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HIGH PERFORMANCE LASER, LEVEL & POSITIONING TRANSMITTER

LASERMETER Model LM200

FEATURES

- Range up to 200 ft / 60 m (level applications) and up to 1312 ft. / 400 m (positioning applications)
- No Beam Divergence = No False Echoes
- Measures any Surface at Any Angle
- Rugged and Robust Enclosure
- Built-in Laser Pointer
- Accepts 110/220 VAC and +24VDC Input Voltages
- Last Pulse Detection for Measurement with Light and Moderate Dust

SPECIFICATIONS

Measurement Range

Level Dark color surface 1.5ft/0.5m to 100ft/30m -
Level Light color surface 1.5ft/0.5m to 200ft/60m -
Positioning Reflective targets 1.5ft/0.5m to 1312ft/400m -

Resolution 0.4 in. / 10 mm.

Accuracy ± 1.5 in. / 30 mm.

Update Rate 3 readings / second to 1 reading / 250 seconds

Output

Analog 4-20 mA, NAMUR Compliant
Isolated, Self Powered

Serial RS232 for Testing, Troubleshooting and Configuration

Switching 2 SPST Relays

AC Rating Max 1A resistive @120VAC and 0.5A@250VAC
Max 1A @ 60VDC, 60W

DC Rating Max 1A @ 120VAC

Electric Power 24 VDC (16-32 VDC)
110 VAC (±10% / 50Hz to 60Hz)
220 VAC (±10% / 50Hz to 60Hz)

Power

Consumption

Start Up Max. 7.5 Watts at 220 VAC
Running Normal 0.25 Amp Peak ; 0.15 Amp Continuous

Laser Safety

Class 1 Eye Safe;
EN60825; IEC 825-1:1993

Approvals

FM
DIP/II,III/1/EFG/T6 Ta=65°C; Type 4X, IP65

OPTIONS

- ANSI / DIN Flanges
- Laser Communication Device (LCD2)
- Adjustable Mounting Bracket (ADJ4)
- Positioning Reflector (REFL)



LM200 Shown with Cable Glands



LM200 Shown with Standard Dust Tubes

coal, black plastic pellets
plastic pellets, grain
rail car, stacker, reclaimers

Optical

Optical Aperture 4 in. / 100 mm.

Laser Beam Diameter 1.97 in. / 50 mm.

Receiver Beam Diameter 1.97 in. / 50 mm.

Beam Divergence <0.2°

Environmental

Operating Temperature -40° to 150°F / -40° to 65°C

Pressure Atmospheric

Electrical Connection 2x 1/2" FNPT
2x Cable Gland Supplied

Dimensions

Diameter 5.25 in. / 135.5 mm.

Length 12 in. / 305 mm.

Weight 9.9 lbs. / 4.5 kg.

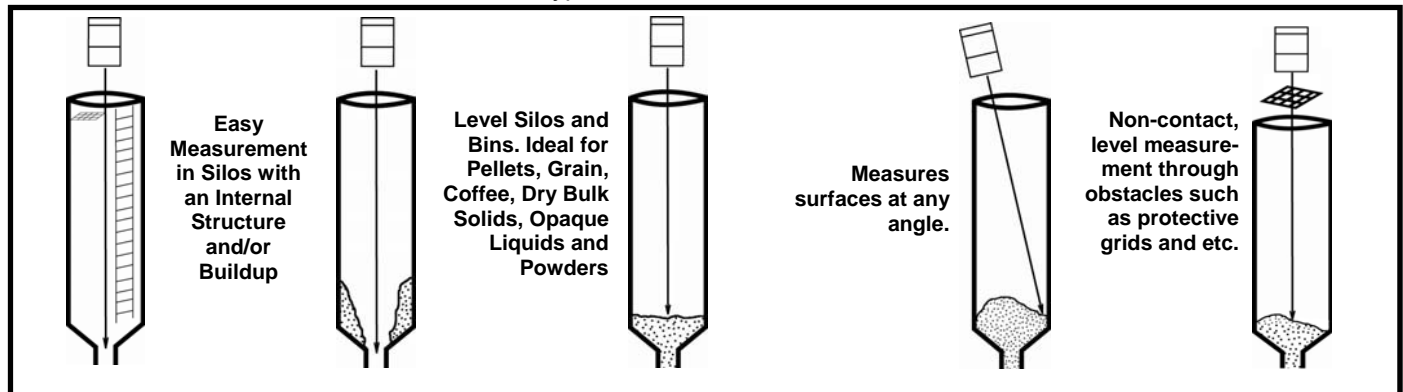
Enclosure

Dual Compartment Powder Coated Aluminum

Enclosure Rating IP65

Process Connection

Require minimum opening of 4 in / 100 mm and is adaptable to ANSI Flanges 4" / DIN 100 and higher



ORDERING INFORMATION:

LM200 / a / b:

/a Unit Options

SL Standard Unit with Laser Pointer (level applications only)

Pxxxx Positioning Unit with Laser Pointer (positioning applications only). Specify the application maximum positioning range in feet. For example: 200 feet = P0200 (**see note below**)

Note: For **positioning applications only**, the following accessories are **mandatory** and are required for optimal performance and will be supplied with the positioning laser transmitter: **TUB4S** Standard Dust Tubes, **REFL** Reflector, and **ADJ4** Adjustable Mounting Bracket.

/b Approvals:

FM Factory Mutual Research Corp



AVAILABLE OPTIONAL ITEMS:	
LCD2	Laser Communication Device for programming and demo purposes Note: Programming also can be implemented with Desktop PC, Laptop and PDA
ADJ4	Adjustable Mounting bracket for flexible aiming
REFL	Reflector 36" X 36" / 1m X 1m—for positioning applications
AVAILABLE THIRD PARTY ITEMS: (These items must be purchased from recommended vendor)	
High Pressure Site Glass	ANSI 4"High Press./ Temp. sight glass unit. Includes sight glass, spray ring, & flange for non-contact, non-intrusive level measurement in pressurized reactor vessels. Max press. 150 PSI / 10 Bar; Max temp. 450°F / 232°C. Recommended Vendor: JM Canty www.jmcanty.com Ph. 716-625-4227 Part numbers: (Site glass) SS-4-FV150-SS-5.90D (Spray ring) SS-4-SR150
Purge Kit Cl. I, Div. 2	Purge system kit: Class I, Div 2 Gr C & D Part number: 2-1Z83-19-LSR
Purge Kit Cl. I, Div. 1	Purge system kit: Class I, Div 1 Gr B, C & D Part number: 2-1Z83-19-X
Recommended vendor for Purge Kits: CSC, Inc. www.purges.controlsystemsusa.com Ph. 877-999-2724	

REQUIRED MOUNTING ACCESSORIES Select only one:	
TUB4S	Standard 316 SS Dust Tubes with (2) built-in purge ports (1/8" FNPT). See DIMENSIONS
ANSI	DIN
ANSI/DIN Flanges are supplied with Standard Dust Tube TUB4S	
FLGLM200S44 4" 150# 304SS RF Flange	FLGLM200S4DN100 DIN 100 PN10 304SS RF Flange
FLGLM200S46 6" 150# 304SS RF Flange	FLGLM200S4DN125 DIN 125 PN10 304SS RF Flange
FLGLM200XXXX Consult factory for availability	For any custom option requiring a different material, flange size, and/or mounting configuration.

DIMENSIONS		TERMINAL CONNECTIONS																																					
		<table border="1"> <thead> <tr> <th colspan="2">110VAC 220VAC</th> <th colspan="2">Not in use</th> <th colspan="2">24 VDC 4-20 mA</th> </tr> <tr> <th>N</th> <th>L</th> <th>NC</th> <th>NC</th> <th>-</th> <th>+</th> </tr> </thead> <tbody> <tr> <td>∅</td> <td>∅</td> <td>∅</td> <td>∅</td> <td>∅</td> <td>∅</td> </tr> <tr> <td>∅</td> <td>∅</td> <td>∅</td> <td>∅</td> <td>∅</td> <td>∅</td> </tr> <tr> <td>Re- turn</td> <td>OUT</td> <td>COM</td> <td>NO</td> <td>COM</td> <td>NO</td> </tr> <tr> <td colspan="2">4-20mA</td> <td colspan="2">Relay B</td> <td colspan="2">Relay A</td> </tr> </tbody> </table> <p>Earth</p> <p>DB9 RS232 Port</p>		110VAC 220VAC		Not in use		24 VDC 4-20 mA		N	L	NC	NC	-	+	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅	Re- turn	OUT	COM	NO	COM	NO	4-20mA		Relay B		Relay A	
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