

# Reflex Sensor for Measuring Tasks



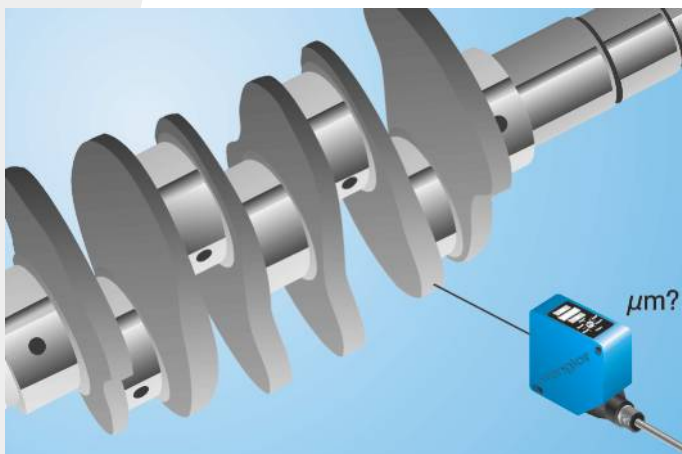
## CP24MHT80 LASER

Part Number



- High resolution 20  $\mu\text{m}$  (Resolution-Mode)
- Linearity 0,1 % (Resolution-Mode)
- Measured value independent of material, color and brightness
- Response Time < 660  $\mu\text{s}$  (Speed-Mode)
- Zoom function

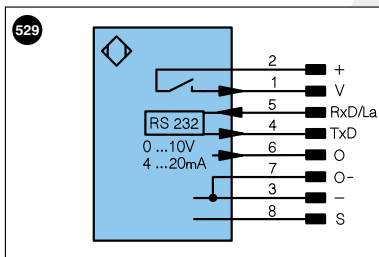
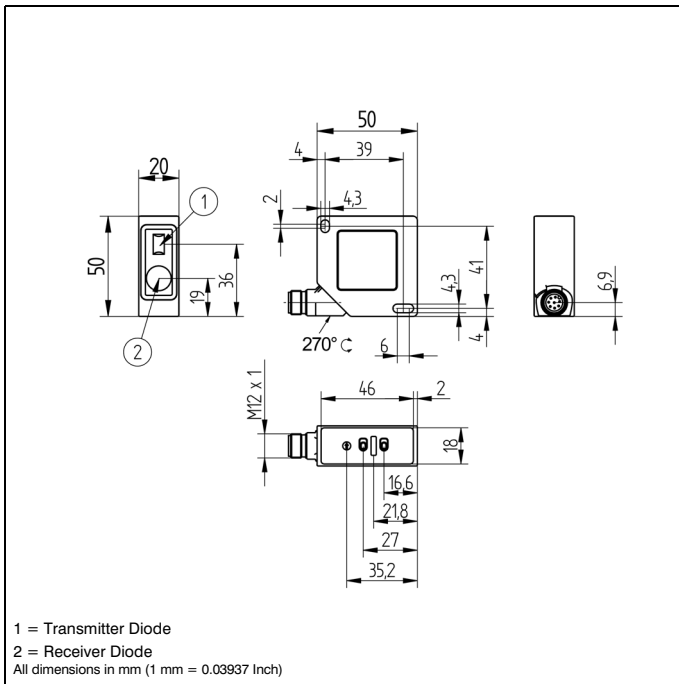
The sensor uses a high-resolution CMOS line array and DSP technology, virtually eliminating material, color and brightness related measurement value differences. Integrated analogue output can be configured for voltage 0...10 V (10...0 V) or current 4...20 mA (20...4 mA).



### Technical Data

Optical Data	
Working Range	40...160 mm
Measuring Range	120 mm
Resolution	< 20 $\mu\text{m}$
Resolution (Speed-Mode)	< 30 $\mu\text{m}$
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)	2
max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption (U <sub>b</sub> = 24 V)	< 80 mA
Measurement Rate	1500 /s
Measurement Rate (Resolution-Mode)	600 /s
Response Time	< 660 $\mu\text{s}$
Response Time (Resolution Mode)	< 1660 $\mu\text{s}$
Temperature Drift	< 10 $\mu\text{m}/\text{K}$
Temperature Range	-25...50 °C
Analog Output	0...10 V
Current Load Voltage Output	< 1 mA
Analog Output	4...20 mA
Current Output Load Resistance	< 500 Ohm
Interface	RS-232
Baud Rate	38400 Bd
Protection Class	III
Mechanical Data	
Adjustment	Teach-In
Housing	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



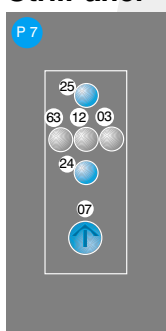


Legend			
+	Supply Voltage +	U	Test Input
-	Supply Voltage 0 V	Ū	Test Input inverted
~	Supply Voltage (AC Voltage)	W	Trigger Input
A	Switching Output (NO)	O	Analog Output
Ā	Switching Output (NC)	O-	Ground for the Analog Output
V	Contamination/Error Output (NO)	BZ	Block Discharge
V̄	Contamination/Error Output (NC)	AwV	Valve Output
E	Input (analog or digital)	a	Valve Control Output +
T	Teach Input	b	Valve Control Output 0 V
Z	Time Delay (activation)	SY	Synchronization
S	Shielding	E+	Receiver-Line
RxD	Interface Receive Path	S+	Emitter-Line
TxD	Interface Send Path	±	Grounding
RDY	Ready	SnR	Switching Distance Reduction
GND	Ground	Rx +/-	Ethernet Receive Path
CL	Clock	Tx +/-	Ethernet Send Path
E/A	Output/Input programmable	Bus	Interfaces-Bus A(+)/B(-)
	IO-Link	La	Emitted Light disengageable
		PoE	Power over Ethernet
			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

### Complementary Products

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

### Ctrl. Panel

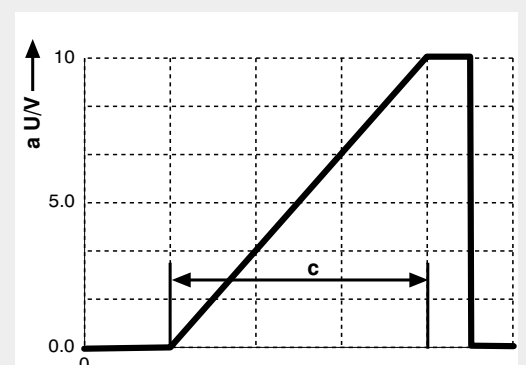


- 03 = Error Indicator
- 07 = Selector Switch
- 12 = Analog Output Indicator
- 24 = Plus Button
- 25 = Minus Button
- 63 = Analog Output Current Indicator

Table 1

Working Distance	40 mm	160 mm
Light Spot Size	0,5 × 1,2 mm	1 × 2,5 mm

### Output Graph



c = Measuring Range  
a = Analog Voltage Output

Specifications are subject to change without notice