AccuTank™
RADAR LEVEL MONITORING SYSTEM

DESCRIPTION

FLO-CORP's AccuTank™ Radar Level Monitoring System is the most precise, reliable and innovative remote monitoring system on the market. This affordable system comes with everything you need to receive e-mail alerts, configure and remotely monitor tank levels from practically anywhere in the world. The AccuTank™ Radar Level System features revolutionary TDR (Time Domain Reflectometry) technology. TDR Technology is low-energy, high-frequency electromagnetic impulses, generated by the sensor's circuitry, which are propagated along the probe that is emerged in the liquid to be measured. When these impulses hit the surface of the liquid, part of the impulse energy is reflected back up the probe to the circuitry which then calculates the fluid level from the time difference between the impulses sent and the impulses reflected, resulting in the most accurate reads. The AccuTank™ Radar Level System includes a Tracer 1000™ GWR Level Transmitter, Level Monitor and DigaLink™ Monitoring Software. To get the most out of the AccuTank™ system, add the eXmod™ 4-relay expansion module for batch controlling, 4-relay output and 10 AMP AC / DC rated relays.

FEATURES & BENEFITS

- Pre-calibrated at our factory for easy installation and setup
- Emails alerts regarding the system to your PC, tablet and smart phone
- Remote monitoring & real-time information
- Advanced Data Logging and Totalizer
- Time Domain Reflectometry Technology
- Automatic discovery for quick device detection
- Monitors unlimited devices

- Ethernet Communication
- Universal 90-265 VAC or 12-28 VDC
- Modbus®/RS485 Serial Communication
- Bright, 6 digit LED display
- Configuration through DigaLink™ software or four internal push buttons
- NEMA 4X field mount or NEMA 7 explosion proof enclosure
- Optional password protection for the monitoring devices

HOW IT WORKS

1) **Select** your Level Transmitter (Tracer 1000™ 1st Generation or Tracer 1000™ 2nd GWR Generation Level Transmitter). Select your Level Monitor (DigaCom 2000™ or DigaTouch™ Process Monitor)

2) **Connect** your level transmitter to your level monitor. Connect your level monitor to an internet network via RS485 cables or by connecting to your LAN (local area network) using Ethernet cables.
   Note: Make sure your computer is connected via WiFi or Ethernet to the same network that the DigaCom/DigaTouch monitors are on.

3) **Download** DigaLink™ software at: http://www.flowlineoptions.com/digalink-download-form/. Launch DigaLink™ to utliize all the features and benefts of the software. DigaLink™ will auto-discover the monitor(s) if connected properly.

4) **Monitor** your application at the convenience of your computer anywhere in the world.

SELECT	CONNECT	DOWNLOAD	MONITOR

TRACER 1000™ 1G GUIDED WAVE RADAR LEVEL TRANSMITTER

DESCRIPTION

Featuring TDR (Time Domain Reflectometry) technology, the Tracer 1000™ provides continuous level measurement and point level detection in liquids, with analog and switching output. This innovative device has almost no installation restrictions - it can be mounted in small tanks, tall and narrow nozzles and it measures precisely even with difficult tank geometries or close to interfering structures. Factory settings may be configured via HART® Communication protocol. Tracer 1000 is ideal for various types of processing and storage applications and has an exceptional performance in liquids with low reflectivity such as oils and hydrocarbons.

FEATURES & BENEFITS
• Revolutionary TDR Technology
• Precise continuous level measurement and reliable point
  level detection combined in one device
• Highly robust measurement due to 4-wire design and
  innovative signal analysis and disturbance signal suppression
• Fully modular probe design - Simple to install
• Features HART® Communication protocol
• 1.5" Dead Band
• Economically Priced

PRIMARY AREAS OF APPLICATION
• Small Atmospheric Tanks and Vacuum Tanks
• Process Reactors and Blending Vessels
• Stilling Wells
• Difficult Tank Geometries
• All types of processing and storage applications
• Exceptional performance in liquids with low
  dielectric constant
• Sticky Fluids with Extreme Colds and Hot
  Atmospheres

NOTE: For more information and complete specifications on the Tracer 1000™ Guided Radar Transmitter, please visit www.flowlineoptions.com/level

TRACER 1000™ 2G GUIDED WAVE RADAR LEVEL TRANSMITTER

DESCRIPTION

Featuring TDR (Time Domain Reflectometry) technology, the Tracer 1000™ Second Generation provides continuous level measurement and point level detection in liquids, slurries, and solids with analog and switching output. This innovative device has almost no installation restrictions - it can be mounted in small tanks, tall and narrow nozzles and it measures precisely even with difficult tank geometries or close to interfering structures. Factory settings may be configured via RS485/Modbus and HART® Communication protocol. Tracer 1000 is ideal for various types of processing and storage applications and has an exceptional performance in liquids with low reflectivity such as oils and hydrocarbons.

FEATURES & BENEFITS
• Auto Calibration to any dielectric
• Precise continuous level measurement and reliable point
  level detection combined in one device
• Highly robust measurement due to 4-wire design and
  innovative signal analysis and constant disturbance signal
  suppression
• Features RS485 Modbus and HART®
  communication protocol
• Eliminates the need for coaxial probe configurations
• High temperature applications
• Programmable fail safe mode
• Economically priced

PRIMARY AREAS OF APPLICATION
• Chemical / Petrochemicals
• Energy
• Food & Beverages
• Plastic Pellets
• Minerals & Mining
• Oil & Gas
• Pharmaceutical
• Pulp & Paper
• Wastewater

DIGACOM 2000™ PROCESS LEVEL MONITOR

DESCRIPTION

DigaCom 2000™ Universal Process Display is a field mount display that provides bright, 6-digit LED indication, internal DC power supply for transmitter power, isolated scalable 4-20mA output and advanced communications. DigaCom features digital push button configuration, simple programming interface and Ethernet communication. This device is well suited for a variety of process applications. Typical applications include level monitoring, analytical measurements, flow, distance monitoring, pressure monitoring, weight/ volume monitoring and temperature monitoring.

FEATURES & BENEFITS

- Bright, 6-Digit LED Display
- Four Internal Push Buttons
- E-mail Alerts / Alarm Summary
- DigaLink™ PC Software Included with purchase
- Rate Display
- Totalizer
- Maximum Range Display
- Universal 90-265 VAC or 12-28 VDC
- RS-485 Serial Communication Port Modbus
- Ethernet Communication
- NEMA 4X Field Mount or NEMA 7 Explosion Proof Enclosure
- Optional Epoxy Coated Aluminum Enclosure for durable, rugged applications
- Transmitter DC Power
- Isolated scalable 4-20mA output

PRIMARY AREAS OF APPLICATION

- Small Atmospheric Tanks and Vacuum Tanks
- Process Reactors and Blending Vessels
- Stilling Wells
- Difficult Tank Geometries
- All types of processing and storage applications
- Exceptional performance in liquids with low dielectric constant
- Sticky Fluids with Extreme Colds and Hot Atmospheres

NOTE: For more information and complete specifications on the level monitors, please visit www.flowlineoptions.com/display

DIGATOUCH™ PROCESS LEVEL MONITOR

DESCRIPTION

DigaTouch™ Digital Panel Meter is a panel or field mount process display that provides bright, 6-digit LED indication, internal DC power supply for transmitter power, and advanced communications. The DigaTouch features universal I/O, touch screen interface, dual AC/DC power supply, password protection, and optional Ethernet communication. This device is well suited for a variety of process applications. Typical applications include pump control, data logging, display, level monitoring, open channel monitoring, pressure monitoring, and temperature monitoring.

FEATURES & BENEFITS

- Touch Screen Interface
- Panel Mount NEMA 4X or General purpose
- Field Mount NEMA 4X or NEMA 7
- E-mail Alerts / Alarm Summary
- Universal I/O
- Password Protected
- Isolated 4-20 mA Output

- Dual AC/DC Supply Voltage
- Alternating Rate/Total Display
- Min/Max Range Display
- RS-485 Serial Communication Port
- Optional Ethernet Communication
- Datalogging
- Totalizer

DIGALINK™ 3.0 LEVEL MONITORING SOFTWARE

DESCRIPTION

DigaLink™ 3.0 Software is used for the purpose of monitoring level applications at the convenience of your PC, e-mailing alerts when the application reaches a certain capacity, configuring the monitoring devices through your computer, and many more beneficial features. DigaLink™ Software works with FLO-CORP's DigaCom 2000™ and DigaTouch™ Process Monitors. To communicate between the process monitors and your computer, DigaLink™ utilizes both TCP/IP Ethernet and communication and Modbus/RS485 serial communication simultaneously. Additional features include data logging, password protection, and monitoring unlimited devices in real-time.

Download the software at http://www.flowlineoptions.com/digalink-download-form/

SOFTWARE FUNCTIONS

DISPLAY

- All discovered devices will appear on this tab
- A green status symbol indicates proper communication with process monitor and meter readings are current. An orange status symbol indicates that the device is in the process of acquiring network connectivity. A red status symbol indicates the device is unavailable and meter readings are not current.
- You can toggle through the different monitor's by clicking on their name (double click on "Device 1" to re-name). An image of the device with their actual readings will appear.

CONFIGURE
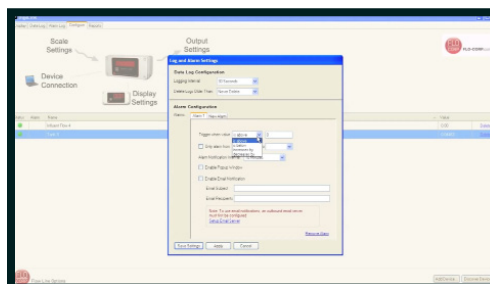
- There are 5 main options located within the Configure tab (Scale Settings, Output Settings, Log and Alarm, Display Settings and Device Connection)
- **Scale** Settings allows the user to setup a password to protect the device settings as well as configure the scale settings.
- **Output** Settings (DigaTouch Monitor Only). Configure both relay settings and output settings.
- **Log and Alarm** is used for Data Log Configuration and Alarm Configuration. You are also able to setup the email alerts here.
- **Display** Settings is used to remotely configure your DigaCom 2000™ or DigaTouch™ monitor through your computer.
- **Device Connection** is used to re-name the devices (ie. Tank 1, Oil Tank, Influent Flow 7, etc.).

ALARM LOG
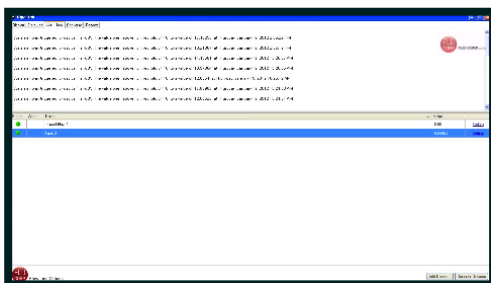
- Displays a list of alarms that were triggered on the device. Toggle through the different monitors to view all the alarms for that specific device.

DATALOG
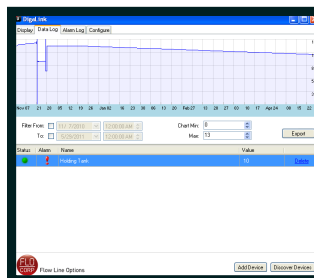
- Filter Dates and Times
- Scaling Charts
- Visual Data Charting
- Export to Excel (save as .csv file)
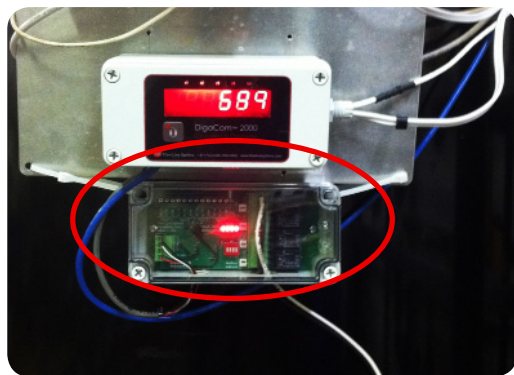
EXMOD™ RELAY EXPANSION MODULE

DESCRIPTION

The eXmod™ is a 4-relay output module that connects to the level monitors via RS-485 serial communication (4-wire). The eXmod is extremely versatile and can be mounted locally or remotely to allow for a purely distributed system. The level monitors can be mounted in the plant or control panel, while the eXmod can be mounted in the motor control cabinet for reduced cost of control wiring. Additionally, the eXmod's BIG 10 AMP AC/DC rated relays bring added value to your control/alarm monitoring/ batching systems.

FEATURES & BENEFITS

• Relay Setpoint for Rate or Total
• Auto or Manual Reset of Relay - Latching or Non-Latching
  Relay Logic or Pump Alternation
• Can Be Used as a Batch Controller
• NEMA 4X Enclosure
• Expands the Level Monitor's Capabilities
• Increase Wiring Flexibility
• Economical Solution

SPECIFICATIONS

Status Indicators	(4) Red LED Relay Indicators
User Interface	4 Internal DIP Switches Used To Select ModBus® Address
Contact Form	SPDT
Relay Rating	5A @ 28 VDC; 5A @ 120/240 VDC at Max Ambient Temperature; NO Contact Rated at 10A @ 20˚C
Operating Temperature	F: -40º to 149º C: -40º to 85º
Storage Temperature	F: -40º to 149º C: -40º to 85º
Relative Humidity	0-90%, non-condensing
Supply Voltage	12-24 VDC
Connection	Removable Screw Terminal; Accepts 12-22 AWG Wire
Enclosure Type	Panel/Field Mount
Enclosure Rating	NEMA 4X (IP65)
Enclosure Material	Polycarbonate
Classification	General Purpose

APPLICATION PHOTO

The eXmod™ Relay Expansion Module shown in pump activation application

Specifications are subject to change without notice.

Ordering Information

Use the diagram below, working from left to right to construct your customized AccuTank™ Radar Tank Level Monitoring System
Simply match the category number to the corresponding box number.

1   **LEVEL TRANSMITTERS:** TRACER 1000™ 1G OR TRACER 1000™ 2G GWR LEVEL TRANSMITTER
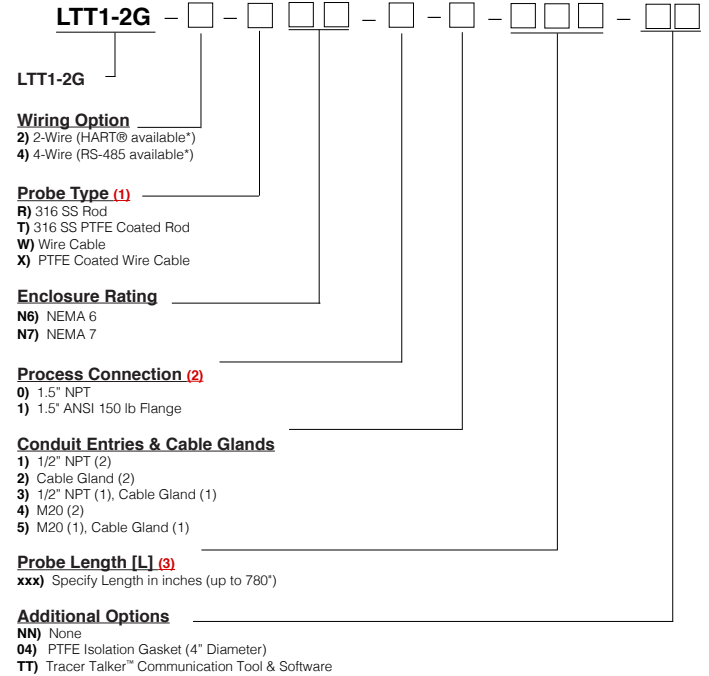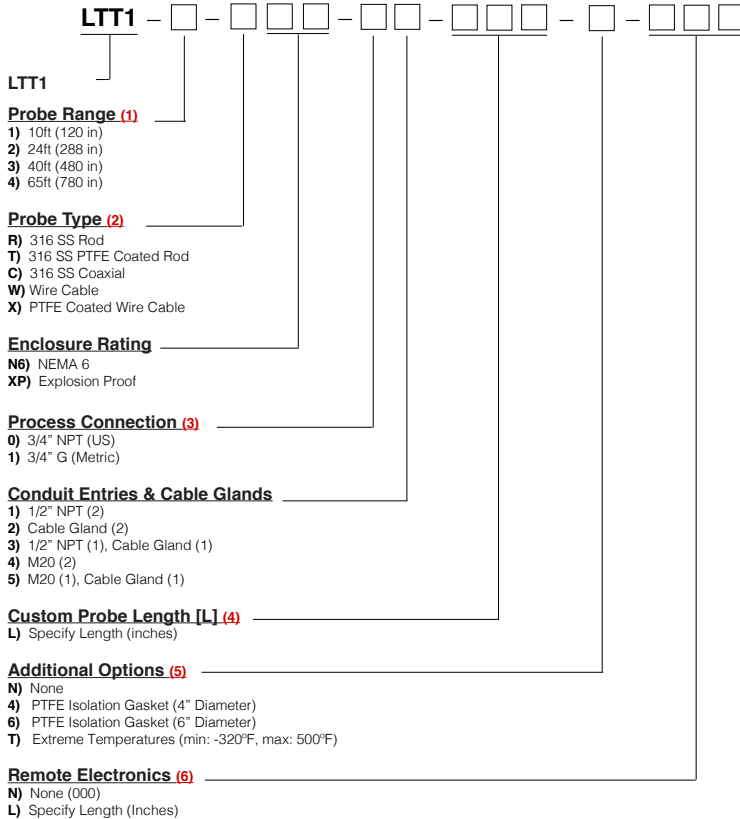
 Tracer 1000™ 1st Generation Transmitter   - or -   **Tracer 1000™ 2nd Generation Transmitter**

LTT1 – ☐ – ☐☐☐ – ☐☐ – ☐☐☐ – ☐ – ☐☐☐

LTT1

Probe Range (1)
1) 10ft (120 in)
2) 24ft (288 in)
3) 40ft (480 in)
4) 65ft (780 in)

Probe Type (2)
R) 316 SS Rod
T) 316 SS PTFE Coated Rod
C) 316 SS Coaxial
W) Wire Cable
X) PTFE Coated Wire Cable

Enclosure Rating
N6) NEMA 6
XP) Explosion Proof

Process Connection (3)
0) 3/4" NPT (US)
1) 3/4" G (Metric)

Conduit Entries & Cable Glands
1) 1/2" NPT (2)
2) Cable Gland (2)
3) 1/2" NPT (1), Cable Gland (1)
4) M20 (2)
5) M20 (1), Cable Gland (1)

Custom Probe Length [L] (4)
L) Specify Length (inches)

Additional Options (5)
N) None
4) PTFE Isolation Gasket (4" Diameter)
6) PTFE Isolation Gasket (6" Diameter)
T) Extreme Temperatures (min: -320°F, max: 500°F)

Remote Electronics (6)
N) None (000)
L) Specify Length (Inches)

LTT1-2G – ☐ – ☐☐ – ☐☐ – ☐ – ☐☐☐ – ☐☐

LTT1-2G

Wiring Option
2) 2-Wire (HART® available*)
4) 4-Wire (RS-485 available*)

Probe Type (1)
R) 316 SS Rod
T) 316 SS PTFE Coated Rod
W) Wire Cable
X) PTFE Coated Wire Cable

Enclosure Rating
N6) NEMA 6
N7) NEMA 7

Process Connection (2)
0) 1.5" NPT
1) 1.5" ANSI 150 lb Flange

Conduit Entries & Cable Glands
1) 1/2" NPT (2)
2) Cable Gland (2)
3) 1/2" NPT (1), Cable Gland (1)
4) M20 (2)
5) M20 (1), Cable Gland (1)

Probe Length [L] (3)
xxx) Specify Length in inches (up to 780")

Additional Options
NN) None
04) PTFE Isolation Gasket (4" Diameter)
TT) Tracer Talker™ Communication Tool & Software

LEVEL MONITORS: DIGACOM 2000™ OR DIGATOUCH™ PROCESS LEVEL MONITORS

DigaCom™ 2000 : Field Mount Monitor - or -

DCX2 ☐ – F – ☐ – ☐☐   DTX1 – P – ☐

DCX2

Configuration
N) Monitor Only
T) Monitor with Totalizer

Enclosure Type
F) Field Mount

Supply Voltage
A) 90-265 VAC
D) 12-28 VDC

Enclosure Rating
A1) Epoxy Coated Aluminum*
N4) NEMA 4X (IP65)
N7) NEMA 7

DTX1

Enclosure Type
P) Panel Mount

Enclosure Rating
N4) NEMA 4X (IP65)
N7) NEMA 7
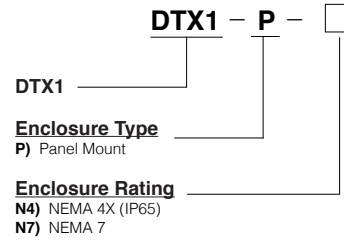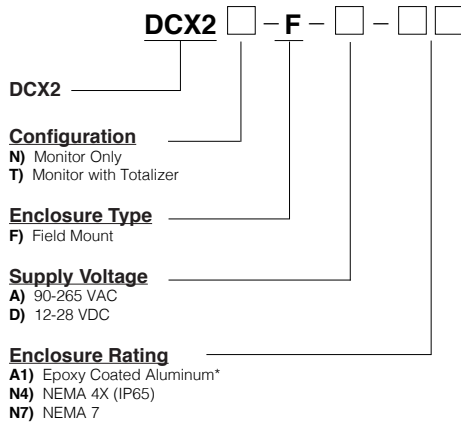
Epoxy Coated Aluminum Option

LEVEL MONITORING SOFTWARE: DIGALINK™ 3.0 INTERACTIVE SOFTWARE

DigaLink™ 3.0 Interactive Software

DigaLink 3.0 Interactive software is included with the purchase of the AccuTank™ Ultrasonic Tank Level Monitoring System. Please visit **http://www.flowlineoptions.com/digalink-download-form/** to register and download DigaLink 3.0 E-mail Alerts, Configuration and Remote Monitoring Software. This software is required in order to receive alarms, configure and remotely monitor tank levels.

OPTIONAL COMPONENT: EXMOD™ 4-RELAY OUTPUT MODULE

   eXmod™ Relay Expansion Module

DXM1 – ☐☐

DXM1

Enclosure Type (1)

NN) General Purpose *(No Enclosure - Surface Mount)*
N4) NEMA 4X (IP65)
N7) NEMA 7