> </tr> <tr> <td>Dimension: 10.8 x 43.5 x 19.5 mm</td> <td>Wave length: 650 nm</td> </tr> <tr> <td>Mounting part: Screw M3</td> <td>Range/Distance</td> </tr> <tr> <td>Tightening torque max.: 0.5 Nm</td> <td>Distance deviation 18 % max. 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During the supply chain shortages of 2021-2023, E0000498 was not available, and E0001526 was supplied instead (BOS0129). This part also became difficult to get, so E0001526B was source instead.

Compatibility

- Parts are Mechanically compatible
- E0001526 comes with a flying lead, so needs a plug or socket on the end. To replace an E0000498, add a Exxxxxx plug connector with a short (10cm) tail.

Use

E0001526B have proven to be a better sensor for detecting **dark and rosewood profile**. The only downside is the difference in electrical connection