

# Luminescence Sensor

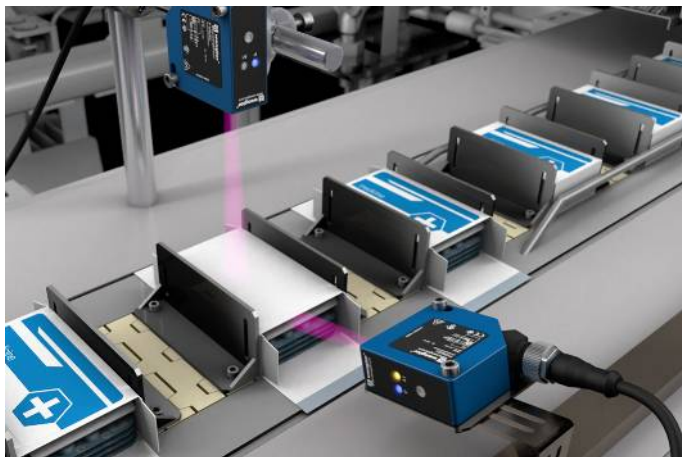
## P1PA002

Part Number



- Digital intensity outputs via IO-Link 1.1 interface
- Recognition of luminescent marks
- Simple configuration via teach-in button or wTeach2 software

The luminescence sensor detects with a receiver filter all luminescent markings which emit light within a wavelength range from 570-750 nm. With another receiver filter suppresses especially interfering whiteners. The sensors have a very small spot, and use a UV LED with a very long service life.



### Technical Data

Optical Data	
Working Range	30...90 mm
Working Distance	40 mm
Receiving Range	570...750 nm
Switching Hysteresis	< 10 %
Light Source	UV Light
Wavelength	375 nm
Service Life (T = +25 °C)	100000 h
Risk Group (EN 62471)	2
Max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1

Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U <sub>b</sub> = 24 V)	< 25 mA
Switching Frequency	2500 Hz
Response Time	200 μs
On-/Off-Delay	0...200 ms
Temperature Drift	< 5 %
Temperature Range	-25...60 °C
Number of Switching Outputs	2
Switching Output Voltage Drop	1,5 V
Switching Output/Switching Current	100 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Lockable	yes
Teach Mode	ZT, DT
Interface	IO-Link V1.1
Protection Class	III

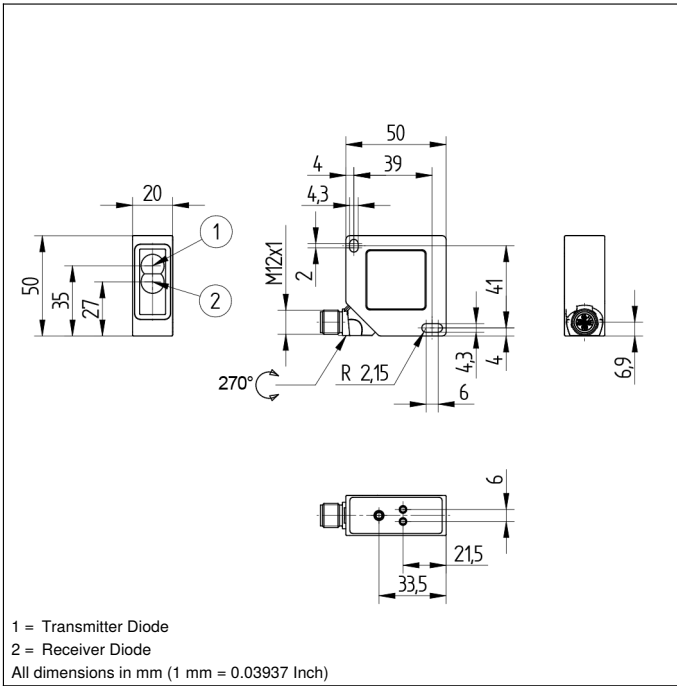
Mechanical Data	
Setting Method	Teach-In
Housing Material	Plastic
Degree of Protection	IP67
Connection	M12 × 1; 5-pin

Safety-relevant Data	
MTTFd (EN ISO 13849-1)	2671,54 a
Diagnostic Coverage (DC)	0 %
Mission Time TM (EN ISO 13849-1)	11,42 a

PNP NO	●
Connection Diagram No.	249
Control Panel No.	A34
Suitable Connection Equipment No.	2   35
Suitable Mounting Technology No.	380

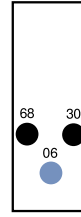
### Complementary Products

IO-Link Master	
PNP-NPN Converter BG2V1P-N-2M	
Set Protective Housing ZSP-NN-02	
Software	

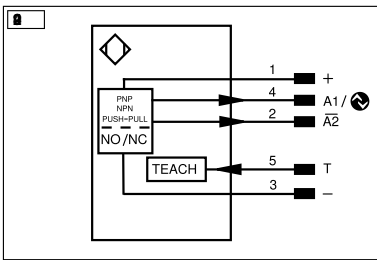


## Optic

A34



06 = Teach Button  
 30 = Switching Status/Contamination Warning  
 68 = supply voltage indicator



Legend			
+	Supply Voltage +	nc	Not connected
-	Supply Voltage 0 V	U	Test Input
~	Supply Voltage (AC Voltage)	Ü	Test Input inverted
A	Switching Output (NO)	W	Trigger Input
Ā	Switching Output (NC)	W-	Ground for the Trigger Input
V	Contamination/Error Output (NO)	O	Analog Output
ȳ	Contamination/Error Output (NC)	O-	Ground for the Analog Output
E	Input (analog or digital)	BZ	Block Discharge
T	Teach Input	Amv	Valve Output
Z	Time Delay (activation)	a	Valve Control Output +
S	Shielding	b	Valve Control Output 0 V
RxD	Interface Receive Path	SY	Synchronization
TxD	Interface Send Path	SY-	Ground for the Synchronization
RDY	Ready	E+	Receiver-Line
GND	Ground	S+	Emitter-Line
CL	Clock	±	Grounding
E/A	Output/Input programmable	SnR	Switching Distance Reduction
IO-Link		Rx+/-	Ethernet Receive Path
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)
OSSD	Safety Output	La	Emitted Light disengageable
Signal	Signal Output	Mag	Magnet activation
Bl_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contactor Monitoring
PT	Platinum measuring resistor	ENARs422	Encoder A/Ā (TTL)
			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	50 mm	90 mm
Light Spot Diameter	4 mm	5 mm	9 mm

