

Portacel® Controllers Auto Valve Positioner 2 (AVP2)

Introduction

The Portacel® Auto Valve Positioner 2 (AVP2) manufactured by Siemens Water Technologies has a dedicated microprocessor for use in conjunction with a Portacel® Thames or Trent chemical doser. The AVP2 will precisely position the doser control valve, automatically varying the amount of disinfecting chemical in response to up to four input signals.

Remote indication of controller status is possible using relay contacts provided.

Features

Chlorinator Flow Only

This is the simplest form of chlorine dosing control. The chlorine dose is directly proportional to the flow of the water undergoing treatment. A flow meter provides a signal proportional to the flow through the process. This signal is used to determine the gas control valve position to set the gas dose rate.

Residual Only

The controller responds to a signal from a chlorine analyser down stream of the dose point (feedback). The signal from the chlorine analyser is compared with the desired value set in the controller and a dose change made to adjust the chlorine residual. This is performed after a predetermined process time. The controller assumes a constant water flow.

Flow and Residual

The controller operates the same as 'Flow Only' control, but with the addition of a gas dose response to a signal from a chlorine analyser down stream of the dose point (feedback). The signal from the chlorine analyser is compared with the desired value set in the controller and a dose change made to adjust the chlorine residual. This is performed after a predetermined process time.

Key Benefits

- Suitable for gas and liquid disinfection chemicals - Cl_2 , SO_2 , NH_3 - NaOCl_1 , NaHSO_3
- Up to four input signals - water flow chlorine residual 1, chlorine residual 2, remote set point
- Various control configurations
- Clear LCD display - ease of calibration and commissioning
- Displays vital information during operation water flow, chemical flow, chlorine residual, chlorine set point and process timer
- Windows® driven computer program available for interrogation and commissioning of AVP2
- Battery operated manual control



Product Sheet

Flow, Residual and Trim

The controller operates the same as 'Flow and Residual' controls, but with the addition of a response to a signal from a second chlorine analyzer further downstream than the first analyzer, for example, after the contact tank. A deviation between the actual residual and the desired residual will cause a change in the desired residual set point at the first analyzer.

Sulphonator

Feed forward and Flow

The controller operates the same as 'Flow Only' control for chlorinator, but with the addition of a gas dose response to a signal from a chlorine analyzer up stream of the dose point.

Flow and Residual

The controller operates the same as 'Flow and Residual' control for chlorine.

Feed forward, Flow and Residual

The controller operates the same as 'Flow and Residual' control, but with the addition of a gas dose response to a signal from a chlorine analyzer up stream of the dose point.

Ammoniator

Flow Only

The controller operates as 'Flow Only' control for chlorinator.

Technical Data

Weight (complete unit)

2.5kg (6Lbs)

Overall dimensions

230mm x 225mm x 115mm (9" x 8 7/8" x 4 1/2")

Mains supply voltage

83V to 264V at 50 to 60 Hz AC (internally selectable)

Fuse

Mains power fuse, 1.0 amp (quick blow)

Battery backup

9V PP3 battery (for use on mains electrical supply failure)

Power consumption

16 Watts (maximum)

Operating temperature

0 - 50°C (32°F - 122°F)

Environmental rating

IP54

Display

Liquid Crystal Display (LCD), 4 lines x 20 characters

Control inputs

4 20 mA DC - Water flow, residual 1, residual 2, remote set point

Input resistance

100 ohm

Retransmission

4 20 mA DC maximum load 500 ohms

Connections

Cable access 5 holes 20mm(3/4") diameter

Processor

EEPROM

Interface

RS232 9 pin D socket (PC software required)

RFI/EMC

The AVP2 complies with current RFI and EMC directives

Electrical safety

The AVP2 complies with EC low voltage directive (CE)

Control Configurations

Chlorinator (Cl₂ or NaOCl)

Flow Only

Residual Only

Flow and Residual

Flow, Residual and Trim

Sulphonator (SO₂ or NaHSO₃)

Feedforward and Flow

Flow and Residual

Feedforward, Flow and Residual

Ammoniator (NH₃)

Flow Only

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