

**Reflex Sensor**  
for Measuring Tasks



**OCP162H0180**

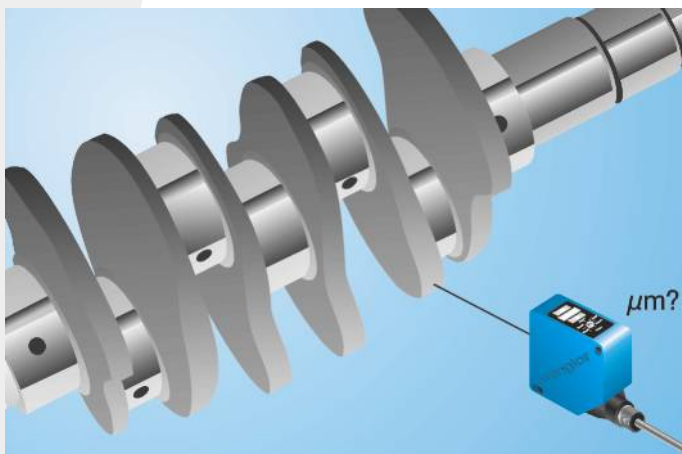
**LASER**

Part Number



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

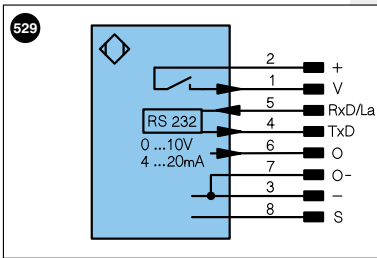
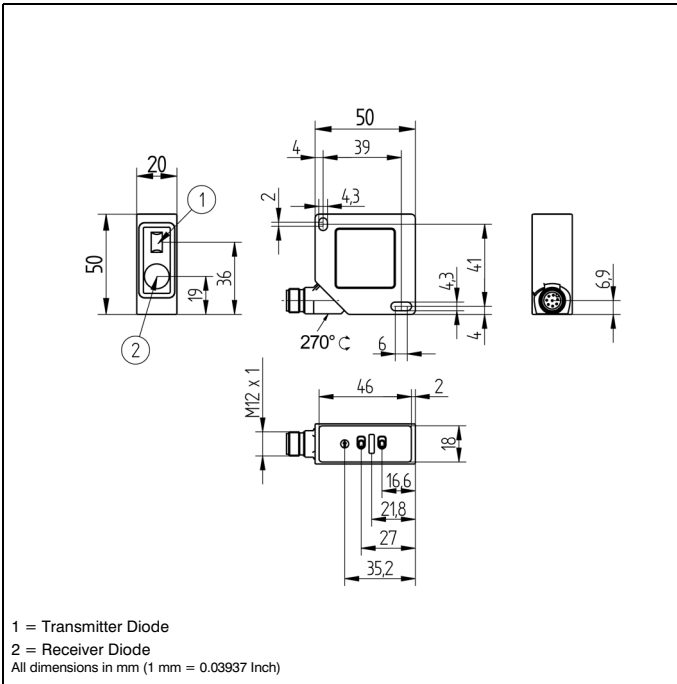
The sensor uses a high-resolution CMOS line array and DSP technology, virtually eliminating material, color and brightness related measurement value differences. Integrated analogue output can be configured for voltage 0...10 V (10...0 V) or current 4...20 mA (20...4 mA).



**Technical Data**

| Optical Data                                |                             |
|---|-----------------------------|
| Working Range                               | 40...160 mm                 |
| Measuring Range                             | 120 mm                      |
| Resolution                                  | < 20 $\mu\text{m}$          |
| 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)                    | 1                           |
| 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                            | 1000 /s                     |
| Measurement Rate (Resolution-Mode)          | 500 /s                      |
| Response Time                               | < 1000 $\mu\text{s}$        |
| Response Time (Resolution Mode)             | < 2000 $\mu\text{s}$        |
| 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 $\times$ 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                         |



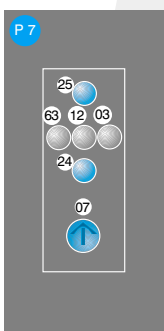


| Legend |                                 |        |                                      |
|--------|---------------------------------|--------|--------------------------------------|
| +      | Supply Voltage +                | U      | Test Input                           |
| -      | Supply Voltage 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

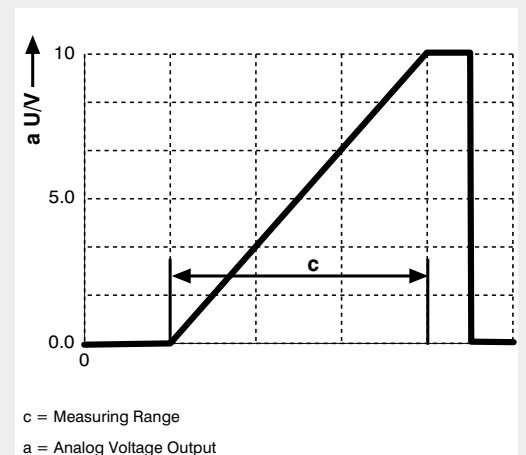


- 03 = Error Indicator
- 07 = Selector Switch
- 12 = Analog Output Indicator
- 24 = Plus Button
- 25 = Minus Button
- 63 = Analog Output Current Indicator

Table 1

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

### Output Graph



Specifications are subject to change without notice