

Retro-Reflex Sensor

OLWK503A0002

Part Number

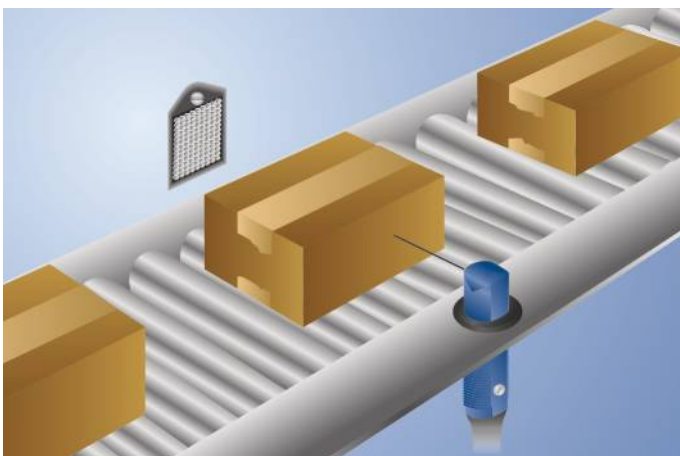


- Clever inclusive mounting technology
- Glossy objects can be detected
- Minimal installation space
- Simple installation
- Switching distance adjuster

Technical Data

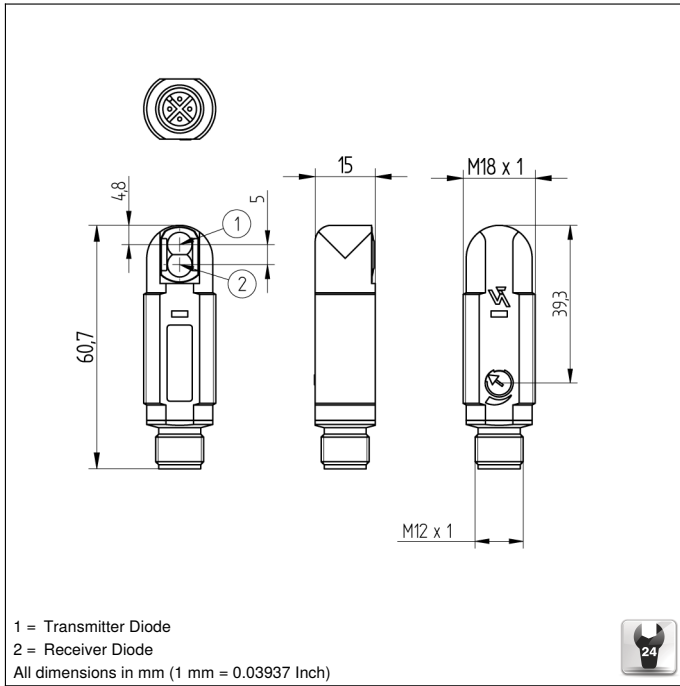
Optical Data	
Range	5000 mm
Reference Reflector/Reflector Foil	RQ100BA
Switching Hysteresis	< 15 %
Light Source	Red Light
Polarization Filter	yes
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Opening Angle	5 °
Light Spot Diameter	see Table 1
Two-Lens Optic	yes
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 30 mA
Switching Frequency	700 Hz
Response Time	714 μs
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	200 mA
Residual Current Switching Output	< 50 μA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Setting Method	Potentiometer
Housing Material	Plastic
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Scope of delivery	Mounting Console
PNP NO/NC antivalent	●
Connection Diagram No.	101
Control Panel No.	DK1
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	150

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.

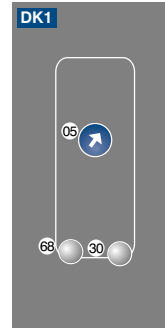


Complementary Products

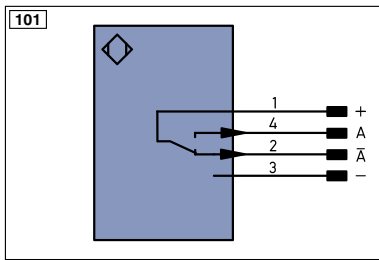
PNP-NPN Converter BG2V1P-N-2M
Reflector, Reflector Foil



Ctrl. Panel



05 = Switching Distance Adjuster
 30 = Switching Status/Contamination Warning
 68 = Supply Voltage Indicator



Legend					
+	Supply Voltage +	PT	Platinum measuring resistor	EN ^{0..542z}	Encoder A/ \bar{A} (TTL)
-	Supply Voltage 0 V	nc	not connected	EN ^{B0..542z}	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)	A _{MV}	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 _{nR}	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..542z}	Encoder 0-pulse 0-0 (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contactur Monitoring	GNVE	Green/Yellow

Table 1

Working Distance	0,2 m	0,5 m	5 m
Light Spot Diameter	17 mm	35 mm	330 mm

Feasible reflector distance

Reflector type, mounting distance

RQ100BA	0,01...5 m	RR21_M	0,01...1,1 m
RE18040BA	0,01...4,5 m	ZRAE02B01	0,01...2,2 m
RQ84BA	0,01...4,5 m	ZRDS01R01	0,05...0,8 m
RR84BA	0,01...4,5 m	ZRME01B01	0,01...0,5 m
RE9538BA	0,01...2,2 m	ZRME03B01	0,01...2,5 m
RE6151BM	0,01...4,3 m	ZRMR02K01	0,01...0,7 m
RR50_A	0,01...3,5 m	ZRMS02_01	0,01...1 m
RE6040BA	0,01...4 m	RF505	0,05...1,5 m
RE8222BA	0,01...2,6 m	RF508	0,05...1,5 m
RR34_M	0,01...2,5 m	RF258	0,05...1,1 m
RE3220BM	0,01...1,5 m	ZRAF07K01	0,05...1,1 m
RE6210BM	0,01...1 m	ZRAF08K01	0,05...1,5 m
RR25_M	0,01...1,3 m	ZRDF03K01	0,04...3,4 m
RR25KP	0,04...0,8 m	ZRDF10K01	0,04...4,5 m

