

SENTRYNET™ 3

Specification Sheet



SENTRYNET™ 3:

The ProductionQuest SENTRYNET™ 3 is a chemical injection monitor/controller that uses a proprietary multipurpose input/output hardware platform. The primary function of this unit is the proportional injection of oilfield chemicals in hazardous environments for the optimization of chemical treatment programs. It is designed for wired and wireless remote monitoring and control of chemical injection pumps, as well as various field instruments and sensors.

Analog Inputs:

- Quantity: 2 analog inputs
- Both analog inputs are used by the SENTRYNET3
 - Input #1 = product flow transmitter
 - Input #2 = analyzer transmitter input
- All of the following input types are accepted:
 - 0—5 V
 - 1—5 V
 - 0—20 mA
 - 4—20 mA

Analog Output:

- Quantity: 1 analog output
- This output is used by the SENTRYNET3 to control speed or stroke length of an electric pump

Digital Input:

- Quantity: 1 digital input
- One input is used by the SENTRYNET3 as the chemical flow meter input. The flow meter input is internally pulled to 5V via a 10k resistor. The external device (flowmeter or switch) will typically connect the input to ground as an active signal
- Frequency range: 0—300 Hz

Relay Outputs:

- Quantity: 2
- Both relays are used by the SENTRYNET3: one for alarm and the other to control certain types of chemical pumps.
- Relays are plug-in type and can be field changeable to suit the application. Various types of relays are available:
 - Solid state, AC (3A max)
 - Solid state, DC (3A max)
 - Mechanical, (0.5A max)

Communications:

- The SENTRYNET3 supports 2 serial ports
- Com port # 1 may be field configured to 1 of the 4 communication links listed below:
 1. RS-485
 2. RS-232
 3. Wireless: MaxStream Xtreme®, 100 mW RF power, 2.4 GHz, spread spectrum, point-point, point-multipoint
 4. Wireless: MaxStream XTend™, 1W RF power via extension card, 900 MHz, spread spectrum, point-point, point-multipoint, mesh networked
- Com Port # 2 is available and customizable for specific user applications

Power:

- 9—30VDC, 75 mA to 350 mA (depending on voltage & features selected)

Flow Meter And Sensor:

- Standard flow meter specifications: +/- 0.5% accuracy with over a 10:1 turn down; +/- 0.1% repeatability; rated to 5,000 PSI
- Standard materials of construction are stainless steel and Teflon®
- Temperature range up to 400°F (204.4°C)
- Flow range = 0.003 to 0.8 GPM (for standard meter). Meters with ranges as high as 120 GPM available
- MAG-PA hall effect sensor completely non-intrusive
- Compatible with most positive displacement or turbine type flow meters

Patents: US 7,389,787 and US 6,851,444.

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