



Electric Actuated Shut-Off/ Flow Regulating Needle Valve

Operation and Maintenance Manual

Catalog: 02-9337ME

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aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



ENGINEERING YOUR SUCCESS.

Model # _____

Serial # _____

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Section 1.0 Introduction

The Parker Autoclave Engineers Electric Flow Control valves are designed to operate up to 60,000 psi depending on the model number. The valves are "fail-as-is" meaning the valve maintains its last position on signal or power failure.

Section 2.0 Meaning of Safety Words

A safety related message is identified by a safety alert symbol and a signal word to indicate the level of risk involved with a particular hazard. The definitions of the three signal words are as follows:



WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



Read this manual in its entirety prior to any attempt to install, operate, or perform maintenance on the Electric Flow Control Valve.

If you are unsure of how to proceed, please contact Parker Autoclave Engineers Service Department at (814) 860-5700 or fax us at (814) 860-5811.



Internal dip switches are factory set. Do not adjust switches unless directly advised in Section 6 (Service) of this manual.

If you are unsure of how to proceed, please contact Parker Autoclave Engineers Service Department at (814) 860-5700 or fax us at (814) 860-5811.

Section 3.0 Technical Specification

Electrical Power:

Power Required: 24 VDC/72 Watt Maximum
Input Impedance: 250 Ohms (4-20 mA input)

Environmental:

Atmosphere: IP 65 type rating
Operating Temperature (Actuator): -30° to 85° C

Maximum Weight: See drawing.

Dimensions: See drawing.

Personnel:

Installation must be carried out by qualified personnel familiar with all pertinent wiring practices, codes, and safety procedures.

Section 4.0 Drawings

VALVE SERIES	DRAWING
1/8" 10V	AE002841
1/4" 10V	AE002842
3/8" 10V	AE002843
1/2" 10V	AE002844
1/4" SW	AE002845
3/8" SW	AE002846
1/2" SW	AE002847
1/4" 20SM	AE002848
3/8" 20SM	AE002849
9/16" 20SM	AE002850
1/48" 30VM	AE002851
3/8" 30VM	AE002852
9/16" 30VM	AE002853
1/8" 60VM	AE002854
3/8" 60VM	AE002855
9/16" 60VM	AE002856

Section 5.0 Installation

Electrical Wiring:

The actuator comes standard with a Turck 5 position connector and a 20' cable with plug. Cut the cable to the length required and then connect according to the following wire color schematic:



Wire color schematic for "Turck5" cable:

	DC Power Supply only
White ->	+24VDC
Black ->	Power Ground
Grey ->	Output Signal (4..20mA)
Brown ->	Isolated Input Signal Ground
Blue ->	Isolated Input + Signal (4..20mA)

Signal Positioning:

A 4-20mA signal corresponds to a 0-100% open position.
A 4.0mA signal directs the valve to a fully closed position.
When a 20mA signal is given the valve is opened a full 5 turns.
The relationship between the signal and the valve position is linear.

High Pressure Plumbing:

Refer to the Tools and Installation section of the Parker Autoclave Engineers VFT product catalog.

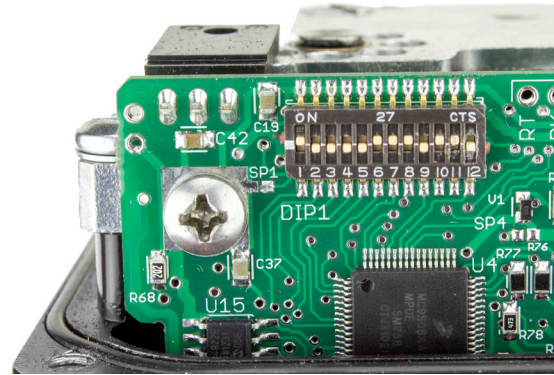
Section 6.0 Service

For valve maintenance or packing leaks refer to the Manual valves Operation and Maintenance Manual (Catalog# 02-0024ME).

RE-ZERO THE VALVE AFTER MANUAL ADJUSTMENT. REMOVE THE TOP COVER AND APPLY POWER TO THE ACTUATOR AND CYCLE DIP SWITCH 12 FROM OFF TO ON AND BACK TO OFF. VERIFY THAT THE VALVE STARTS TO MOVE. THE VALVE WILL RUN UNTIL IT COMPLETELY CLOSES. IT IS NOW READY FOR OPERATION.

CAUTION

Switches 1 through 11 are factory set and will vary depending on the valve type.
Do not adjust switches 1 through 11.



For service, contact the Parker Autoclave Engineers' Representative in your area or phone Parker Autoclave Engineers' Support Services at 1-814-860-5703.

WARNING

FAILURE, IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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