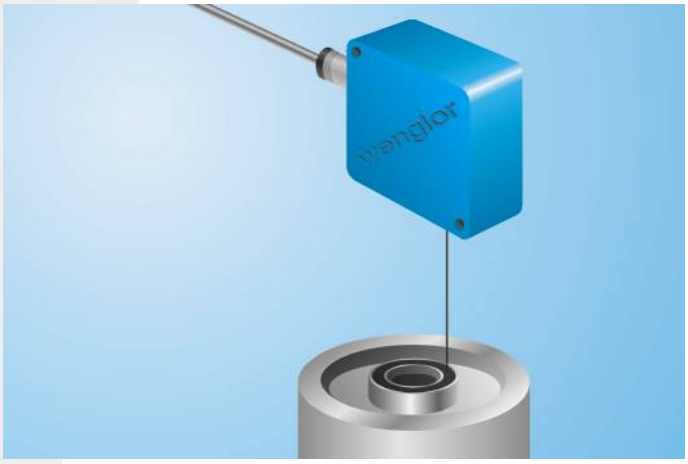
Reflex Sensor
with Background Suppression

OCP242X0135 LASER

Part Number

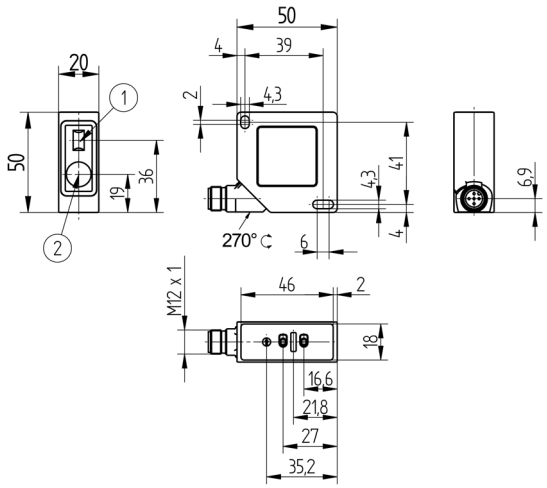
- **CMOS line array**
- **Highly accurate switching distance**
- **Minimal switching hysteresis**
- **Switching point independent of material, color and brightness**

The sensor uses a high-resolution CMOS line array and DSP technology, virtually eliminating material, color and brightness related switching point differences. Two independent switching outputs are available, at which two switching thresholds and one on or off-delay time (in 10 ms steps) can be configured. Sensor functions can be activated, and scanning results can be acquired via the RS-232 interface.

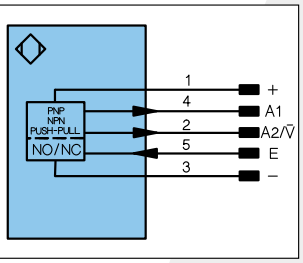


Technical Data

Optical Data	
Range	240 mm
Adjustable Range	40...240 mm
Switching Hysteresis	< 0,5 %
Light Source	Laser (red)
Wave Length	655 nm
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 50 mA
Switching Frequency	300 Hz
Response Time	< 1,7 ms
On-/Off-Delay (RS-232)	0...1 s
Temperature Drift	< 15 µm/K
Temperature Range	-25...60 °C
Switching Outputs	2
Switching Output Voltage Drop	< 1,5 V
Switching Output / Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Teach Mode	HT,VT,FT,TP
Baud Rate	9600 Bd
Protection Class	III
Mechanical Data	
Adjustment	Teach-In
Housing Material	Plastic
Degree of Protection	IP67
Connection	M12 × 1; 4/5-pin
Error Output	●
Configurable as PNP/NPN/Push-Pull	●
NO/NC switchable	●
RS-232 with Adapterbox	●
External Teach Input	●
Connection Diagram No.	779
Control Panel No.	P 8
Suiting Connection Technology No.	2 35
Suiting Mounting Technology No.	380



1 = Transmitter Diode
2 = Receiver Diode
All dimensions in mm (1 mm = 0.03937 Inch)



Legend

+	Supply Voltage +		U	Test Input		PoE	Power over Ethernet
–	Supply Voltage 0 V		Ū	Test Input inverted			
~	Supply Voltage (AC Voltage)		W	Trigger Input			
A	Switching Output	(NO)	O	Analog Output		Wire Colors according to DIN IEC 757	
Ā	Switching Output	(NC)	O–	Ground for the Analog Output			
V	Contamination/Error Output	(NO)	BZ	Block Discharge			
V̄	Contamination/Error Output	(NC)	AMV	Valve Output		BK	Black
E	Input (analog or digital)		a	Valve Control Output +		BN	Brown
T	Teach Input		b	Valve Control Output 0 V		RD	Red
Z	Time Delay (activation)		SY	Synchronization		OG	Orange
S	Shielding		E+	Receiver-Line		YE	Yellow
RxD	Interface Receive Path		S+	Emitter-Line		GN	Green
TxD	Interface Send Path		⏚	Grounding		BU	Blue
RDY	Ready		SnR	Switching Distance Reduction		VT	Violet
GND	Ground		Rx+/–	Ethernet Receive Path		GY	Grey
CL	Clock		Tx+/–	Ethernet Send Path		WH	White
E/A	Output/Input programmable		Bus	Interfaces-Bus A(+)/B(–)		PK	Pink
	IO-Link		La	Emitted Light disengageable		GNYE	Green Yellow

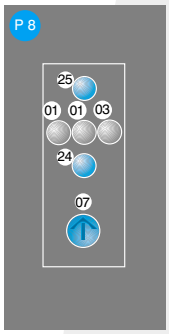
Complementary Products

Adapterbox A232
Protection Housing Set ZSP-NN-02
Protection Housing ZSV-0x-01

Table 1

Detection Range	40 mm	240 mm
Light Spot Size	0,4 × 0,9 mm	1,1 × 2,3 mm

Ctrl.Panel



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

Specifications are subject to change without notice