

Fiber-optic amplifier

P1XD204

Part Number



- Blue and red LED light in one device, increased range with pink light
- Intuitive setup using display
- NFC communication via the weCon app and IO-Link
- Stand-alone and multi-unit operation (14 sensors) possible
- Tool-free assembly

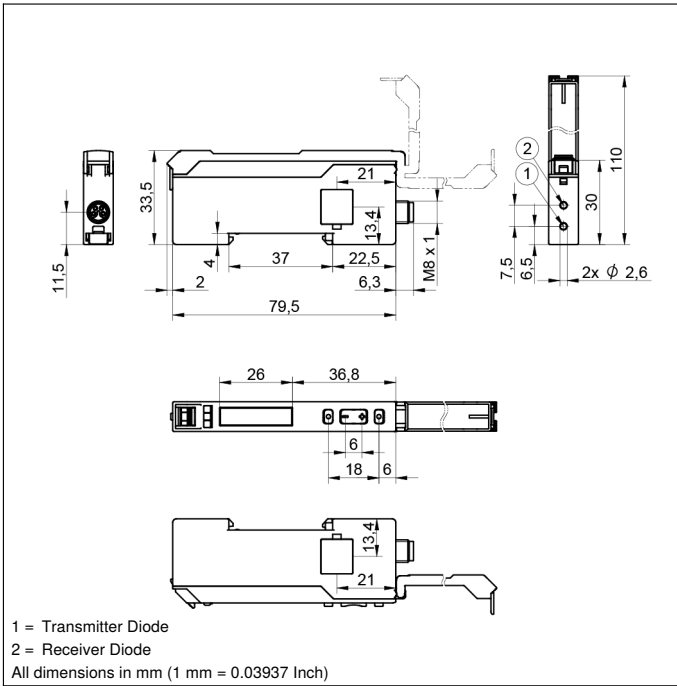
Fiber-optic sensors work according to the energetic principle in which light is emitted via one fiber-optic cable and received via another. The amplifier can be adapted to a wide range of application requirements through the use of flexible plastic fiber-optic cables or glass fiber-optic cables with adapter no. 7. The display shows the switching threshold as well as the currently received signal, which allows the sensor to be set up quickly and intuitively using the buttons. More complex parameterizations can be conveniently carried out via the wenglor weCon app on a mobile device or via IO-Link. P1XD200 series sensors can be operated in stand-alone and in multi-unit operation with up to 14 additional sensors. Despite closely positioned queries, there is no mutual influence in multi-unit opera-

Technical Data

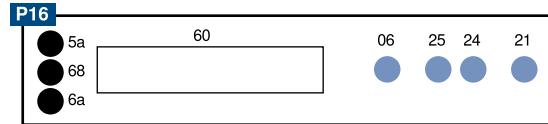
Optical Data	
Light Source	Bi-Color
Service Life (T = +25 °C)	> 100000 h
Max. Ambient Light	10000 Lux
Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (U _b = 24 V)	45 mA
Switching Frequency	9,8 kHz
Response Time	51 μs
On-/Off-Delay	0...10000 ms
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2 V
Switching Output/Switching Current	100 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Teach Mode	NT, MT, MT with dynamic readjustment, jump detection, DT, BT, WT
IO-Link transmission speed	COM3
Interface	IO-Link V1.1.3
Protection Class	III
Mechanical Data	
Setting Method	Display
Setting Method	NFC
Housing Material	Plastic, ABS
Housing Material	Plastic, PA
Housing Material	Plastic, PC
Degree of Protection	IP50
Connection	M8 × 1; 4-pin
DIN-Rail mounting	35 mm
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	640,47 a
Scope of delivery	1 × initial start-up instructions 1 × sensor 1 × Z1XE001 connector plug and cover cap set
IO-Link	●
PNP NO	●
Connection Diagram No.	774
Control Panel No.	P16
Suitable Connection Equipment No.	7

Complementary Products

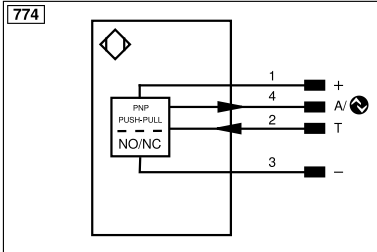
IO-Link Master
Plastic Fiber-Optic Cable



Ctrl. Panel



- 06 = Teach Button
- 21 = Mode Button
- 24 = Plus Button
- 25 = Minus Button
- 5a = Switching Status Indicator, O1
- 60 = display
- 68 = Power LED
- 6a = Switching Status Indicator, O2



Legend					
+	Supply Voltage +	PT	Platinum measuring resistor	ENAR5422	Encoder A/Ā (TTL)
-	Supply Voltage 0 V	nc	Not connected	ENBR5422	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	ENA	Encoder A
A	Switching Output (NO)	Ū	Test Input inverted	ENB	Encoder B
Ā	Switching Output (NC)	W	Trigger Input	AMIN	Digital output MIN
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input	AMAX	Digital output MAX
Ṽ	Contamination/Error Output (NC)	O	Analog Output	AOK	Digital output OK
E	Input (analog or digital)	O-	Ground for the Analog Output	SY In	Synchronization In
T	Teach Input	BZ	Block Discharge	SY OUT	Synchronization OUT
R	Reset 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	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	Power over Ethernet	Tx+/-	Ethernet Send Path	BU	Blue
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	VT	Violet
QSSD	Safety Output	La	Emitted Light disengageable	GY	Grey
Signal	Signal Output	Mag	Magnet activation	WH	White
Bl_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contacting Monitoring	GNYE	Green/Yellow

