



Injection Controllers for Hazardous Locations

The **PCC injection controller** is designed to control either one or two pumps on individual pumping profiles simultaneously. Control can be achieved either locally using membrane keypad or remotely via the Modbus communications port.

Typical applications include;

- Injection into both the wellhead and the pipeline at one location.
- Injection of two different products into a single point.

These Class 1 Division 2 approved controllers are designed to meet the rigorous demands of remote oilfield applications and harsh climates. These controllers are intended for use with SPEC's injection pumps and are used to automatically control the pump's daily injected volumes for well site and production facility applications.

Electrically Driven

The PCC controller and SPEC pumps are ideally suited for use with DC power systems such as solar, DC UPS, thermal electric (TEG) or other DC power supply systems. When compared to other technologies, electrically driven injection pumps are similar or lower in capital cost to install and cost less to run and maintain over time. There are no costs to the producer that relate to venting or emissions issues.

Rugged and Easy to Use

SPEC injection controllers are functionally rated to operate from -40°C to 60°C and features 16 gauge steel powder coated cases for superior corrosion resistance. The user interface is functionally intuitive, with a bright, easy to read display and a large membrane keypad.



Easy operator set up and control



Set up for ac supplied / battery backed up system

Features:

- Operate one or two separate pumps at individual rates from a single controller.
- Remote control via Modbus communications.
- Class 1 div 2 certified as a component.
- Functionally rated to -40°C .
- Powder coated 16 gage steel enclosure for added corrosion resistance.
- No math. The controller automatically calculates timing cycles using internal software, the operator's input of the calibration observation and the required injection rate, to achieve the desired daily-injected volume.
- Large membrane keypad for easy operator input.
- Large, easy to read vacuum fluorescent display operable to -40°C .
- Power saver. After five minutes with no keypad input the unit switches off the display to reduce power consumption. Press any key to wake up.
- Field selectable "normally open" or "normally closed" digital inputs for external devices such as ESD, tank level or pressure switches.
- 4-20 mA analog inputs to monitor and log well performance.
- Field selectable calibration cycle times for each channel to facilitate accurate sight glass readings at different field pressures.
- Pluggable terminal block assemblies allowing for easy integration into panel assemblies and simplified troubleshooting for maintenance personnel.

Specifications:

Model		PCC Chemical Injection Pump Controller
Voltage		12-30Vdc
Total Consumption	display off, no active analog max	<50mA 250mA
Inputs	analog digital	2 - 4/20mA: 2 - dry contact
Outputs	SSR relay	15A maximum continuous 20A @ 10% duty cycle 70 max peak surge
Fusing	processor input pump outputs	0.5A time delay 15A LP-CC type (current limiting) use only sand filled or porcelain fuses to maintain Class 1 Div 2
Communication	Modbus ASCII Baud Parity Word Length Stop Bits	RS-232 / RS-485 2400, 9600, 28800 Default: 9600 even or odd 7 bit 1 bit
I/O Terminations		Pluggable terminal blocks, 22 - 12 Awg, 15A
Dimensions	size weight	6.25 x 5.75 x 2.75 in. (HxWxD) 2.05 (lbs)
Packaging Environment		16 ga. steel black powder coat, IP20 5% RH to 95% RH, non-condensing -40°C to 60°C
Approvals		Non-Incendive Electrical Equipment for Use in Hazardous Locations. QPS ExnA IIB, Class 1 Division 2 GP. C,D CSA C22.2 NO. 213-87M(99) CAN/CSA E60079-15:02 CSA C22.2 NO. 107.1-95 CEC (2006)

