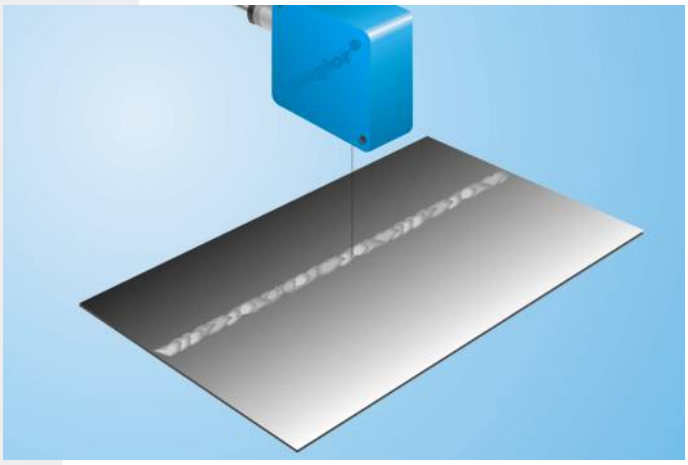
# Reflex Sensor
## for Measuring Tasks

# YP06MGVL80 LASER

Part Number

- **Linearity: 0,5 %**
- **Measuring Range: 20 mm**
- **Resolution up to 5 µm**

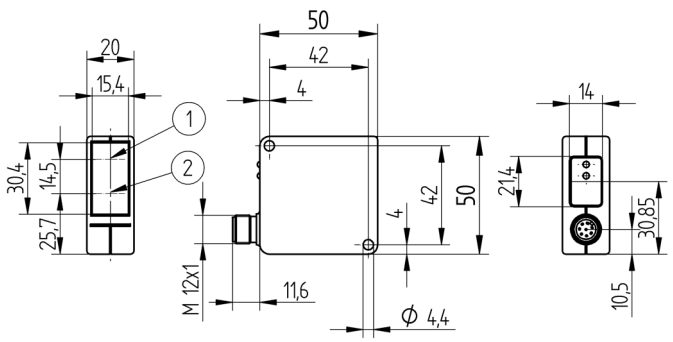
These sensors are equipped with an analog output and can thus be utilized for measuring tasks. The output signal is practically independent of the object´s color. High resolution and a wide variety of measuring ranges allow for use in innumerable applications.



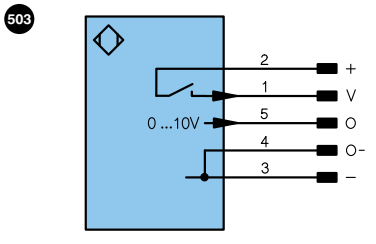
## Technical Data

| | |
|---|---|
| **Optical Data** | |
| Working Range | 40...60 mm |
| Measuring Distance | 50 mm |
| Measuring Range | 20 mm |
| Resolution | < 10 µm |
| Linearity | 0,5 % |
| Light Source | Laser (red) |
| Wave Length | 655 nm |
| Service Life (T = +25 °C) | 100000 h |
| Laser Class (EN 60825-1) | 2 |
| Max. Ambient Light | 10000 Lux |
| Light Spot Diameter | 0,5 mm |
| **Electrical Data** | |
| Supply Voltage | 18...30 V DC |
| Current Consumption (Ub = 24 V) | < 30 mA |
| Cut-Off Frequency | 100 Hz |
| Response Time | 5 ms |
| Temperature Drift (Tu < 10 °C, Tu > 40 °C) | 10 µm/K |
| Temperature Drift (10 °C < Tu < 40 °C) | 7 µm/K |
| Temperature Range | -10...60 °C |
| Error Output Voltage Drop | < 2,5 V |
| PNP Error Output/Switching Current | 200 mA |
| Analog Output | 0...10 V |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Overload Protection | yes |
| Protection Class | III |
| **Mechanical Data** | |
| Housing Material | Plastic |
| Full Encapsulation | yes |
| Degree of Protection | IP67 |
| Connection | M12 × 1; 8-pin |
| Error Output | ● |
| Analog Output | ● |
| Connection Diagram No. | 503 |
| Control Panel No. | P 3 |
| Suiting Connection Technology No. | 80 |
| Suiting Mounting Technology No. | 380 |

ME 61 LASER CLASS 2 EN60825-1 RoHS




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




Legend

| | | |
|---|---|---|
| + | Supply Voltage + | |
| – | Supply Voltage 0 V | |
| ~ | Supply Voltage (AC Voltage) | |
| A | Switching Output | (NO) |
| Ā | Switching Output | (NC) |
| V | Contamination/Error Output | (NO) |
| V̄ | Contamination/Error Output | (NC) |
| E | Input (analog or digital) | |
| T | Teach Input | |
| Z | Time Delay (activation) | |
| S | Shielding | |
| RxD | Interface Receive Path | |
| TxD | Interface Send Path | |
| RDY | Ready | |
| GND | Ground | |
| CL | Clock | |
| E/A | Output/Input programmable | |
| | IO-Link | |

| | |
|---|---|
| U | Test Input |
| Ū | Test Input inverted |
| W | Trigger Input |
| O | Analog Output |
| O– | Ground for the Analog Output |
| BZ | Block Discharge |
| AMV | Valve Output |
| a | Valve Control Output + |
| b | Valve Control Output 0 V |
| SY | Synchronization |
| E+ | Receiver-Line |
| S+ | Emitter-Line |
| ⏚ | Grounding |
| SnR | Switching Distance Reduction |
| Rx+/– | Ethernet Receive Path |
| Tx+/– | Ethernet Send Path |
| Bus | Interfaces-Bus A(+)/B(–) |
| La | Emitted Light disengageable |

| | |
|---|---|
| PoE | Power over Ethernet |

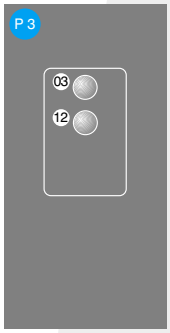
Wire Colors according to DIN IEC 757

| | |
|---|---|
| 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 |
| Protection Housing Set ZSP-NN-02 |
| Protection Housing ZSV-0x-01 |

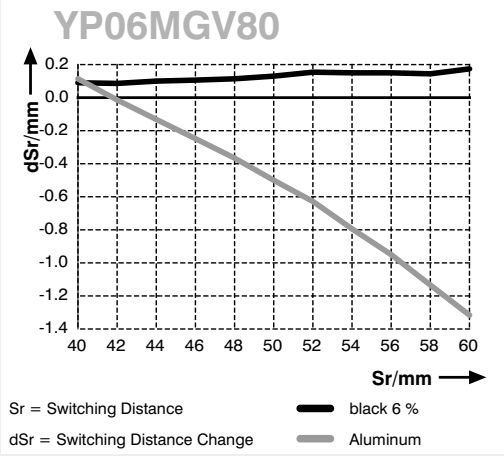
## Ctrl.Panel




03 = Error Indicator
12 = Analog Output Indicator

## Error of Measurement

Typical characteristic curve based on Kodak white, 90 %




Specifications are subject to change without notice