

# LK89PA

Part Number



- Miniature Design
- Red Light

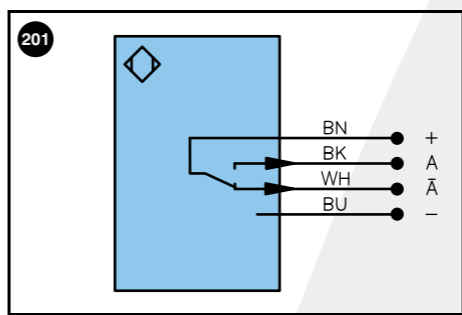
### Technical Data

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 °
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U <sub>b</sub> = 24V)	< 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
Mechanical Data	
Housing	Plastic
Full Encapsulation	yes
Protection Mode	IP 67
Connection	Prewired
Cabel Length	2 m
Protective Insulation, Rated Voltage	50 V

	Prewired Version
Part Number	LK89PA
PNP NO/NC antivalent	●
Connection Diagram No.	201
Control Panel No.	K 4

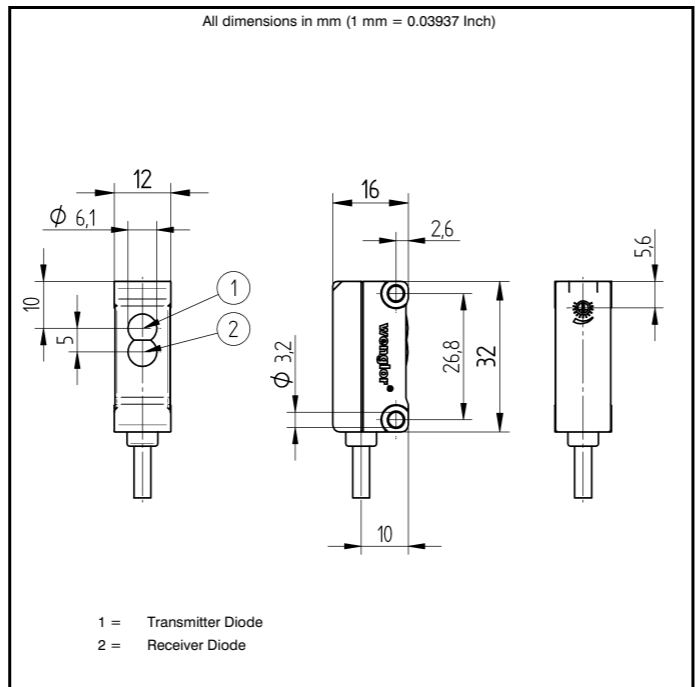
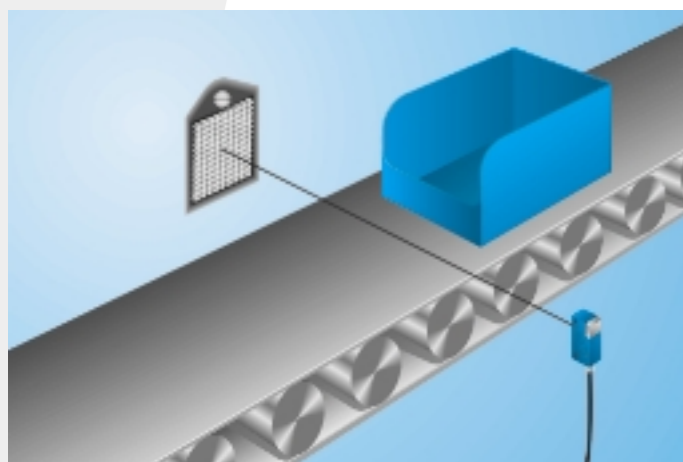
Table 1

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



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
Ā	Switching output (1,2,3... / NC)	YE yellow
V	Contamination / Error output (NO)	GN green
Ṽ	Contamination / Error output (NC)	BU blue
E	Input (analog or digital)	a Valve control output "+"
T	Teach input	b Valve control output "0V"
Z	Time delay (activation)	SY Synchronization
S	Shielding	E+ Receiver-Line
RxD	RS-232 receive path	S+ Emitter-Line
TxD	RS-232 send path	± Grounding
RDY	Ready	S+R Switching Distance Reduction
GND	Ground	USB+ USB data +
CL	Clock	USB- USB data -
		Ba Interfaces-Bus A(+)/B(-)
		La Emitted light disengageable
		U Test input
		W Trigger input
		O Analog output (1,2,3...)
		O- Ground for the analog output
		BZ Block discharge
		Aw Valve output
		Y Valve control output "+"
		VT violet
		GY grey
		WH white
		PK pink
		GNYE green yellow

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.

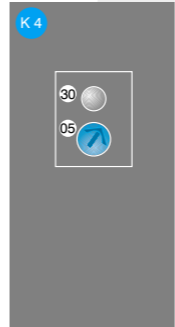


Specifications are subject to change without notice  
27/06

### Accessories

- Mounting Bracket WK
- Reflector, Reflector Sheet

### Ctrl. Panel



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

### Feasible reflector distance

Reflektor type, mounting distance			
RQ100BA	0.02...4.5 m	RE3220BM	0.015...1.5 m
RE18040BA	0.04...3.5 m	RE6210BM	0.01...1 m
RQ84BA	0.02...4 m	RR25DM	0.015...1.1 m
RR84BA	0.03...4 m	RR25KP	0.04...0.8 m
RE9538BA	0.03...2 m	RR21KM	0.02...1.1 m
RE6151BM	0.01...4 m	RE6151BH	0.025...1.9 m
RR50_A	0.02...2.8 m	RF505	0.06...1.1 m
RE6040BA	0.015...3.2 m	RF255	0.06...0.9 m
RE8222BA	0.01...2.1 m	RF508	0.06...1.3 m
RR34_M	0.02...1.6 m	RF258	0.06...1.1 m