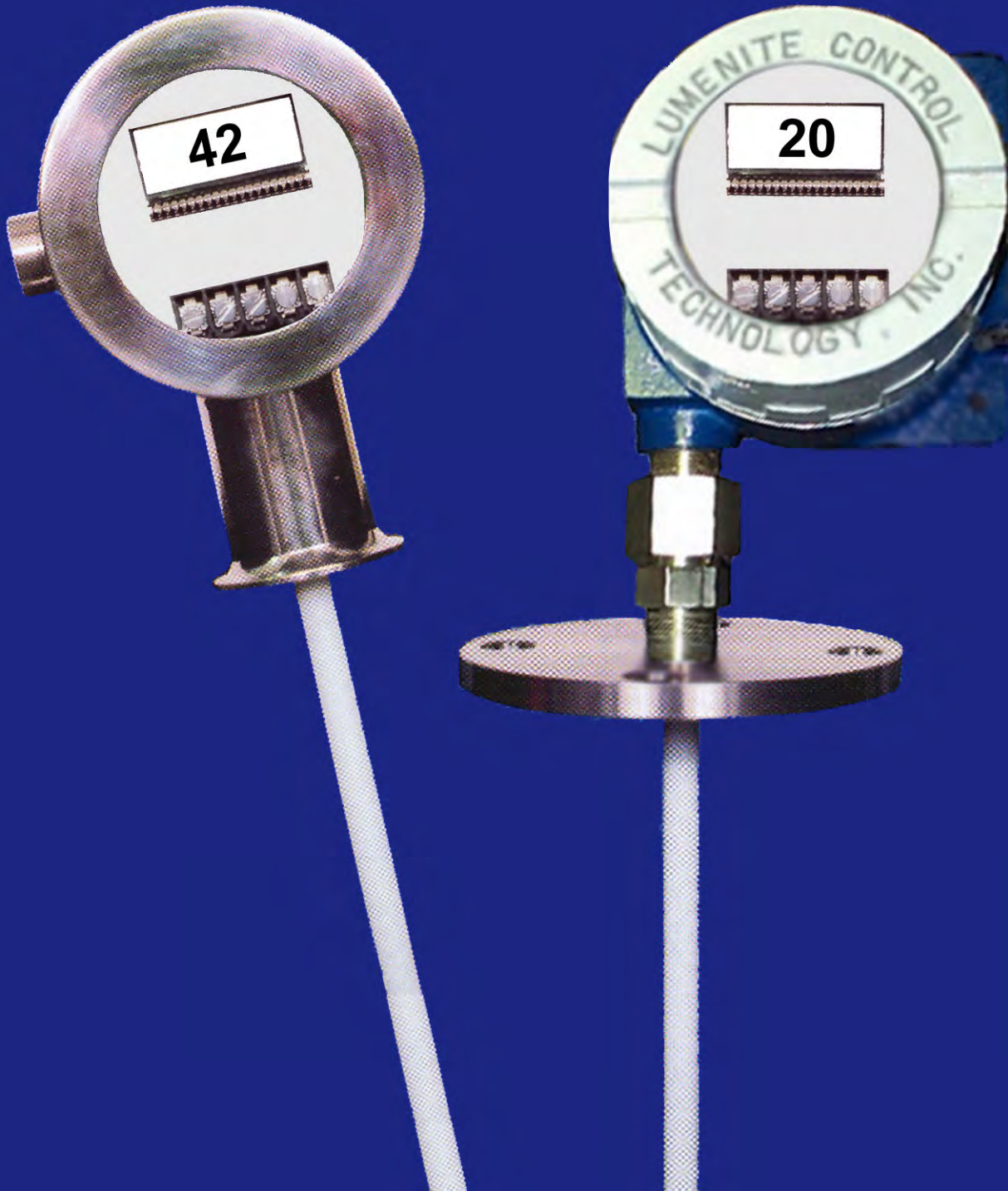


# LUMENITE

Series 4220

MICROPROCESSOR BASED  
LEVEL TRANSMITTERS



CONTINUOUS MONITORING CONTROL



# SERIES MLST (SANITARY NEMA 4X) SERIES MLXT (INDUSTRIAL NEMA 4X-NEMA 7) MICROPROCESSOR BASED LEVEL TRANSMITTERS

The Lumenite sanitary and industrial microprocessor based level transmitters utilize the proven RF capacitance sensing method. Superior resolution to 1 part in 10,000 (ie. 0.0001 picofarad), provides a 4-20 mA, 20-4mA, or 0-5VDC output proportional to material level in tanks, reservoirs, and similar containers.

Cancel Coat™ circuitry combined with 0.0001pf. resolution, cancels the effect of coating on the sensing probe assuring accuracy and repeatability to better than 0.1%. Lumenite sanitary transmitters (Series MLST) mount through every type of sanitary fitting with electronics housed in a 304S.S. NEMA 4X corrosion resistant enclosure.

Lumenite industrial transmitters (Series MLXT) are enclosed in a NEMA 4X/NEMA 7 housing with "see through" window and supplied with various male pipe or flange tank connections.

## U<sub>L</sub> MODEL MLST-4220 SANITARY MODELS

Conforms to NEMA Type 4, 4X, 12, and 13 waterproof and corrosion resistant. Constructed with 14 gauge 304S.S.

### Ordering information for MODEL MLST-4220:

#### MLST-4220:

Sanitary level transmitter with 12VDC to 36VDC line voltage mounted in NEMA 4X 304 S.S. enclosure.

Type of Sanitary Fitting

- A=Bevel Seat
- C=Tri-Clamp
- K=K-Clamp (APC)
- P=PV (APC)

**NOTE:** Specify other sanitary fittings if desired. Consult factory for appropriate model #.

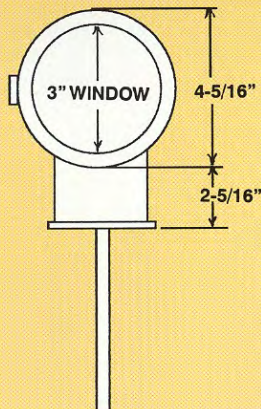
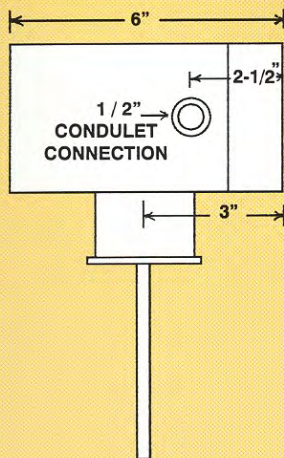
Size of Fitting  
1 1/2" through 4"

Length of Probe

### MLST-4220-C-2"-36"

Lumenite sanitary transmitter mounted in NEMA 4X S.S. enclosure with 36 inch Teflon insulated probe, and 2 inch Tri-Clamp tank connection.

(For 115VAC or 220VAC operation, consult the factory.)



## U<sub>L</sub> MODEL MLXT-4220 INDUSTRIAL MODELS

Mechanical specifications and important features: Conforms to Class I Groups C & D, Class II Groups E, F, & G, and Class III. Suitable for wet locations.

**Applicable Standards:** NEMA 7, 9 and 4x.

### Ordering information for MODEL MLXT-4220:

#### MLXT-4220:

Industrial level transmitter with 12VDC to 36VDC line voltage mounted in NEMA 4, 7, and 9 rated enclosure with 3/4" N.P.T. tank connection.

Optional tank Connection  
F=Flange  
P=Male Pipe Thread

Size of Pipe Thread or Flange

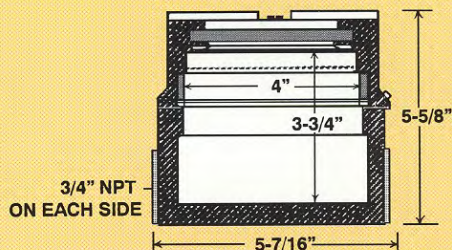
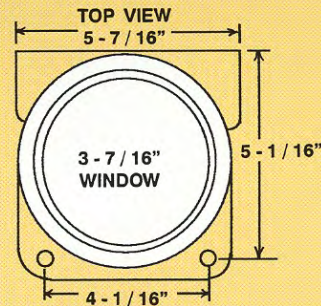
Rating of Flange  
in LB

Length of Probe

### MLXT-4220-F-4"-150 LB-48"

Lumenite industrial transmitter mounted in NEMA 4, 7, and 9 rated housing, with 48 inch Teflon insulated probe, and 4 inch 150 LB flange tank connection.

(For 115VAC or 220VAC operation, consult the factory.)





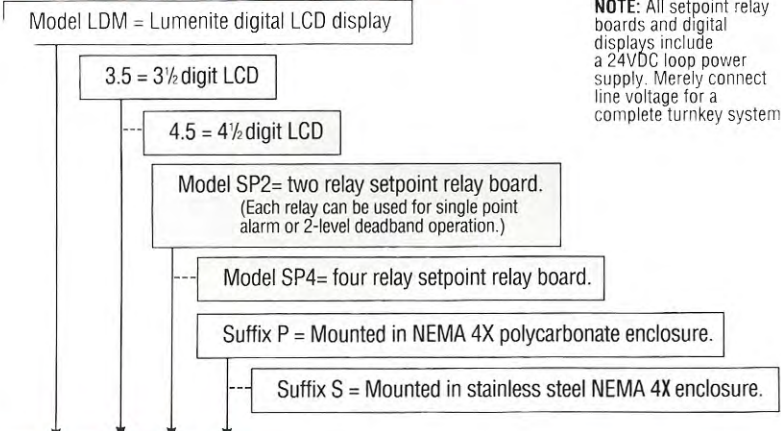


**Model MLST-4220-C-2"**  
with 2" sanitary tri-clamp mounting.

**Model MLXT-4220-F-3"**  
with 3" 150 LB S.S. flange mounting.

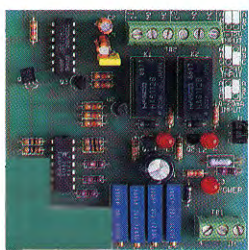
**Model MLXT-4220-P-1-1/2"**  
with teflon insulated cable probe.

**Ordering Information for Optional Accessories:**

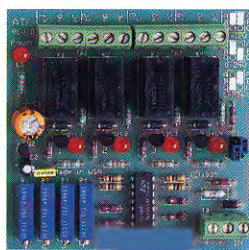


**NOTE:** All setpoint relay boards and digital displays include a 24VDC loop power supply. Merely connect line voltage for a complete turnkey system.

**LDM-3.5-SP2-P =**  
3 1/2 digit LCD backlit readout with a two relay setpoint board, 24VDC loop power supply all mounted in polycarbonate NEMA 4X enclosure.  
(NOTE: Digital displays and relay boards may be ordered separately. A 24VDC loop power supply is included.)



**Model SP2-**  
two relay setpoint relay board.



**Model SP4-**  
four relay setpoint relay board.



**Model LDM 3.5-S**  
3 1/2 digit backlit LCD readout mounted in stainless steel NEMA 4X enclosure.

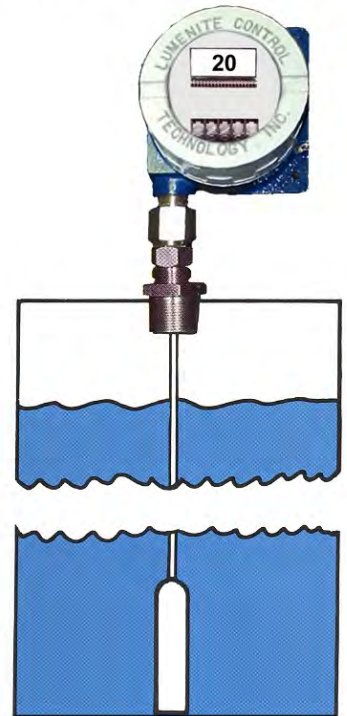
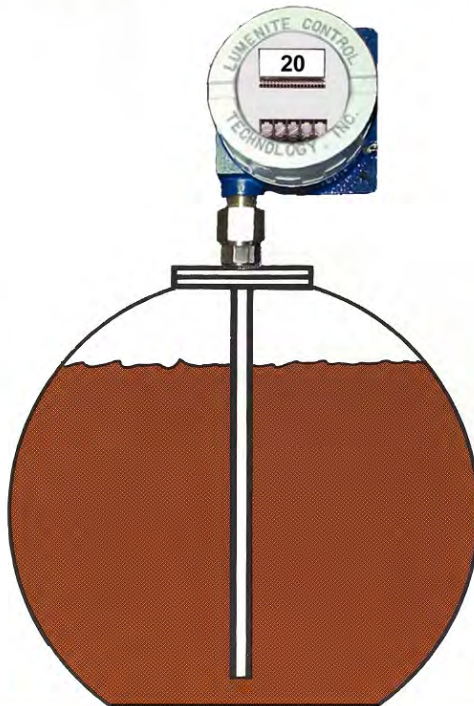
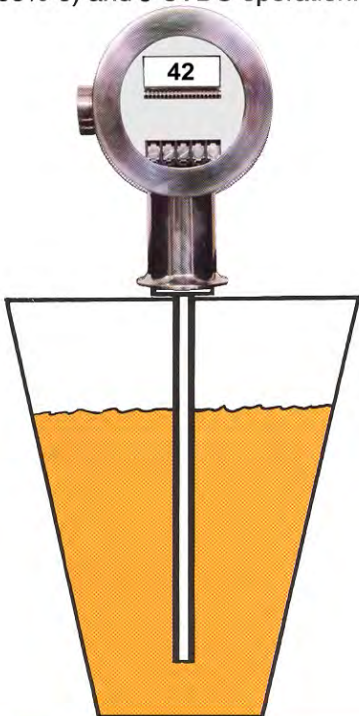


**Model LDM 3.5-P**  
3 1/2 digit backlit LCD readout mounted in polycarbonate NEMA 4X enclosure.



# MODEL MLXT-4220 (INDUSTRIAL) — MODEL MLST-4220 (SANITARY) MICROPROCESSOR BASED CONTINUOUS LEVEL TRANSMITTERS STANDARD SPECIFICATIONS

- Resolution to better than 1 part in 10,000
- Accuracy and repeatability to less than 0.1% of span
- Microprocessor based transmitter with on board digital to analog conversion assuring negligible output current error of 0.003%
- Linearity of better than 0.003% over the industrial temperature range of -20°F to 160°F.
- Designed with the most up to date surface mount, integrated circuits and components.
- Standard span range of 0.0001 picofarads to 15,000 picofarads. This allows the series 4220 to span 4-20 mA over 1 inch of water, (high sensitivity) or hundreds of feet of water, (low sensitivity).
- Non interacting zero and span.
- Cancel Coat™ circuitry and superior resolution eliminate the readout errors caused by conductive coatings on the sensing probe.
- Calibration and programming accomplished with only 3 push buttons.
- 3-digit on board display allows 4-20 mA, 20-4 mA, and 0-100% calibration and run modes.
- Operator has choice of 4-20 mA (0-100%) 20-4 mA (100%-0) and 0-5VDC operation.
- Dampening circuitry eliminates "Display Jittering" caused by agitated liquids.
- Standard error messages 01 and 02 indicate shorted probe (01) and disconnected probe (02).
- Extensive RFI, EMF, and transient protection verified by independent laboratory tests, available upon request.
- Electronics may be remote mounted hundreds of feet from the probe using 3 conductor cable.
- Supply voltage range of 12 volts to 36 volts D.C. Optional 115VAC and 230VAC inputs available.
- Maximum loop resistance of 600 OHMS with 24VDC power supply.
- Nema 4X stainless steel sanitary housing with "see through window" and every type of sanitary tank connection.
- Nema 7 rated cast aluminum instrument housing with "see through window," UL, CSA, and Factory Mutual approved.
- Industrial Tank Mountings include:  
Standard 3/4" NPT  
Optional 1-1/2" NPT  
1" through 4" steel or stainless steel flange  
Any special tank connection upon request



Made With Pride In The U.S.A.

**Lumenite Control Technology, Inc.**

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Web Site : [www.lumenite.com](http://www.lumenite.com) E-Mail : [customerservice@lumenite.com](mailto:customerservice@lumenite.com)



We Now Accept . . .

