



LASERMETER™

MODEL LM80

Intermediate Range Laser Level & Positioning Transmitter

FEATURES

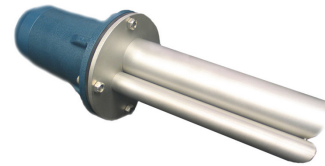
- Range up 100 ft. / 30 m (level applications) and up to 500 ft. / 150 m (positioning applications)
- No Beam Divergence = No False Echoes
- Measures any Surface at Any Angle
- Rugged and Robust Aluminum Enclosure
- Built-in Purge Port (1/8" FNPT)
- No Calibration Required
- No Special Configuration Software Required
-



LM80 Shown with Cable Gland

OPTIONS

- Stainless Steel Mounting Plate (MP)
- ANSI / DIN Flanges
- Laser Communication Device (LCD2)
- Laser Pointer
- Built-in Heated Glass
- Portable Power Pack (PPK)



LM80 Shown with Standard Dust Tube

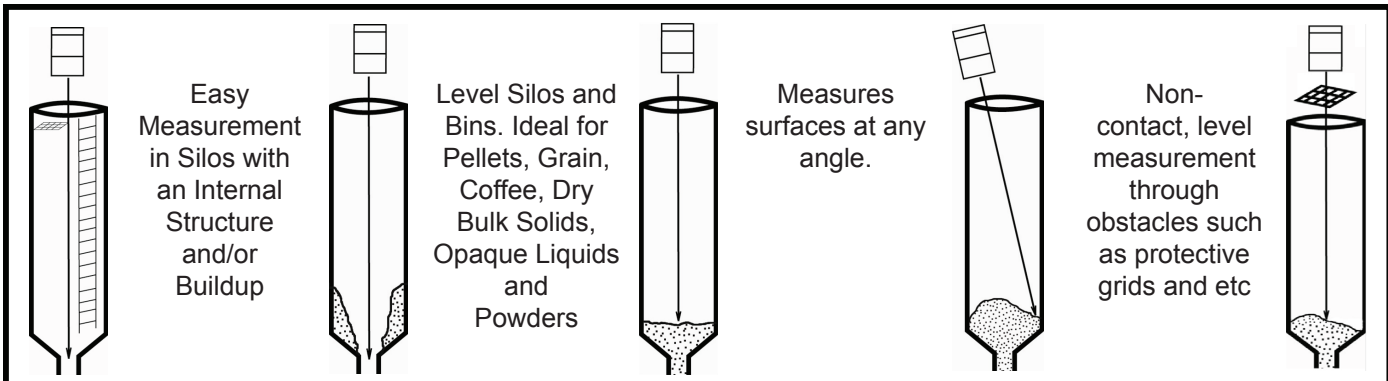
SPECIFICATIONS

Measurement Range







Level	Dark color surface	1.5 ft. / 0.5 m to 60 ft. / 18 m - black plastic pellets
Level	Light color surface	1.5 ft. / 0.5 m to 100 ft. / 30 m - plastic pellets, grain
Positioning	Reflective targets	1.5ft. / 0.5 m to 500 ft. / 150 m - tripper car, overhead crane
Resolution	0.4 in. / 10 mm.	
Accuracy	± 1.5 in. / 30 mm.	
Update Rate	3 readings / second to 1 reading / 60 seconds	

Outputs

Analog	4-20 mA, NAMUR Compliant Active, Self Powered	
Serial	RS232 for Testing, Troubleshooting and Configuration	
Switching	2 SPST Relays (not available with built-in heated glass)	
AC Rating	Max 1A resistive @120 VAC and 0.5A @ 250 VAC	
DC Rating	Max 1A @ 60 VDC, 60 W	
Inductive Load	Max 1A @ 120 VAC	



SPECIFICATIONS (continued)



Electric Power	24 VDC (16-32 VDC)
Power Consumption	
Start Up	6 Watts
Running	0.4 Amp Peak ; 0.2 Amp Continuous 0.35 Amp with built-in heated glass
Lasers Laser Safety	 <p>Infrared 905 nm; Visible Pointer 635 nm LM80/SC and LM80/Pxxx Pointer Continuous Class 3R (IEC 60825) - Avoid direct eye exposure LM80/SL, LM80/HL, LM80/A/TC and LM80/A/HYG Pointer used for service only Class 1M (IEC 60825) (Do Not View Directly With Optical Instruments) LM80/SX No Pointer Class 1M (IEC 60825) (Do Not View Directly With Optical Instruments)</p>
Optical	
Optical Aperture	3 in. / 80 mm
Laser Beam Diameter	1.5 in. / 30 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	1/2" FNPT 1x cable gland supplied
Dimensions	
Diameter	4.3 in. / 110 mm
Length	6.9 in. / 175 mm
Weight	3.25 lbs. / 1.5 kg.
Enclosure	Dual Compartment Powder Coated Aluminum
Enclosure Rating	IP66
Process Connection	Requires minimum opening of 3 in / 80 mm and is adaptable to ANSI Flanges 4" / DIN100 Flanges and Higher
Approvals	 <p>Factory Mutual Research Corporation NI / I / 2 / ABCD / T4A Ta= 65°C (149°F) DIP / II, III / 1 / EFG / T4A Ta= 65°C (149°F) Type 4X</p>  <p>ATEX  II 3G Ex nA nc IICT4; SIRA 07 ATEX 4179X  II 2D Ex tD A21 IP66 T85°C; SIRA 07 ATEX 9180X (-20°C to +60°C) Ingress Protection IP66</p>  <p>Canadian Standards Association Class I, Division II, Groups A,B,C,D Class II, Groups E,F,G; Class III, T4A; Ta= +65°C Ex nA nc T4; Ex tD A21 T85°C (-20 ≤ Tamb ≤ -60°C) Type 4X, IP66</p>




ORDERING INFORMATION

LM80/a/b/c:



/a	Enclosure Material
A	Aluminum enclosure Powder Coated (Standard)
S	Stainless Steel Enclosure 316L (NOT available for /CSX in Non-Inclusive Areas)
	Note: Stainless Steel enclosure is available for standard units SL (Pointer used for service only) and SC (Pointer used continuously) options only. Laser units with stainless steel enclosure are NOT hazardous area approved. Use the order code suffix X for approvals.
/b	Standard Unit Options
SX	Standard Unit without Laser Pointer (Level Applications Only)
SL	Standard Unit with Laser Pointer (Level Applications Only - Pointer used for service only)
SC	Standard Unit with Laser pointer (Used Continuously) (NOT available with /CSX)
HL	Laser Unit with built-in heated glass & Laser Pointer (level applications only with possible condensation on the optic) (See note below.) - Pointer used for service only (This option is NOT ATEX Approved or /CSX in non-sparking or dust ignition proof areas) Note: The required standard dust tube with this option is MP1LM80HL . Switching relays are available with this option.
Pxxx	Positioning Unit with Laser Pointer (Positioning Applications Only). Specify the application maximum positioning range in feet. For example: 75 feet = P075 (See note below.) (Pointer Used Continuously) Note: For positioning applications only, the following accessories are mandatory for optimal performance and will be supplied with the positioning laser transmitter: MP1LM80 Standard Dust Tube, REF M Reflector and ADJ4 Adjustable Mounting Bracket. (NOT available with /CSX)

Special Unit Options

TC	Tri-clover Laser unit with 4" Stainless Steel Tri-clover quick disconnect face and aluminum upper body. Built-in pointer, pointer used for service only. Dust Tubes are NOT required. To order this option, use order code LM80/A/TC/X. Note: LM80/A/TC is not available with /FM, /CSX and /CEX approvals.	
HYG	Hygenic Laser unit with 4" Stainless Steel Tri-clover face plate, aluminum upper body, built-in pointer purge port, heated optic. Pointer used for service only. Dust tubes are NOT required. To order this option, use ordering code, LM80/A/HYG/X. Note: LM80/A/HYG is not available with /FM, /CSX and /CEX approvals.	

/c	Approvals
FM	Factory Mutual 
CEX	ATEX Non-Sparking 
CSX	Canadian Standard Association 
X	No Approvals

AVAILABLE OPTIONAL ITEMS:

LCD2	Laser Communication Device for programming and demo purposes Note: Programming also can be implemented with Desktop PC, Laptop or PDA	
ADJ4	Adjustable Mounting Bracket - For Flexible Aiming	
REFM	Reflector 20" x 20" / 50 cm x 50 cm - for Positioning Applications	
PPK	Battery powered pack - For Demo Purposes and Mobility	

REQUIRED MOUNTING ACCESSORIES
Select only one:

MP1LM80	Standard 304 SS Dust tube and mounting plate bolt pattern identical to LM80 flanged face plate. (See Dimensions below) Add suffix HL for Heated Glass option. Example: MP1LM80HL
MP4LM80	304 Stainless steel mounting plate with 4" 150# ANSI and DIN100 PN10 bolt pattern and integral dust tube
MP6LM80	304 Stainless steel mounting plate with 6" 150# ANSI and DIN150 PN10 bolt pattern and integral dust tube

ANSI

DIN

ANSI/DIN Flanges are supplied with Integral Dust Tube

FLGLM200S44 4" 150# 304SS RF Flange	FLGLM200S4DN100 DIN100 PN10 304SS RF Flange
FLGLM80S46 6" 150# 304SS RF Flange	FLGLM80S4DN150 DIN150 PN10 304SS RF Flange
FLGLM80XXXX Consult factory for availability	For any custom option requiring a different material, flange size, and/or mounting configuration.

No Flange is available for the Heated Lens (HL) option.

AVAILABLE OPTIONAL ITEMS:

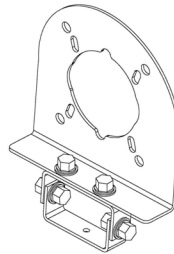
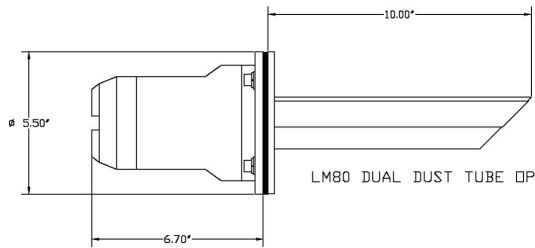
⊘ Ground

ISOLATED RELAYS			4-20 OUT	0v COM	24v +
COM	A	B			
⊘	⊘	⊘	⊘	⊘	⊘

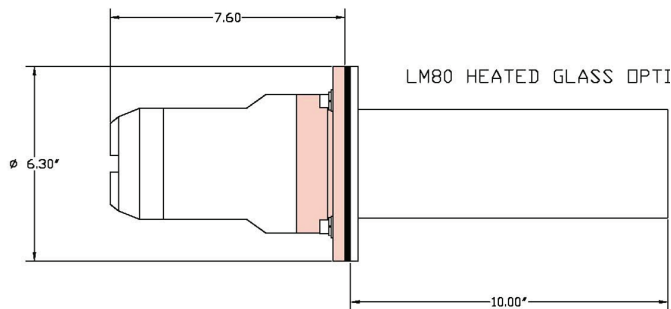


DIMENSIONS
Standard Tube MP1LM80 Option

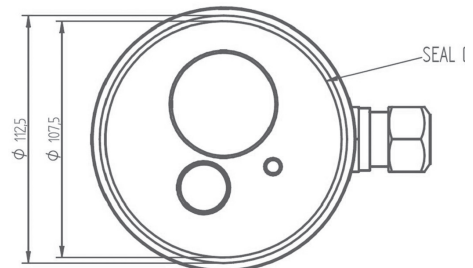
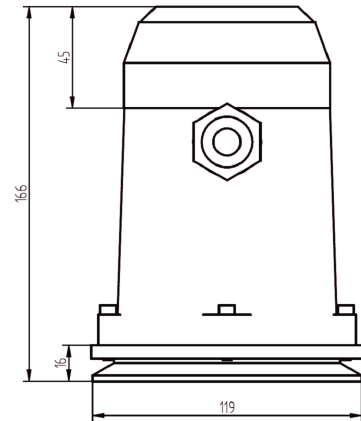
Adjustable Mounting Bracket (ADJ4)



DIMENSIONS
Heated Glass MP1LM80HL Option



DIMENSIONS
Special Unit Option



K-TEK
18321 Swamp Road
Prairieville, LA 70769 USA
Phone: (1) 225-673-6100
Fax: (1) 225-673-2525
Email: sales@ktekcorp.com
Website: ktekcorp.com



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visit ktekcorp.com or kteksolidslevel.com.

K-TEK
6100 West by Northwest #140
Houston, TX 77040 USA
Phone: (1) 713-462-7665
Fax: (1) 713-462-7684
Email: sales@kteksolidslevel.com
Website: kteksolidslevel.com