

# Through-Beam Sensor

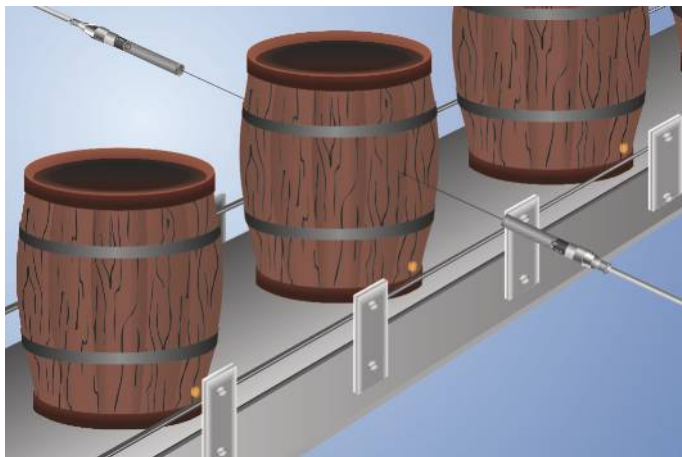
## SO983

Part Number



- Ample performance reserves
- Infrared light
- Insensitive to contamination
- Test input

These through-beam sensors are best suited for use in industrial environments. Thanks to their large working range, the devices demonstrate excellent functional reliability in highly contaminated environments. The sensors can be checked for correct functioning via the test input.



### Technical Data

#### Optical Data

Range	10000 mm
Light Source	Infrared Light
Service Life (T = +25 °C)	100000 h
Opening Angle	12 °

#### Electrical Data

Sensor Type	Emitter
Supply Voltage	10...30 V DC
Current Consumption (U <sub>b</sub> = 24 V)	< 40 mA
Temperature Drift	< 10 %
Temperature Range	-10...60 °C
Reverse Polarity Protection	yes
Protection Class	III

#### Mechanical Data

Housing Material	CuZn, nickel-plated
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin

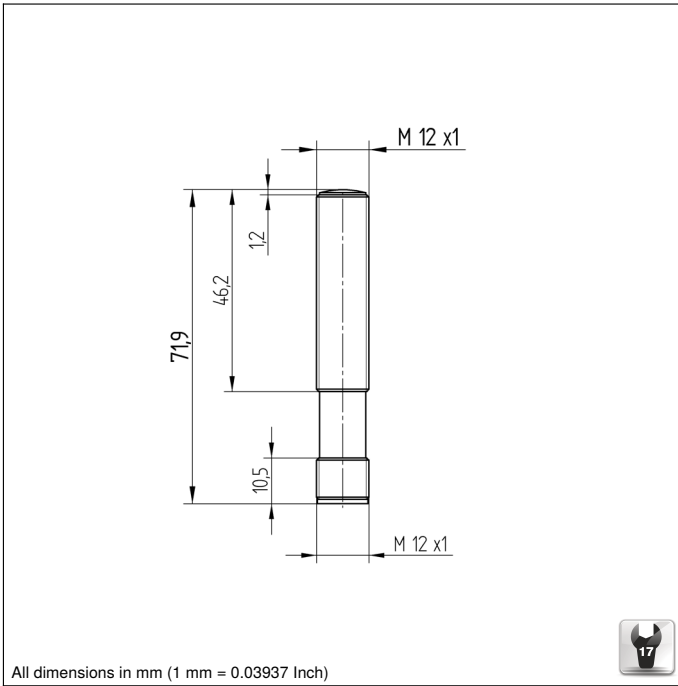
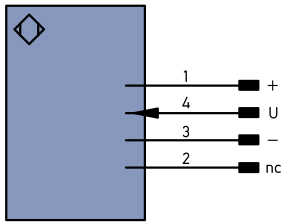
Connection Diagram No.	1018
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	170

### Suitable Receiver

EO98VB3
EO98VD3

### Complementary Products

Path-Folding Mirror LA9
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**1018**

**Legend**

<b>+</b> Supply Voltage +	<b>PT</b> Platinum measuring resistor	<b>EN<sup>0 RS422</sup></b> Encoder A/Ā (TTL)
<b>-</b> Supply Voltage 0 V	<b>nc</b> not connected	<b>EN<sup>0 RS422</sup> B</b> Encoder B/B̄ (TTL)
<b>~</b> Supply Voltage (AC Voltage)	<b>U</b> Test Input	<b>EN<sup>A</sup></b> Encoder A
<b>A</b> Switching Output (NO)	<b>Ū</b> Test Input inverted	<b>EN<sup>B</sup></b> Encoder B
<b>Ā</b> Switching Output (NC)	<b>W</b> Trigger Input	<b>A<sub>MIN</sub></b> Digital output MIN
<b>V</b> Contamination/Error Output (NO)	<b>W-</b> Ground for the Trigger Input	<b>A<sub>MAX</sub></b> Digital output MAX
<b>Ṽ</b> Contamination/Error Output (NC)	<b>O</b> Analog Output	<b>A<sub>OK</sub></b> Digital output OK
<b>E</b> Input (analog or digital)	<b>O-</b> Ground for the Analog Output	<b>SY<sub>in</sub></b> Synchronization In
<b>T</b> Teach Input	<b>BZ</b> Block Discharge	<b>SY<sub>OUT</sub></b> Synchronization OUT
<b>Z</b> Time Delay (activation)	<b>A<sub>WV</sub></b> Valve Output	<b>OL<sub>T</sub></b> Brightness output
<b>S</b> Shielding	<b>a</b> Valve Control Output +	<b>M</b> Maintenance
<b>RxD</b> Interface Receive Path	<b>b</b> Valve Control Output 0 V	<b>rsv</b> reserved
<b>TxD</b> Interface Send Path	<b>SY</b> Synchronization	Wire Colors according to DIN IEC 757
<b>RDY</b> Ready	<b>SY-</b> Ground for the Synchronization	<b>BK</b> Black
<b>GND</b> Ground	<b>E+</b> Receiver-Line	<b>BN</b> Brown
<b>CL</b> Clock	<b>S+</b> Emitter-Line	<b>RD</b> Red
<b>E/A</b> Output/Input programmable	<b>±</b> Grounding	<b>OG</b> Orange
 <b>IO-Link</b>	<b>S<sub>nR</sub></b> Switching Distance Reduction	<b>YE</b> Yellow
<b>PoE</b> Power over Ethernet	<b>Rx+/-</b> Ethernet Receive Path	<b>GN</b> Green
<b>IN</b> Safety Input	<b>Tx+/-</b> Ethernet Send Path	<b>BU</b> Blue
<b>OSSD</b> Safety Output	<b>Bus</b> Interfaces-Bus A(+)/B(-)	<b>VT</b> Violet
<b>Signal</b> Signal Output	<b>L<sub>a</sub></b> Emitted Light disengageable	<b>GY</b> Grey
<b>Bl_D+/-</b> Ethernet Gigabit bidirect. data line (A-D)	<b>Mag</b> Magnet activation	<b>WH</b> White
<b>EN<sup>0 RS422</sup></b> Encoder 0-pulse 0-0̄ (TTL)	<b>RES</b> Input confirmation	<b>PK</b> Pink
	<b>EDM</b> Contactor Monitoring	<b>GNYE</b> Green/Yellow

