



OPERATION

The sensor is mounted on the top of the tank. The electronics generate an electronic signal that is converted by the sensor to ultrasonic pulses that are transmitted through air space. At the liquid/air interface, the pulses are reflected back to the sensor. These echoes are received by the microprocessor in the electronics, which samples the echoes and calculates the level in the tank. Continuous output of 4-20ma (isolated) adjustable in increments of 1%/1 over entire span is provided to satisfy a number of applications. Programming is done through a pair of BCD switches. Continuous output is updated every second at 4.0ma for the JMS500 loop powered unit. With two wires, the JMS500 Series uses Very Small Sensor (VSS) technology to fit into those applications where ultrasonic, non-contact systems could not previously be used because the ultrasonic transducer was just too large. The JMS500 consist of the microtransducer, 316SS construction and state-of-the art microprocessor based electronics housed in a NEMA 7 explosion-proof enclosure.

FEATURES

- 1 – 20 Foot Range
- Exclusive VSS Sensor Sense with 3/4 NPT
- Ranges Liquid/Slurries Bulk Solids

3/4" NPT	6"-120"	6"-60"
2" NPT	12"-240"	12"-120"
- Reverse polarity protected
- 1/4 % Accuracy of Full Scale
- Temperature Compensation

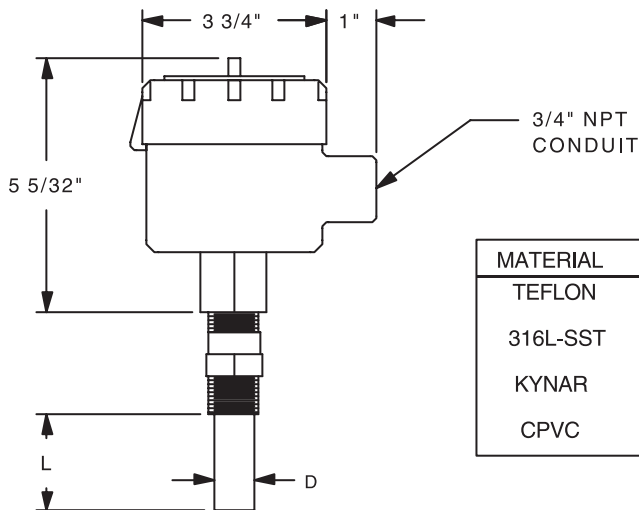
SPECIFICATIONS

Input Power: 18V DC – 36V DC Loop Power 2 wire
 Loop current: 4 – 20 mA DC (isolated), 20.5ma Lost Echo/no signal
 Controls: programmable zero and span, height & distance – mode through BCD switches increments of 1” up to 300”, increments of 0.1” up to 99.9”
 Temperature range:
 Sensor –20 DEG. F to + 180 DEG. F
 Electronics- 20 DEG. F to +170 DEG.F
 Sensor Pressure Rating: 250 PSIG
 250 PSIG-316 S.S.
 100 PSIG-Teflon, Kynar , CPVC
 Sensor Construction: CPVC(standard), 316 SST,Kynar or Teflon (optional)
 Electronics Enclosures: NEMA-4/7 explosion-proof: Class 1, divisions 1 or 2 Groups B,C &D, Class II, Divisions 1 & 2, Groups E ,F & G Class III



Installation, Operation and Maintenance Instructions • JMS500 Two Wire Loop Power Explosion Proof Ultrasonic Transmitter

P/N	RANGE LIQUID SLURRY	RANGE BULK SOLID	ELECTRONICS	SENSOR MATERIAL	SENSOR MOUNTING
JMS516	6" - 120" (.15M - 3M)	6" - 60" (.15M - 1.5M)	2 Wire, Loop Power	316LSS	3/4" NPT
JMS517	6" - 120" (.15M - 3M)	6" - 60" (.15M - 1.5M)	2 Wire, Loop Power	316LSS	SANITARY 1"
JMS518	6" - 120" (.15M - 3M)	6" - 60" (.15M - 1.5M)	2 Wire, Loop Power	316LSS	SANITARY 1-1/2"
JMS519	6" - 120" (.15M - 3M)	6" - 60" (.15M - 1.5M)	2 Wire, Loop Power	316LSS	SANITARY 2"
JMS520	6" - 120" (.15M - 3M)	6" - 60" (.15M - 1.5M)	2 Wire, Loop Power	Teflon®	3/4" NPT
JMS521	6" - 120" (.15M - 3M)	6" - 60" (.15M - 1.5M)	2 Wire, Loop Power	Teflon®	SANITARY 1"
JMS522	6" - 120" (.15M - 3M)	6" - 60" (.15M - 1.5M)	2 Wire, Loop Power	Teflon®	SANITARY 1-1/2"
JMS523	6" - 120" (.15M - 3M)	6" - 60" (.15M - 1.5M)	2 Wire, Loop Power	Teflon®	SANITARY 2"
JMS524	6" - 120" (.15M - 3M)	6" - 60" (.15M - 1.5M)	2 Wire, Loop Power	Tefzel®	3/4" NPT
JMS525	6" - 120" (.15M - 3M)	6" - 60" (.15M - 1.5M)	2 Wire, Loop Power	Kynar	3/4" NPT
JMS526	6" - 120" (.15M - 3M)	6" - 60" (.15M - 1.5M)	2 Wire, Loop Power	CPVC	3/4" NPT
JMS527	12" - 240" (.3M - 6M)	12" - 120"(.3M - 3M)	2 Wire, Loop Power	316LSS	2" NPT
JMS528	12" - 240" (.3M - 6M)	12" - 120"(.3M - 3M)	2 Wire, Loop Power	Teflon®	2" NPT
JMS529	12" - 240" (.3M - 6M)	12" - 120"(.3M - 3M)	2 Wire, Loop Power	Kynar	2" NPT
JMS530	12" - 240" (.3M - 6M)	12" - 120"(.3M - 3M)	2 Wire, Loop Power	CPVC	2" NPT



MATERIAL	3/4" NPT (D)	3/4"NPT (L)	2" NPT (D)	2" NPT (L)
TEFLON	7/8"	2"	1.9"	10"
316L-SST	7/8"	10"	1.9"	10"
KYNAR	7/8"	10"	1.9"	10"
CPVC	7/8"	10"	1.9"	10"

