

TYPE-21/21a BALL VALVE WITH **SMART** FAILSAFE ELECTRIC ACTUATOR

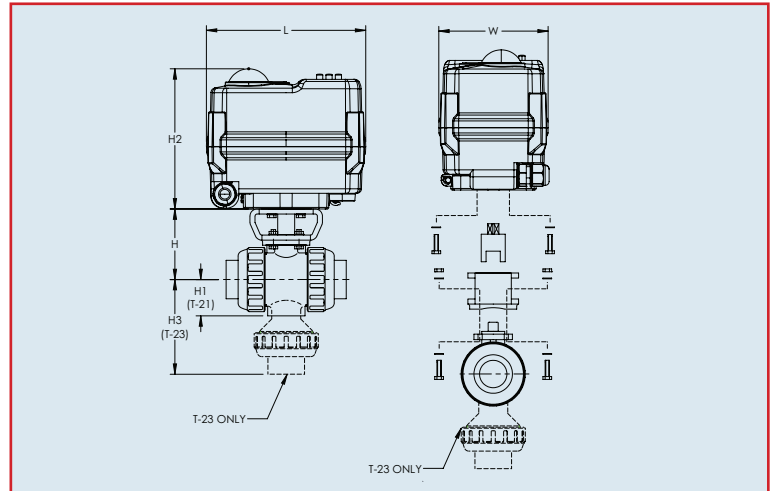


Specifications

Motor Type:	Reversing, brushless DC
Sizes:	S20 for 1/2" - 2" ball valves S50 for 2-1/2" - 3" ball valves S110 for 4" ball valves
Torque:	177 in-lbs to 973 in-lbs
Voltage:	95 VAC to 265 VAC multi-voltage
Amp Draw:	0.18 Amp for S20 0.24 Amp for S50 0.90 Amp for S110
Max Ambient Temp:	150° F

Standard Features (1/2" - 4")

- **Compact:** Perfect for OEM and skid manufacturers
- **OLED Screen:** Displays valve position, alarms
- **Push Buttons:** Used to calibrate/adjust end positions, local controls
- **Multi-voltage:** 95 VAC to 265 VAC or 24 VAC/VDC
- **Motor:** Reversing, brushless DC motor
- **Capacitor Discharge System:** A capacitor is used in place of batteries for failsafe mode
- **Selectable Fail Position:** Fail close is standard; fail as is or fail open are options
- **Corrosion Resistant Enclosure:** NEMA 4X PC/PET enclosure with stainless steel trim
- **Electrical Connection:** NEMA 4X cable gland with two-meter cable
- **LED Position Indication:** RED closed, GREEN open, BLUE fault
- **Manual Override:** Manually cycle valve via electroless nickel-plated hex key
- **Auxiliary Contacts:** Open and closed dry contacts rated 0.1 Amp @ 250 VAC, 0.5 Amp @ 30 VDC
- **Alarm Contacts:** Dry contacts rated 0.1 Amp @ 250 VAC, 0.5 Amp @ 30 VDC for alarm status (over torque, as an example)
- **Space Heater:** Internally wired to limit condensation
- **CE Compliant:** All actuators are CE labeled and compliant
- **75% Duty Cycle:** Ideal for high cycling applications
- **Output Torque:** Series 19 electric actuators have an output torque range from 177 in-lbs to 442 in-lbs
- **QR Code:** Links to user manual; includes wiring schematic
- **Simple Wiring:** Wiring technique is the same for all voltage units
- **Local Controls:** Used with OLED and push buttons, a user can locally open or close units via password



Dimensions (inch)

Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
L	4.01	4.01	4.01	4.01	4.01	4.01	5.12	5.12	6.69
W	2.76	2.76	2.76	2.76	2.76	2.76	4.33	4.33	4.52
H	2.76	3.01	3.29	3.64	3.98	4.43	5.12	5.47	6.97
H1	1.14	1.38	1.54	1.85	2.17	2.60	2.83	3.35	4.33
H2	3.54	3.54	3.54	3.54	3.54	3.54	4.72	4.72	4.80
Model	S20	S20	S20	S20	S20	S20	S50	S50	S110

Weight (lbs)

Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
Weight	2.7	2.9	3.4	3.8	4.9	6.7	10.2	13.7	29.6

Engineering Data

Model	Torque (in-lbs)	95-265 VAC		24 VAC/VDC		Cycle time per 90 degrees (seconds) *
		Amp Draw	Duty Cycle	Amp Draw	Duty Cycle	
S20	177	0.18	75%	0.96	75%	10
S50	442	0.24	75%	1.20	75%	10
S110	973	0.90	75%	4.80	75%	10

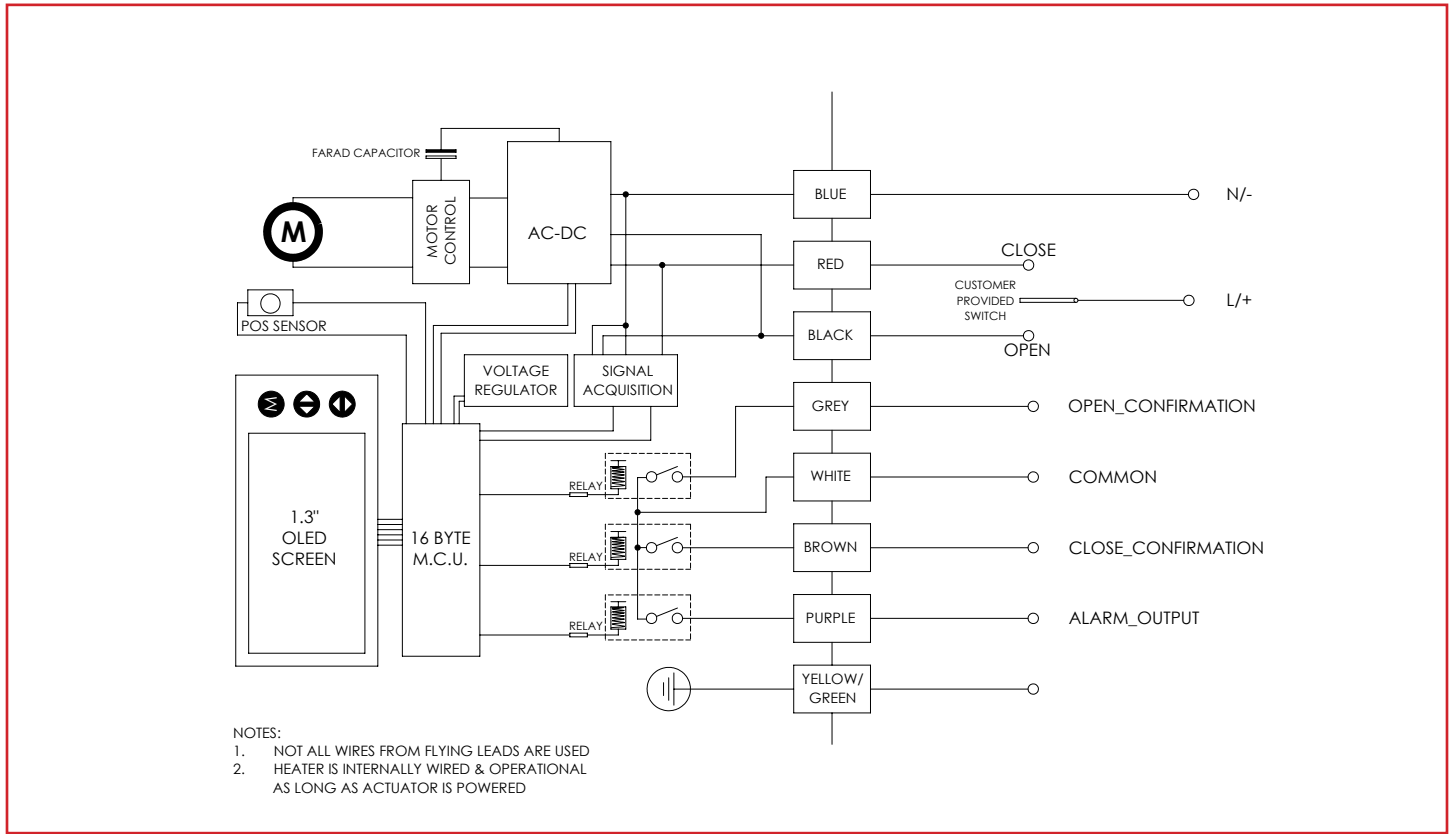
Amp draw is considered locked rotor

*Cycle times are approximate

Duty cycle shown for ambient temp (73° F)

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Wiring Diagram



Sample Specification

All Series 19 SAV smart failsafe electric actuators shall have a brushless DC motor that accepts multiple voltages, permanently lubricated steel gears, NEMA 4X PC/PET enclosure with stainless steel trim, visual beacon indication, ISO 5211 valve mounting platform, manual override, and be CE compliant. Actuator shall be of capacitor discharge design with no batteries, and be selectable as fail as is, fail open, or fail close upon loss of supply power. Standard features shall include a heater, one set of dry contacts for PLC confirmation, field selection of fail position, one set of dry contacts for alarm reporting, LED indicator for position and alarm conditions, an OLED screen with push buttons, local controls, and a QR code that links to its user manual and wiring schematic.

Series 19 Actuator Selection Guide

Valve	Valve Size	C20	S20	S50	S110
Omni® Type-27 Ball Valves	3/8" - 2"	X			
Type-21/21a SST Ball Valves	1/2" - 2"	X	X		
	2-1/2" - 3"			X	
Type-23 Multiport™ Valves	4"				X
	1/2" - 2"	X	X		
	3"			X	
Type-57P Butterfly Valves	4"				X
	1-1/2" - 2-1/2"		X		
	3" - 4"			X	
	5" - 6"				X

