

Level Plus®

Magnetostrictive Liquid-Level Sensors
with Temposonics® Technology



M-Series Touchscreen Modbus Terminal Modbus RTU Input

Document Part Number
551164 Revision A

Product Specification

FEATURES

- RS-485, Modbus RTU Input
- 4X Rated Enclosure and Display
- UV Rated Overlay for Outdoor Use
- Graphical Display
- Calibrate Transmitter From Display
- Hazardous Area Approved
- 115 Vac Input Power
- 24 Vdc Transmitter and Terminal Power Supply
- Options:
 - Relays (6 per module)
 - 4 to 20 mA Outputs (4 per module)

APPLICATIONS

- Controller

MARKETS

- Petroleum and Petrochemical
- LPG Terminals

Product Overview

The Touchscreen Modbus Terminal is a fully programmed remote terminal that can be placed in the field or in a control room. The Terminal accepts Modbus RTU, displays tank information, and can output Modbus RTU to a plant wide system (PLC, DCS, SCADA).

The Terminal features calibration ability, audible alarms and visual diagnostics. Relays and 4 to 20 mA output signals are optional for each Terminal.

The Touchscreen Modbus Terminal can display up to 32 tanks showing product level, interface level, temperature and volume. The user can also select individual tanks to display a full screen view.

The Touchscreen Modbus Terminal includes a NEMA 4X rated enclosure. The front overlay for the Terminal is designed for outdoor use with a UV rated material. The front panel of the display also has a NEMA 4X rating.



Level Plus® Touchscreen Modbus Terminal
(part number 280508)



All specifications are subject to change. Contact MTS for specifications and engineering drawings that are critical to your application. Drawings contained in this document are for reference only. Go to <http://www.mtssensors.com> for the latest support documentation and related media.

Product specifications

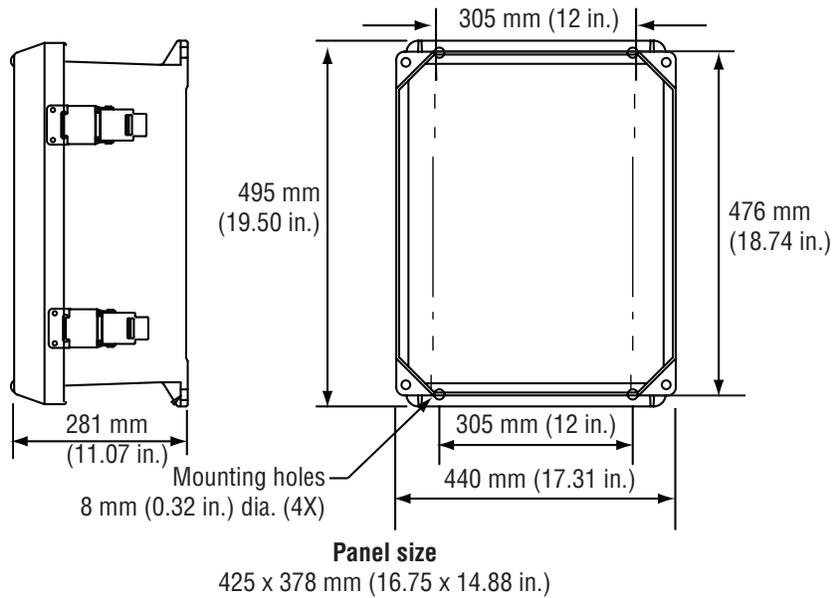
| Parameters | Specifications |
|-------------------------------------|--|
| INPUT | |
| Modbus RTU: | RS-485 port |
| OUTPUT | |
| Modbus RTU: | 1 RS-485 port 1 Ethernet Port |
| Optional Outputs: | Relays (6 per module) 4 to 20 mA outputs (4 per module) |
| ELECTRONICS | |
| Input voltage: | 115 Vdc ±10% |
| Transmitter supply: | 24 Vdc ±20% supply |
| Display: | Graphical 10.4 inch TFT, 256 color VGA 640 x 480 PPI Touchscreen LCD |
| ENVIRONMENTAL | |
| Enclosure rating: | NEMA 4X |
| Front panel: | NEMA 4X (Front panel overlay - UV rated) |
| Humidity: | 0 to 80% relative humidity, noncondensing |
| Operating temperatures: | Electronics: 0 °C (32 °F) to 50 °C (122 °F) Storage temperature: -20 °C (-4 °F) to 70 °C (158 °F) |
| Altitude: | 2000 meters |
| FIELD INSTALLATION | |
| Enclosure mounting hole dimensions: | Height: 476 mm (18.74 in.) Width: 305 mm (12 in.) |
| Enclosure dimensions: | Height: 495 mm (19.50 in.) Width: 440 mm (17.31 in.) Depth: 281 mm (11.07 in.) |

Agency Approvals

| Parameters | Specifications |
|------------------------------|--|
| Hazardous Approvals : | Class I, Division 2, Groups A, B, C, and D Class II, Division 2, Groups F and G Class III, Division 2 <i>Approvals are obtained by original manufacturers for individual components. MTS does not maintain any approval for the Modbus terminal final assembly.</i> |

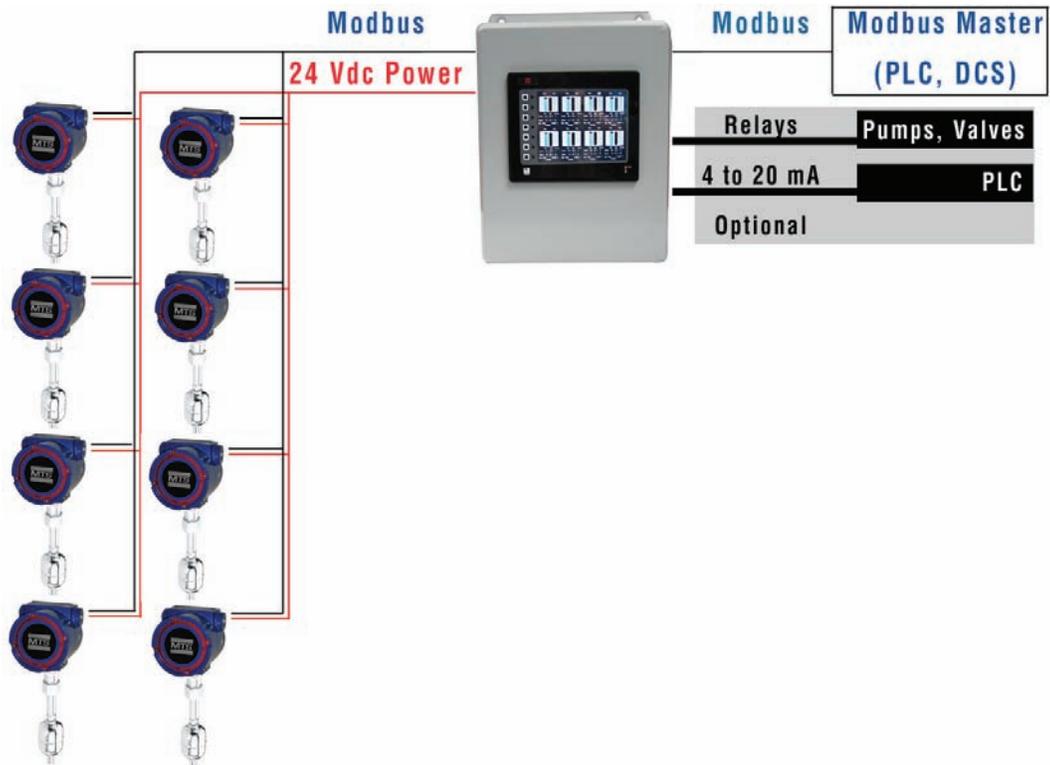
Level Plus M-Series Touchscreen Modbus Terminal Dimension References

The following drawing is for reference only.



Control Room Installation

The following illustration shows an example of the Touchscreen Modbus Terminal used as a controller in a plant-wide automation application. This example is for reference only. Actual configurations are dependent on the hazardous location and type of protection used at a Modbus terminal installation site. For information specific to your application, contact MTS.



Ordering information

The table below lists standard product and optional selections. For detailed information about all liquid-level product accessories, refer to the 'Level Plus Accessories Catalog, document Number 551103' from a link on the following MTS Level Product Support page:

<http://www.mtssensors.com/products/liquid-level-sensors/accessories/index.html>

| TOUCHSCREEN MODBUS TERMINAL | | Part Number |
|---|---|------------------------------|
|  | <p>The Touchscreen Modbus Terminal includes: NEMA 4X Rated enclosure 24 Vdc Transmitter power supply Custom programming</p> | 280508 |
| RELAYS | Optional, 6 per module | Part Number 380101 |
| 4 TO 20 MA OUTPUTS | Optional, 4 per module | Part Number 380100 |



Part Number: 551164 Revision A 10-09

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