

CHEMICAL INJECTION PACKAGE

Control & Diagnostic System Monitoring

OPERATIONAL VISIBILITY INTO CRITICAL PROCESSES

VERIFICATION OF INJECTION PERFORMANCE

WIRELESS INTERFACE ADD-ON

DIRECT ACCESS OF CONTROLLER DATA BY SCADA SYSTEM



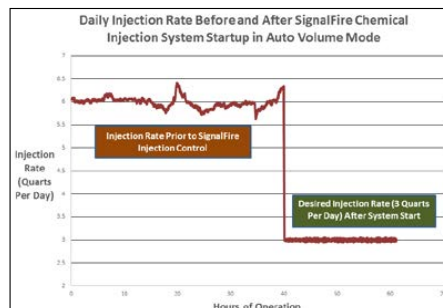
FEATURES

5 Operating Modes

- **Timed** - Inject on a timed schedule
- **Auto Volume** - Specify a daily injection quantity (quarts/day)
- **Auto Production** - Specify well production rate and desired chemical dosing PPM, requires flow rate data from a flow computer. Injection rates will automatically change with production.
- **Manual** - Manual on and off
- **Temperature** - Set temp limits to start or stop all injection based on ambient temp.

SCADA Integration

- Modbus interface - RS 485 or Ethernet
- Wired or wireless using the SignalFire Telemetry System
- Remotely monitor performance
 - Injection rates
 - Pump performance
 - Tank levels
 - Fault conditions
 - Battery voltage
- Remotely change configuration
 - Injection rates
 - Temp limits
 - Calibration
 - Enable/Disable



BENEFITS

Optimize Chemical Usage – *Inject the right amount when it is needed*

- Avoid the costs of over injection.
- Avoid downtime/reworks due to under injection.
- Rapidly identify leaks or clogs.

Flow Assurance

- Immediate feedback from the gear meter lets you know you are pumping chemical, resulting in no blocked lines or empty tanks.

Manage Tank Levels

- Optimize chemical delivery by carefully managing tank levels.

Monitor System Performance

- Prevent system downtime by continually monitoring system performance.

Easy Installation

- Reduce installation time with wireless integration.



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TECHNICAL SPECS

Operating Temperature

-40°C to +85°C

Power

9-15 VDC

Data Interfaces

- SignalFire Wireless Radio
- RS485 Modbus RTU

Supported Pumps

12 VDC Electric pump (up to 12A), other pumps on request

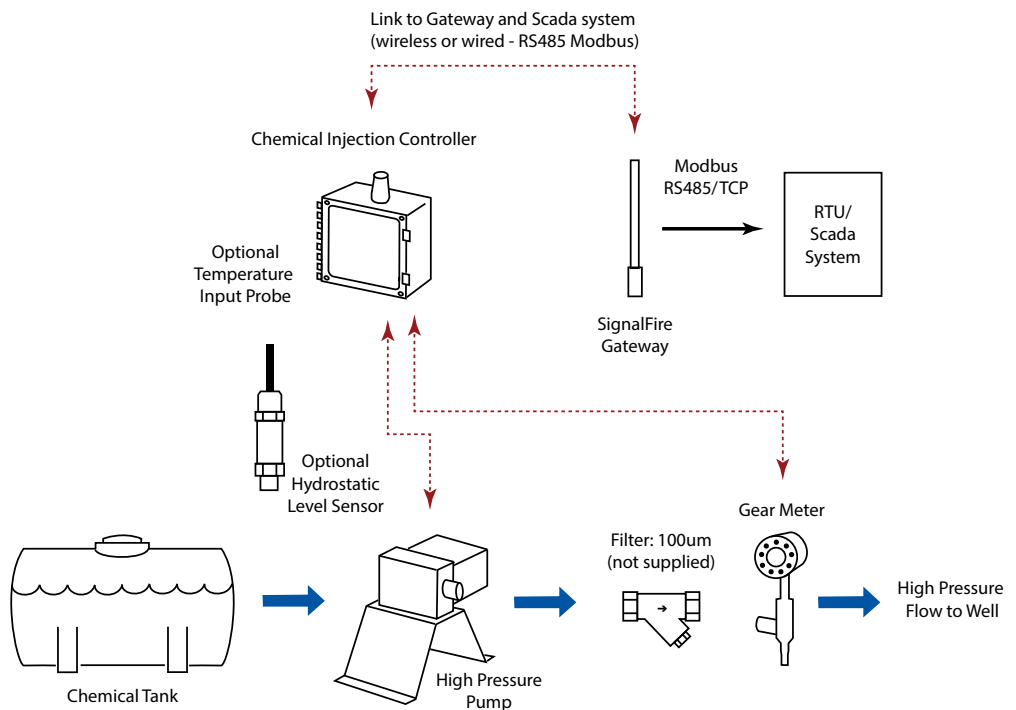
Internal Diagnostics

Supply voltage, signal strength, error conditions

Radio Frequency

902-928 MHz ISM band, 300 mW FHSS radio. Antenna included with wireless option.

CHEMICAL INJECTION PACKAGE DIAGRAM



STANDARD CONFIGURATION ORDER CODES

DESCRIPTION	ORDER CODE
Chemical Injection Monitoring and Control Base Package	C I S - G M - x - y - z
Level Sensor Option:	x = 0 (no level sensor)
	x = 1 (level sensor)
Wireless Option:	y = 0 (Modbus RS485 interface)
	y = 1 (Wireless interface)
	y = 2 (Wireless interface and a DIN Gateway)
Temperature Sensor Option:	z = 0 (no temperature sensor)
	z = 1 (ambient temperature sensor)