

Dimetix Long Range Laser Displacement Sensors

DLS -B Series
(PMS 200 Series)



Pictured above is a complete DLS -B (PMS 200) Series Laser Distance Meter.

General Description

The Dimetix DLS-B Laser Distance Measuring Device, (also referred to in the USA as the PMS 200 Series) is an optoelectronic device for measuring long distances accurately. The principle of operation operates on the basis of non-contact comparative phase measurements with amplitude modulation. It uses a laser diode as its source with a class 2 rating for plant safety.

Aiming alignment is easily achieved with the help of the red laser beam. The measuring range of the PMS 200 series is between 0.05 to 500m. For measuring ranges over 65m, a reflective target may be required. It depends on the surface and the distance. For over 65m we offer an optional target which can be attached to the object being measured at the longer distance. See target details on page two of this data sheet under accessories and options.

Users have the option of using its serial RS 232, RS 422 and analog outputs to communicate with external devices. The PMS 200 series also has the ability to operate as a stand alone device with its programmable inputs and outputs. In addition, an external display can be directly connected to the RS 232 or RS 422 interface. Multiple (up to 10) PMS 200 Series sensors can be networked to one PC for multiple measurements economically.

The PMS 200 series of Laser Distance Measuring Devices is designed for use both indoors and outdoors in industrial and harsh environments such as aluminum, copper, paper,

steel, and saw mills.

Typical Applications

- Overhead crane positioning
- Elevator positioning
- Level measuring in silos
- Parking garage beam locations
- Vehicle locations
- Altitude measurements
- Steel Slab thickness and width (including hot steel)
- Wood products for width, thickness and length
- Paper roll products for width and diameter

Features

- 0.05 to 500 meters measurement range
- > 65 meters may require reflectors depending on surface reflectivity
- 0.1mm (0.0039") resolution
- $\pm 1.5\text{mm}$ (0.059") accuracy
- maximum 6Hz measurement rate
- Complete system in one housing
- Outputs include analog and serial
- IP 65 protection class
- Indoor and outdoor operation (may require enclosure)
- Four different models are available for specific applications to meet a variety of needs

Benefits

- Cost effective solution for long distance measurements
- Class 2 laser for plant safety

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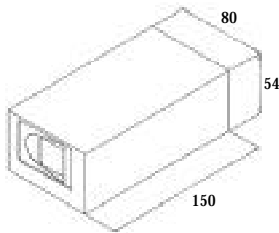
Technical Specifications

Model (USA)	DLS-B 15 (PMS 201)	DLS-B 30 (PMS 202)	DLS-BH 15 (PMS 201H)	DLS-BH 30 (PMS 202H)
Design Conditions	Standard	Standard	Lo Temp.	Lo Temp.
Accuracy (mm) ¹	± 1.5	± 3	± 1.5	± 3
Measuring range (M) (on reflective foil)	0.05 - 500	0.05 - 500	0.05 - 500	0.05 - 500
Measuring range (M) (on natural surface)	0.05 - 65	0.05 - 65	0.05 - 65	0.05 - 65
Operating temp. (°C)	- 10 to + 50	- 10 to + 50	- 40 to + 50	- 40 to + 50
Resolution (mm)	0.1	0.1	0.1	0.1

Note 1: Accuracy is specified for the serial output. The analog (4 - 20ma output) accuracy is 1% of full scale or for the scaled distance.

General Specifications

Power requirements: 9 - 30 Vdc
 Operating temperature: - 10 to + 50 °C
 Housing: metal case, IP 65
 Class 2 laser light: visible laser, red
 Dimensions (h x w x l) 54 x 80 x 150mm
 Weight: 665 g
 Spot size: 4mm @ 5 M distance
 8mm @ 10 M distance
 Interfaces: one serial, RS 232/RS422
 one programmable analog 0/4 to 20ma (12 bit - scalable)
 programmable digital I/O,
 (2) outputs or (1) output and (1) input
 input can be used for external triggering
 one error indicator LED



dimensions in mm

Accessories and Options

- Telescopic viewfinder: for ease of alignment of long distances
- Target plate: provides a defined measuring target (210 x 297mm)
- RS 232 connection cable: three (3) meter cable connects PMS 200 to PC comm port (15 pin D-Sub female)
- Automatic mode cable, 3m long, flying leads for interfacing
- RS 422 connection cable, 5m long for connection to electronic cabinet or junction box, flying leads
- IP 65 cover for D-Sub connector if D Sub connector if not used
- IP 65 connector with 90 degree connection
- Environmental enclosure for extreme temperature conditions
- Certificate of calibration

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The closer you look, the better we measure!

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