

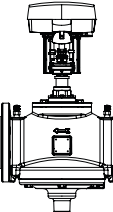
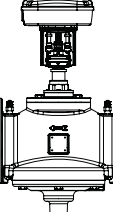


Table 4. Valve Assemblies 1½", 2" With Female NPT End Connectors, With PT Ports

Flow Rate (GPM) ^a	Valve Size (inch)	24 Vac Proportional with Position Output Signal (MP500C)	24 Vac Proportional/Floating with Position Output Signal Spring Return Open (MP500C-SRU)	24 Vac Proportional/Floating with Position Output Signal Spring Return Closed (MP500C-SRD)
				
18	1½	VP220E-40S-018-U131	VP220E-40S-018-U231	VP220E-40S-018-U331
19	1½	VP220E-40S-019-U131	VP220E-40S-019-U231	VP220E-40S-019-U331
20	1½	VP220E-40S-020-U131	VP220E-40S-020-U231	VP220E-40S-020-U331
22	1½	VP220E-40S-022-U131	VP220E-40S-022-U231	VP220E-40S-022-U331
24	1½	VP220E-40S-024-U131	VP220E-40S-024-U231	VP220E-40S-024-U331
26	1½	VP220E-40S-026-U131	VP220E-40S-026-U231	VP220E-40S-026-U331
28	1½	VP220E-40S-028-U131	VP220E-40S-028-U231	VP220E-40S-028-U331
30	1½	VP220E-40S-030-U131	VP220E-40S-030-U231	VP220E-40S-030-U331
32	1½	VP220E-40S-032-U131	VP220E-40S-032-U231	VP220E-40S-032-U331
34	2	VP220E-50S-034-U131	VP220E-50S-034-U231	VP220E-50S-034-U331
36	2	VP220E-50S-036-U131	VP220E-50S-036-U231	VP220E-50S-036-U331
38	2	VP220E-50S-038-U131	VP220E-50S-038-U231	VP220E-50S-038-U331
40	2	VP220E-50S-040-U131	VP220E-50S-040-U231	VP220E-50S-040-U331
44	2	VP220E-50S-044-U131	VP220E-50S-044-U231	VP220E-50S-044-U331
48	2	VP220E-50S-048-U131	VP220E-50S-048-U231	VP220E-50S-048-U331
52	2	VP220E-50S-052-U131	VP220E-50S-052-U231	VP220E-50S-052-U331

a. Factory set. Complete flow ranges shown in tables for 1/2...2" on page 11 and page 18.

Table 5. Valve Assemblies 2½"...4" with ANSI Standard B16.1 Flanges, With PT Ports

Flow Rate (GPM) ^a	Valve Size (inch)	24 Vac Proportional with Position Output Signal (MP500C)	24 Vac Proportional/Floating with Position Output Signal Spring Return Open (MP500C-SRU)	24 Vac Proportional/Floating with Position Output Signal Spring Return Closed (MP500C-SRD)
				
56	2½	VP220A-65S-056-U131	VP220A-65S-056-U231	VP220A-65S-056-U331
60	2½	VP220A-65S-060-U131	VP220A-65S-060-U231	VP220A-65S-060-U331
65	2½	VP220A-65S-065-U131	VP220A-65S-065-U231	VP220A-65S-065-U331
70	2½	VP220A-65S-070-U131	VP220A-65S-070-U231	VP220A-65S-070-U331
75	2½	VP220A-65S-075-U131	VP220A-65S-075-U231	VP220A-65S-075-U331
80	2½	VP220A-65S-080-U131	VP220A-65S-080-U231	VP220A-65S-080-U331
90	3	VP220A-80S-090-U131	VP220A-80S-090-U231	VP220A-80S-090-U331
100	3	VP220A-80S-100-U131	VP220A-80S-100-U231	VP220A-80S-100-U331
165 (min. 66)	4	VP220A-100S-165-U131	VP220A-100S-165-U231	VP220A-100S-165-U331

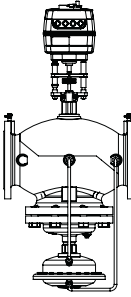
a. Factory set. Complete flow ranges shown in tables for 2½"...4" on page 12 and page 19.

Table 6. Specification 1½”...4” Valve Body Actuators

1½”...4” Valve Body Actuator Part Number (actuator code)	MP500C (U131)	MP500C-SRU (U231)	MP500C-SRD (U331)
Input Signal	Proportional, 0...10 Vdc, 2...10 Vdc, 4...20 mA, sequencing with selectable input signal action and Floating, DIP switch selectable		
Electrical Connection	Screw terminal with conduit connector		
Position Feedback Output Signal	2...10 Vdc	2...10 Vdc, 0...5 Vdc	
Spring Return	–	Open Valve	Close Valve
Auxiliary Switch	Optional Module		
Other Features	Auto calibration, field selectable floating input signal travel time, powered manual override	Auto calibration, field selectable floating input signal travel time	
Linear/Equal% Valve Flow Curve Selection	Yes		Yes
Actuator Speed Full Stroke 60 Hz (50 Hz)	Proportional 15 (15) Floating 60 or 300 (60 or 300)	Proportional 15 (15) Floating 60 or 300 (60 or 300) Spring Return 13 (13)	
Power Consumption	Running 15 VA, Transformer Sizing 50 VA		Running 30 VA, Transformer Sizing 50 VA
Operating Temperature Limits °F (°C)	14...122 (-10...50)		
Actuator Weight (lb.)	4.0	6.0	
Regulatory Compliance	Underwriters Laboratory (E9429) compliance as Temperature Indicating & Regulatory Equipment cULus LISTED per UL873 and Canadian Standard C22.2 No. 24. European Community compliance per EMC directive (2014/30/EU) and LVD directive (2014/35/EU). Australian/New Zealand community RCM mark.		
Specification Data Sheet	F-27944	F-27945	
Installation Data sheet	F-27942	F-27943	

All actuators are 24 Vac. 50/60 HZ with conduit connector holes and wiring terminal block, manual override

Table 7. Valve Assemblies 5” and 6” With PT Ports with ANSI Standard B16.1 Flanges

Flow Rate (GPM) ^a	Valve Size (inch)	24 Vac Proportional with Position Output Signal (MP2000-NSR)	24 Vac Proportional/Floating with Position Output Signal Spring Return Open (MP2000-SRU)	24 Vac Proportional/Floating with Position Output Signal Spring Return Closed (MP2000-SRD)
				
395 (min. 158)	5	VP220A-125S-395-U161	VP220A-125S-395-U261	VP220A-125S-395-U361
485 (min. 194)	5	VP220A-125H-485-U161	VP220A-125H-485-U261	VP220A-125H-485-U361
640 (min. 256)	6	VP220A-150S-640-U161	VP220A-150S-640-U261	VP220A-150S-640-U361
830 (min. 332)	6	VP220A-150H-830-U161	VP220A-150H-830-U261	VP220A-150H-830-U361

a. Factory set. Complete flow ranges shown in tables for 5”...6” on page 12 and page 19.

Table 8. Specification 5”and 6” Valve Body Actuators

5” and 6” Valve Body Actuator Part Number (actuator code)	MP2000-NSR (U161)	MP2000-SRU (U261)	MP2000-SRD (U361)
Input Signal	Proportional, 0...10 Vdc, 2...10 Vdc, 0...20 mA, 4...20 mA, with selectable input signal action and Floating, DIP switch selectable		
Electrical Connection	Screw terminal with conduit connector		
Position Feedback Output Signal	0...10 Vdc, 2...10 Vdc, 0...20 mA, 4...20 mA ^a		
Spring Return	–	Open Valve	Close Valve
Auxiliary Switch	Yes		
Other Features	Auto calibration, 3-color LED indication, powered manual override, configurable position output signals, selectable speed, adjustable equal percentage flow curve		
Linear/Equal% Valve Flow Curve Selection	Yes		
Actuator Speed s/mm 60 Hz (50 Hz)	3 or 6 (3 or 6)	4 or 6 (4 or 6)	
Power Consumption	15.0 VA		
Operating Temperature Limits °F (°C)	32...131 (0...55)		
Actuator Weight (lb.)	13.8	18.96	
Regulatory Compliance	cULus according to UL 60730-1A/-2-14 and CAN/CSA E60730-1/-2-14 and CE according to EN 60730-1/-2-14 per EMC [2014/30/EU] and LVD [2014/35/EU]		
Specification Data Sheet	F-27976	F-27969	
Installation Data sheet	F-27956		

a. When used with a proportional input signal. All actuators are 24 Vac. 50/60 HZ with conduit connector holes and wiring terminal block, manual override