

Retro-Reflex Sensor



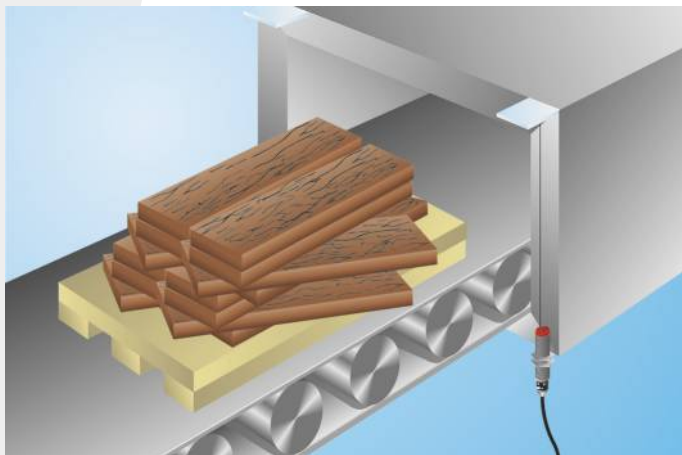
XD100PA3 LASER

Part Number



- Range: 14 m
- Smallest Recognizable Part: 0,1 mm
- Stainless Steel Housing
- Switching Frequency: 3 kHz

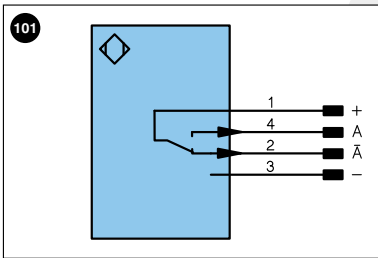
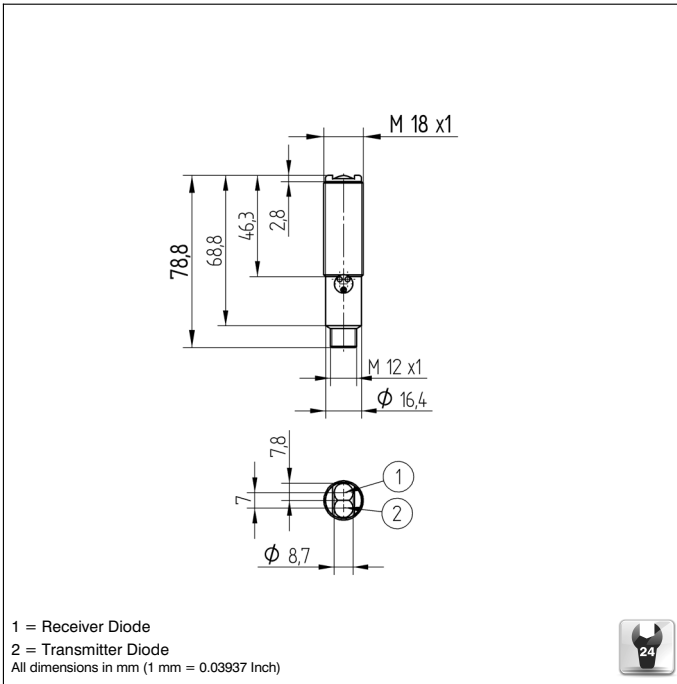
A reflector must be used in combination with these sensors. They can be installed in all kinds of industrial environments thanks to ample functional reserve. Even reflective objects can be reliably recognized through the use of polarized light.



Technical Data

Optical Data	
Range	14000 mm
Reference Reflector/Reflex Foil	RQ100BA
Smallest Recognizable Part	100 μm
Switching Hysteresis	< 15 %
Light Source	Laser (red)
Wave Length	655 nm
Polarization Filter	yes
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	2
Max. Ambient Light	10000 Lux
Opening Angle	1 °
Beam Divergence	< 15 mrad
Light Spot Diameter	see Table 1
Focus Distance	350 mm
Two-Lens Optic	yes
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 30 mA
Switching Frequency	3 kHz
Response Time	167 μs
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	Stainless Steel
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
PNP NO/NC antivalent	●
Connection Diagram No.	101
Control Panel No.	D 6
Suiting Connection Technology No.	2
Suiting Mounting Technology No.	150 160



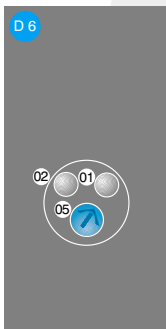


Legend					
+	Supply Voltage +	U	Test Input	PeE	Power over Ethernet
-	Supply Voltage 0 V	Ü	Test Input inverted		
~	Supply Voltage (AC Voltage)	W	Trigger Input		
A	Switching Output (NO)	O	Analog Output		
A̅	Switching Output (NC)	O-	Ground for the Analog Output		Wire Colors according to DIN IEC 757
V	Contamination/Error Output (NO)	BZ	Block Discharge	BK	Black
V̅	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-01
Reflector, Reflex Foil

Ctrl. Panel



- 01 = Switching Status Indicator
- 02 = Contamination Warning
- 05 = Switching Distance Adjuster

Table 1

Working Distance	0,2 m	5 m	10 m
Light Spot Diameter	2 mm	42,5 mm	85 mm

Feasible reflector distance

Reflector type, mounting distance

RQ100BA	0,6...14 m	RR25KP	0,3...2,5 m
RE18040BA	0,6...9,5 m	RR21_M	0,4...3 m
RQ84BA	0,75...11 m	ZRAE02B01	0,7...4,5 m
RR84BA	0,55...14 m	ZRME01B01	0,5...1,8 m
RE9538BA	0,55...5 m	ZRME03B01	0,5...5 m
RE6151BM	0,35...10 m	ZRMR02K01	0,5...2 m
RR50_A	0,65...9 m	ZRMS02_01	0,6...2,8 m
RE6040BA	0,5...11 m	RF505	0,6...1,6 m
RE8222BA	0,7...5,5 m	RF508	0,4...1,1 m
RR34_M	0,6...5,5 m	RF258	0,4...1,6 m
RE3220BM	0,55...3,5 m	ZRAF07K01	0,6...1,6 m
RE6210BM	0,45...3,5 m	ZRAF08K01	0,6...1,6 m
RR25_M	0,4...4,5 m	ZRDF_K01	0,4...7 m