General Specifications

Model MLA & MLD
Loop Powered Process Indicators

The Model MLA and MLD field mounted indicators receive DC voltage or current signals by electronic Transmitters and indicate process measurement values. Standard models are NEMA4X and Explosion Proof.

Model MLD (Digital) **Model MLA (Analog)**

STANDARD SPECIFICATIONS MODEL MLA & MLD

Input Resistance: < 6.5 ohm (MLA 4-20mA), < 13.5 ohm (MLA 10-50mA), ~4K ohm (MLA 1-5V)
Voltage Drop: 1.8V typ., 2V max. (MLD)
Scale: Black. Analog single graduations 0-100% standard. Digital 0-100.0% w/decimal standard.
Accuracy: ± 1.5% of full scale (MLA)
± 0.05% of full scale (1999) +1 digit (MLD)
Operating Temperature Range: -20 to 60°C
Temperature drift: ±0.3digit/℃ (MLD)
Vibration: 1G @ 10-150Hz (MLA), 3G @ 10-150Hz (MLD)
Insulation Resistance: Between input terminals and case 100 Mohm at 500 V DC
Dielectric Strength: Between input terminals and case: 1000 VAC for 1 minute.
Mounting: Nominal 2" (50mm) pipe mount or surface.
Electrical Classification: NEMA4X, FM, CSA, EXPLOSIONPROOF CL1, DIV1, GPS A,B,C,D, DUST-IGNITIONPROOF CLII / III, GPS E,F,G
Case and Cover: Die cast aluminum, baked polyurethane paint. Dark green; NEMA 4X; Optional SUS316 Stainless Steel
Electrical Connection: ½ NPT or M20
Weight: 3.0 lbs (MLA), 2.7 lbs (MLD) (Weight is for standard Housing)

Model	Suffix Codes	Description
MLA	……	Field Mounted Loop Indicator (Analog)
MLD	……	Field Mounted Loop Indicator (Digital)
Input Signal	-A ……	4 to 20 mA DC
	-B ……	10 to 50 mA DC (MLA only)
	-C ……	1 to 5 VDC (MLA only)
Mounting	1.....	2" Horizontal Pipe
	2 ……	2" Vertical Pipe (or wall mount)
Housing	/1……	Cast Aluminum Alloy –(Standard Housing)
	/2……	SUS316 Cast Stainless and ASTM CF-8M
		(/FF1 and /CF1 are pending.)
Electrical Connection	/00……	½ NPT Female; No Plugs
	/10……	½ NPT Female; (2) 304 SST Blind Plugs
	/20……	½ NPT Female; (2) 316 SST Blind Plugs
	/30……	M20 Female; No Plugs
	/40……	M20 Female; (2) 316 SST Blind Plugs
Explosion Protection	/FF1	FM Explosion Proof
	/CF1	CSA Explosion Proof
Paint Option	/X1	Epoxy Resin Paint
	/X2	Polyurethane-Epoxy(Anti-Corrosion Paint)
Options	/ENG	Engineering Unit Calibration (MLD Only)
	/ WHT	White scale or face plate (MLA Only)
	/ SC	Scale in Engineering Units (MLA Only)
	/ SST	SST Tag - Attached to Housing
	/SSW	SST Tag – Wired to Housing

OPTIONS

Scale: Analog: Special range scale in Engineering Units (/SC)
Digital: Laser faceplate available on request.
Scale or Faceplate color: White on request (/WHT)
Scaling: Digital: Special calibration in Engineering Units (/ENG). Max. value = 1999
Other Optional Items: Stainless Steel Tag, Electrical Connections, SUS316 Housing, and /X1 or /X2 Paint. /SST (limited to 12 Characters) or /SSW Tag

ORDERING INSTRUCTIONS

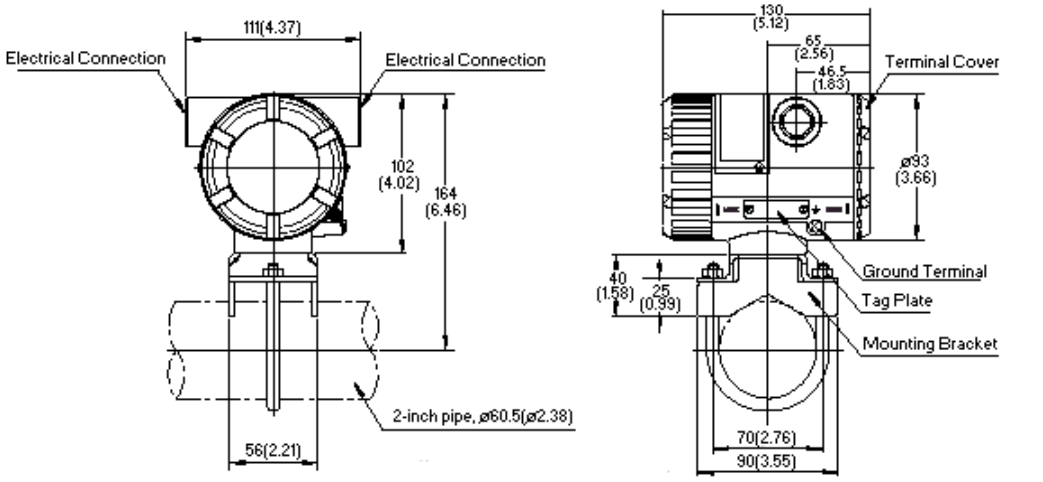
1. Model and suffix codes.
2. Option codes.
3. Scale range and unit markings desired.
4. Tag number.

Example Ordering Instructions:

MLD-A1/1/00/FF1/ENG/SST (Field Mounted Indicator (Digital), 4 to 20 mA DC, 2" Horizontal Pipe, FM Explosion Proof,
0-200 InH2O scale in Engineering Units.) Please specify Scale and Engineering units when ordering /ENG.
FT-201 Specify Tag Number when ordering /SST; Up to 12 Characters.

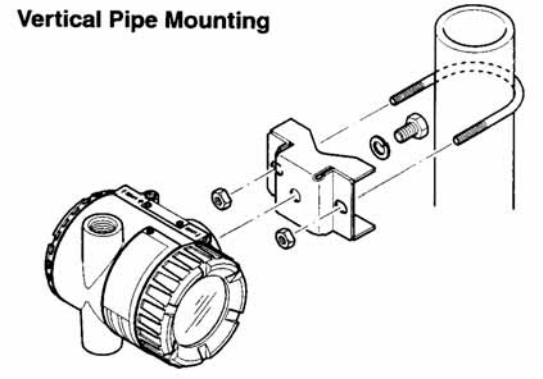
DIMENSIONS

Unit: mm (Approx. inch)

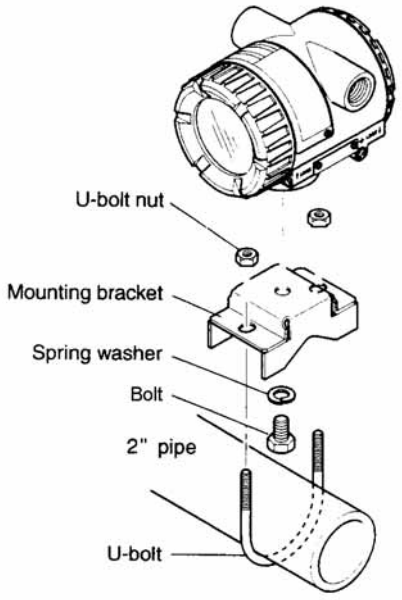


Mounting

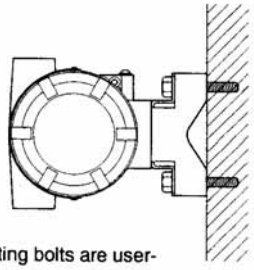
Vertical Pipe Mounting



Horizontal Pipe Mounting



Wall Mounting

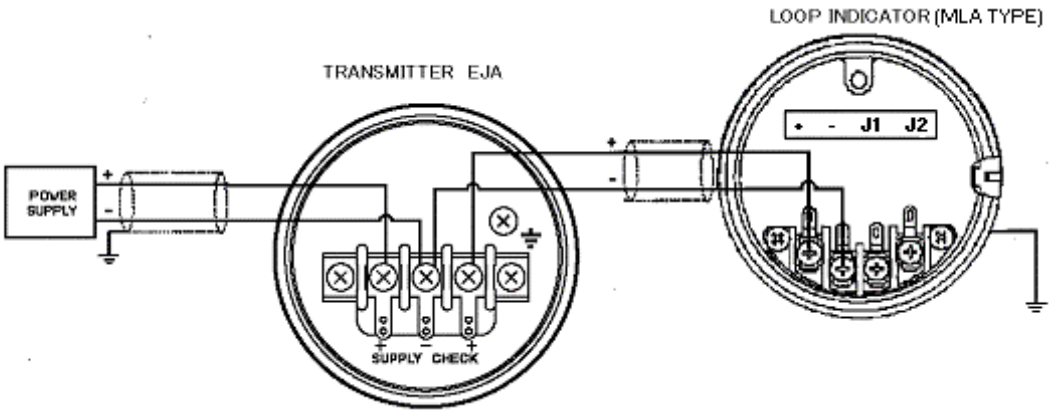


Note: Wall mounting bolts are user-supplied.

WIRING

The loop powered indicator series is powered by the current output loop and does not require external power. All devices must be wired in series with the current loop. Twisted pair shielded cable is recommended.

The following is a typical wiring example of the MLA (Analog type) Loop Indicator connected to an EJA Pressure Transmitter. The impedance of the MLA is low enough that you can connect it across the Check Terminals.



The following is another wiring example of the MLA (Analog type) or MLD (Digital type) Loop Indicator connected to an EJA Pressure Transmitter (Note: The EJA Transmitter below can be replaced with any 4-20mA 2 wire device.