

# 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



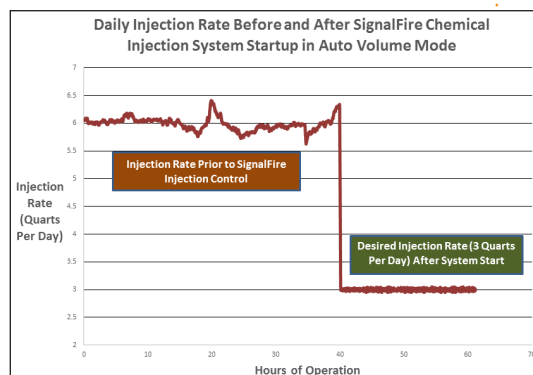
## FEATURES

### 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

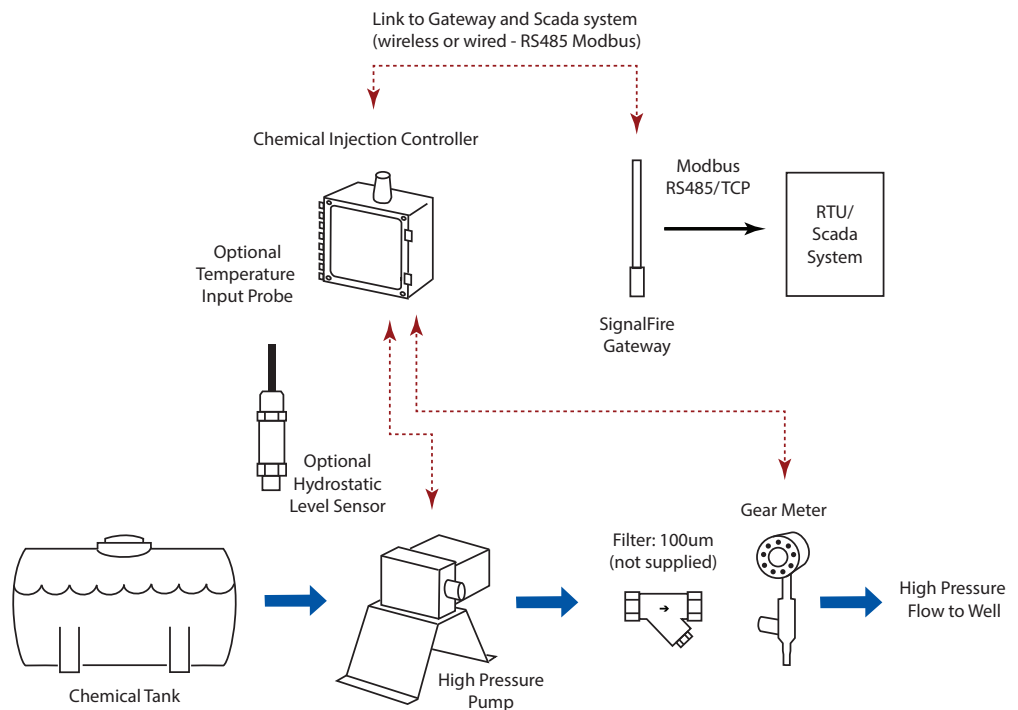
### Internal Diagnostics

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)           |