Affordable Point-To-Point Telemetry!

For years, there has existed a need for an economical, basic telemetry system for point-to-point control. The most typical layout is that of a town with one pumping station and a single, remote water tower. There are literally thousands of such configurations across the nation. Yet in the past, Water Utilities have been forced to choose from two less-than-ideal solutions: High-Cost/High-Quality or Low-Cost/Low-Quality.

But today, Navionics Research is proud to introduce a third option: The low-cost and high-quality TeleTransducer™ System! How can both high-quality and low-cost be achieved simultaneously? – By utilizing select components that are recognized throughout the industry as top-of-the-line, while achieving low-cost through the simplicity of an astonishingly low parts count.

High-Quality Radio Communications...

Communications at each site are handled by a GE/MDS “TransNet” (unlicensed) or Maxon SD-170EX radio (licensed), a TeleWave Ice-Resistant Antenna, and “Heliax” coaxial cable – each of which is generally recognized as the gold standard within their respective industries.

High-Quality Pressure Sensor...

The pressure transducer at the water tower is the Preciseline by Keller America, a premium sensor that boasts 0.2%-accuracy, temperature compensation, and a limited lifetime warranty against lightning damage. A milliamp-to-Modbus converter pipes the level reading directly into the radio in lieu of an expensive RTU or PLC.

User-Friendly Interface and Pump Controller...

The pump station features a 3-Inch Touch Screen Interface mounted on the front door of the enclosure. The touch screen displays the remote water tower level, and also enables setpoints to be changed within the on-screen menu system. The screen also features a backlight, so it’s even readable at night. Both Lead and Lag pump settings are available, and the controller may also be set to alternate the pumps. Because the system is designed for pump control, interaction is intuitive, user-friendly, and uncluttered.
Lightning and Power Protection...
The TeleTransducer™ doesn’t reduce costs by eliminating lightning protection. Each enclosure contains three TVSS (Transient Voltage Surge Suppression) Sub-Systems: One for the 120VAC Main, a second for the output of the DC Power Supply, and a third for the coaxial cable/antenna. And each enclosure also contains a built-in battery backup system to maintain communications during power outages.

STANDARD FEATURES

Communications
Radio: GE TransNet, 900 MHz - unlicensed
Maxon SD-170EX, VHF/UHF - licensed
Antenna: TeleWave, 10db
Coaxial Cable: LDF4-50 “Heliax” (900 MHz)
LMR-400 (VHF,UHF)
Antenna TVSS: Polyphaser

Pressure/Level Sensing
Transducer: Keller America Preciseline
Transducer Accuracy: 0.2%
Transducer Output: 4-20mA, converted to Modbus
Lightning Warranty: LIMITED LIFETIME!
Temp Compensation: YES!
PT-Installable: YES!
RTU: NOT REQUIRED!

Operator Interface
Display/Keypad: 3 Inch, 4-Color Touch Screen
Backlight: YES!
Available Settings: LEAD-ON / LEAD-OFF
LAG-ON / LAG-OFF
HI-ALARM / HI-ALARM-CLEAR
LO-ALARM / LO-ALARM-CLEAR
ALTERNATE / NO-ALTERNATE
TRANSDUCER OFFSET

Power Protection
Power TVSS: YES!
Battery Backup: YES!

Documentation
Submittals: YES, ALL COMPONENTS INCLUDED
Installation Manual: YES!
Operator Manual: YES!

Sample Touch Screen Menus...