



Electric Shut-off/Flow Regulating Valve

Operation and Maintenance Manual

Catalog: 02-9313ME

October 2013

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 Shut-off/Flow Regulating valves are designed to operate up to 60,000 psi depending on the model number. The 4-20 mA models are fail-as-is meaning the valve maintains its last position on signal or power failure. The 0-10 VDC models fail closed on signal loss.

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:



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



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

Special notes intended to bring attention to procedures that must be followed to ensure proper installation and performance will be placed in a box labeled NOTICE.



Read this manual in its entirety prior to any attempt to install, operate, or perform maintenance on the Electric Shut-off/Flow Regulating 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.

Section 3.0 Technical Specification

Electrical Power:

Power Required: 24 VDC/50 Watts Minimum
Input Impedance: 200 Ohms (4-20 mA input)
18,000 Ohms (0-10 VDC input)

Environmental:

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

Maximum Weight:
See drawing.

Dimensions:
See drawing.

Wiring:

Red (+24 VDC), Black (24 VDC return), Brown (Signal), Green (Case Ground).

The 0-10 VDC or 4-20 mA signal should be applied between the Brown and Black wires. (See Signal Positioning on next page.)

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 | 40B-0061 |
| 1/4" 10V | 40B-0062 |
| 3/8" 10V | 40B-0063 |
| 1/2" 10V | 40B-0064 |
| 1/4" SW | 40B-0065 |
| 3/8" SW | 40B-0066 |
| 1/2" SW | 40B-0067 |
| 1/4" 20SM | 40C-1444 |
| 3/8" 20SM | 40C-1424 |
| 9/16" 20SM | 40B-0060 |
| 1/4" 30VM | 40B-0056 |
| 3/8" 30VM | 40C-1425 |
| 9/16" 30VM | 40C-1430 |
| 1/4" 60VM | 40C-1431 |
| 3/8" 60VM | 40C-1438 |
| 9/16" 60VM | 40C-1442 |

Section 5.0 Installation

Electrical Wiring:

The valve actuator has two different cables provided. One of the cables will be marked for factory use only. This is the programming wire used by Parker technicians to initially setup the valve. This cable will not be used in normal operation.

The second cable will have four leads with terminals attached. The wires will be red, black, brown, and green. This cable will be used to control the position of the valve.

Once the correct cable is located (the four lead cable) the valve can be wired into the control system. A 24 VDC positive power supply will need to be applied to the red wire while the black wire is the power supply common. The brown wire is the incoming 4-20mA or 0-10 VDC signal. The green wire is the case ground.

Signal Positioning:

A 4-20mA or 0-10 VDC signal corresponds to a 0-100% open position. **A 4.1mA/0.1 VDC signal directs the valve to a fully closed seated position.** This is a bubble tight position. When a 20mA/10 VDC signal is given the valve is opened a full 6 turns. The relationship between the signal and the valve position is linear.

High Pressure Plumbing:

Refer to the Manual Valves Operation and Maintenance Manual (Catalog #02-0024ME) Sections 1.0 and 6.0 for instructions to install the high pressure plumbing.

Section 6.0 Service

For valve maintenance or packing leaks refer to the Manual Valves Operation and Maintenance Manual (Catalog #02-0024ME) Section 2.0 packing adjustment instructions.

For all other 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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