

Through-Beam Sensor

OED000C0003

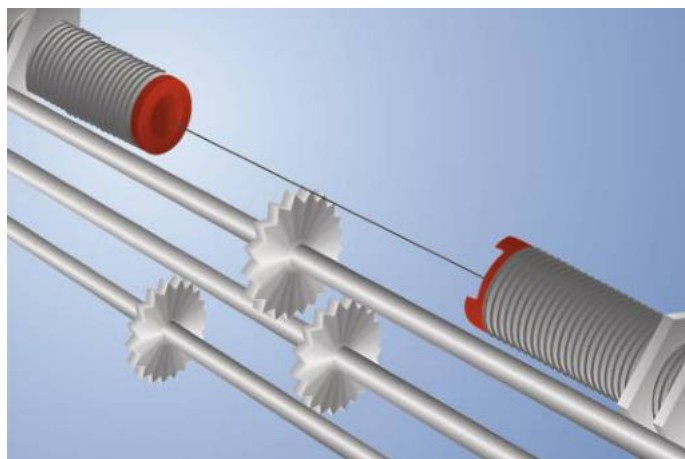
LASER

Part Number



- Smallest recognizable part: 0,25 mm
- Special coated optics
- Teach-in
- Time delay

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

Smallest Recognizable Part	250 µm
Switching Hysteresis	< 15 %
Light Source	Laser (red)
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Max. Ambient Light	10000 Lux
Opening Angle	12 °

Electrical Data

Sensor Type	Receiver
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 15 mA
Switching Frequency	3 kHz
Response Time	166 µs
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2,5 V
Switching Output/Switching Current	200 mA
Short Circuit and Overload Protection	yes
Reverse Polarity Protection	yes
Teach Mode	NT, MT
Protection Class	III

Mechanical Data

Setting Method	Teach-In
Housing Material	Stainless Steel
Coated Optics	yes
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin

Safety-relevant Data

MTTFd (EN ISO 13849-1)	2409,91 a
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Contamination Output

PNP NC

Connection Diagram No.

Control Panel No.

Suitable Connection Equipment No.

Suitable Mounting Technology No.

154

D7

2

150

Suitable Emitter

OSD124Z0003

OSD404Z0003

Complementary Products

Dust Extraction Tube STAUBTUBUS-01

Lens LA7

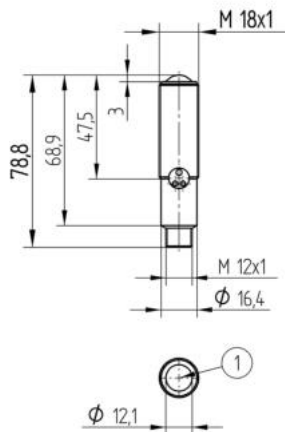
PNP-NPN Converter BG2V1P-N-2M

Ctrl. Panel

D7



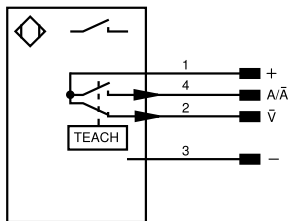
01 = Switching Status Indicator
02 = Contamination Warning
06 = Teach Button



1 = Receiver Diode
All dimensions in mm (1 mm = 0.03937 Inch)



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Legend							
+	Supply Voltage +	nc	Not connected	ENBRS422	Encoder B/B (TTL)		
-	Supply Voltage 0 V	U	Test Input	ENA	Encoder A		
~	Supply Voltage (AC Voltage)	Ü	Test Input inverted	ENB	Encoder B		
A	Switching Output (NO)	W	Trigger Input	AMIN	Digital output MIN		
Ä	Switching Output (NC)	W-	Ground for the Trigger Input	AMAX	Digital output MAX		
V	Contamination/Error Output (NO)	O	Analog Output	AOK	Digital output OK		
V	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY In	Synchronization In		
E	Input (analog or digital)	BZ	Block Discharge	SY OUT	Synchronization OUT		
T	Teach Input	Amv	Valve Output	OLT	Brightness output		
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance		
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved		
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757			
TxD	Interface Send Path	SY-	Ground for the Synchronization	BK	Black		
RDY	Ready	E+	Receiver-Line	BN	Brown		
GND	Ground	S+	Emitter-Line	RD	Red		
CL	Clock	±	Grounding	OG	Orange		
E/A	Output/Input programmable	SnR	Switching Distance Reduction	YE	Yellow		
IO-Link	IO-Link	Rx+/-	Ethernet Receive Path	GN	Green		
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path	BU	Blue		
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	VT	Violet		
OSSD	Safety Output	La	Emitted Light disengageable	GY	Grey		
Signal	Signal Output	Mag	Magnet activation	WH	White		
BL_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink		
ENo RS422	Encoder 0-pulse 0/Ü (TTL)	EDM	Contact Monitoring	GNYE	Green/Yellow		
PT	Platinum measuring resistor	ENARIS422	Encoder A/A (TTL)				