

High-Performance Distance Sensor

YP11MGV80

LASER

Part Number



- Cut-off frequency up to 1 kHz
- Linearity: 0,5 %
- Measuring range: 50 mm

Technical Data

Optical Data

Working Range	50...100 mm
Measuring Distance	75 mm
Measuring Range	50 mm
Resolution	100 μ m
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
Spot Diameter	1 mm

Electrical Data

Supply Voltage	18...30 V DC
Current Consumption (U _b = 24 V)	< 30 mA
Cut-Off Frequency	1 kHz
Response Time	500 μ s
Temperature Drift (T _u < 10 °C, T _u > 40 °C)	20 μ m/K
Temperature Drift (10 °C < T _u < 40 °C)	10 μ m/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

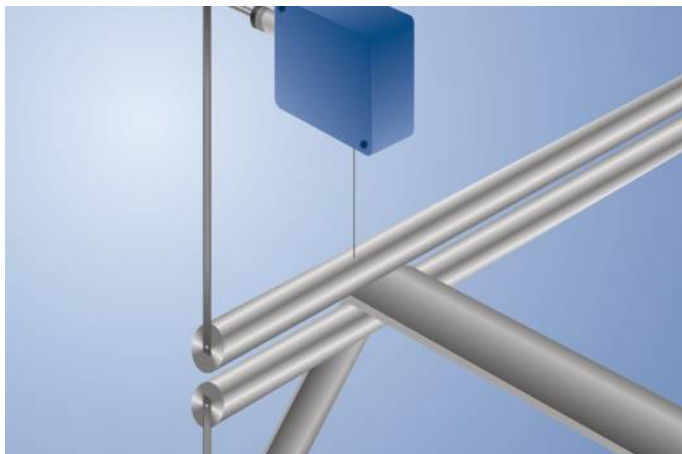
Mechanical Data

Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 $\times$ 1; 8-pin

Error Output	●
Analog Output	●

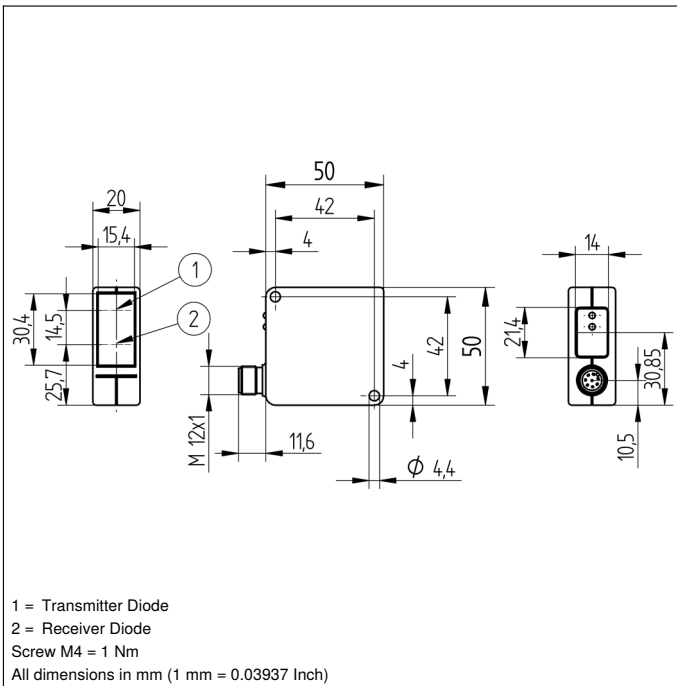
Connection Diagram No.	503
Control Panel No.	P3
Suitable Connection Technology No.	80
Suitable Mounting Technology No.	380

These sensors can measure distances and display analog output. Their high resolution and wide variety of measuring ranges allow them to be used in innumerable applications. The output signal is practically independent of the object's color.

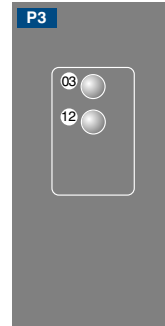


Complementary Products

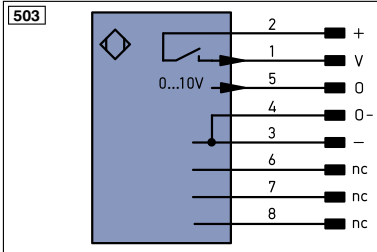
Analog Evaluation Unit AW02
Protection Housing Set ZSP-NN-02
Protection Housing ZSV-0x-01



Ctrl. Panel



03 = Error Indicator
12 = Analog Output Indicator



Legend

+	Supply Voltage +
-	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
$\bar{A}$	Switching Output (NC)
V	Contamination/Error Output (NO)
$\bar{V}$	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
PoE	Power over Ethernet
IN	Safety Input
OSSD	Safety Output
Signal	Signal Output
BI...D+/-	Ethernet Gigabit bidirect. data line (A-D)
EN0 RS422	Encoder 0-pulse 0-0 (TTL)

PT	Platinum measuring resistor
nc	not connected
U	Test Input
$\bar{U}$	Test Input inverted
W	Trigger Input
O	Analog Output
O-	Ground for the Analog Output
BZ	Block Discharge
AWV	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
E+	Receiver-Line
S+	Emitter-Line
$\pm$	Grounding
SnR	Switching Distance Reduction
Rx+/-	Ethernet Receive Path
Tx+/-	Ethernet Send Path
Bus	Interfaces-Bus A(+)/B(-)
La	Emitted Light disengageable
Mag	Magnet activation
RES	Input confirmation
EDM	Contact Monitoring
ENAR5422	Encoder A/A (TTL)
ENBR5422	Encoder B/B (TTL)

ENa	Encoder A
ENb	Encoder B
AMIN	Digital output MIN
AMAX	Digital output MAX
AOK	Digital output OK
SY In	Synchronization In
SY OUT	Synchronization OUT
OLt	Brightness output
M	Maintenance

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

Error of Measurement

Typical characteristic curve based on Kodak white (90 % remission)

