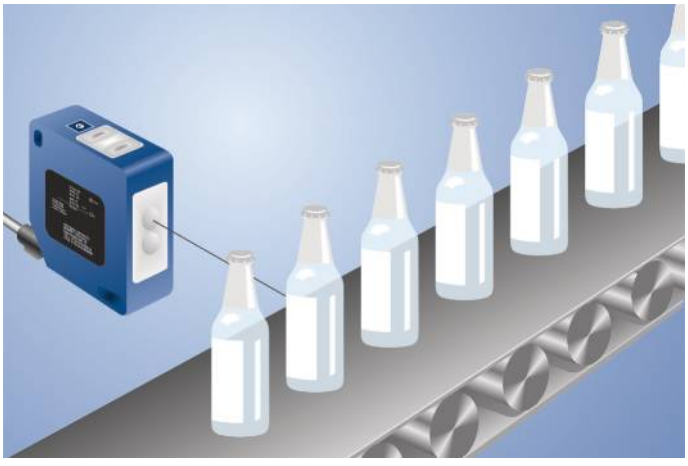
Luminescence Sensor

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.

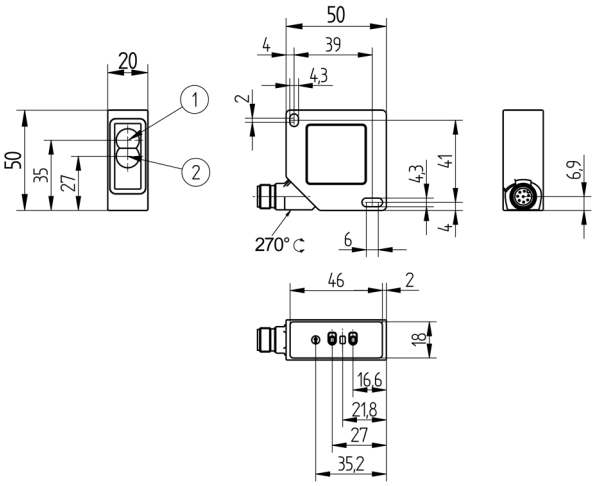


Technical Data

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

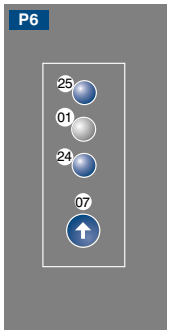
Complementary Products

Fieldbus Gateway ZAGxxxN01, EPGG001
Interface Cable S232W3
Software

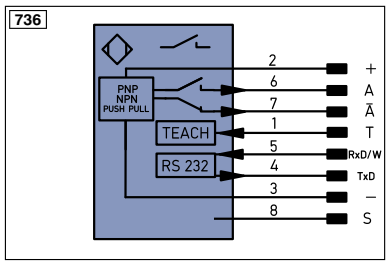


1 = Transmitter Diode
2 = Receiver Diode
Screw M4 = 0,5 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel



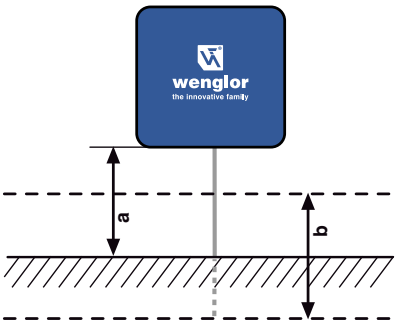
01 = Switching Status Indicator
07 = Selector Switch
24 = Plus Button
25 = Minus Button



Legend

+	Supply Voltage +	PT	Platinum measuring resistor	$EN_{A\,RS422}$	Encoder A/Ā (TTL)
–	Supply Voltage 0 V	nc	not connected	$EN_{B\,RS422}$	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	EN_A	Encoder A
A	Switching Output (NO)	Ū	Test Input inverted	EN_B	Encoder B
Ā	Switching Output (NC)	W	Trigger Input	A_{MIN}	Digital output MIN
V	Contamination/Error Output (NO)	W–	Ground for the Trigger Input	A_{MAX}	Digital output MAX
V̄	Contamination/Error Output (NC)	O	Analog Output	A_{OK}	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
Z	Time Delay (activation)	A_{MV}	Valve Output	O_{LT}	Brightness output
S	Shielding	a	Valve Control Output +	M	Maintenance
RxD	Interface Receive Path	b	Valve Control Output 0 V	rsv	reserved
TxD	Interface Send Path	SY	Synchronization	Wire Colors according to DIN IEC 757	
RDY	Ready	SY–	Ground for the Synchronization	BK	Black
GND	Ground	E+	Receiver-Line	BN	Brown
CL	Clock	S+	Emitter-Line	RD	Red
E/A	Output/Input programmable	⏚	Grounding	OG	Orange
	IO-Link	SnR	Switching Distance Reduction	YE	Yellow
PoE	Power over Ethernet	Rx+/–	Ethernet Receive Path	GN	Green
IN	Safety Input	Tx+/–	Ethernet Send Path	BU	Blue
OSSD	Safety Output	Bus	Interfaces-Bus A(+)/B(–)	VT	Violet
Signal	Signal Output	La	Emitted Light disengageable	GY	Grey
Bl_D+/-	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation	WH	White
$EN_{0\,RS422}$	Encoder 0-pulse 0-0̄ (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contactor Monitoring	GNYE	Green/Yellow

Ideal Working Distance



a = Working Distance
b = Working Range