

Fiber-Optic Cable Sensor

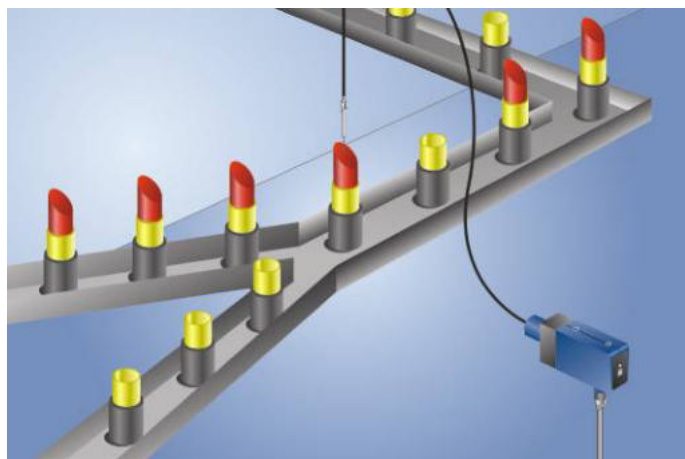
OUM502C0002

Part Number



- Compact housing
- IO-Link interface
- Teach-in, external teach-in

These sensors are equipped for use with glass fiber optic cables but can be used with or without one. The transmitter and receiver are located in a single housing. The sensor evaluates transmitted light reflected back from the object and the output is switched as soon as an object passes the selected range. Bright objects reflect more light than dark objects, and can thus be recognized from greater distances.



Technical Data

Optical Data

Range	500 mm
Switching Hysteresis	< 10 %
Light Source	Infrared Light
Wavelength	875 nm
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Opening Angle	12 °

Electrical Data

Supply Voltage	18...30 V
Current Consumption (U _b = 24 V)	< 30 mA
Switching Frequency	2500 Hz
Response Time	200 µs
On-/Off-Delay	0...60 s
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	100 mA
Residual Current Switching Output	< 50 µA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Teach Mode	NT, MT
Interface	IO-Link V1.0
Protection Class	III

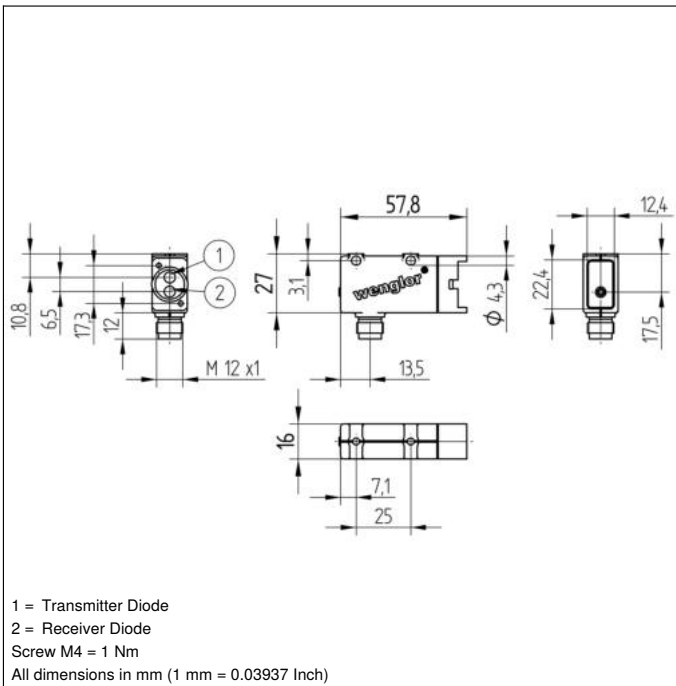
Mechanical Data

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

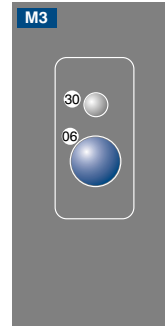
IO-Link	●
PNP NO/NC switchable	●
Connection Diagram No.	179
Control Panel No.	M3
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	360
Suitable Fiber-Optic Cable Adapter No.	02

Complementary Products

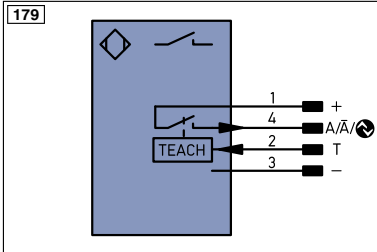
Glass Fiber-Optic Cable
IO-Link Master
PNP-NPN Converter BG2V1P-N-2M
Software



Ctrl. Panel



06 = Teach Button
30 = Switching Status/Contamination Warning



Legend

+	Supply Voltage +	PT	Platinum measuring resistor	ENAR5422	Encoder A/Ä (TTL)
-	Supply Voltage 0 V	nc	not connected	ENB5422	Encoder B/B (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	ENa	Encoder A
A	Switching Output (NO)	Ü	Test Input inverted	ENb	Encoder B
Ä	Switching Output (NC)	W	Trigger Input	AMIN	Digital output MIN
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input	AMAX	Digital output MAX
Ṽ	Contamination/Error Output (NC)	O	Analog Output	AOK	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)	AMV	Valve Output	OLt	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	IO-Link	SnR	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	La	Emitted Light disengageable	GY	Grey
BL-D+/-	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation	WH	White
EN05422	Encoder 0-pulse 0-0 (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contactor Monitoring	GNYE	Green/Yellow