

Through-Beam Sensor

ZW200PCT3 LASER

Part Number



- Smallest recognizable part: 0,25 mm
- Teach-in, external teach-in
- Time delay

These through-beam sensors are best suited for use in industrial environments. Thanks to their large working range, the devices demonstrate excellent functional reliability in highly contaminated environments. The sensors can be checked for correct functioning via the test input.



Technical Data

Optical Data

Range	20000 mm
Smallest Recognizable Part	250 μ m
Switching Hysteresis	< 15 %
Light Source	Laser (red)
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	2
Max. Ambient Light	10000 Lux
Opening Angle	12 °

Electrical Data

Sensor Type	Receiver
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 15 mA
Switching Frequency	3 kHz
Response Time	166 μ s
On-/Off-Delay (RS-232)	0...5 s
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2,5 V
Switching Output/Switching Current	200 mA
Short Circuit and Overload Protection	yes
Reverse Polarity Protection	yes
Lockable	yes
Teach Mode	NT, MT
Protection Class	III

Mechanical Data

Setting Method	Teach-In
Housing Material	Stainless Steel
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 $\times$ 1; 4-pin

Safety-relevant Data

MTTFd (EN ISO 13849-1)	2385,27 a
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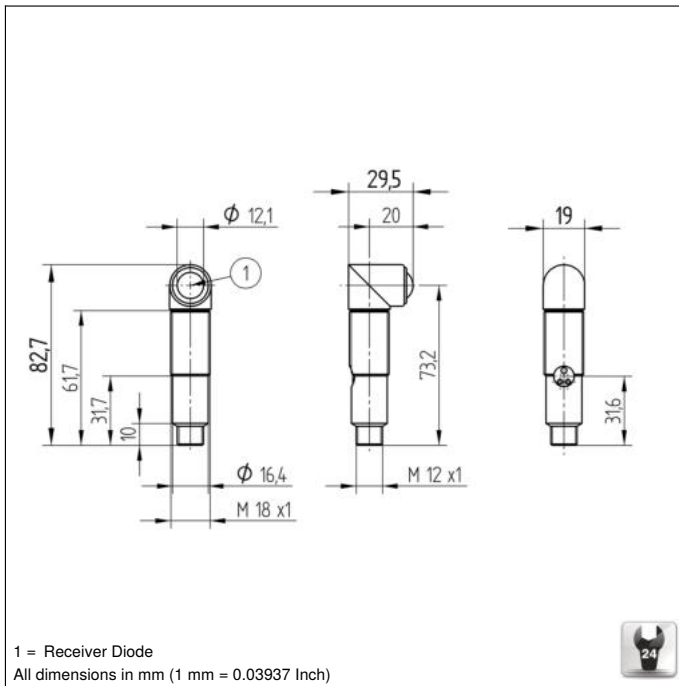
PNP NO/NC switchable	☒
RS-232 with Adapterbox	☒
Connection Diagram No.	152
Control Panel No.	D7
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	150

Suitable Emitter

ZW2003

Complementary Products

Adapterbox A232
PNP-NPN Converter BG2V1P-N-2M
Software



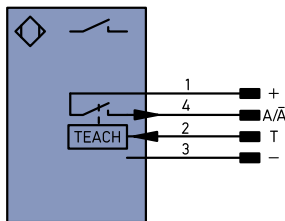
Ctrl. Panel

D7



01 = Switching Status Indicator
02 = Contamination Warning
06 = Teach Button

152



Legend

+	Supply Voltage +
-	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
$\bar{A}$	Switching Output (NC)
V	Contamination/Error Output (NO)
$\bar{V}$	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
BL_D+/-	Ethernet Gigabit bidirect. data line (A-D)
EN0.0542Z	Encoder 0-pulse 0-0 (TTL)

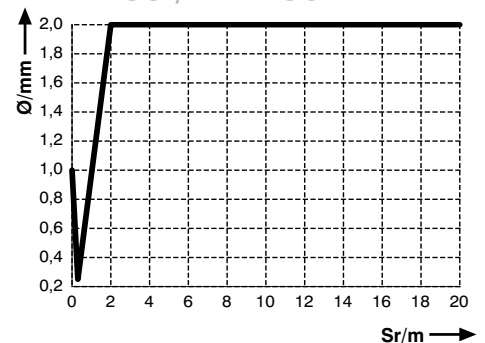
PT	Platinum measuring resistor
nc	not connected
U	Test Input
$\bar{U}$	Test Input inverted
W	Trigger Input
$\bar{W}$	Ground for the Trigger Input
O	Analog Output
$\bar{O}$	Ground for the Analog Output
BZ	Block Discharge
AWV	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
$\bar{SY}$	Ground for the Synchronization
E+	Receiver-Line
S+	Emitter-Line
$\pm$	Grounding
SrR	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	Contactur Monitoring

EN0.0542Z	Encoder A/ $\bar{A}$ (TTL)
EN0.0542Z	Encoder B/ $\bar{B}$ (TTL)
ENa	Encoder A
ENb	Encoder B
A _{MIN}	Digital output MIN
A _{MAX}	Digital output MAX
A _{OK}	Digital output OK
SY _{in}	Synchronization In
SY _{OUT}	Synchronization OUT
OLt	Brightness output
M	Maintenance
rsv	reserved
Wire Colors according to DIN IEC 757	
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

Smallest Recognizable Part

Based on the Distance between Emitter and Receiver

ZD200 / ZW200



Sr = Switching Distance

Ø = Diameter, Smallest Recognizable Part

