# Tank Gauging System with Two or Four 2-412/2-501 Resistive Level Transmitter Inputs and Secondary Containment Leak Detection



# **Product Description**

The TMS2000A2 was developed to provide a support path forward for users of previous generation E700/LDE700/LDE740 systems utilizing existing 2-412/2-501 resistive level transmitters, while providing the many enhanced features and options of the newer generation TMS series Tank Management Systems. Additionally, the TMS2000A2 is suitable for applications involving unheated #6 oil and similar high viscosity liquids when used in conjunction with the 2-501 pivot arm level transmitter.

## Console

Dimensions (W x H x D): 11.8" x 11.5" x 4.75" (300 mm x 292 mm x 121 mm)

• Weight: 14 lb (6.4 kg) (w/ Printer)

Operating Temperature:
-40 °F to 160 °F (-40 °C to 70 °C) w/o Printer
-5 °F to 140 °F (-20 °C to 60 °C) w/ Printer

Humidity: 95% Non-condensing

Enclosure Rating: Locking NEMA 12 (IP52), NEMA 4 (IP56) or NEMA 4X (IP56) (304 SS)
Power Requirements: 115/230 VAC ±15% (w/o Printer) Switchable, 50-60 Hz, 20 W Max.

8-16 VDC or 16-60 VDC Optional

Memory: Configuration / Setup Data – EEPROM, 50 year data retention, no batteries

Log Reports and Real-Time Clock – Lithium Battery-Backed RAM, 5-10 year data retention

• Audible Alarm: 85 db

Display: 9-Character, Super Bright LED Data Display, Readable from 25' (7.6 m)

Ultra-High Intensity Alarm LEDS, Visible from 75' (22.9 m)

Communications: RS-232 Included Standard, RJ-13 Jack

RS-485 Included Standard, RJ-13 Jack (For Pneumercator Peripherals)

Internal, Secured Modem, Fax / Modem, Network Interface or ModBus Optional

Probe / Sensor Capacities: 2 or 4 Three-Wire, Resistive Input Level Sensors

2 or 4 Dry Contact Leak/Point Level Sensor Inputs

I/O, Non-Haz.: Standard: 2 Relays, 1 Form C, Rated 10 A@120 VAC, 6 A@240 VAC, w/ 2 Opto-Isolated Inputs

Expansion Options: (1 slot available)

4 Relays, 1 Form C, Rated 10 A@120 VAC, 6 A@240 VAC, w/ 4 Opto-Isolated Inputs 8 Relays, 1 Form A, Rated 5 A@120 VAC, 5 A@240 VAC w/ 8 Opto-Isolated Inputs

16 Relays, 1 Form A, Rated 5 A@120 VAC, 5 A@240 VAC

6 or 12-Ch. Programmable Analog Outputs:

0-1 mA, 0-20 mA, 0-24 mA, 4-20 mA, 0-5 VDC, 1-5 VDC



## **Transmitters**

• Technology: Three-Wire Resistive

• Accuracy (Minimum): 2-412 2-501

Product Level: 0.125" (3 mm)  $\pm 2\%$  FS Water Level: N/A N/A Temperature: N/A N/A

Wetted Materials: 2-412: 316 SS, 2-501: 316 SS / Aluminum (All 316 SS Optional)

Mounting: 4" NPT Bung Opening

• Location Approval: UL Class I, Div 1, Group D; cUL Class I, Zone 0, Group IIB

• Operating Temperature: -40 °F to 158 °F (-40 °C to 70 °C)

• Operating Pressure: 2-412: -10 to 50 PSIG (-69 to 345 kPa), 2-501: Ambient ±5 PSIG (±34 kPa)

• Field Wiring: 18AWG, 3-Conductor, maximum length 500' (152 m)

Models: 2-412 Vertical Lift, 2-501 Pivot Arm, maximum tank height 168" (4.3 m)

#### Sensors

LS600LD Float, Containment, Manway and Piping Sumps, Dispenser Pan

LS600xx Multi-Float, High / Low Level and Pump Control

• RSU800 Float, Wet Annular / Reservoir

• LS610 Float, Dry Annular

# Remote Displays/Annunciators

ETD1000 Addressable (up to 16), Multi-Drop, Remote Electronic Tank Display Panel

TD1000 Tandem Remote Display

RA200KR Remote Audible Horn/Visual Strobe Alarm
ETD1000W Wireless Remote Electronic Tank Display Panel\*

RA400W Wireless Programmable Remote Audible/Visual Alarm Panel\*

\*Note: MPX200 Master Peripheral Expansion Module required.

## **Certifications / Approvals**

- UL/cUL System designed in accordance with UL/cUL, but not presently listed. Availability with approval in 2013.
- FCC Part 15B, Part 68

# **Model Numbers**

- TMS2000A21 Two Resistive Inputs/Two Sensor Inputs
- TMS2000A22 Four Resistive Inputs/Four Sensor Inputs



Note: Specifications subject to change without notice. 10-24-2013