

Retro-Reflex Sensor

Universal

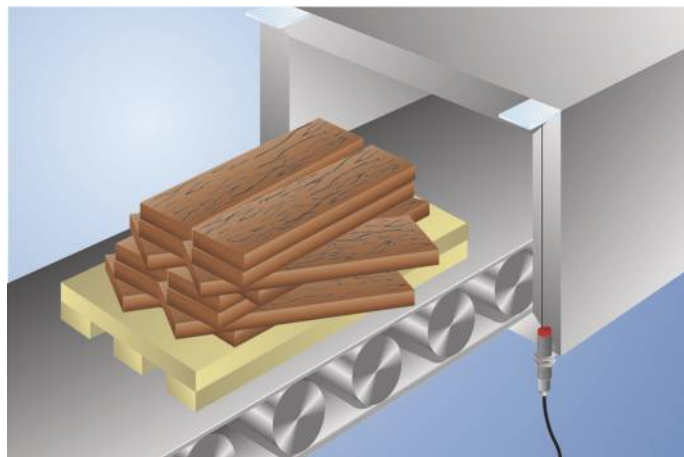
XD100PA3 LASER

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.

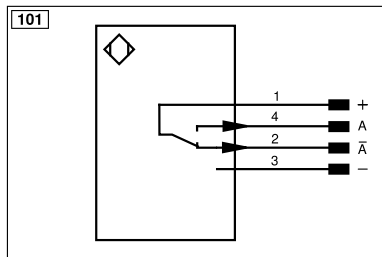


Technical Data

Optical Data	
Range	14000 mm
Reference Reflector/Reflector Foil	RQ100BA
Smallest Recognizable Part	100 μ m
Switching Hysteresis	< 15 %
Light Source	Laser (red)
Wavelength	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 μ s
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
FDA Accession Number	0820386-000
Mechanical Data	
Setting Method	Potentiometer
Housing Material	Stainless Steel
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 $\times$ 1; 4-pin
PNP NO/NC antivalent	●
Connection Diagram No.	101
Control Panel No.	D6
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	150

Complementary Products

Dust Extraction Tube STAUBTUBUS-01
PNP-NPN Converter BG2V1P-N-2M
Reflector, Reflector Foil



D6

 24

Legend					
+	Supply Voltage +	nc	Not connected	EN _B RS422	Encoder B/B̄ (TTL)
–	Supply Voltage 0 V	U	Test Input	EN _A	Encoder A
~	Supply Voltage (AC Voltage)	Ů	Test Input inverted	EN _B	Encoder B
A	Switching Output (NO)	W	Trigger Input	AMIN	Digital output MIN
Ā	Switching Output (NC)	W–	Ground for the Trigger Input	AMAX	Digital output MAX
V	Contamination/Error Output (NO)	O	Analog Output	AOK	Digital output OK
Ů	Contamination/Error Output (NC)	O–	Ground for the Analog Output	SY In	Synchronization In
E	Input (analog or digital)	BZ	Block Discharge	SY OUT	Synchronization OUT
T	Teach Input	AMV	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY–	Ground for the Synchronization		
RDY	Ready	E+	Receiver-Line	BN	Brown
GND	Ground	S+	Emitter-Line	RD	Red
CL	Clock	≡	Grounding	OG	Orange
E/A	Output/Input programmable	SnR	Switching Distance Reduction	YE	Yellow
	IO-Link	Rx+/-	Ethernet Receive Path	GN	Green
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path	BU	Blue
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	VT	Violet
OSSD	Safety Output	La	Emitted Light disengageable	GY	Grey
Signal	Signal Output	Mag	Magnet activation	WH	White
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink
EN ₀ RS422	Encoder 0-pulse 0/Ů (TTL)	EDM	Contactor Monitoring	GNYY	Green/Yellow
PT	Platinum measuring resistor	FN _{AC} RS422	Encoder A/Ā (TTI)		

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

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
RE6151BH	0,5...4,5 m	ZRMS02_01	0,6...2,8 m
RR50_A	0,65...9 m	RF505	0,6...1,6 m
RE6040BA	0,5...11 m	RF255	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