

# VB Series Electric Actuators and Accessories

## Special Features:

S3 is the new concept 1/4 turn multi voltage electric actuator that finally offers all the solutions that utilize the reversible electric actuators for the operation and control of the valves.

ALL S3 TYPES AND MODELS have the following STANDARD features:

### **ATC - AUTOMATIC TEMPERATURE CONTROL:**

An internal 4w thermostatically controlled anti-condensation heater maintains the internal between +20° C and +30° C, (68° F – 86° F) eliminating the possibility of damage by condensation.

### **AVS - AUTO VOLTAGE SENSING:**

The S3 actuators are, within the voltage ranges specified for "L" or "H" series, multi-voltage capable and make automatic internal adjustments to ensure the actuator operates, irrespective of the power supply

"L" series operates from 12 to 24V AC or 12 to 24 V DC

"H" series operates from 85 to 250V AC or DC

### **ETL - ELECTRONIC TORQUE LIMITER:**

Continuous electric monitoring of the motor produces smooth operation and accurate control of the motor consumption up to the maximum permissible torque. Should the maximum torque be exceeded, the ETL automatically cuts the power to the motor to prevent damage to the actuator, and automatically relaxes the gearbox to allow simple operation of the manual override.

### **MO - MANUAL OVERRIDE:**

For emergency manual operation, operated by a selector lever on the side of the actuator, with automatic motor power tripping when selected.

### **PES - PROTECTED ELECTRICAL SUPPLY:**

This take 2 forms; first the actuator is protected against short circuit when connected and while the actuator won't operate if incorrectly connected, no internal damage will result, and secondly, the S3 accepts the same wiring connection for either AC or DC operation (grey connector).

External DIN plugs eliminate the need to remove the actuator's cover to connect.

### **VCO - VISUAL CONTROL OF OPERATION:**

- A external LED indicates the normal operation of the actuator.

- A flashing LED frequency 1 advises that the actuator's torque limiter has been exceeded and the ETL has activated.

- A flashing LED frequency 2 advises that the actuator is in MANUAL position.

### **VFC - VOLT FREE CONTACTS:**

1 set of open and closed volt free contacts are provided

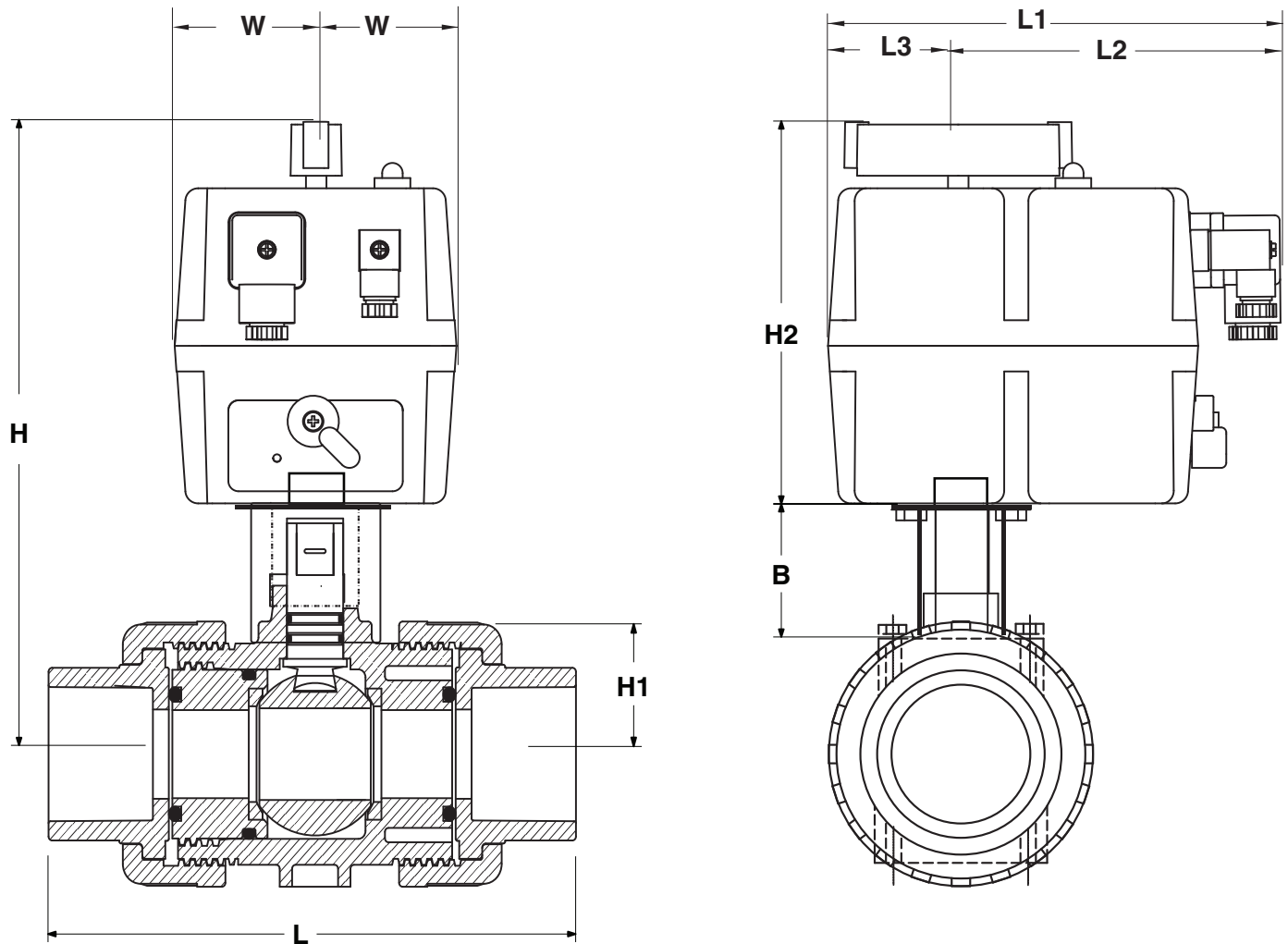
SIMTECH has designed and made the third generation of electric actuators that incorporates 6 models in each one of the series "L" ( Low Voltage) & "H" (High Voltage) covering the following operational torques: 20, 35, 55, 85, 140 and 300 Nm

## QUICK AND EASY TO INSTALL

These user friendly actuators are designed to be fully connected WITHOUT REMOVING THE ACTUATOR COVER via externally supplied DIN plugs, simply wire the plugs and they are ready for use ! A wiring diagram label showing how to wire the plugs is affixed to the side of the actuator. Standard wiring (3 wire) for either AC or DC power supply is identical with a common, and a live switch between open and close. However, for DC power supplies, the actuators will also operate on a 2 wire system with a user supplied voltage polarity switch, used to reverse the motor, if this wiring configuration is preferred.

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## Dimensional Data



Size	B	H	H1	H2	PVC & CPVC	PP & PVDF	L1	L2	L3	W	Actuator
					L	L					
½"	1.10	7.80	0.83	5.87	4.49	4.27	6.97	2.01	4.96	2.17	S3-E20
¾"	1.57	8.46	1.02	5.87	5.31	4.87	6.97	2.01	4.96	2.17	S3-E20
1"	1.57	8.74	1.30	5.87	5.87	5.45	6.97	2.01	4.96	2.17	S3-E20
1¼"	2.17	9.57	1.54	5.87	6.69	6.10	6.97	2.01	4.96	2.17	S3-E20
1½"	2.17	9.65	1.61	5.87	6.93	6.10	6.97	2.01	4.96	2.17	S3-E20
2"	2.17	10.08	2.05	5.87	8.15	7.20	6.97	2.01	4.96	2.17	S3-E20
2½"	2.78	13.78	3.29	7.72	10.83	9.57	6.97	2.01	4.96	2.17	S3-E55
3"	2.78	14.07	3.58	7.72	11.97	10.59	6.97	2.01	4.96	2.17	S3-E55
4"	2.78	15.61	5.12	7.72	13.07	11.30	6.97	2.01	4.96	2.17	S3-E55