



Actuated Valves Technical Electric Actuator Selection

Step 2: Actuator Code Selection

Spears® actuated valves are available with either electric or pneumatic motors. Actuators are pre matched to each type and size of valve with proper operating torque and cycle time. Additional actuator accessories are selected and are factory installed on the Actuated Valve Package in Step 3 instructions

Select the applicable options from either the Electric Actuators (Selection Table 4) or Pneumatic Actuators (Selection Table 5) and enter the designated **Actuator Code** portion of the package part number.

Table 4: ELECTRIC ACTUATORS (Voltage-Enclosure Rating-Manual Override-Duty Cycle)

1	2	3	4	5	6	7	8	9	10	11	12
Reserved for Valve					ACTUATOR CODE				Optional Control Number (not used on basic packages)		
Voltage (see note 1) A = 115 VAC 60 Hz B = 230 VAC 60 Hz C = 230 VAC 3-phase 50 Hz (EU) D = 230 VAC 3-phase 60 Hz E = 24 VAC F = 12 VDC G = 24 VDC L = 460 VAC 3-Phase 50 Hz (EU) M = 460 VAC 3-Phase 60 Hz R = 415 VAC 3-Phase 50 Hz S = 230 VAC 50 Hz (EU) T = 575 VAC 3-Phase 60Hz (EU) U = 115 VAC 50 Hz (EU) V = 208 VAC 3-Phase 60 Hz X = Single Indicator Switch Only (see note 2) Y = Double Indicator Switch Only (see note 2) Z = Actuator Bracket Only (see note 2) 1 = 480 VAC 50 Hz 2 = 480 VAC 60 Hz 3 = 480 VAC 3-Phase 50 Hz 4 = 480 VAC 3-Phase 60 Hz 5 = 380 VAC 3-Phase 60 Hz Enclosure 1 = NEMA4 5 = NEMA 4 Double Powder Coated 2 = NEMA4x 6 = NEMA 4x Double Powder Coated 3 = NEMA 7 7 = NEMA 7 Double Powder Coated 4 = NEMA 9 8 = NEMA 9 Double Powder Coated					Duty Cycle (see note 3) 1 = 25% 7 = 40% 2 = 75% 8 = 60% 3 = 100% 9 = 20% 4 = 50% 5 = 70% (custom only) 6 = 80% (custom only)				Manual Override (see note 4) 0 = None 1 = Basic Manual Override 2 = Declutchable Manual Override 3 = Spring Return Open with Declutchable Manual Override (see note 5) 4 = Spring Return Close with Declutchable Manual Override (see note 5) 5 = Spring Return Open no override (see note 5) 6 = Spring Return Close no override (see note 5) 7 = RCE Battery Backup Actuator 8 = Spring Return Open with Basic Manual Override (see note 5) 9 = Spring Return Close with Basic Manual Override (see note 5)		

Notes:

- 1 - 460 VAC available on Butterfly Valves only.
- 2 - Bracket & Indicator Switch Only part numbers do not allow any other options(must be Z000, Y000, or X000).
- 3 - **Standard Duty Cycles** vary according to valve type and size as indicated in chart below. Standard Duty Cycles can be *upgraded* only.
 Note: 50% duty cycle available on non-standard, special order actuators only.

Valve Type	Size Range	25% Duty Cycle	75% Duty Cycle	100% Duty Cycle
Ball Valve	1/2" - 2"		X	
Ball Valve	2-1/2" - 4"	X		
Butterfly Valve	1-1/2" - 10"	X		
Butterfly Valve	12" - 24"			X
Diaphragm Valve	1/2" - 8"	X		

- 4 - Basic Manual Override is standard on Ball Valve sizes 1/2" - 3" with Declutchable Manual Override as an option. Declutchable Manual Override is standard on Ball Valve sizes 4" & larger and all Butterfly Valves. Standard Gate Valve and Diaphragm Valve packages have no override with Declutchable Manual Override as an option. Spring return not available on electric Diaphragm valves.
- 5 - Electric Spring Return Actuators come standard with no type of override. Need to verify if either Declutchable Manual Override or Basic Manual Overrides are available in all applications.