

81000 Series Mikroseal Control Valve

This unique control valve is excellent for throttling of liquid or gaseous media particularly where wide flow variations are encountered. Its packless design allows for applications where leakage prone stem packings are not tolerated.

A unique nearly frictionless mechanical force amplifying mechanism is employed to reduce the travel of the pneumatic or electric actuators in order to move a closure diaphragm precisely against the valve orifice to throttle or stop the passing fluid. The same nearly frictionless mechanism, composed of all stainless steel ball bearings and PTFE guide bushings, assures very precise positioning with negligible deadband permitting direct operation from remote mounted I/P (current to pneumatic) signal converters.

Easy removal of the bonnet allows for inspection and cleaning of the valve seat and closure diaphragm while the actuator stays attached to the bonnet and the valve body remains in the line. NOTE: The actuator stays in calibration! A backup o-ring prevents leakage should the primary seal (diaphragm to valve body) fail. A tell-tale connection in the bonnet can be utilized to show if the sealing diaphragm is damaged.

FEATURES:

- Compact and light weight design reduces installed piping costs
- Packless Construction
- Designed for Clean-in-Place (CIP) and Sanitize-in-Place (SIP)
- Epoxy powder coated actuator with stainless steel fasteners for maximum corrosion resistance
- Multi-spring, field reversible actuator with reduced deadband permit direct operation from remote signal devices
- FIELDVUE Digital Valve Controller available for remote calibration and diagnostics

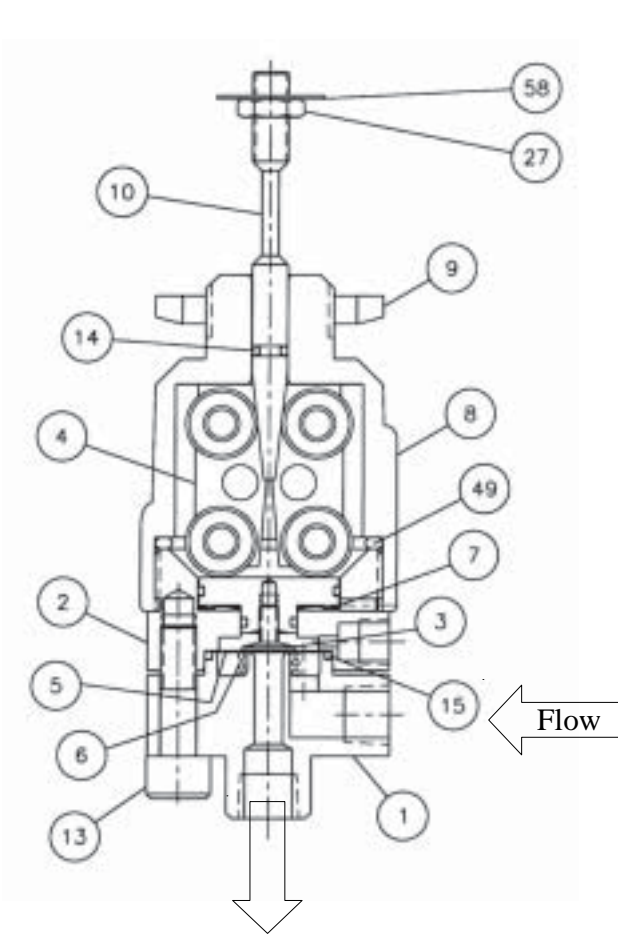


81000 WITH SIZE 16 ACTUATOR

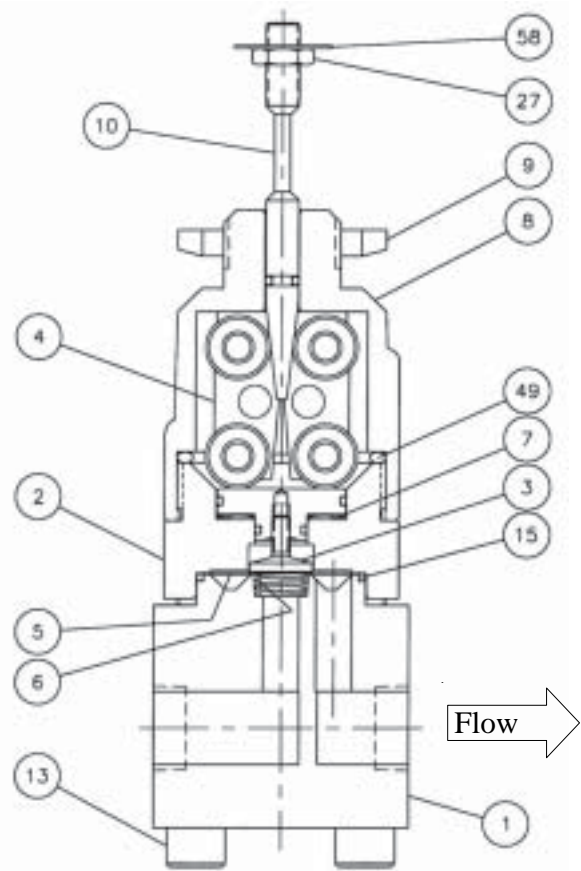


81000 WITH SIZE 16 ACTUATOR AND FIELDVUE DIGITAL VALVE CONTROLLER

81000 Series Control Valve



1/4" 81000 Series Angle Body



1/2" 81000 Series In-Line Body

DWG 81000-2

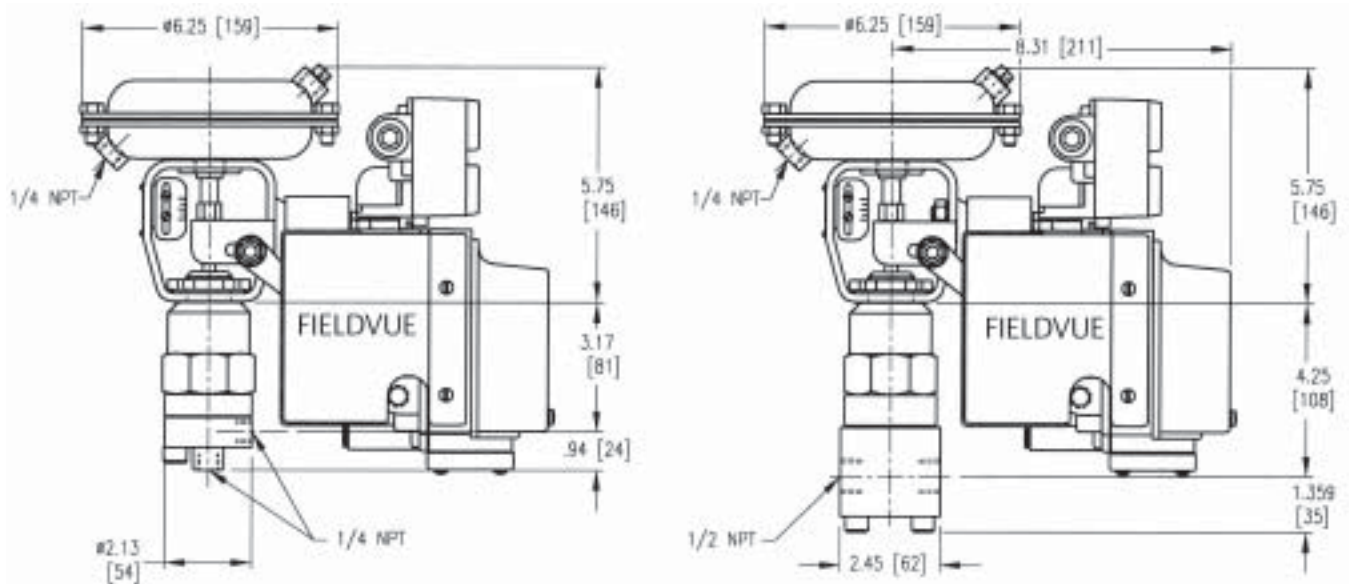
MATERIALS OF CONSTRUCTION

KEY NO.	DESCRIPTION	MATERIAL
1	Valve Body	316 Stainless Steel (Optional Hastelloy C-22)
2	Bonnet Yoke	316 Stainless Steel
3	Piston Sub-assembly	303 Stainless Steel
4	Bearing Cartridge Sub-assembly	Stainless Steel
5	Closure Diaphragm	316 Stainless Steel (Optional Hastelloy C276)
6	Seat Spring	Hastelloy C22
7	Wave Spring	17-7 pH
8	Valve Bonnet	ASTM A743 CF8M FMS 20B58
9	Drive Nut, Actuator Yoke	304 Stainless Steel
10	Plunger	316 Stainless Steel
13	1/2 inch, Allenhead Bolts 3/8-16x2-5/8	Stainless Steel
	1/4 inch, Allenhead Bolts M8x30	316 Stainless Steel
14	O-Ring, Plunger	Viton Fluoroelastomer (FKM) black
15	O-Ring	PTFE/FDA 21 CFR 177 compliant
27	Jam Nut	304 Stainless Steel
49	O-Ring	Viton A
58	Travel Indicator Disk	304 Stainless Steel

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ACTUATOR SPECIFICATIONS

TYPE	16 Multi-Spring Diaphragm (Single Acting)
ACTION	Push Down to Close
AIR FAILURE	Open or Closed (Field-Reversible)
TRAVEL	1/2 inch / 12.7mm
AMBIENT TEMPERATURE RANGE	-20 to 160°F / -30 to 70°C
MAXIMUM AIR PRESSURE	35 psig / 2.5 barg
DIAPHRAGM MATERIAL	Neoprene, Fabric Reinforced
SPRING CASES	Steel, Powder Epoxy-Coated with SST Fasteners
SPRINGS	Type 302/304 Stainless Steel
YOKE	Stainless Steel



NOTE: Actuator requires 4-1/2" (115 mm) vertical clearance.
Must purchase an actuator support when purchasing a FIELDVUE Digital Valve Controller.

DWG M81000-2

WEIGHTS (Lbs.)

VALVE SIZE				ACTUATOR	
Size 1/4 inch (6.35 mm)		Size 1/2 inch (12.7 mm)		lbs	kgs
lbs	kgs	lbs	kgs		
3	1.35	4	1.82	4.6	2.1

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