

# Retro-Reflex Sensor



## OLM104A0002

Part Number



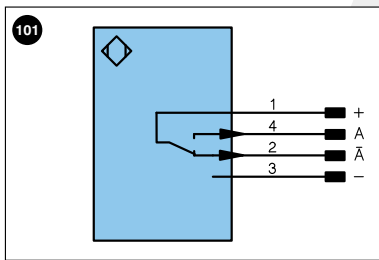
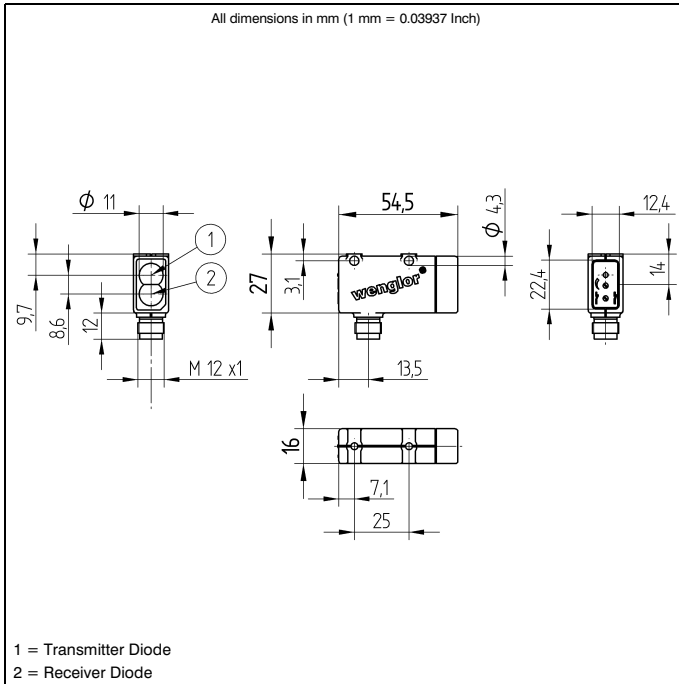
- **Smallest Recognizable Part: 2.5 mm**
- **Special Coated Optic**
- **Switching Frequency: 500 Hz**
- **Time Delay**

### Technical Data

Optical Data	
Range	10000 mm
Reference Reflector/Reflex Foil	RQ100BA
max. Distance on Reflector	100 mm
Smallest Recognizable Part	> 2500 μm
Switching Hysteresis	< 15 %
Light Source	Laser (red)
Wave Length	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 °
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U <sub>b</sub> = 24V)	< 30 mA
Switching Frequency	500 Hz
Response Time	1 ms
Off-Delay	5 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
Mechanical Data	
Housing	Plastic
Full Encapsulation	yes
Degree of Protection	IP 67
Connection	M12 x 1
Protective Insulation, Rated Voltage	50 V
PNP NO/NC antivalent	●
Connection Diagram No.	101
Control Panel No.	M 6
Suitable Plug No.	2

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.



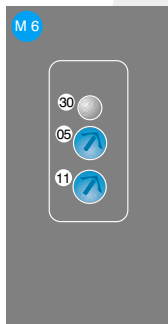


Legend		Wire colors according to DIN IEC 757
+	Power supply "+"	BK black
-	Power supply "0V"	BN brown
~	Power supply (AC Voltage)	RD red
A	Switching output (1,2,3...) / NO	OG orange
A̅	Switching output (1,2,3...) / NC	YE yellow
V	Contamination / Error output (NO)	GN green
V̅	Contamination / Error output (NC)	BU blue
E	Input (analog or digital)	VT violet
T	Teach input	GY grey
Z	Time delay (activation)	WH white
S	Shielding	PK pink
RxD	RS-232 receive path	GNYE green yellow
TxD	RS-232 send path	
RDY	Ready	
GND	Ground	
CL	Clock	
E/A	Output/Input programmable	
U	Test input	
U̅	Test input inverted	
W	Trigger input	
O	Analog output (1,2,3...)	
O-	Ground for the analog output	
BZ	Block discharge	
AWV	Valve output	
a	Valve control output "+"	
b	Valve control output "0V"	
SY	Synchronization	
E+	Receiver-Line	
S+	Emitter-Line	
±	Grounding	
SnR	Switching Distance Reduction	
USBD+	USB data +	
USBD-	USB data -	
Bus	Interfaces-Bus A(+)/B(-)	
La	Emitted light disengageable	

## Accessories

Mounting Bracket WM2
Reflector, Reflector Sheet

## Ctrl. Panel



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

Table 1

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

## Feasible reflector distance

Reflektor type, mounting distance

RQ100BA	0,1...10 m	RR34_M	0,2...6 m
RE18040BA	0,15...8 m	RE3220BM	0,2...4 m
RQ84BA	0,1...9 m	RE6210BM	0,25...3 m
RR84BA	0,1...9 m	RR25DM	0,2...5 m
RE9538BA	0,1...4 m	RR25KP	0,15...2 m
RE6151BM	0,15...9 m	RR21KM	0,2...3 m
RR50_A	0,1...9 m	RE6151BH	0,1...3,5 m
RE6040BA	0,1...10 m	RF508	0,2...1,7 m
RE8222BA	0,1...6 m	RF258	0,2...1,5 m