

V Series Electric Actuators

The Chemline V Series Electric Actuator is a reversible rotary unit with output torques up to 8,860 in.-lb. These actuators are ideal for Chemline butterfly valves up to 20" ¹ size, as well as all sizes of Chemline ball valves up to 6". The V Series actuator features a die cast aluminum housing with a thermally bonded epoxy powder coating, rated as a NEMA 4X enclosure. NEMA 7 and 9 enclosures are available. Consult Chemline.

Chemline also offers complete actuated ball, butterfly and diaphragm valves, assembled and bench tested. Actuation service is also available for all quarter-turn metal valves.

Improved Manual Override Rugged and Reliable

Features

Approved by CSA (Canadian Standards Association)

Only two Models for Four Voltages

Each model has dual voltages

- Model 12² – 115 VAC / 220 VAC
- Model 46 – 24 VDC / 24 VAC

Manual Override

- VR Series – Declutchable knob
- VS & VT Series – Handwheel which does not require declutching due to unique planetary gear design. Handwheel does not turn during actuator operation.

Standard Mounting Dimensions

- ISO 5211 mounting bolt circle

No Maintenance

- Permanently lubricated planetary gear train
- Unit is designed for minimum life of 250,000 cycles

Outstanding Standard Features

Two Wire Control

- Allows operation of actuator from simple single throw on/off switches

Heater/Thermostat

- 3 Watt heater for humid environments

Extra Limit Switches³

- 2 extra limit switches for position feedback

Electronic Torque Limiter

- Prevents damage to actuator or valve in case of obstruction

Mechanical Travel Stops⁴

- End of travel is field adjustable to ± 5 degrees

¹Contact Chemline for specific line pressure ratings.

²VT are not available in 115 VAC.

³Rated up to 24 VAC/VDC only.

⁴VS and VT only.



CHEMLINE
Plastics Limited

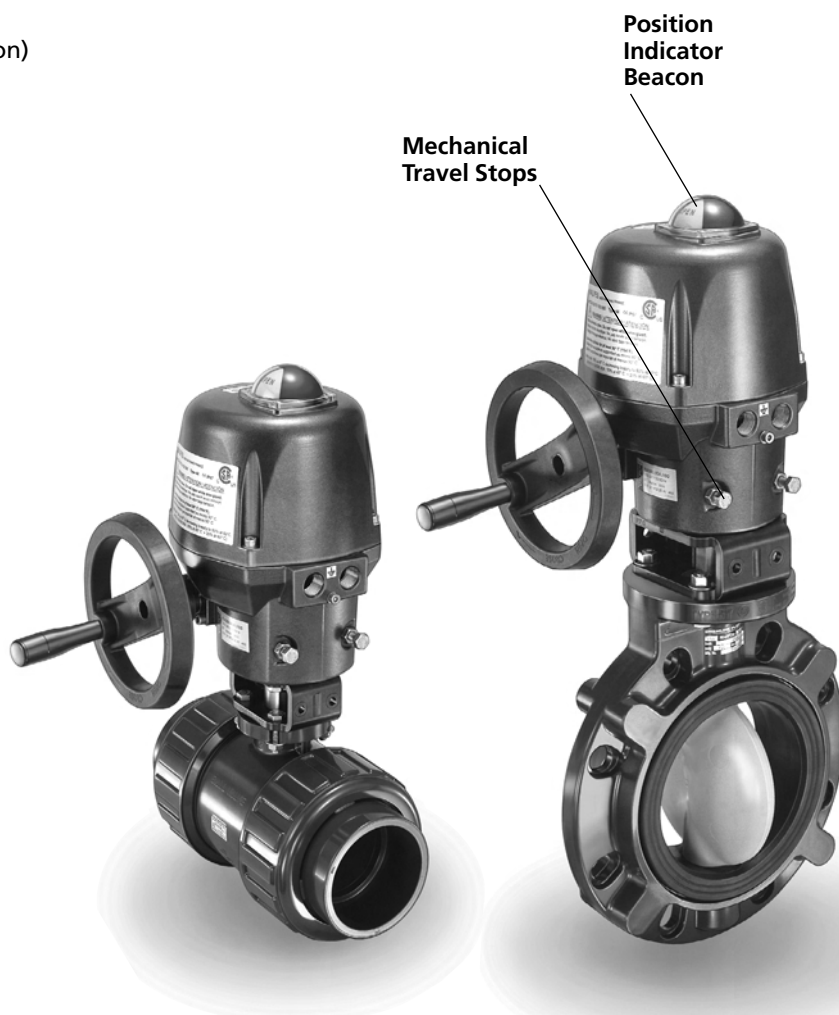
Your Pipeline To Quality

for Chemline Ball Valves up to 6" and Butterfly Valves to 20" ¹

SERIES: VR – 220 to 660 in.-lb.
VS – 880 to 2,660 in.-lb.
VT – 5,300 to 8,860 in.-lb.

VOLTAGES: 115 / 220 VAC or
24 VDC / VAC

ENCLOSURE: NEMA 4X (7/9),
Epoxy Coated
Aluminum Base,
Aluminum Cover



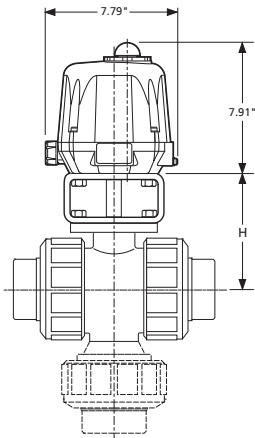
VS Series on Type 21
Ball Valve

VS Series on Type 57
Butterfly Valve

V Series Electric Actuators

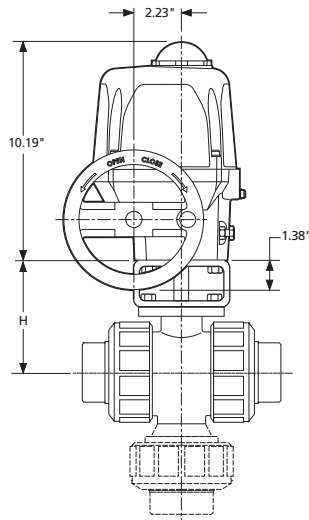


DIMENSIONS INCHES



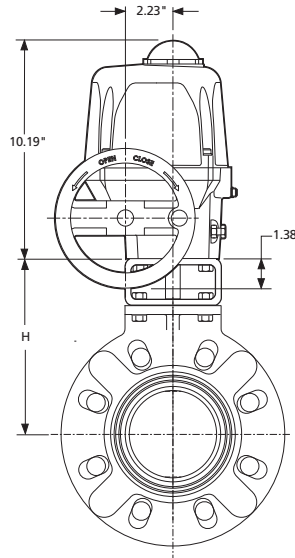
VR Series
Type 21 True Union and
Type 23 Multi Port Ball Valves

VR Series

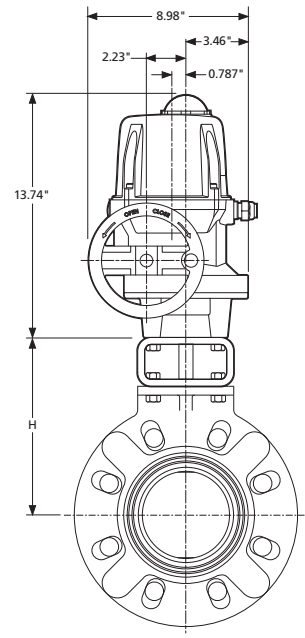


VS Series
Type 21 True Union and
Type 23 Multi Port Ball Valves

VS Series

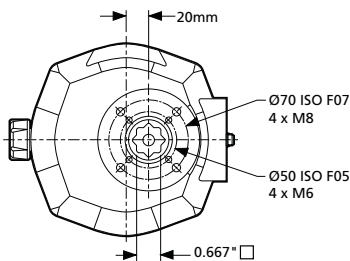


VS Series
Type 57 Butterfly Valves

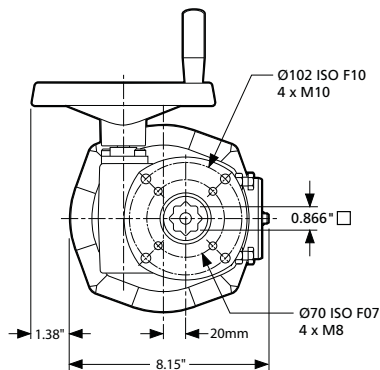


VT Series
Type 57 Butterfly Valves

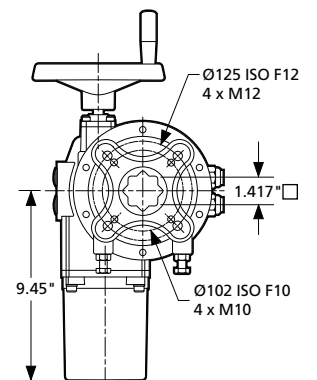
VT Series



VR Bottom View



VS Bottom View



VT Bottom View

V Series Electric Actuators



VR & VS SERIES DIMENSION "H" INCHES

Valve Size	Valve Type				
	Type 21 Ball	Type 23 Multiport	MT Series Multiport	HC Series Ball	Type 57 Butterfly
1/2"	2.76	2.76	1.20	–	–
3/4"	3.01	3.01	1.60	–	–
1"	3.29	3.29	1.80	–	–
1-1/4"	3.64	3.64	–	–	–
1-1/2"	3.98	3.98	3.10	–	5.65
2"	4.43	4.43	3.20	–	5.95
2-1/2"	5.12	5.12	–	–	6.35
3"	5.47	5.47	4.50	–	6.65
4"	6.97	6.97	6.00	6.75	7.35
5"	–	–	–	–	8.80
6"	–	–	–	8.30	9.30
8"	–	–	–	–	10.50

Valves are not to scale. For valve dimensions and parts refer to separate valve data sheets.

VT SERIES DIMENSION "H" INCHES

Valve Size	Valve Type		
	Type 57 Butterfly	Type 57 Butterfly	TB Series Butterfly
10"	11.50	–	–
12"	14.20	–	–
14"	15.30	–	–
16"	–	16.00	–
18"	–	–	20.53
20"	–	–	21.73
24"	–	–	24.23

Valves are not to scale. For valve dimensions and parts refer to separate valve data sheets.

V Series Electric Actuators

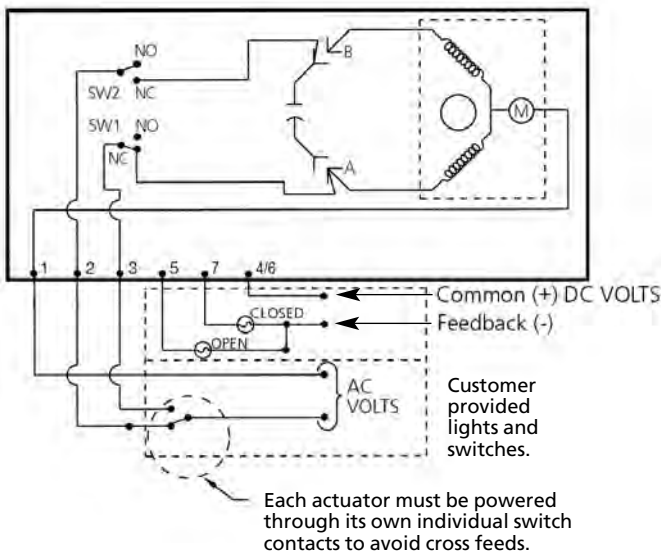


SPECIFICATIONS

Model	Running Torques		115 VAC / 220 VAC (x=12)		24 VDC / VAC (x=46)		Cycle Time/90° (sec.)	Weight (lbs.)
	(in.-lbs.)	Nm	Power Draw (Watts) ¹	Duty Cycle	Power Draw (Watts) ¹	Duty Cycle		
VR25.x	220	25	85W	80%	85W	80%	7	8.8
VR45.x	400	45	85W	80%	85W	80%	15	8.8
VR75.x	660	75	85W	80%	85W	80%	20	8.8
VS100.x	880	100	85W	80%	85W	80%	15	14.3
VS150.x	1,330	150	85W	80%	85W	80%	30	14.3
VS300.x	2,660	300	85W	80%	85W	80%	50	14.3
VT600.x ²	5,300	600	250W	50%	150W	50%	38	39.7
VT1000.x ²	8,860	1,000	250W	50%	150W	50%	38	39.7

¹Power draw values are for actuators with locked rotors. ²VT are not available in 115 VAC.

AC WIRING 115 VAC/220 VAC



VALVE OPERATION

- Neutral – To Terminal 1
- To Open – Power to Terminal 2
- To Close – Power to Terminal 3

NOTES:

1. Actuator shown in counter clockwise extreme of travel, or 'open' position.
2. Motor has a thermal protector as shown by (M) in the diagram.

PLUG-IN MODULAR OPTIONS

- **Heater/Thermostat** – 10 Watt heater for outdoor environments. Maintains internal temperature of actuator at 5°C (40°F).
- **4 to 20 mA Retransmit** – A circuit board coupled with a feedback potentiometer provides 4 to 20 mA output used by other equipment (PLC, data logger, etc.)
- **Feedback Potentiometer** – To feedback the precise valve position to a remote location, or to allow "jogging" control.

OTHER OPTIONS

- **Digital Positioner** – Onboard digital position controller accepts 4 to 20 mA and other inputs. These units are easier to calibrate, have faster response and provide more precise proportional control.
- **Failsafe Capability** – Onboard backup battery pack powers actuator in case of power failure