

Through-Beam Sensor

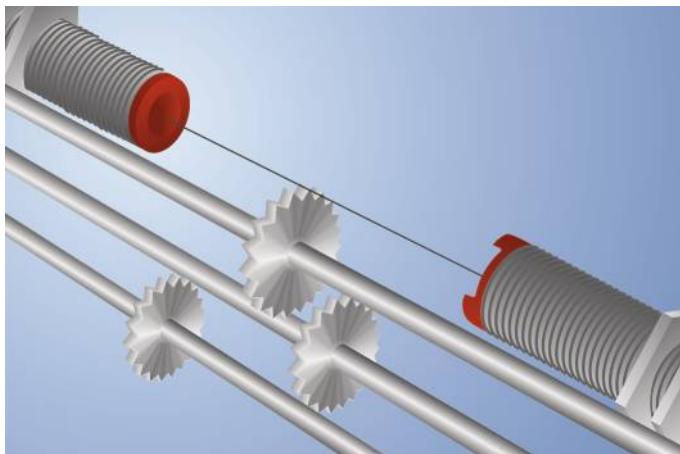
OED000C0003 LASER

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 μ m
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 (U _b = 24 V)	< 15 mA
Switching Frequency	3 kHz
Response Time	166 μ s
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 \times 1; 4-pin

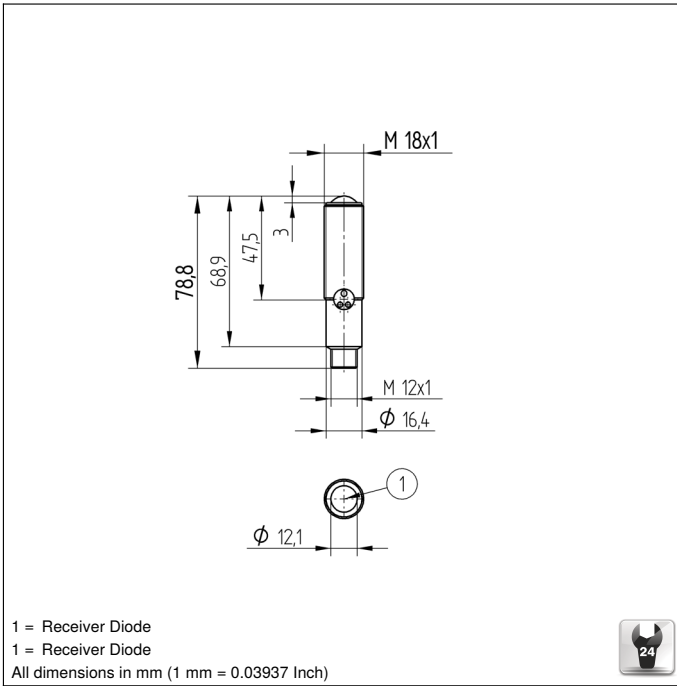
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	2409,91 a
Contamination Output	●
PNP NO/NC switchable	●
Connection Diagram No.	154
Control Panel No.	D7
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	150

Suitable Emitter

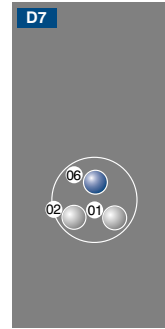
OSD124Z0003
OSD404Z0003

Complementary Products

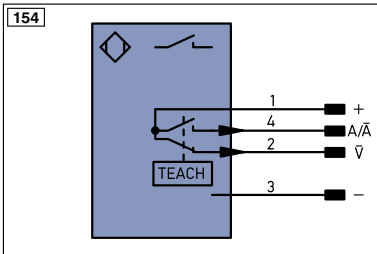
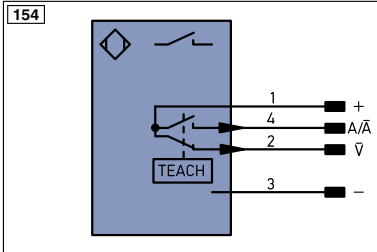
Dust Extraction Tube STAUBTUBUS-01
Lens LA7
PNP-NPN Converter BG2V1P-N-2M



Ctrl. Panel



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



Legend

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

