

Retro-Reflex Sensor



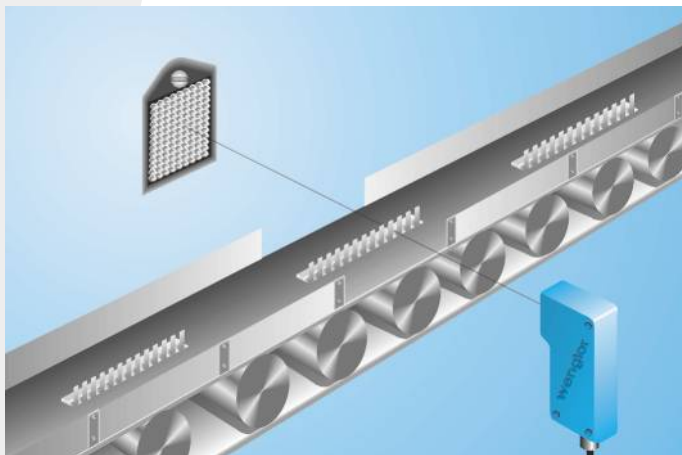
XN96PA3 LASER

Part Number



- Min. clearance to reflector: 0 mm
- Single-Lens Optic
- Smallest Recognizable Part: 0,25 mm
- Stainless Steel Plug (V2A)

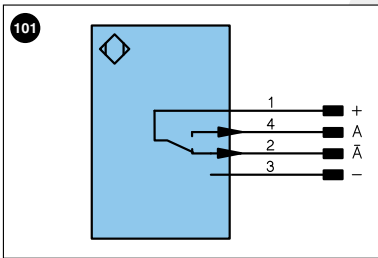
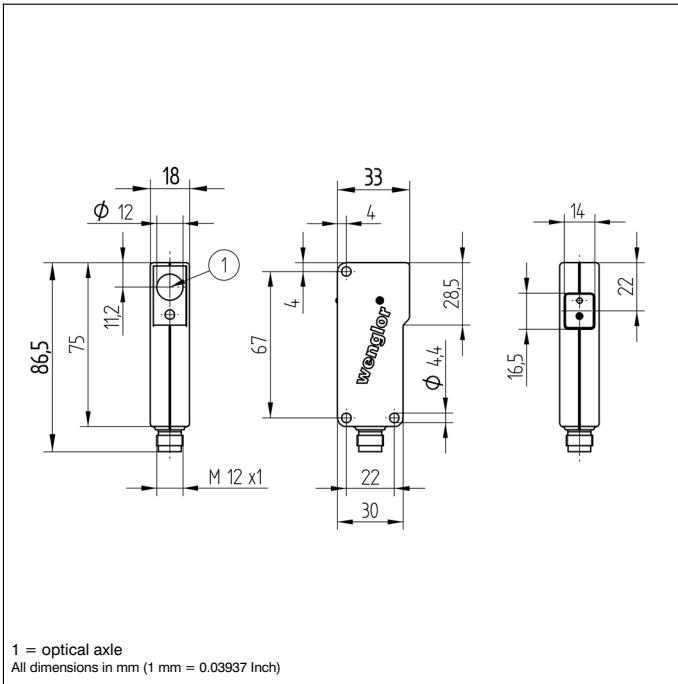
A reflector must be used in combination with these sensors. They can be installed in all kinds of industrial environments thanks to ample functional reserve. Even reflective objects can be reliably recognized through the use of polarized light.



Technical Data

Optical Data	
Range	9500 mm
Reference Reflector/Reflex Foil	RQ100BA
Min. Distance to Reflector	0 mm
Smallest Recognizable Part	> 250 μ m
Switching Hysteresis	< 15 %
Light Source	Laser (red)
Wave Length	650 nm
Polarization Filter	yes
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	2
Max. Ambient Light	10000 Lux
Opening Angle	0,6 °
Light Spot Diameter	see Table 1
Single-Lens Optic	yes
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 30 mA
Switching Frequency	2500 Hz
Response Time	200 μ s
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 μ A
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 \times 1; 4-pin
PNP NO/NC antivalent	●
Connection Diagram No.	101
Control Panel No.	N 1 No1
Suiting Connection Technology No.	2
Suiting Mounting Technology No.	950





Legend					
+	Supply Voltage +	U	Test Input	PeE	Power over Ethernet
-	Supply Voltage 0 V	Ū	Test Input inverted		
~	Supply Voltage (AC Voltage)	W	Trigger Input		
A	Switching Output (NO)	O	Analog Output		
Ā	Switching Output (NC)	O-	Ground for the Analog Output		Wire Colors according to DIN IEC 757
V	Contamination/Error Output (NO)	BZ	Block Discharge	BK	Black
V̄	Contamination/Error Output (NC)	AwV	Valve Output	BN	Brown
E	Input (analog or digital)	a	Valve Control Output +	RD	Red
T	Teach Input	b	Valve Control Output 0 V	OG	Orange
Z	Time Delay (activation)	SY	Synchronization	YE	Yellow
S	Shielding	E+	Receiver-Line	GN	Green
RxD	Interface Receive Path	S+	Emitter-Line	BU	Blue
TxD	Interface Send Path	±	Grounding	VT	Violet
RDY	Ready	SnR	Switching Distance Reduction	GY	Grey
GND	Ground	Rx +/-	Ethernet Receive Path	WH	White
CL	Clock	Tx +/-	Ethernet Send Path	PK	Pink
E/A	Output/Input programmable	Bus	Interfaces-Bus A(+)/B(-)	GNYE	Green Yellow
	IO-Link	La	Emitted Light disengageable		

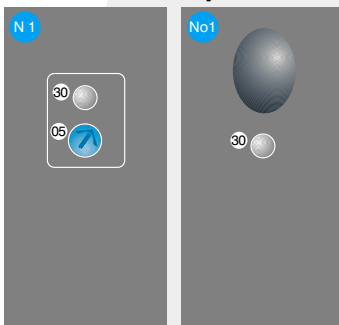
Complementary Products

Dust extraction tube STAUBTUBUS-03
Protection Housing Set ZSN-NN-02
Reflector, Reflex Foil

Table 1

Working Distance	0,2 m	3 m	6 m
Light Spot Diameter	3 mm	45 mm	90 mm

Ctrl.Panel Optic



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

Feasible reflector distance

Reflector type, mounting distance

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

Specifications are subject to change without notice