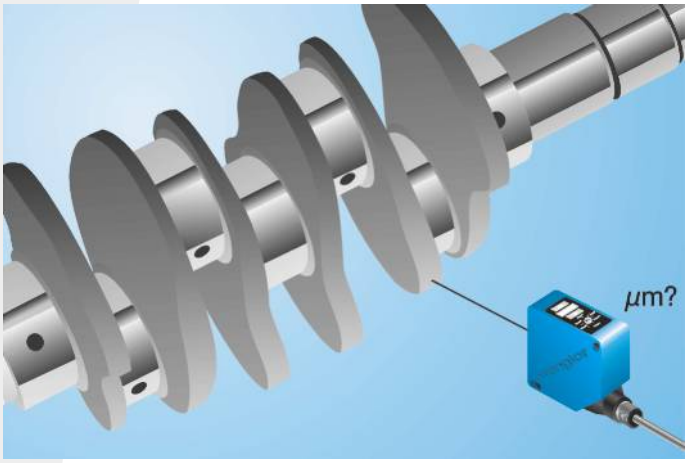
Reflex Sensor
for Measuring Tasks

OCP162H0180 LASER

Part Number

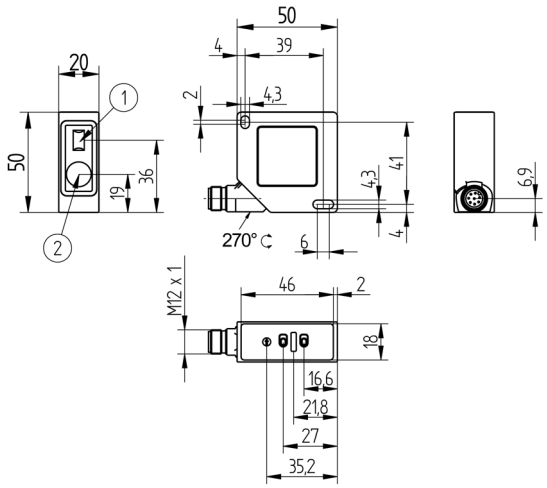
- **High resolution 20 µm (Resolution-Mode)**
- **Linearity 0,1 % (Resolution-Mode)**
- **Measured value independent of material, color and brightness**
- **Zoom function**

The sensor uses a high-resolution CMOS line array and DSP technology, virtually eliminating material, color and brightness related measurement value differences.
Integrated analogue output can be configured for voltage 0...10 V (10...0 V) or current 4...20 mA (20...4 mA).

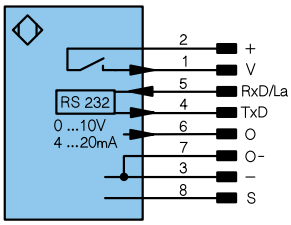


Technical Data

Optical Data	
Working Range	40...160 mm
Measuring Range	120 mm
Resolution	< 20 µm
Resolution (Speed-Mode)	< 30 µm
Linearity	0,1 %
Linearity (Speed-Mode)	0,2 %
Light Source	Laser (red)
Wave Length	660 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	18...30 V DC
Current Consumption (Ub = 24 V)	< 80 mA
Measurement Rate	1000 /s
Measurement Rate (Resolution-Mode)	500 /s
Response Time	< 1000 µs
Response Time (Resolution Mode)	< 2000 µs
Temperature Drift	< 10 µm/K
Temperature Range	-25...50 °C
Analog Output	0...10 V / 4...20 mA
Current Load Voltage Output	< 1 mA
Current Output Load Resistance	< 500 Ohm
Interface	RS-232
Baud Rate	38400 Bd
Protection Class	III
Mechanical Data	
Adjustment	Teach-In
Housing Material	Plastic
Degree of Protection	IP67
Connection	M12 × 1; 8-pin
Error Output	●
Analog Output	●
RS-232 Interface	●
Connection Diagram No.	529
Control Panel No.	P 7
Suiting Connection Technology No.	80
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

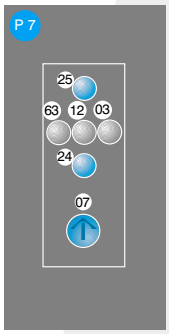
Complementary Products

Analog Evaluation Unit AW02
Interface Cable S232W3
Protection Housing Set ZSP-NN-02
Protection Housing ZSV-0x-01

Table 1

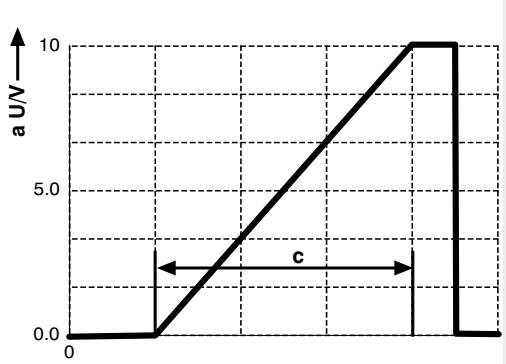
Working Distance	40 mm	160 mm
Light Spot Size	0,4 × 0,9 mm	0,9 × 1,8 mm

Ctrl.Panel



03 = Error Indicator
07 = Selector Switch
12 = Analog Output Indicator
24 = Plus Button
25 = Minus Button
63 = Analog Output Current Indicator

Output Graph



c = Measuring Range
a = Analog Voltage Output

Specifications are subject to change without notice