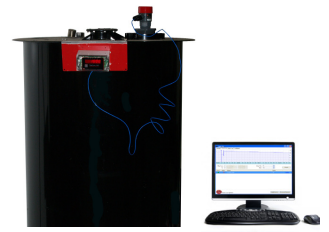# AccuTank™
ULTRASONIC LEVEL MONITORING SYSTEM

DESCRIPTION

FLO-CORP's AccuTank™ Ultrasonic Level Monitoring System is the most economical, reliable and accurate 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 traditional float level sensors, which are mounted inside the tank causing build up on the sensor resulting in inaccurate reads or worse, tank overflow. The ultrasonic technology allows the sensor to be located on top of the tank allowing for a non-contacting, precise read of liquid level. The AccuTank™ Ultrasonic Level System includes a 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

• Easy installation
• E-mail Alerts / Alarm Summary
• Remote monitoring & real-time information
• Advanced Data Logging
• Ultrasonic level technology
• Automatic discovery for quick device detection
• Monitor unlimited devices
• Totalizer
• Ethernet Communication
• Universal 90-265 VAC or 12-28 VDC

• RS-485 Serial Communication
• Modbus®
• Bright, 6 digit LED display
• Configuration through DigaLink™ software or four internal push buttons
• Relay Setpoint for Rate or Total
• Auto or Manual Reset of Relay - Latching or Non- Latching Relay Logic or Pump Alternation
• NEMA 4X field mount or NEMA 7 explosion proof enclosure

HOW IT WORKS

1) **Select** your Level Transmitter (Ranger Plus™ Ultrasonic Level Transmitter or Ranger Elite™ Ultrasonic 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

RANGER PLUS™ ULTRASONIC LEVEL TRANSMITTER

DESCRIPTION

The Ranger Plus™ Ultrasonic Level Sensor provides accurate non-contacting level measurement and features (3) Analog Outputs and (2) Switches.The Ranger Plus™ LTRP-10 provides level measurement up to 10 feet and the Ranger Plus™ LTRP-35 provides level measurement up to 35 feet. The analog output modes are 0-10 VDC, 4-20mA Sinking and 4-20mA Sourcing. The switches are configurable as either "PNP" or "NPN" type (sourcing or sinking). Each has an adjustable set point, hysteresis, window, initial conditions, ON delay, OFF delay and loss of target response to easily create controls and alarms. The sensor is housed in a chemically inert PVDF sealed housing for durability and long life. The sensor is well suited for a wide range of corrosive, sticky or dirty type media. The Ranger Plus™ applications include pump control, bulk inventory, batch processing, water management, high/low level alarms and much more. To configure, monitor and data log your application, download the free Ranger Plus™ software and purchase one RS-485 communication tool.

FEATURES & BENEFITS
- Unaffected by optical factors like color and transparency
- Computer (PC) software allows remote adjustment
- Standard RS-485 Serial Interface
- Durable housing for long life
- Threaded at both ends

PRIMARY AREAS OF APPLICATION
- Water and waste water
- Corrosive liquids & slightly corrosive acids
- Oils and refined chemicals
- Sticky and dirty media

NOTE: For more information and complete specifications on the Ranger Plus™ Ultrasonic Level Transmitter, please visit www.flowlineoptions.com/level

RANGER ELITE™ ULTRASONIC LEVEL TRANSMITTER

DESCRIPTION

The Ranger Elite™ Ultrasonic Level Transmitter provides accurate non-contacting level measurement up to 480" (12.m) and features Two-Wire Loop-Powered 4-20 mA Analog Output. The adaptive signal and automatic echo detection & control provides effortless and accurate level measurements in one non-contacting transmitter. The 2" NPT mount on the transducer makes mounting into a standard tank nozzle or fitting easy and affordable. The operator interface uses a 4 line graphic display that allows for easy level indication and configuration. The push buttons on the front face are easy to navigate even without using a programming manual. Plus, the HART communications output talks directly to the standard Tracer Talker™ Software to configure, monitor and data log your application. Download the free FLO-CORP Tracer Talker software and purchase one communication tool.

FEATURES & BENEFITS
- Easy installation and start-up
- Large 4 line graphic display
- Standard HART Communication interface
- Durable powder coated aluminum housing for long life
- 2" NPT threaded process connection

PRIMARY AREAS OF APPLICATION
- Pump Stations
- Wet Wells
- Tanks
- Chemical Storage
- Power Generator Fuel Storage

NOTE: For more information and complete specifications on the Ranger Elite™ Ultrasonic Level Transmitter, please visit www.flowlineoptions.com/level

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

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.
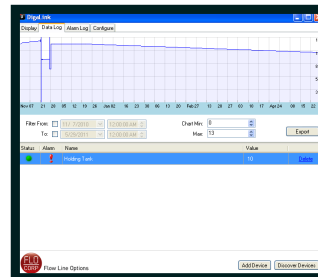
CONFIGURE
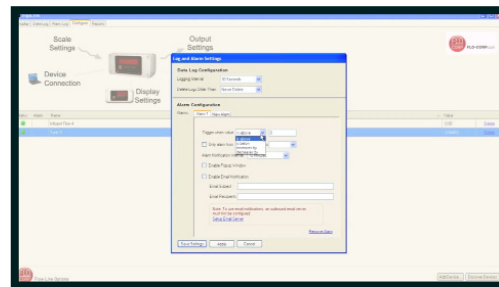
ScaleOutputLog and Alarm DisplayDevice Connection

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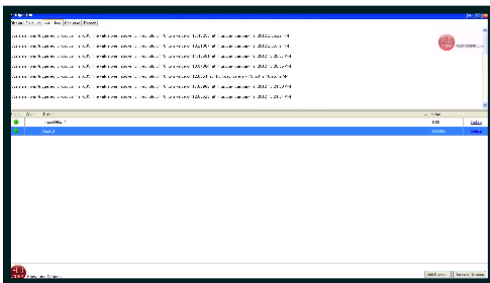
- Displays a list of alarms that were triggered on the device. Toggle through the different monitors to view all the alarms for that specific device.

#### DATALOG

 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

APPLICATION PHOTO
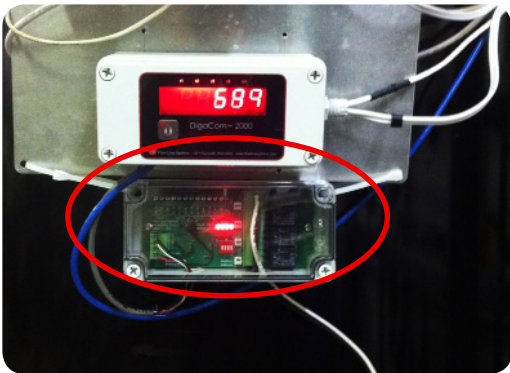
The eXmod™ Relay Expansion Module shown in pump activation application

SPECIFICATIONS

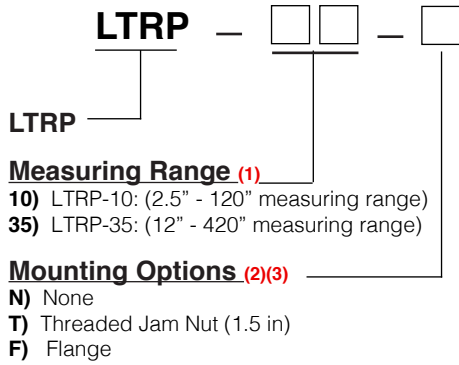|	
Status Indicators	(4) Red LED Relay Indicators
User Interface	4 Internal DIP Switches Used To Select ModBus® Address
Contact Form	SPDT
Relay Rating	5A @ 28 VDC; 5A @ 120/240 VDC at Max Ambient Temperature; NO Contact Rated at 10A @ 20˚C
Operating Temperature	F: -40º to 149º C: -40º to 85º
Storage 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

Specifications are subject to change without notice.

Ordering Information

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

1   **LEVEL TRANSMITTERS:** RANGER PLUS™ OR RANGER ELITE™ ULTRASONIC LEVEL TRANSMITTER

RANGER PLUS™ ULTRASONIC LEVEL TRANSMITTER

LTRP — ☐☐ — ☐

LTRP

Measuring Range (1)
10) LTRP-10: (2.5" - 120" measuring range)
35) LTRP-35: (12" - 420" measuring range)

Mounting Options (2)(3)
N) None
T) Threaded Jam Nut (1.5 in)
F) Flange

OR

RANGER ELITE™ ULTRASONIC LEVEL TRANSMITTER

LTRE — ☐ — ☐☐

LTRE

Process Mount
0) NPT (US)

Additional Options
NN) None
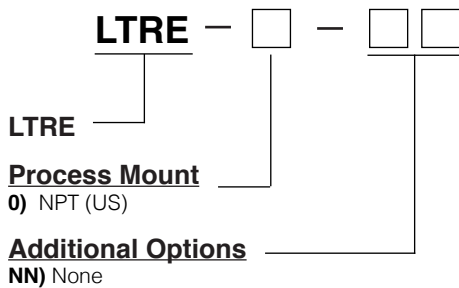
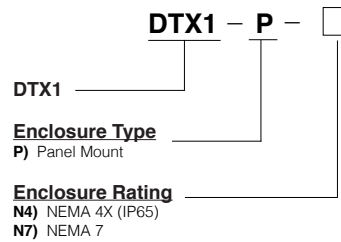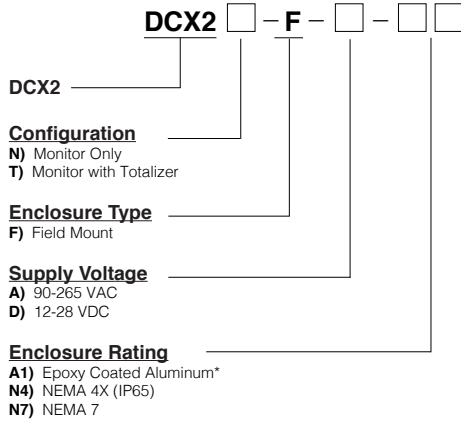# LEVEL MONITORS: DIGACOM 2000™ OR DIGATOUCH™ PROCESS LEVEL MONITORS

DigaCom™ 2000 : Field Mount Monitor - or - **DigaTouch : Panel Mount Monitor**

DCX2 ☐ – **F** – ☐ – ☐☐

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 – **P** – ☐

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