

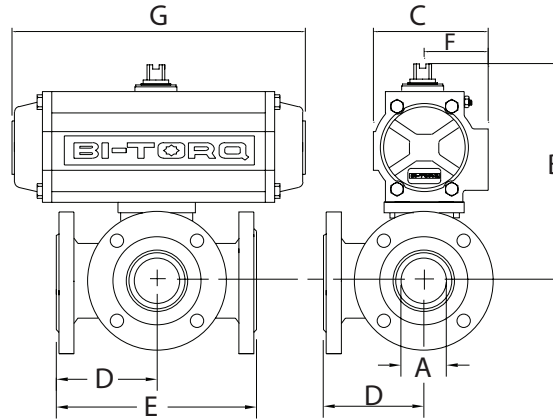
IS-3WF SERIES FLANGED 3-WAY BALL VALVES

PNEUMATIC ACTUATORS

PNEUMATIC FEATURES

- Rack and pinion design
- NAMUR accessory mounting
- Spring return and double acting
- Visual indicators
- Optional SS construction

ALL STANDARD ACTUATORS SIZED FOR 80 PSI AIR SUPPLY; PLEASE CONSULT FACTORY FOR OTHER COMBINATIONS

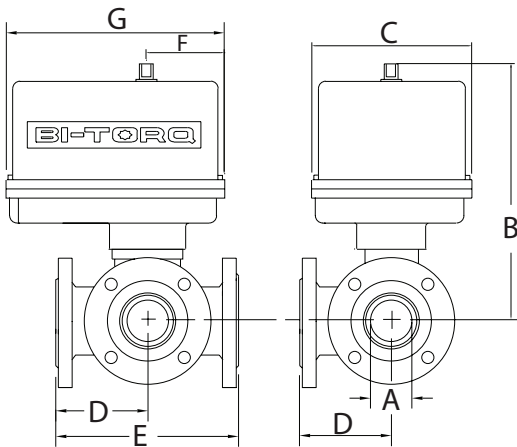


FOR A LIST OF AUTOMATION ACCESSORIES WE CAN OFFER, PLEASE REFER TO PAGE 31 OR VISIT BITORQ.COM

| DOUBLE ACTING ASSEMBLY DIMENSIONS | | | | | | | | |
|-----------------------------------|-------|------|------|-------|------|-------|-------|-------|
| A | B | C | D | E | F | G | ACT. | WT. |
| 1/2" | 5.17 | 2.79 | 2.99 | 5.98 | 1.61 | 5.49 | 52DA | 10.3 |
| 3/4" | 5.43 | 2.79 | 3.29 | 6.57 | 1.61 | 5.49 | 52DA | 12.30 |
| 1" | 5.71 | 2.79 | 3.74 | 7.48 | 1.61 | 5.49 | 52DA | 17.30 |
| 1-1/4" | 6.44 | 3.17 | 4.09 | 8.19 | 1.77 | 6.38 | 63DA | 24.30 |
| 1-1/2" | 7.50 | 3.72 | 4.33 | 8.66 | 2.07 | 8.15 | 75DA | 31.30 |
| 2" | 8.25 | 3.72 | 4.98 | 9.96 | 2.07 | 8.15 | 75DA | 53.60 |
| 2-1/2" | 11.44 | 5.39 | 5.91 | 11.81 | 2.87 | 12.91 | 115DA | 72.60 |
| 3" | 12.14 | 5.39 | 6.00 | 12.01 | 2.87 | 12.91 | 115DA | 87.60 |
| 4" | 12.93 | 5.39 | 7.26 | 14.53 | 2.87 | 12.91 | 115DA | 135.6 |

| SPRING RETURN ASSEMBLY DIMENSIONS | | | | | | | | |
|-----------------------------------|-------|------|------|-------|------|-------|-------|-------|
| A | B | C | D | E | F | G | ACT. | WT. |
| 1/2" | 5.17 | 2.79 | 2.99 | 5.98 | 1.61 | 5.49 | 52SR | 10.70 |
| 3/4" | 5.87 | 3.17 | 3.29 | 6.57 | 1.77 | 6.38 | 63SR | 14.00 |
| 1" | 6.80 | 3.72 | 3.74 | 7.48 | 2.07 | 8.15 | 75SR | 22.00 |
| 1-1/4" | 7.09 | 3.72 | 4.09 | 8.19 | 2.07 | 8.15 | 75SR | 29.10 |
| 1-1/2" | 8.46 | 4.85 | 4.33 | 8.66 | 2.68 | 10.69 | 100SR | 43.50 |
| 2" | 10.39 | 5.39 | 4.98 | 9.96 | 2.87 | 12.91 | 115SR | 70.50 |
| 2-1/2" | 11.91 | 5.83 | 5.91 | 11.81 | 3.15 | 14.41 | 125SR | 74.50 |
| 3" | 14.13 | 7.35 | 6.00 | 12.01 | 3.94 | 16.93 | 161SR | 124.8 |
| 4" | 14.92 | 7.35 | 7.26 | 14.53 | 3.94 | 16.93 | 161SR | 173.8 |

ELECTRIC ACTUATORS



| NEMA 4 ELECTRIC ASSEMBLY DIMENSIONS | | | | | | | | |
|-------------------------------------|---------|-------|------|-------|------|-------|-------|--------|
| A | B | C | D | E | F | G | ACT. | WT. |
| 1/2" | 6.53 | 4.00 | 2.99 | 5.98 | 2.30 | 5.63 | 100E | 13.00 |
| 3/4" | 7.79 | 4.25 | 3.29 | 6.57 | 2.43 | 6.88 | 200E | 17.00 |
| 1" | 8.07 | 4.25 | 3.74 | 7.48 | 2.43 | 6.88 | 200E | 22.00 |
| 1-1/4" | 8.36 | 4.25 | 4.09 | 8.19 | 2.43 | 6.88 | 300E | 29.00 |
| 1-1/2" | 10.89* | 7.00 | 4.33 | 8.66 | 2.38 | 7.00 | 400E | 42.00 |
| 2" | 11.64* | 7.00 | 4.98 | 9.96 | 2.38 | 7.00 | 675E | 61.00 |
| 2-1/2" | 15.69* | 7.00 | 5.91 | 11.81 | 2.38 | 7.00 | 1000E | 73.00 |
| 3" | 16.39* | 7.00 | 6.00 | 12.01 | 2.38 | 7.00 | 1500E | 89.00 |
| 4" | 20.81** | 10.00 | 7.26 | 14.53 | 3.75 | 10.00 | 2000E | 155.00 |

* DECLUTCHABLE MANUAL OVERRIDE INCLUDED IN DIMENSIONS
 ** MOUNTING KIT INCLUDED IN DIMENSIONS

ELECTRIC FEATURES

- 120VAC, 220VAC, 24VAC, 12VDC and 24VDC
- NEMA 4, 4X and 7 housings
- Manual overrides
- Visual indicators
- Open/close or modulating service

FOR NEMA 7 ELECTRIC DIMENSIONS OR OTHER CONFIGURATIONS, CONTACT OUR SALES STAFF.

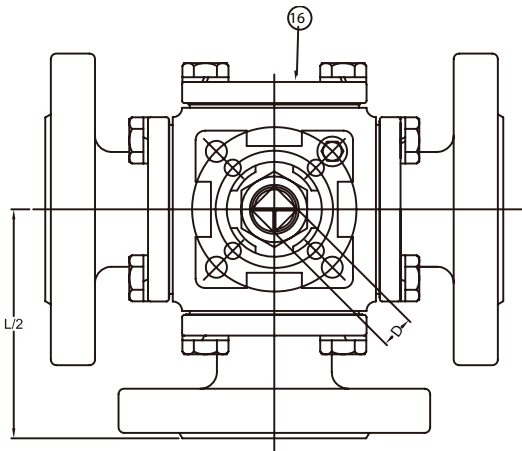
FOR MORE INFORMATION ON BI-TORQ ACTUATORS, REFER TO OUR INDIVIDUAL PNEUMATIC AND ELECTRIC CATALOGS, OR VISIT BITORQ.COM.

IS-3WF SERIES FLANGED 3-WAY BALL VALVES

BILL OF MATERIALS

| PART # | NAME | MATERIAL | QTY |
|---------|-------------------|-------------------------------------|-----|
| 1 | END CAP | CF8M | 3 |
| 2 | BODY | CF8M | 1 |
| 3 | BALL AND STEM | 316SS | 1 |
| 4 | BUSHING | TFE | 1 |
| 5 | BALL SEAT | RTFE THRU 2"; TFE 2-1/2" THRU 4" | 4 |
| 6 | BODY SEAL | TFE | 4 |
| 7 | O-RING | VITON | 1 |
| 8 | STEM PACKING | TFE | 1 |
| 9 | PACKING GLAND | 304SS | 1 |
| 10 | BELLEVILLE WASHER | 301SS | 2 |
| 11 | GLAND NUT | 304SS | 1 |
| 12 | HANDLE NUT | 304SS | 1 |
| 13 | STOP PIN | 304SS | 1 |
| 14 | HANDLE BOLT | 304SS | 1 |
| 15 | HANDLE | 304SS | 1 |
| 16 | BLIND CAP | CF8M | 1 |
| 17 - 19 | BOLTS AND NUTS | 304SS | 8 |
| 20 | BONNET | CF8M | 1 |
| 21 | GASKET | TFE | 1 |

See page 31 for possible pressure limitations due to flow patterns in certain applications with our floating ball valve design.



VALVE FEATURES

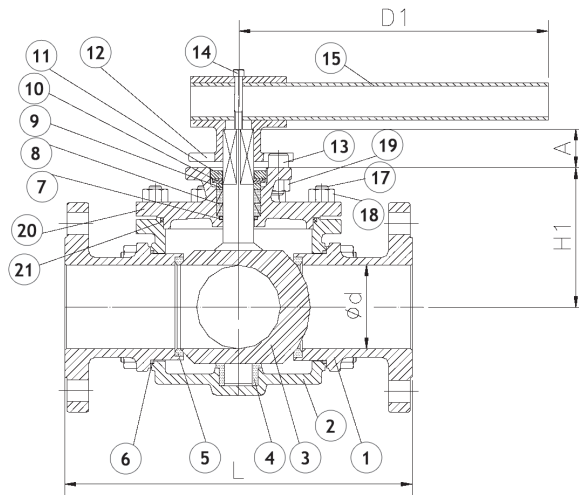
- 3-Way full port stainless steel valves
- 1/2" through 4" size range
- Ideal for mixing, food and chemical applications
- RTFE® seats through 2"; TFE 2-1/2" - 4"
- ANSI 150# Flanged
- 4-seat design for high cycle automation
- Self-adjusting stem packing w/belleville washers

NOTE: not suitable for vacuum service

PRESSURE RATING
ANSI Class 150
TEMPERATURE RATING
+350° F Maximum
-4° F Minimum

NOTE: MAXIMUM TEMPERATURE RATING FOR STANDARD ACTUATORS IS 150° F (ELECTRIC) AND 180° (PNEUMATIC). SPECIAL SEALS OR HEAT EXTENSIONS ARE AVAILABLE FOR HIGH TEMPERATURE SERVICE.

SEE PAGE 31 FOR AVAILABLE FLOW PATTERNS



DIMENSIONAL DATA

| SIZE | ISO 5211 | d | L | L2 | H1 | A | D1 | D | WT. |
|--------|----------|------|-------|------|------|------|-------|------|------|
| 1/2" | F03-F04 | 0.59 | 5.98 | 2.99 | 1.65 | 0.43 | 5.12 | 0.35 | 8.00 |
| 3/4" | F04-F05 | 0.79 | 6.57 | 3.29 | 1.91 | 0.55 | 6.50 | 0.43 | 10.0 |
| 1" | F04-F05 | 0.98 | 7.48 | 3.74 | 2.19 | 0.55 | 6.50 | 0.43 | 15.0 |
| 1-1/4" | F05-F07 | 1.26 | 8.19 | 4.09 | 2.48 | 0.67 | 8.07 | 0.55 | 22.0 |
| 1-1/2" | F05-F07 | 1.50 | 8.66 | 4.33 | 2.89 | 0.63 | 8.07 | 0.55 | 29.0 |
| 2" | F07-F10 | 1.97 | 9.96 | 4.98 | 3.64 | 0.83 | 12.80 | 0.67 | 48.0 |
| 2-1/2" | F10 | 2.44 | 11.81 | 5.91 | 4.69 | 0.98 | 15.75 | 0.87 | 55.0 |
| 3" | F10 | 2.99 | 12.01 | 6.00 | 5.39 | 0.98 | 19.69 | 0.87 | 71.0 |
| 4" | F10 | 3.78 | 14.53 | 7.26 | 6.18 | 0.98 | 23.62 | 0.87 | 118 |

THE MANUAL VERSION OF THIS MODEL STARTS WITH AN "M"

ALL VALVES ARE 100% ELECTRONICALLY TESTED AT 80 PSI IN BOTH THE OPEN AND CLOSED POSITIONS