



LASERMETER™

MODEL LM200

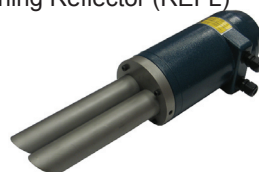
High Performance Long Range Laser Level & Positioning Transmitter

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

OPTIONS

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



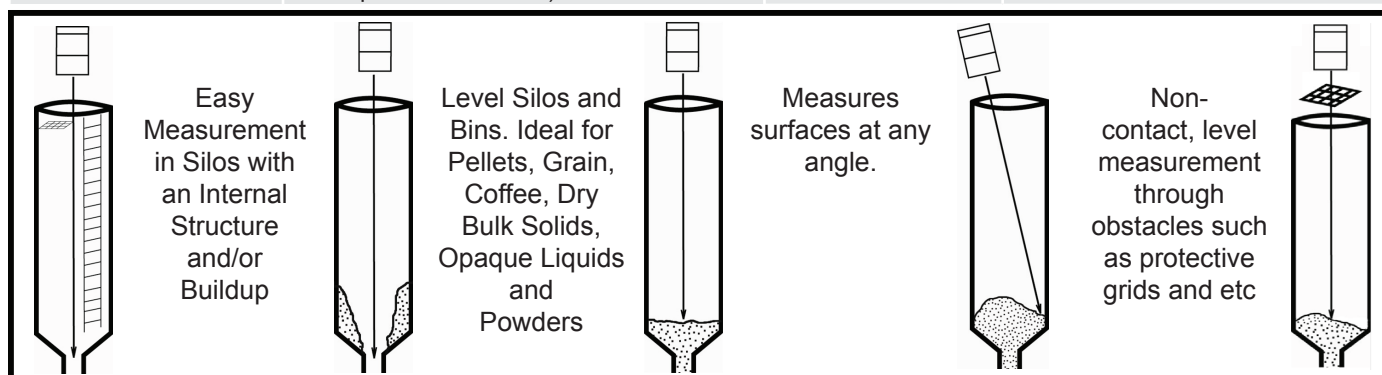
LM200 Shown with Standard Dust Tubes



LM200 Shown with Cable Glands

SPECIFICATIONS


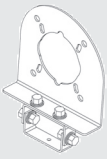
Measurement Range		Optical	
Level	Dark color surface - 1.5 ft. / 0.5 m to 100 ft. / 30 m - coal, black plastic pellets	Optical Aperture	4 in. / 100 mm.
Level	Light color surface - 1.5 ft. / 0.5 m to 200 ft. / 60 m - plastic pellets, grain	Laser Beam Diameter	1.97 in. / 50 mm.
Positioning	Reflective targets - 1.5 ft. / 0.5 m to 1312 ft. / 400 m - rail car, stacker, reclaimer	Receiver Beam Diameter	1.97 in. / 50 mm.
Resolution	0.4 in. / 10 mm.	Beam Divergence	<0.2°
Accuracy	± 1.5 in. / 30 mm.	Environmental	
Update Rate	3 readings / second to 1 reading / 250 seconds	Operating Temperature	-40° to 150°F / -40° to 65°C
Outputs		Pressure	Atmospheric
Analog	4-20 mA, NAMUR Compliant Isolated, Self Powered	Electrical Connection	2x 1/2" FNPT 2x Cable Gland Supplied
Serial	RS232 for Testing, Troubleshooting and Configuration	Dimensions	
Switching	2 SPST Relays	Diameter	5.25 in. / 135.5 mm.
AC Rating	Max 1A resistive @120VAC and 0.5A@250VAC	Length	12 in. / 305 mm.
DC Rating	Max 1A @ 60VDC, 60W Max 1A @ 120VAC	Weight	9.9 lbs. / 4.5 kg.
Electric Power	24 VDC (16-32 VDC) 110 VAC (±10% / 50Hz to 60Hz) 220 VAC (±10% / 50Hz to 60Hz)	Enclosure	Dual Compartment Powder Coated Aluminum
Power Consumption		Enclosure Rating	IP65
Start Up	Max. 7.5 Watts at 220 VAC	Process Connection	Require minimum opening of 4 in / 100 mm and is adaptable to ANSI Flanges 4" / DIN 100 and higher
Running Normal	0.25 Amp Peak ; 0.15 Amp Continuous	Approvals	FM DIP/II,III/1/EFG/T6=65°C, Type 4X, IP65
Laser Safety	Infrared 905nm; Visible Pointer 635nm LM200/SC and LM200/Pxxxx Pointer Continuous Class 3R (IEC 60825) (Avoid direct eye exposure) LM200/SL Pointer used for service only Class 1M (IEC 60825)(Do Not View Directly With Optical Instruments)		CSA Class II, Groups E,F,G; Class III, T6, -40°C ≤ Tamb ≤ +61°C, Type 4X, IP65



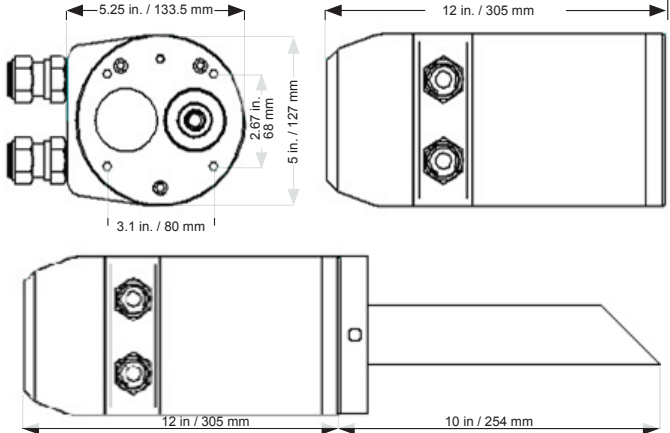
ORDERING INFORMATION

LM200/a/b:

/a	<p>Unit Options</p> <p>SL Standard Unit with Laser Pointer (level applications only) - Pointer used for service only</p> <p>SC Standard Unit with Laser Pointer—Pointer used continuously</p> <p>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) Pointer used continuously</p> <p>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.</p>
/b	<p>Approvals:</p> <p>FM Factory Mutual CSX Canadian Standards Association</p>

AVAILABLE OPTIONAL ITEMS:	
LCD2	<p>Laser Communication Device for programming and demo purposes.</p> <p>Note: Programming also can be implemented with Desktop PC, Laptop and PDA</p> 
ADJ4	<p>Adjustable Mounting bracket for flexible aiming</p> 
REFL	<p>Reflector 36" X 36" / 1m X 1m—for positioning applications</p>

REQUIRED MOUNTING ACCESSORIES	
Select only one:	
TUB4S	Standard 316SS Dust Tubes with (2) built-in purge ports (1/8" FNPT). See DIMENSIONS.
MP4LM200	304 Stainless Steel Mounting plate with 4" 150# ANSI and DIN100PN10 pattern and integral dust tube (not pressure rated)
MP6LM200	304 Stainless Steel Mounting plate with 6" 150# ANSI and 150 PN10 bolt pattern and integral dust tube (not pressure rated)
ANSI	DIN
ANSI/DIN Flanges are supplied with Standard Dust Tube TUB4S	
FLGLM200S44 4" 150# 304SS RF Flange	FLGLM200S4DN100 DIN100 PN10 304SS RF Flange
FLGLM200S46 6" 150# 304SS RF Flange	FLGLM200S4DN150 DIN150 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" style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td style="text-align: center;">110VAC 220VAC</td> <td colspan="2" style="text-align: center;">Not in use</td> <td colspan="2" style="text-align: center;">24 VDC 4-20 mA</td> </tr> <tr> <td></td> <td style="text-align: center;">N</td> <td style="text-align: center;">L</td> <td style="text-align: center;">NC</td> <td style="text-align: center;">NC</td> <td style="text-align: center;">-</td> <td style="text-align: center;">+</td> </tr> <tr> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> </tr> <tr> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> <td style="text-align: center;">⊘</td> </tr> <tr> <td style="text-align: center;">Re- turn</td> <td style="text-align: center;">OUT</td> <td style="text-align: center;">COM</td> <td style="text-align: center;">NO</td> <td style="text-align: center;">COM</td> <td style="text-align: center;">NO</td> <td></td> </tr> <tr> <td style="text-align: center;">4-20mA</td> <td colspan="2" style="text-align: center;">Relay B</td> <td colspan="3" style="text-align: center;">Relay A</td> <td></td> </tr> </table> <p style="text-align: right;">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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 DCN0246
 For the latest version of this data sheet,
 visit ktekcorp.com or kteksolidslevel.com.

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