

# 2-Way and 3-Way ST Series Specifications

## Soft Touch Ball Valves

### 1 LOW TORQUE BALL VALVE

- 1.1 Valve housing shall be made of forged brass ASTM B283 (CuZn39Pb2), rated at no less than 360 PSI at 250°F.
- 1.2 Ball shall be made of chemically nickel-plated brass.  
2-Way Valve: Manufacturer shall be able to provide optional 316 Stainless Steel Ball and Stem (SSBS).
- 1.3 Valve shall have a "blow-out proof" stem with two Peroxide Cured EPDM O-Rings with a minimum 600 PSI rating.
- 1.4 Manufacturer shall be able to provide a glass filled, parabolic shaped, NORYL<sup>®</sup> port, which is permanently press-fit into the ball.
- 1.5 2-Way valve shall have a close-off pressure of:
  - 150 PSI with 35 in-lbs. of torque for valve sizes 1/2"-1-1/4".
  - 150 PSI with 70 in-lbs. of torque for valve sizes 1-1/2"- 2".3-Way valve shall have a close-off pressure of:
  - 70 PSI with 35 in-lbs. of torque for valve sizes 1/2" - 1-1/4".
  - 70 PSI with 70 in-lbs. of torque for valve sizes 1-1/2" - 2".
- 1.6 2-Way valves shall be available from 1/2" - 2" with a minimum of 36 Cv values.  
3-Way valves shall be available in mixing and diverting from 1/2" - 2" with a minimum of 78 Cv values.
- 1.7 Valve shall be available with fixed end female or sweat end connections.
- 1.8 3-Way valves shall be installed in a Tee configuration. The actuator shall be perpendicular to the shaft on the valve and shall not require elbows.
- 1.9 The valve bracket and drive pin shall be made of durable plastic to prevent condensation. The drive pin shall have flow indication arrows that allow the open ports to be determined without removing the actuator or the valve.

### 2 VALVE ACTUATOR

- 2.1 Valve actuator shall be analog modulating (0-20 mA or 0-10 VDC), tri-state (3-point floating), pulse width modulating, or two-position as indicated in the control sequence.
- 2.2 Manufacturer shall be able to provide custom cable lengths as desired for the installation.
- 2.2 Manufacturer shall be able to provide a fail-safe (spring return) actuator when required.
- 2.4 Actuator shall provide minimum torque required for full valve shut-off position.

### 3 ACCESSORIES

- 3.1 Manufacturer shall be able to provide a weather tight enclosure for the actuator.
- 3.2 Valve assemblies shall be labeled with the model number, location tag, transaction number, and date of purchase.