

Laser Distance Sensor

Triangulation

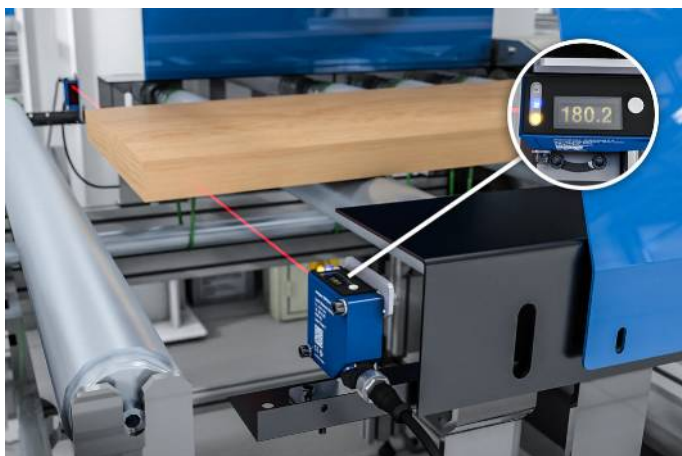
P3PC011

Part Number



- Analog output: 4...20 mA
- Graphical display for easy operation
- Measured value independent of material, color and brightness
- Rugged aluminium housing
- Wireless settings via Bluetooth

These laser distance sensors work with a fine red light beam and a high-resolution CMOS line. They determine the distance between the sensor and the object by means of the triangulation principle. Thanks to the integrated TripleA technology, the sensors offer high precision, temperature stability and material independence. This means they deliver accurate results even with objects of different materials, colors and shapes, as well as in fluctuating light and temperature conditions. Settings are entered via the easy-to-read OLED display or via Bluetooth using the weCon app.



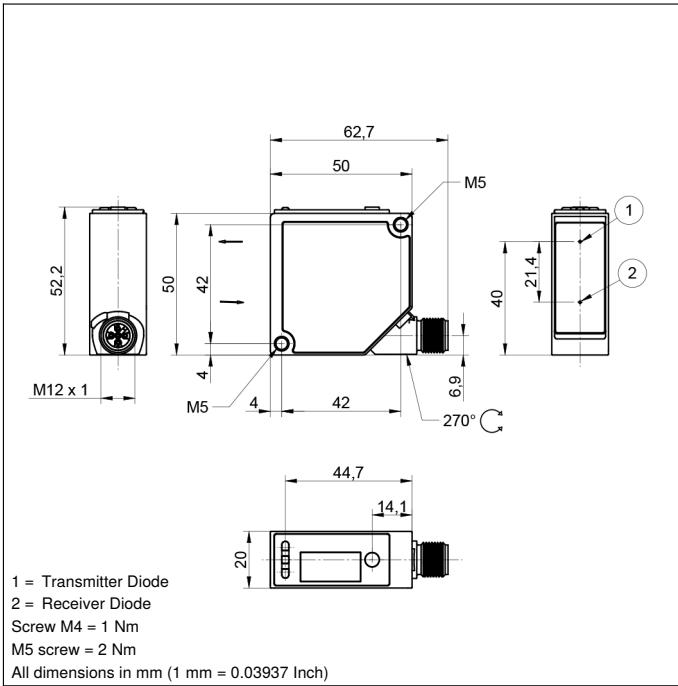
Technical Data

Optical Data	
Working Range	30...80 mm
Measuring Range	30...80 mm
Reproducibility maximum	13 μ m
Reproducibility: 1 Sigma	0,8 μ m
Linearity Deviation	40 μ m
Light Source	Laser (red)
Wavelength	655 nm
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Max. Ambient Light	20000 Lux
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption (U _b = 24 V)	< 60 mA
Measuring Rate	2500 /s
Response Time	< 0,5 ms
Temperature Drift	< 2,5 μ m/K
Temperature Range	-30...60 °C
Analog Output	4...20 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Interface	IO-Link V1.1
IO-Link Version	1.1
IO-Link transmission speed	COM3
Protection Class	III
FDA Accession Number	2310674-000
Mechanical Data	
Setting Method	(OLED)/Bluetooth menu
Housing Material	Aluminum, anodised
Housing Material	Plastic, ABS
Degree of Protection	IP67
Connection	M12 x 1; 5-pin
Optic Cover	Plastic, PMMA
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	408,4 a
Error Output	●
Analog Output	●
IO-Link	●
Connection Diagram No.	242
Control Panel No.	X6
Suitable Connection Equipment No.	2 35
Suitable Mounting Technology No.	380

Display brightness may decrease with age. This does not result in any impairment of the sensor function.

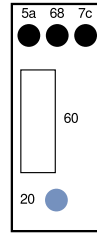
Complementary Products

IO-Link Master
Protective Screen
Software

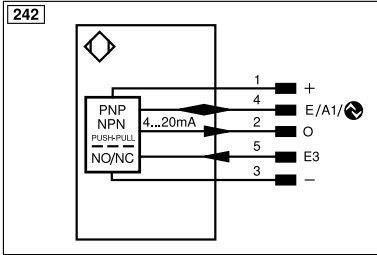


Ctrl. Panel

X6



- 20 = Enter key
- 5a = Switching Status Indicator, A1
- 60 = display
- 68 = Power LED
- 7c = Analog Output Indicator, O



Legend	
+	Supply Voltage +
-	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
Ā	Switching Output (NC)
V	Contamination/Error Output (NO)
ȳ	Contamination/Error Output (NC)
E	Input (analog or digital)
T	Teach Input
Z	Time Delay (activation)
S	Shielding
RxD	Interface Receive Path
TxD	Interface Send Path
RDY	Ready
GND	Ground
CL	Clock
E/A	Output/Input programmable
	IO-Link
PoE	Power over Ethernet
IN	Safety Input
OSSD	Safety Output
Signal	Signal Output
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)
ENo RS422	Encoder 0-pulse 0/0 (TTL)
PT	Platinum measuring resistor
nc	Not connected
U	Test Input
Ū	Test Input inverted
W	Trigger Input
W-	Ground for the Trigger Input
O	Analog Output
O-	Ground for the Analog Output
BZ	Block Discharge
Amv	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
SY-	Ground for the Synchronization
E+	Receiver-Line
S+	Emitter-Line
±	Grounding
SnR	Switching Distance Reduction
Rx+/-	Ethernet Receive Path
Tx+/-	Ethernet Send Path
Bus	Interfaces-Bus A(+)/B(-)
La	Emitted Light disengageable
Mag	Magnet activation
RES	Input confirmation
EDM	Contactor Monitoring
ENARs422	Encoder A/Ā (TTL)
ENBRS422	Encoder B/Ĕ (TTL)
ENA	Encoder A
ENB	Encoder B
AMIN	Digital output MIN
AMAX	Digital output MAX
AOK	Digital output OK
SY In	Synchronization In
SY OUT	Synchronization OUT
OLT	Brightness output
M	Maintenance
rsv	Reserved
Wire Colors according to DIN IEC 60757	
BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
GNYE	Green/Yellow

Table 1

Working Distance	30 mm	55 mm	80 mm
Light Spot Diameter	1,5 mm	1,5 mm	1,5 mm

