

Retro-Reflex Sensor

Universal

OLM104A0002

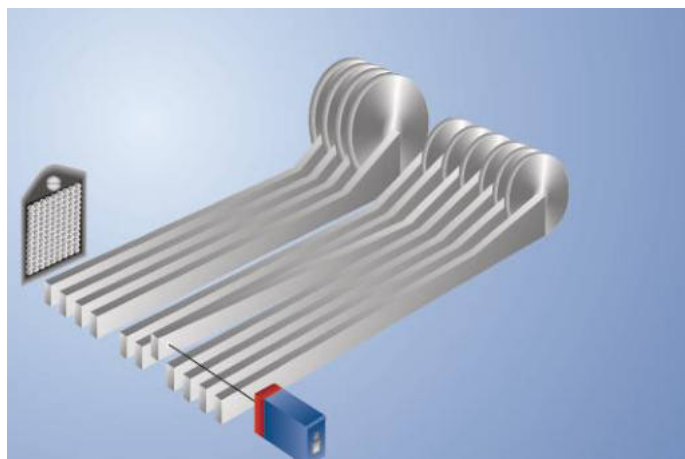
LASER

Part Number



- Smallest recognizable part: 2,5 mm
- Special coated optics
- Switching frequency: 500 Hz
- Time delay

A reflector must be used in combination with these sensors. They can be installed in all kinds of industrial environments thanks to ample functional reserve. Even reflective objects can be reliably recognized through the use of polarized light.

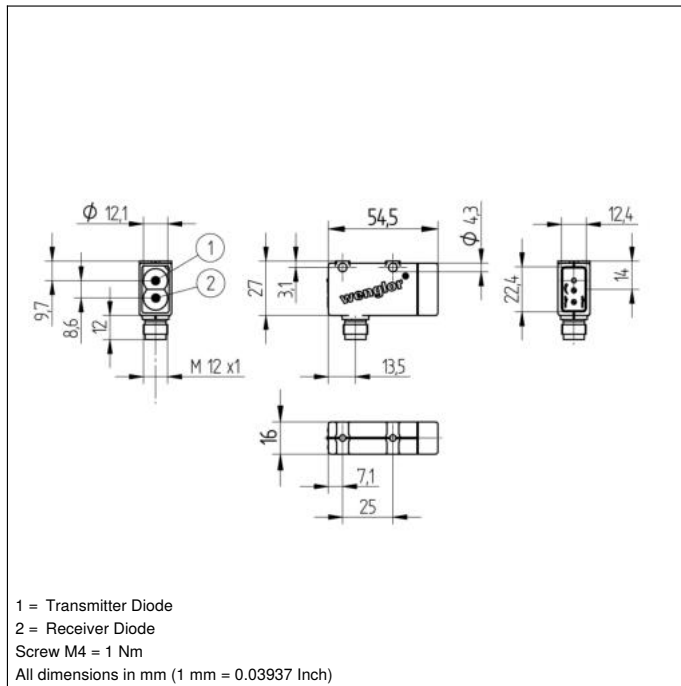


Technical Data

Optical Data	
Range	10000 mm
Reference Reflector/Reflector Foil	RQ100BA
Min. Distance to Reflector	100 mm
Smallest Recognizable Part	> 2500 μ m
Switching Hysteresis	< 15 %
Light Source	Laser (red)
Wavelength	670 nm
Polarization Filter	yes
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Max. Ambient Light	10000 Lux
Opening Angle	0,6 °
Light Spot Diameter	see Table
Two-Lens Optic	yes
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 30 mA
Switching Frequency	500 Hz
Response Time	1 ms
Off-Delay	20 ms
Temperature Drift	< 10 %
Temperature Range	-10...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Protection Class	III
FDA Accession Number	1120740-000
Mechanical Data	
Setting Method	Potentiometer
Housing Material	Plastic
Coated Optics	yes
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
PNP NO/NC antivalent	●
Connection Diagram No.	101
Control Panel No.	M6
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	360

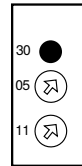
Complementary Products

PNP-NPN Converter BG2V1P-N-2M
Protective Housing ZSV-0x-01
Reflector, Reflector Foil
Set Protective Housing ZSM-NN-02

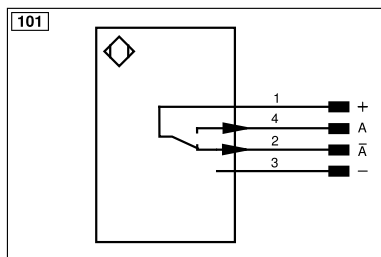


Ctrl. Panel

M6



05 = Switching Distance Adjuster
11 = ON-Delay/OFF-Delay Adjuster
30 = Switching Status/Contamination Warning



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

Table 1

Working Distance	0,2 m	5 m	10 m
Light Spot Diameter	5 mm	35 mm	70 mm

Feasible reflector distance

Reflector type, mounting distance

RQ100BA	0,1...10 m	RR25KP	0,15...2 m
RE18040BA	0,15...8 m	RR21_M	0,2...3 m
RQ84BA	0,1...9 m	ZRAE02B01	0,1...2,5 m
RR84BA	0,1...9 m	ZRME01B01	0,1...1,5 m
RE9538BA	0,1...4 m	ZRME03B01	0,15...5,5 m
RE6151BM	0,15...9 m	ZRMR02K01	0,15...2 m
RE6151BH	0,1...3,5 m	ZRMS02_01	0,2...2,5 m
RR50_A	0,1...9 m	RF505	0,2...1,7 m
RE6040BA	0,1...10 m	RF255	0,2...1,5 m
RE8222BA	0,1...6 m	RF508	0,2...1,7 m
RR34_M	0,2...6 m	RF258	0,2...1,5 m
RE3220BM	0,2...4 m	ZRAF07K01	0,2...1,5 m
RE6210BM	0,25...3 m	ZRAF08K01	0,2...1,7 m
RR25_M	0,2...5 m	ZRDF_K01	0,15...8 m

