

Reflex Sensors

for Measuring Tasks

LASER

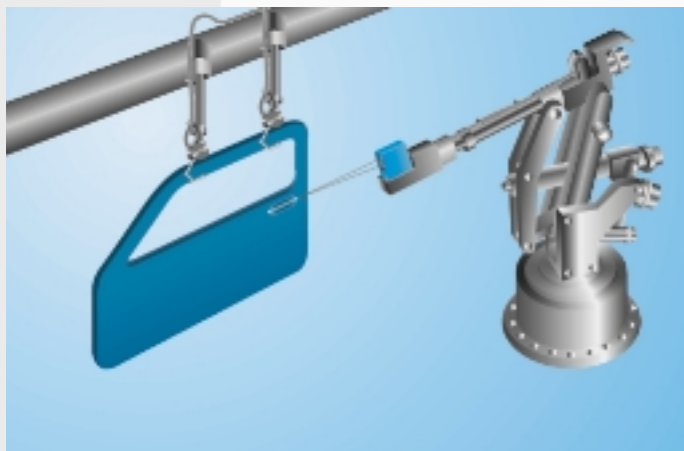
YP05MGVL80

Part Number



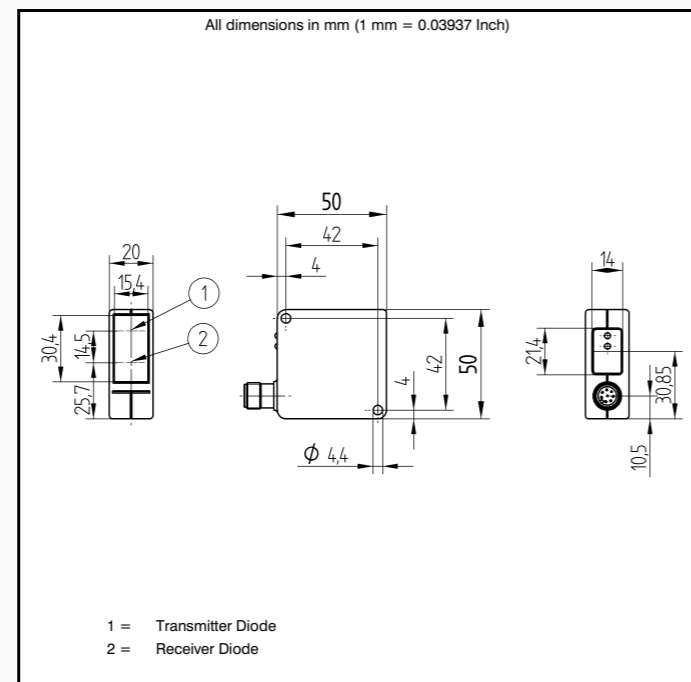
- **Linearity: 0.5%**
- **Measuring Range: 10 mm**
- **Resolution up to 2 μm**

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

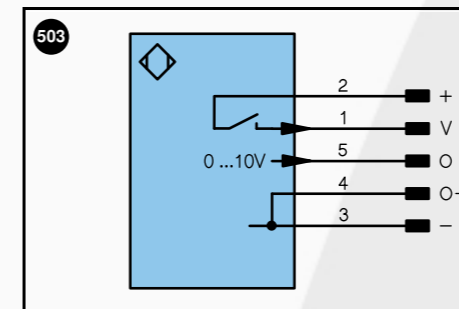
Optical Data	
Working Range	43...53 mm
Measuring Distance	48 mm
Measuring Range	10 mm
Resolution	< 2 μm
Linearity	0.5 %
Light Source	Laser (red)
Wave Length	660 nm
Service Life (T = +25°C)	100000 h
Laser Protection Class (EN 60825-1)	2
max. Ambient Light	10000 Lux
Light Spot Diameter	0.5 mm
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption (U _b = 24V)	< 30 mA
Cut-Off Frequency	100 Hz
Response Time	5 ms
Temperature Drift	5 μm/°C
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
Mechanical Data	
Housing	Plastic
Full Encapsulation	yes
Protection Mode	IP 67
Connection	M 12x1
Protective Insulation, Rated Voltage	50 V



Specifications are subject to change without notice
17/03



Plug Version	
Part Number	YP05MGVL80
Error Output	●
Analog Output	●
Connection Diagram No.	503
Control Panel No.	P 3
Suitable Plug No.	80



Legend				
+	Power supply "+"	U	Test input	Wire colors according to DIN IEC 757
-	Power supply "0V"	W	Trigger input	BK black
~	Power supply (AC Voltage)	O	Analog output (1,2,3,...)	BN brown
A	Switching output (1,2,3...) / NO	O-	Ground for the analog output	RD red
V	Switching output (1,2,3...) / NC	BZ	Block discharge	OG orange
∇	Contamination / Error output (NO)	Aw	Valve output	YE yellow
∇	Contamination / Error output (NC)	a	Valve control output "+"	GN green
E	Input (analog or digital)	b	Valve control output "0V"	BU blue
T	Teach input	SY	Synchronization	VT violet
Z	Time delay (activation)	E+	Receiver-Line	GY grey
S	Shielding	S+	Emitter-Line	WH white
RxD	RS-232 receive path	⊕	Grounding	PK pink
TxD	RS-232 send path			GNYE green yellow

Accessories

- Analog Evaluation Unit AW01
- Mounting Bracket WP

Ctrl. Panel



- 03 = Error Indicator
- 12 = Analog Output Indicator

Error of Measurement

Typical characteristic curve based on Kodak white, 90%

