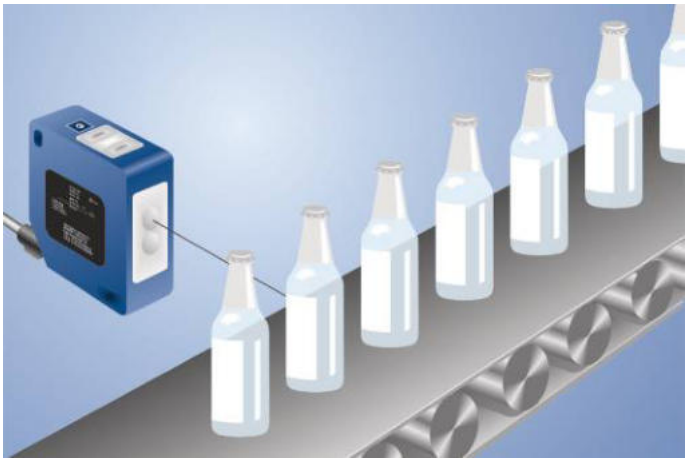
Luminescence Sensor

A2P05QAT80

Part Number

- **Digital read-out of intensity values via the RS-232 interface**
- **Recognition of luminescenting marks**
- **Teach-in, dynamic teach-in, key potentiometer**

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.

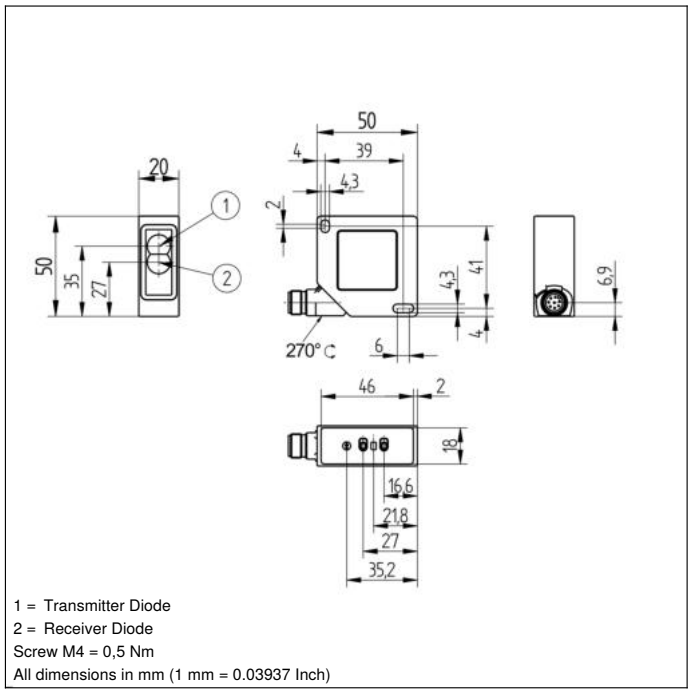


Technical Data

Optical Data	
Working Range	30...50 mm
Working Distance	40 mm
Receiving Range	570...750 nm
Switching Hysteresis	< 1 %
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	5 mm
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 50 mA
Switching Frequency	2500 Hz
Response Time	200 µs
On-/Off-Delay	0...100 ms
Temperature Drift	< 1 %
Temperature Range	-25...60 °C
Number of Switching Outputs	2
Switching Output Voltage Drop	1,5 V
Switching Output/Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Lockable	yes
Teach Mode	ZT, DT, TP
Interface	RS-232
Baud Rate	38400 Bd
Number of Digital Inputs	2
Protection Class	III
Mechanical Data	
Setting Method	Teach-In
Housing Material	Plastic
Degree of Protection	IP67
Connection	M12 × 1; 8-pin
Configurable as PNP/NPN/Push-Pull	●
Switchable to NC/NO	●
RS-232 Interface	●
Connection Diagram No.	736
Control Panel No.	P6
Suitable Connection Equipment No.	80
Suitable Mounting Technology No.	380

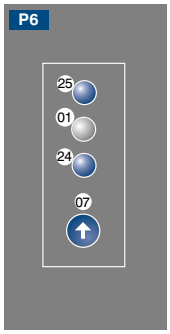
Complementary Products

Fieldbus Gateway ZAGxxxN01, EPGG001
Interface Cable S232W3
Software

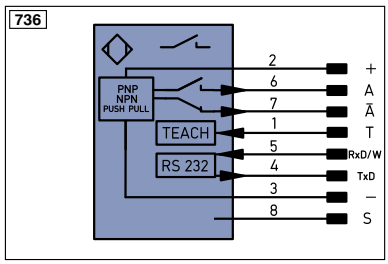


1 = Transmitter Diode
2 = Receiver Diode
Screw M4 = 0,5 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel



01 = Switching Status Indicator
07 = Selector Switch
24 = Plus Button
25 = Minus Button



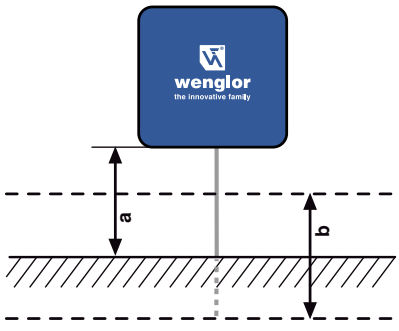
Legend

+	Supply Voltage +
–	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
Ā	Switching Output (NC)
V	Contamination/Error Output (NO)
V̄	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)
EN0 RS422	Encoder 0-pulse 0-0̄ (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
AW	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
ENA RS422	Encoder A/Ā (TTL)
ENB RS422	Encoder B/B̄ (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 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

Ideal Working Distance



a = Working Distance
b = Working Range