

# Modbus Network Display Series: MND



The MND Modbus Network Display provides a local display that can be wired to a local Tank Cloud network, or modbus sensor, displaying readings from any of the sensors in the network (up to ten). It is easy to use and very flexible. The MND can operate in either a master or sniffer mode. With the ability to listen in on sensors or poll sensors for current readings, the MND provides a valuable display option for your network.

## Features

- Large, full 5-digit display with 0.4 in. characters
- Environmentally sealed housing; IP67
- User selectable units of measure  
(barrels, cubic inches, liters, cubic meters, gallons, million cubic feet, cubic feet, custom)



# MND Specifications



Mounting Bracket Options



Rubber Boot



## Performance

- RS-485 (Modbus RTU):  
2400, 9600, 19200, 38400 baud rates
- Display readings: volume, level, distance, pressure

## Connectivity

- Output Options:  
4-20 mA, 0-3 VDC, Telecom Relay  
5A (240 VAC 220 VDC max)

## Environmental

- Protection rating: IP67
- Storage Temp: -30° - 160°F (-30° - 71°C)
- Operating Temp: 0° - 160°F (-18° - 71°C)

## Certification

- IP67
- CE

## Programming

- Programmable Features:  
User selectable units of measure  
Sniffer mode  
Master mode  
Auto-Off

## Electrical

- External Power Option: 9-28 VDC
- Battery Option:  
9V Lithium  
3.6V Lithium  
AA Alkaline  
Low battery detection with 25% increments

## Physical

- Size: 3.25" x 1.6" (82.6 x 40.6 mm)
- Injected molded case (EMI-X® PDX-W-88341)
- Protection rating: IP67
- Display: 5 digit LCD, 0.4 in. digits

# Model Configuration Options

Model Number: MND -                                          
                                  A      B      C      D      E      F      G      H

## A. Input Power

- 1 External Power (max 28VDC)
- 2 Battery 9V lithium
- 3 External Power low current (max 14.5VDC)
- 6 Batteries (2) AA Alkaline Series
- 8 Battery (1) AA 3.6V Lithium

## B. Analog Output

### Analog

- 0 No Analog, RS-485 output
- 1 4-20 mA & RS-485
- 2 0-3 VDC & RS-485

## C. Relays

- 0 No Relays
- 1 2 Telecom NO Latching Relays
- 2 Relay 1 (controls on/off on a slave sensor)
- 3 One Telecom SPDT Latching Relay
- 4 2 Telecom NC Latching Relays

## D. Enclosure

- 0 3" Round Plastic Housing
- 4 No Housing, Round Plastic PCB Mount

## E. Mounting/Cover

- 0 Standard Mounting
- 1 Rubber Boot
- 2 Panel Bracket
- 3 Rubber Cap (Used on the no housing option)

## F. Main Connection Location

- 1 Position 1
- 2 Position 2
- 3 Position 3

## G. Main Cable or Connector

- 0 Not Used
- C Cable in feet  
(ex. C100=100 feet, avail. 5 ft increments)
- 1 6 pin Tajimi Male
- 2 4 pin M12 Male
- 3 5 pin M12 Male
- 4 8 pin M12 Male
- 5 4 pin M12 Female
- 6 8 pin M12 Male

## H. Backlight

- 0 No Backlight or Heater

### Requires External Power option

- 1 Backlight

## MND Accessories

Please order separately, by part number.

Description	Part Number
Panel mount bracket	512599
Rubber Boot	512626
4-pin female micro connector (M12) Field Wireable	509087
4-pin femail micro connector (M12) with cable	135407-00XX
4 Conductor Cable	135287
5 Conductor Cable	135296
6 Conductor Cable	135297
8 Conductor Cable	135300



# Tank Cloud



## Put Your Tanks In The Cloud

### 1 Remote Sensors

Connect to any 4-20mA signal or APG Modbus sensor for constant access to your data. Access up to 10 sensors on a single connection.

### 2 Use the Internet Backbone

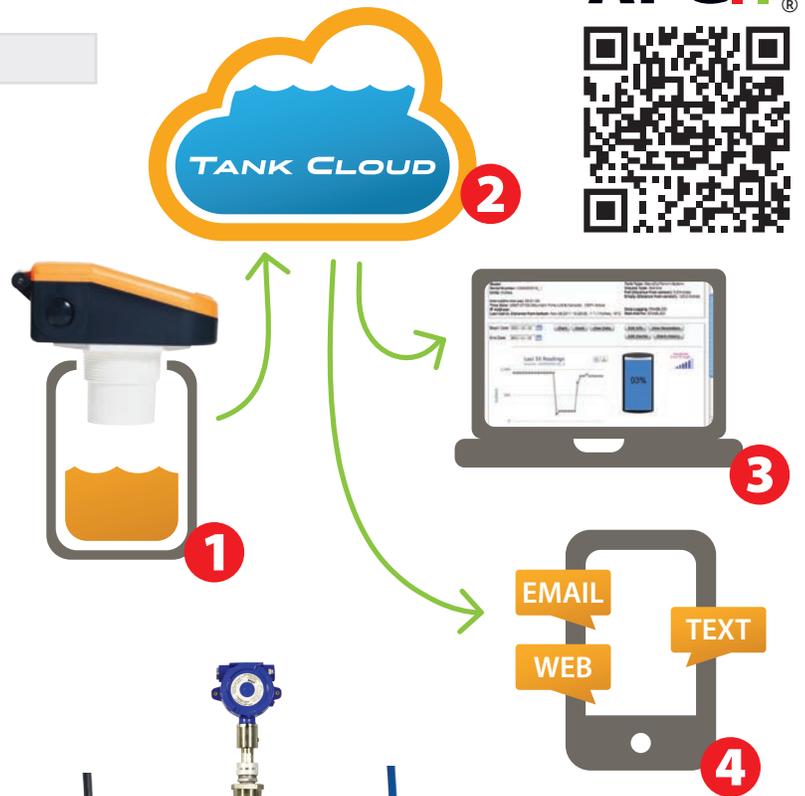
Connect the APG sensor or module to the Internet via landline, radio, cellular, or satellite.

### 3 View Secure Data 24/7

Access sensor data online through our secure portal at [levelandflow.com](http://levelandflow.com). If the Internet is accessible, so is your information.

### 4 Stay Up-To-Date

Program custom alarms - receive email and text (sms) message alerts on your computer, mobile phone, or tablet.



## The Line-Up:



## Online Data Portal

The Tank Cloud data portal, located online at [www.levelandflow.com](http://www.levelandflow.com), displays everything you need to know about your measurement.

Here you can:

- View your current and past readings,
- Manage alarms,
- Configure your sensors,
- and Setup user permissions for others in your organization.

Measurements are sorted by location and grouped into sites. Simply select the site you would like to view, and then choose the sensor. Current readings are prominent in the center of the screen.

Contact us today at 888-525-7300 to set-up a demonstration of our sensors and online software. We are excited to show you how it can impact your business.