

Retro-Reflex Sensor

LK89PD8

Part Number

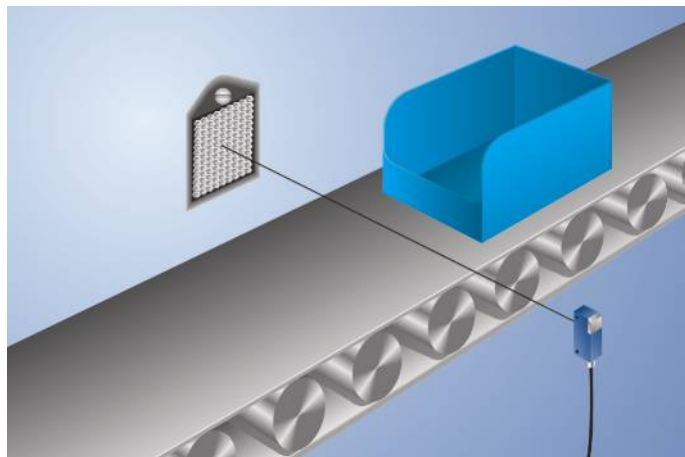


- Metal plug
- Miniature design
- Red light

Technical Data

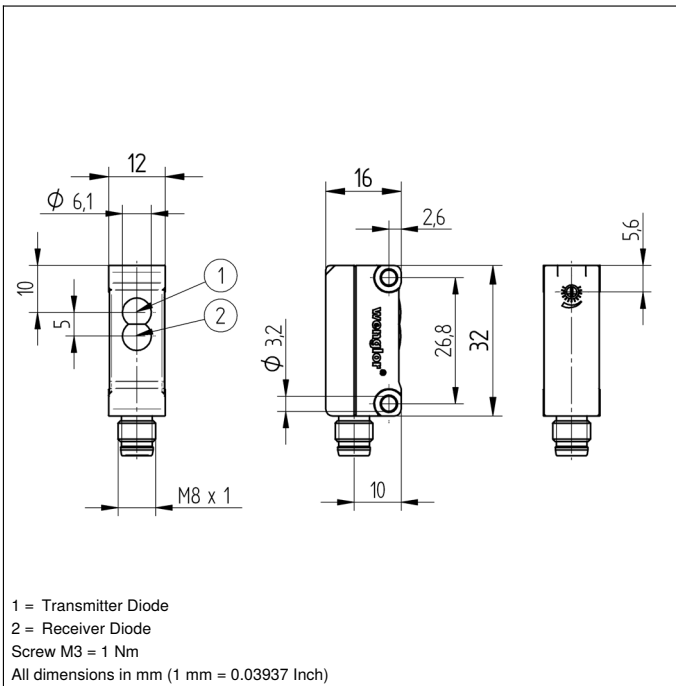
Optical Data	
Range	4500 mm
Reference Reflector/Reflex Foil	RQ100BA
Switching Hysteresis	< 15 %
Light Source	Red Light
Polarization Filter	yes
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Opening Angle	5 °
Spot Diameter	see Table 1
Two-Lens Optic	yes
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 30 mA
Switching Frequency	1 kHz
Response Time	500 μs
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
Protection Class	III
Mechanical Data	
Setting Method	Potentiometer
Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M8 × 1; 3-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	2428,17 a
PNP NC	●
Connection Diagram No.	109
Control Panel No.	K4
Suitable Connection Technology No.	8
Suitable Mounting Technology No.	400

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.

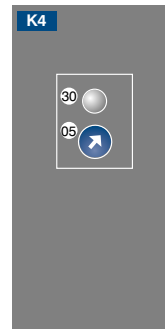


Complementary Products

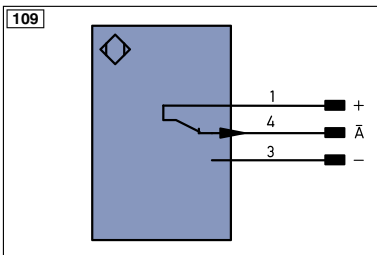
PNP-NPN Converter BG8V1P-N-2M
Reflector, Reflex Foil



Ctrl. Panel



05 = Switching Distance Adjuster
30 = Switching Status/Contamination Warning



Legend

+	Supply Voltage +	PT	Platinum measuring resistor	ENa	Encoder A
-	Supply Voltage 0 V	nc	not connected	ENb	Encoder B
~	Supply Voltage (AC Voltage)	U	Test Input	Am N	Digital output MIN
A	Switching Output (NO)	U	Test Input inverted	Amax	Digital output MAX
Ā	Switching Output (NC)	W	Trigger Input	Aok	Digital output OK
V	Contamination/Error Output (NO)	O	Analog Output	SY In	Synchronization In
Ȳ	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY OUT	Synchronization OUT
E	Input (analog or digital)	BZ	Block Discharge	Out	Brightness output
T	Teach Input	AWV	Valve Output		
Z	Time Delay (activation)	a	Valve Control Output +		Wire Colors according to DIN IEC 757
S	Shielding	b	Valve Control Output 0 V	BK	Black
RxD	Interface Receive Path	SY	Synchronization	BN	Brown
TxD	Interface Send Path	E+	Receiver-Line	RD	Red
RDY	Ready	S+	Emitter-Line	OG	Orange
GND	Ground	±	Grounding	YE	Yellow
CL	Clock	SrR	Switching Distance Reduction	GN	Green
E/A	Output/Input programmable	Rx +/-	Ethernet Receive Path	BU	Blue
	IO-Link	Tx +/-	Ethernet Send Path	VT	Violet
PoE	Power over Ethernet	Bae	Interfaces-Bus A(+)/B(-)	GY	Grey
IN	Safety Input	La	Emitted Light disengageable	WH	White
OSSD	Safety Output	Mag	Magnet activation	PK	Pink
Signal	Signal Output	RES	Input confirmation	GNYE	Green Yellow
M	Maintenance	EDM	Contacting Monitoring		

Table 1

Working Distance	0,2 m	0,5 m	4 m
Spot Diameter	14 mm	40 mm	250 mm

Feasible reflector distance

Reflector type, mounting distance

RQ100BA	0,02...4,5 m	RR25_M	0,015...1,1 m
RE18040BA	0,04...3,5 m	RR25KP	0,04...0,8 m
RQ84BA	0,02...4 m	RR21_M	0,02...1,1 m
RR84BA	0,03...4 m	ZRAE02B01	0,03...1,6 m
RE9538BA	0,03...2 m	ZRME01B01	0,04...0,5 m
RE6151BM	0,01...4 m	ZRME03B01	0,03...1,6 m
RR50_A	0,02...2,8 m	ZRMR02K01	0,03...0,6 m
RE6040BA	0,015...3,2 m	ZRMS02_01	0,03...0,7 m
RE8222BA	0,01...2,1 m	RF505	0,06...1,1 m
RR34_M	0,02...1,6 m	RF508	0,06...1,3 m
RE3220BM	0,015...1,5 m	RF258	0,06...1,1 m
RE6210BM	0,01...1 m	ZRDF_K01	0,06...2,5 m

