Laser Distance Sensor
Long-Range
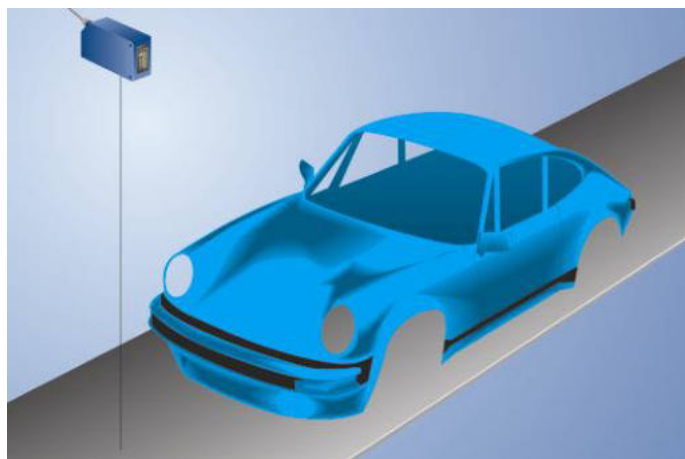
OY2TA104P0150E

Part Number

LASER

IndustrialEthernet **der win**tec.

- ● **Industrial Ethernet**
- ● **Reliable in case of glossy objects with wintec**
- ● **Secure detection of black objects also in extremely inclined positions with wintec**
- ● **Web server and graphic display for simple operation**

These sensors have scratch-resistant optics and the emitted light can be switched off. They use the transit time measurement principle to measure the distance between the sensor and the object.

Sensors with Industrial Ethernet make the analog and digital input cards at control units unnecessary, as all service and measurement data is read, analyzed and processed in the control unit in real time, without the need for conversion. Power over Ethernet connects data transfer and power supply in one cable and thus reduces the wiring effort.

Technical Data

Optical Data	
Working Range	0,1...10,1 mm
Reproducibility maximum	7 mm
Linearity Deviation	20 mm
Light Source	Laser (red)
Wavelength	660 nm
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Beam Divergence	< 2 mrad
Max. Ambient Light	5000 Lux
Light Spot Diameter	see Table 1
Electrical Data	
Port Type	100BASE-TX
PoE Class	1
Response Time	10 ms
Temperature Range	-25...50 °C
Reverse Polarity Protection	yes
Interface	EtherNet/IP™
Protection Class	III
Mechanical Data	
Setting Method	Menu (OLED)
Housing Material	Plastic
Degree of Protection	IP68
Connection	M12 × 1; 8-pin, X-cod.
Web server	yes
EtherNet/IP™	●

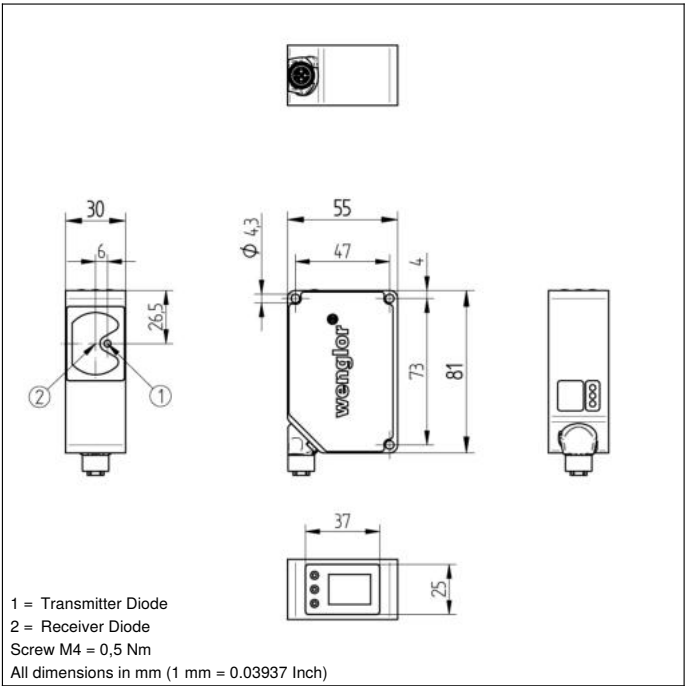|	
Connection Diagram No.	001
Control Panel No.	X2 T11
Suitable Connection Equipment No.	50
Suitable Mounting Technology No.	340

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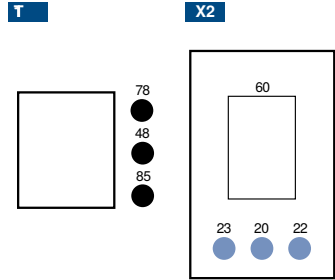
Complementary Products

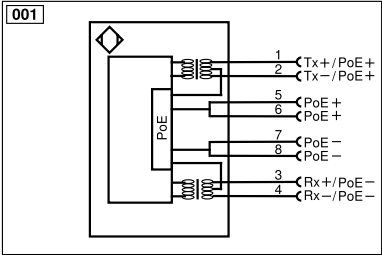| |
|---|
| Midspan Adapter Z0029 |
| Set Protective Housing ZST-NN-02 |
| Switch/Junction with PoE ZAC50xN0x |

Photoelectronic Sensors

1 = Transmitter Diode
2 = Receiver Diode
Screw M4 = 0,5 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

T **X2**

20 = Enter key
22 = Up key
23 = Down key
48 = Network Status
60 = display
78 = Module status
85 = Link/Act LED

001

1	Tx+/PoE+
2	Tx−/PoE+
5	PoE+
6	PoE+
7	PoE−
8	PoE−
3	Rx+/PoE−
4	Rx−/PoE−

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)	Ū	Test Input inverted	EN$_B$	Encoder B
A	Switching Output (NO)	W	Trigger Input	A$_{MIN}$	Digital output MIN
Ā	Switching Output (NC)	W–	Ground for the Trigger Input	A$_{MAX}$	Digital output MAX
V	Contamination/Error Output (NO)	O	Analog Output	A$_{OK}$	Digital output OK
V̄	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	A$_{MV}$	Valve Output	O$_{LT}$	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	BK	Black
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	ower 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 0/0̄ (TTL)	EDM	Contactor Monitoring	GNYE	Green/Yellow
PT	Platinum measuring resistor	EN$_{A RS422}$	Encoder A/Ā (TTL)		

Table 1

	0 m	10 m
Working Distance		
Light Spot Diameter	5 mm	< 20 mm

EAC CE LASER CLASS 1 EN 60825-1:2014 RoHS ⬦III c UL us LISTED IND. CONT. EQ 72HL / E188727 For use in class 2 circuits