EXPLOSION PROOF ELECTRIC ACTUATED

Shut-Off/Flow Regulating

Parker Autoclave Brand: **Needle Valve**

OPERATION AND MAINTENANCE MANUAL

Manual 02-9342ME | September 2025

Series Model: **Explosion-Proof, Electric Actuated Shut-Off/Flow Regulating Needle Valve**

Part Number: _____

Date of Purchase: _____

Table of Contents

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

CAUTION

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.

CAUTION

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.

Parker Autoclave Engineers reserves the right to alter the specifications given in this publication in line with our policy of continuous improvement. All general terms and conditions of sale including limitations of our liability, apply to all products and services sold.

Section 3.0
Technical Specifications

Electrical Power:

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

Environmental:

Atmosphere: NEC CLASS I, DIV 1, GROUP B,C,D type rating
Operating Temperature (Actuator): -40° to 85° C

Maximum Weight: See drawing.

Dimensions: See drawing.

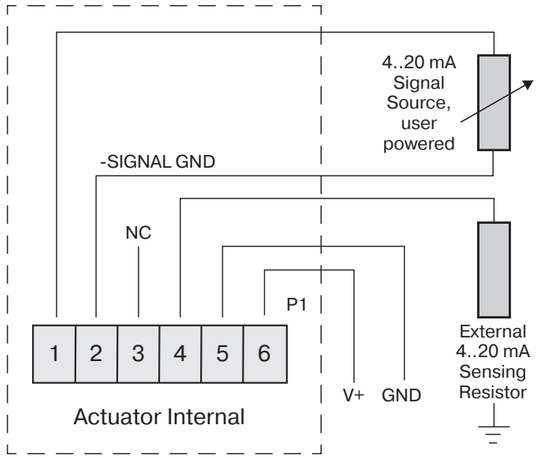
Personnel:

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

Section 4.0
Drawings / Wiring Schematic

VALVE SERIES	DRAWING #
1/8" 10V	AE003953
1/4" 10V	AE003954
3/8" 10V	AE003955
1/2" 10V	AE003956
1/4" SW	AE003957
3/8" SW	AE003958
1/2" SW	AE003959
1/4" 20SM	AE003960
3/8" 20SM	AE003961
9/16" 20SM	AE003962
1/4" 30VM	AE003963
3/8" 30VM	AE003964
9/16" 30VM	AE003965
1/8" 60VM	AE003966
3/8" 60VM	AE003967
9/16" 60VM	AE003968

Section 4.0
Drawings / Wiring Schematic



Terminal #	DC Power Supply Only
6	+24 VDC
5	Power Ground
4	Outpur Signal (4..20mA)
3	Not Connected
2	Isolated Input -Signal GND
1	Isolated Input +Signal (4..20mA)

⚠ WARNING

DO NOT CONNECT PIN 4 DIRECTLY OR THROUGH A MULTIMETER TO GROUND. A SENSING RESISTOR OF 50 OHMS OR MORE NEEDS TO BE PRESENT. NOT OBSERVING THIS WARNING WILL DAMAGE THE EQUIPMENT.

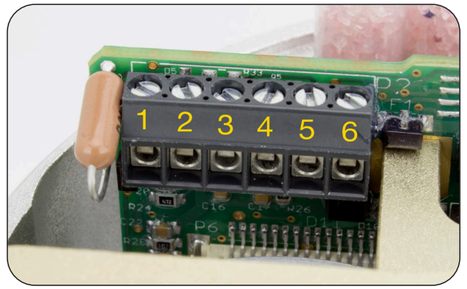
The actuator 4..20mA output is internally supplying the signal current and can drive sufficient voltage for any sensing resistor up to 250 ohms.

The potential of the external GND after the sensing resistor may not be more than +6 VDC/-2 VDC away from the power GND of the actuator.

Section 5.0
Installation

Electrical Wiring:

The actuator comes with a female 1/2" NPT connection for the user to connect their electrical piping. It is the responsibility of the user to connect to the actuator in a way that meets their hazardous location codes. The electrical wiring is connected at the terminal block as indicated on photo and schematic in Section 4.0.



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

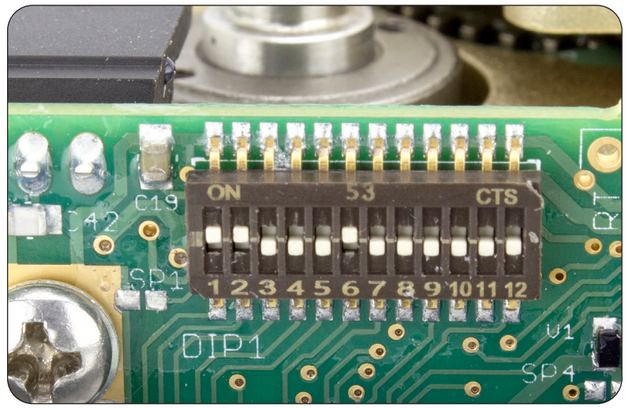
For valve maintenance or packing leaks refer to the Manual valves Operation and Maintenance Manual (Catalog# 02-0024ME).

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.

Maintenance Notes:

Operation and Maintenance Manual - Explosion-Proof, Electric Actuated Shut-Off/Flow Regulating Needle Valve | 02-9342ME 09/25

Additional Resources…

Questions? Contact us!	Download Autoclave Literature HUB	Download IPD Literature HUB

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Operation and Maintenance Manual

PRODUCT BRAND