ELECTRONICS DIVISION
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UMC AUTOMATION
ELECTRONICS DIVISION

STAND ALONE TANK GAUGE (SAT)

The SAT is a direct mounted, self-contained unit powered by a lithium battery pack. The battery pack should provide approximately 3 years service under normal operating conditions. The unit is contained in an explosion proof instrument housing with a glass front allowing readings to be taken while the unit is located in a hazardous area. The unit is activated with the attached magnet by placing the magnet against the window over the reed switch. When activated, the display will remain active for approximately 30 seconds. This is done to conserve battery power.

Pressure Ranges: 0-5 psig through 0-2000 psig
Pressure Port Options: ½" FM/1" M NPT
2" grooved (Vic)
Wetted Materials: 316 S.S.

Operating Temp: -40 to +260 °F
Overpressure: 20 psig for 5 psig unit
2X for all other units
Enclosure: Class 1, Groups B,C,D

Calibration Procedures:

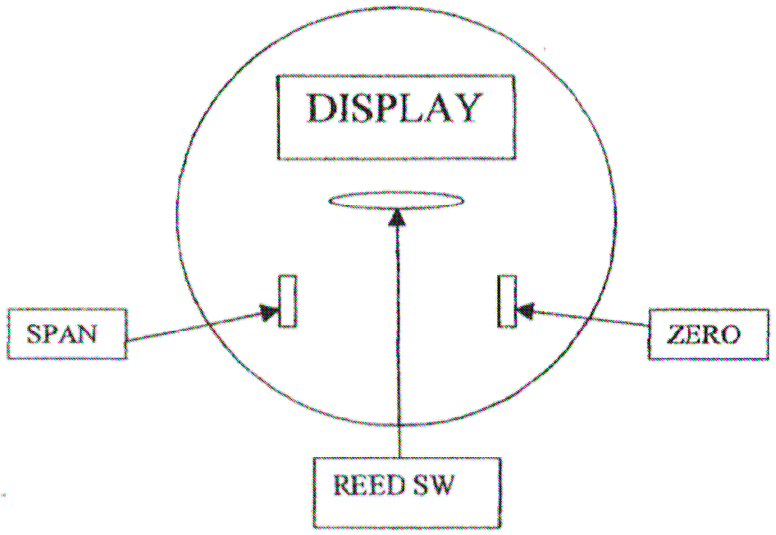
Pressure:

1. Remove pressure on unit and adjust zero pot to read zero on display
2. Apply full pressure to unit and adjust span pot to desired reading on display
3. Repeat steps 1 and 2 until readings remain at desired settings.

Level:

1. Remove pressure on unit and adjust zero pot to read connection height on display
2. Apply pressure to unit and adjust span pot to gauged level on display
3. Repeat steps 1 and 2 until readings remain at desired settings.

Note: The closer the level is to maximum level, the greater the setting accuracy of the SAT



Note: The range of the SAT is set by a "configuration module" that is located below the reed switch. When the original order is submitted, the proper configuration module is supplied. In some cases, in moving the SAT from the original location to another location, there may be a problem in calibration to the new location. If this is the case, a new configuration module must be obtained from UMC. The factory will need the specific gravity of the fluid and the tank height as well as connection height. Or in the case of the pressure unit, the full scale pressure.

Below is the formula to aid in conversion from $1/10^{th}$ and $1/100^{th}$ of a foot to inches

TANK LEVEL CONVERSION TABLE - ROUNDED TO NEAREST INCH INCREMENT							
1/100th FT	Inches	1/100th FT	Inches	1/100th FT	Inches	1/100th FT	Inches
0.02	1/4	0.26	3 1/4	0.52	6 1/4	0.77	9 1/4
0.04	1/2	0.29	3 1/2	0.54	6 1/2	0.79	9 1/2
0.06	3/4	0.31	3 3/4	0.56	6 3/4	0.81	9 3/4
0.08	1	0.33	4	0.59	7	0.83	10
0.1	1 1/4	0.35	4 1/4	0.6	7 1/4	0.85	10 1/4
0.12	1 1/2	0.38	4 1/2	0.63	7 1/2	0.87	10 1/2
0.14	1 3/4	0.4	4 3/4	0.65	7 3/4	0.9	10 3/4
0.16	2	0.42	5	0.67	8	0.92	11
0.18	2 1/4	0.44	5 1/4	0.69	8 1/4	0.94	11 1/4
0.2	2 1/2	0.46	5 1/2	0.71	8 1/2	0.96	11 1/2
0.22	2 3/4	0.48	5 3/4	0.73	8 3/4	0.98	11 3/4
0.25	3	0.5	6	0.75	9	1	12