VG-036

Sensor Head

*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

This model has been discontinued. Contact Us: 1-888-539-3623
Compliance with the certification standard is ensured as of the time of shipment from our company.

Recommended Replaceable Products: Multi-Purpose CCD Laser Micrometer - IG series

Specifications

Model		VG-036
Light source	Type	Visible red semiconductor laser
	Maximum output	38 µW
	Wavelength	670 nm
	FDA (CDRH) 21CFR Part 1040.10	Class II Laser Product, Output : 38 µW
	IEC 60825-1	Class 1 Laser Product, Output : 0.2 mW
Measuring area		35 mm 1.38"
Setting distance		0 to 300 mm 11.81"
Linearity		±0.1% of F.S. (F.S. = 30 mm 1.18") *1*2
Minimum displayable unit		5 µm 0.20 Mil
Minimum detectable object		0.5 mm 0.02" dia. opaque material*3
Repeatability		—*4
Interface		RS-232C
Monitor output	Output voltage	±7 V
	Impedance	100 Ω
	Response time	—
Control output	Control	HI, GO, LO : NPN 100 mA, 40 V max.*5
Control output		—
Control output	Response time	
Analog output	Resolution (ripple)	2 mV (number of averaging measurements : 4096)
Resolution		5 µm 0.20 Mil (number of averaging measurements : 16) Light-receiving element/CCD 5,000 bit, Scan time : 1.3 ms*2
Self-timing		NPN open collector : 100 mA max., (40 V max.) (one-shot output time : 1.3 ms)*5
Stability output		NPN open collector : 100 mA max., (40 V max.) (N.C.)*5
Response time		3.9 ms (number of averaging measurements : 1)
Digital I/O		—
Key input		
Control input		- Upper/ Lower limit select input - Auto-zero input - Auto-gain input - Reset input

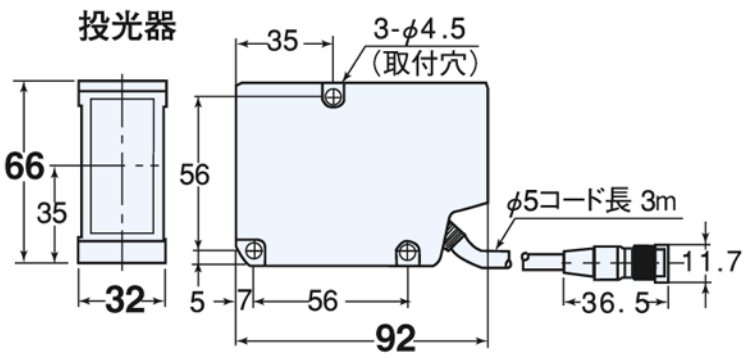
		- Laser remote input voltage contact signals - Hold input
Number of CCD pixels		5000bit
Scanning time		1.3ms
Temperature fluctuation		0.01% of F.S./°C (F.S. = 30 mm 1.18")
Rating	Power voltage	24 VDC ±10 %, Ripple (P-P) 10 % or less
	Current consumption	330 mA or less
Environmental resistance	Enclosure rating	IP60
	Ambient light	Incandescent lamp: 1,000 lux or less, Fluorescent lamp: 8,000 lux or less*6
	Ambient temperature	0 to +40 °C 32 to 104 °F
	Relative humidity	35 to 85 % RH (No condensation)
	Vibration resistance	10 to 55 Hz, Double amplitude 1.5 mm 0.06", 2 hours in each of the X, Y, and Z directions
Material		Die-cast aluminum
Weight		Approx. 360 g (transmitter), Approx. 320 g (receiver)

*1 F.S. (= 30 mm 1.18") indicates the range resulting from 2.5 mm 0.10" subtraction from each end of the 35 mm 1.38" measuring range.
*2 Typical data obtained when the T-to-R distance was 100 mm 3.94", the receiver-to-target distance was 50 mm 1.97" and a knife edge was used to interrupt the laser beam.
*3 Typical data obtained when the T-to-R distance was 100 mm 3.94" and the receiver-to-target distance was 50 mm 1.97".
*4 This is a typical example when the distance between the transmitter and receiver has been set to 100 mm and a knife edge has been used to block light at a position that is 50 mm from the receiver.
F.S. = 30 mm displays the measurement accuracy range.
*5 NPN output can easily be converted into PNP output by connecting the optional OP-5148 PNP output converter.
*6 Typical data obtained when the T-to-R distance was 100 mm 3.94", the receiver-to-target distance was 50 mm 1.97" and a knife edge was used to interrupt the laser beam.

Dimensions

* Download CAD file or product manual for larger image/text and more detail.

vg_035_dimension_01.gif



vg_035_dimension_02.gif