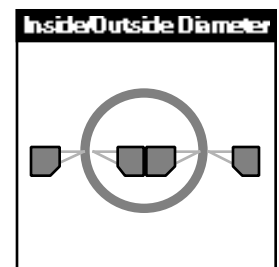
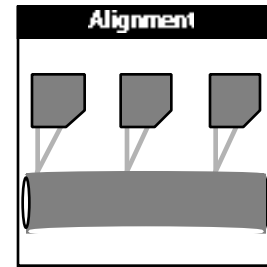
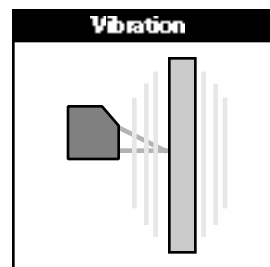
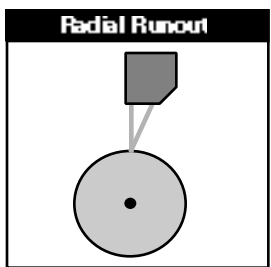
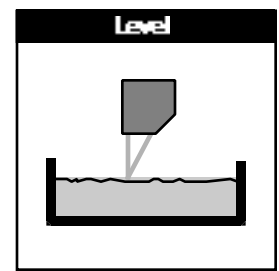
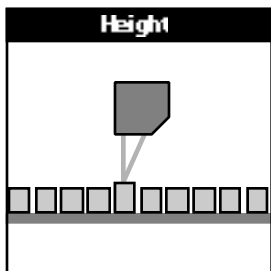
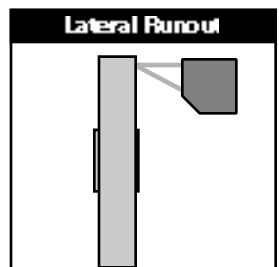
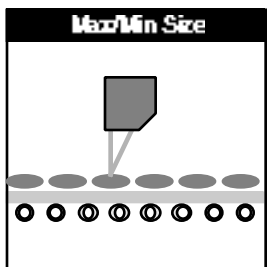
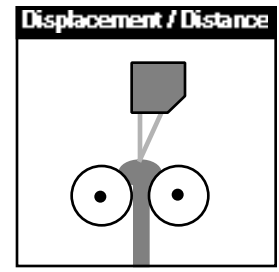
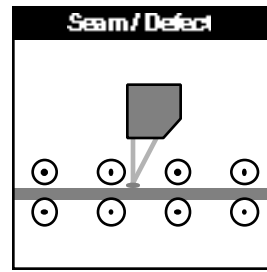
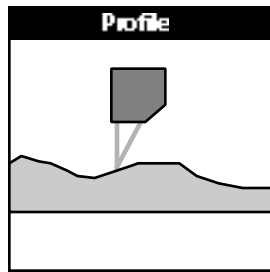
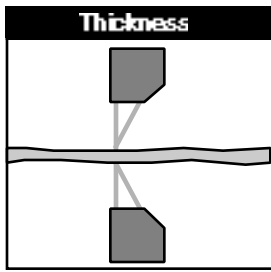


Mid Range Laser Distance Sensors

1200 DSP Series



Pictured above is a complete 1200 Series DSP laser distance sensor

General Description

The 1200 series incorporate the latest in CMOS Digital Signal Processing (DSP) technology which significantly reduces the laser speckle problem enabling them to easily measure materials with colors ranging from black rubber to white.

The 1200 DSP series delivers a complete non contact laser displacement measurement system in one simple yet elegant package. The series includes four DSP sensors with measurement ranges from 6.35 to 50.8mm The 1200 series is optimum for cost effective and good accuracy for general applications.

Analog, and RS 232 outputs are standard on the 1200 series. For integration in control systems, the input is low voltage DC (12 to 30 VDC).

Output format can be set using pushbuttons on the sensor or through serial commands.

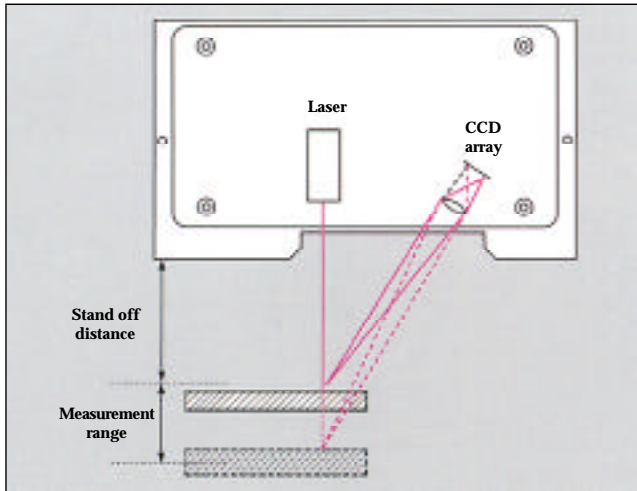
Features

- 6.35 to 50.8mm measurement ranges
- 0.0019mm resolution on 6.35mm measurement range
- 1250Hz maximum measurement frequency
- Complete system in one housing
- Outputs include analog and RS 232
- Class 2 laser for plant safety

Mid Range Laser Distance Sensors

Measurement Principle

The measurement technique is based on optical triangulation. One side of a triangle can be calculated when two other parameters are known, such as an angle which is measured and one side which is constant.



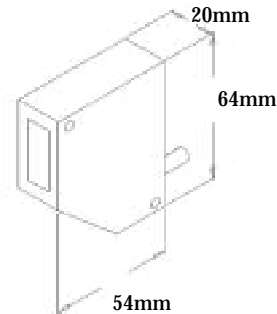
Pictured above is the measurement principle used in the 1200 CMOS series. The stand off distance is how far away the object is to be measured. The measurement range is how much the object can move to or from the stand off distance and stay within the measurement range of the sensor. A CMOS array is used to receive the reflected laser light from the object to determine the distance from the object.

General Specifications

Laser diode	Class 2, 650nm red visible
Power (VDC)	12 (105mA) to 30 (60mA)
Resolution	± 0.03% of full scale
Sample rate	1250Hz. maximum
Operating Temp.	0 to 60° C
Weight	85g (3 oz.)
Enclosure	dust and moisture resistant
Dimensions	54 x 20 x 64mm

Outputs

Analog	4-20ma, 0-10v (programmable range)
Digital	(2) PNP or NPN limit switches
Serial output	RS 232 (300- 115.2Kb, binary or ASCII)



1200 Series DSP Sensors

Meas. Range	Stand off	Resolution	Linearity
6.35mm	17.8mm	0.0019mm	± 0.013mm
12.7mm	17.7mm	0.0038mm	± 0.0254mm
25.4mm	21.3mm	0.0076mm	± 0.0508mm
50.8mm	16.6mm	0.015mm	±0.1016mm

Options

- Integrated cable with power supply
- 1200 series utility software to set parameters and to read measurements

The closer you look, the better we measure!

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