

Tyco Valves & Controls

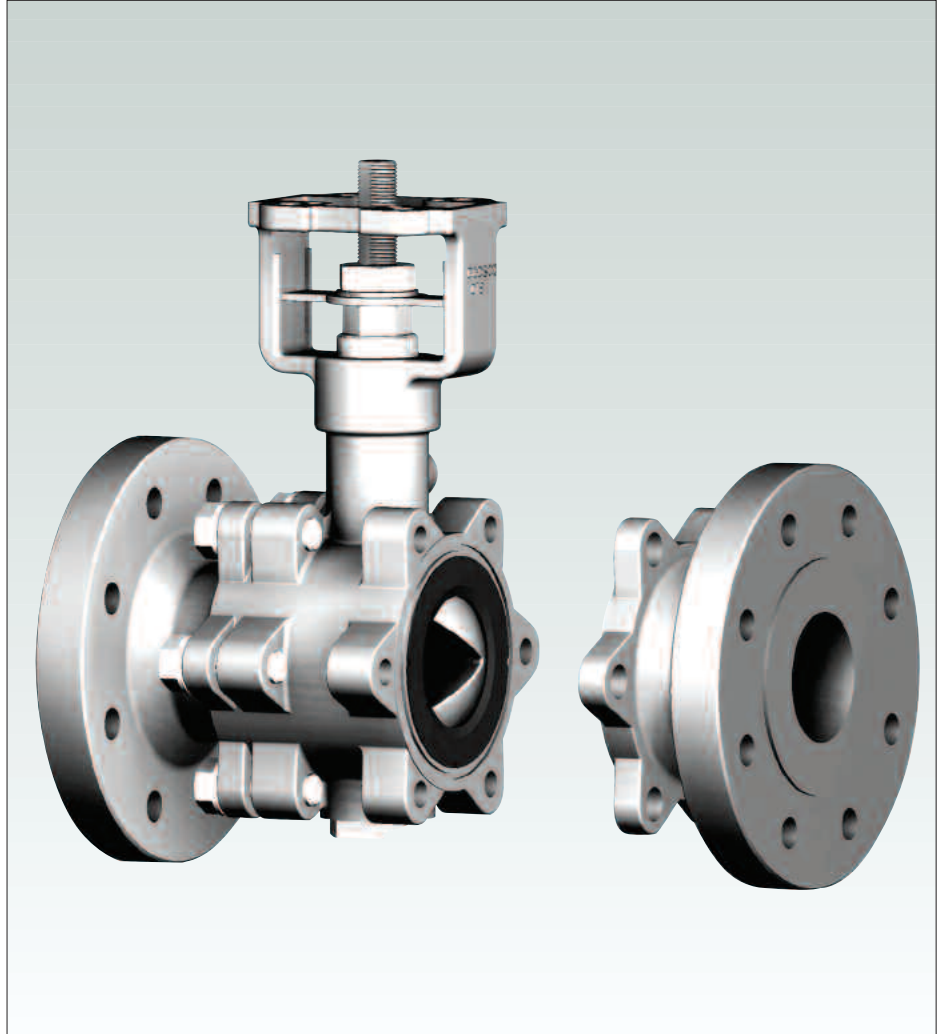
Designed for precision flow control with high pressure, high temperature and aggressive fluids.

Features

- Designed for precision flow control with high pressure, high temperature and aggressive fluids.
- High turndown capabilities.
- The custom designed orifice in the ball tailors the valve flow characteristic to your actual conditions.
- Fugitive emission port.
- Anti-static devices with blow out proof stems.
- Patented stem seal for tight emissions control under demanding conditions.
- Upper and lower stem guiding.

Applications

To meet a variety of application requirements, metal and soft seat materials are available. The ISO 5211 mounting pad provides the capabilities to offer a diverse selection of manual and power operated actuation capabilities for high performance throttling or on-off operation.



Technical Data

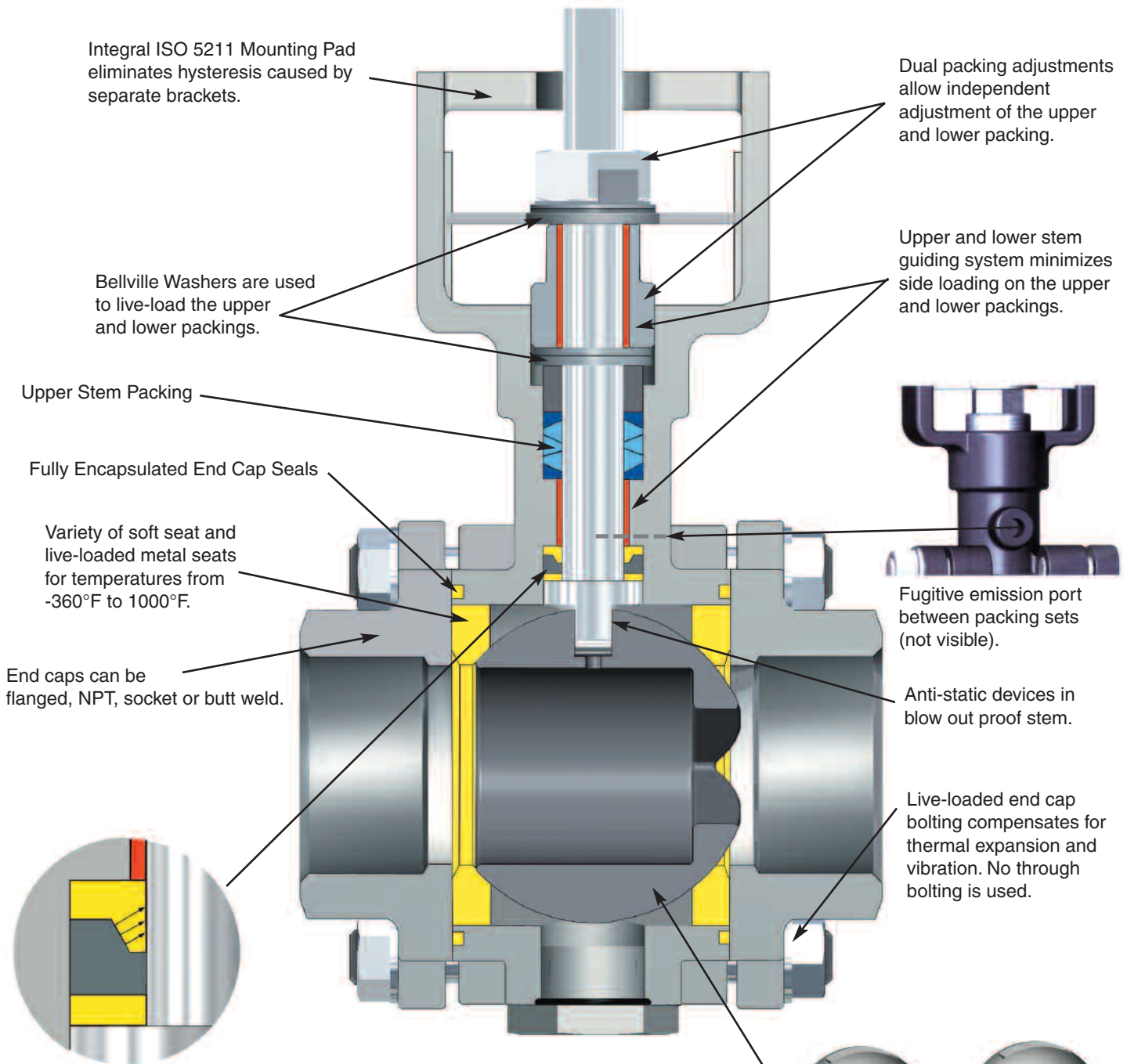
Size Range: 1/2" to 6"

Pressure Class: ANSI 150/300

Tyco Variable Port Control Valve

Floating Ball Design

Features



Integral ISO 5211 Mounting Pad eliminates hysteresis caused by separate brackets.

Dual packing adjustments allow independent adjustment of the upper and lower packing.

Bellville Washers are used to live-load the upper and lower packings.

Upper and lower stem guiding system minimizes side loading on the upper and lower packings.

Upper Stem Packing

Fully Encapsulated End Cap Seals

Variety of soft seat and live-loaded metal seats for temperatures from -360°F to 1000°F.

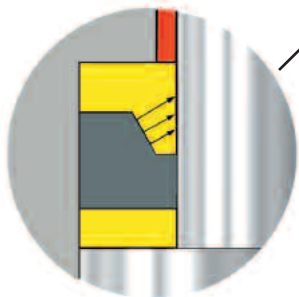


Fugitive emission port between packing sets (not visible).

End caps can be flanged, NPT, socket or butt weld.

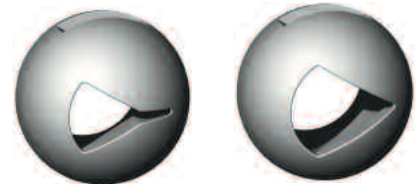
Anti-static devices in blow out proof stem.

Live-loaded end cap bolting compensates for thermal expansion and vibration. No through bolting is used.



Lower, pressure energized stem seal provides tight emissions control and high cycle life:

- Leak tight performance after one million cycles with upper packing removed.
- Packing performance of 2×10^{-10} SCCS of Helium at 1500 psi after 15,000 cycles.



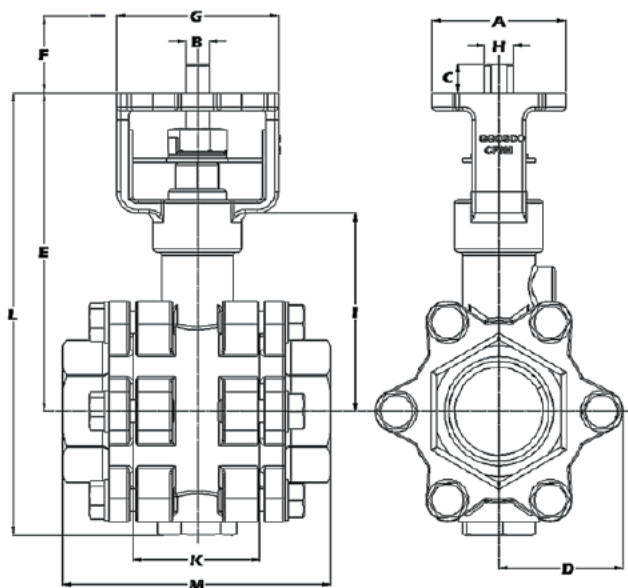
Characterized floating ball, with a variety of soft and metal seats. Characterization profiles shown are examples only. Many different standards are available.

Operating Information

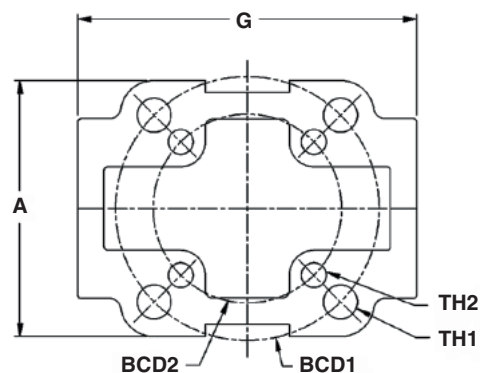
Valve Torques (in/lbs)

| Valve Size | Teflon® Torques | | Filled Bonded Teflon® Torques | | PEEK, Celazole, Graphite Torques | |
|------------|-----------------|------|-------------------------------|------|----------------------------------|------|
| | Standard | Full | Standard | Full | Standard | Full |
| 1/2" | N/A | 110 | N/A | 120 | N/A | 140 |
| 3/4" | 110 | 140 | 120 | 155 | 140 | 180 |
| 1" | 140 | 240 | 155 | 265 | 180 | 300 |
| 1 1/4" | 240 | 310 | 265 | 350 | 300 | 400 |
| 1 1/2" | 310 | 350 | 350 | 400 | 400 | 500 |
| 2" | 350 | 450 | 400 | 500 | 500 | 600 |
| 2 1/2" | 450 | 950 | 500 | 1100 | 600 | 1450 |
| 3" | 950 | 2200 | 1100 | 2600 | 1450 | 3100 |
| 4" | 2200 | 4200 | 2600 | 4800 | 3100 | 5600 |
| 6" | 4200 | N/A | 4800 | N/A | 5600 | N/A |

Torque values are based on a shut-off pressure of 300 psi. Values will increase linearly by 50% between 300 psi and 1000 psi shut-off.



ISO 5211 Mounting Pad



The ISO mounting pad shown above incorporates two ISO mounting patterns. All valve sizes below 1 1/2" S.P. have only one mounting pattern.

Overall Dimensions (in/lbs)

| Valve Size | A | B | C | D | E | F | G | H | I | L | M (Face-to-Face) | | N (ISO 5211 Mtg Pattern) | BCD (Bolt Circle Diameter) | TH (Thru Hole) | |
|-------------|-----|-------|------|-----|-----|-----|-----|-------|-----|------|------------------|-----------|--------------------------|----------------------------|----------------|-----------|
| | | | | | | | | | | | NPT/SW/BW | 150# 300# | | | | |
| 1/2" | 1.6 | 0.256 | 0.39 | 1.1 | 4.6 | 1.2 | 2.4 | 0.375 | 2.6 | 5.9 | 2.83 | 4.25 | 5.50 | F04 | 1.65 | 0.28 |
| 3/4" S.P. | 1.6 | 0.256 | 0.39 | 1.1 | 4.6 | 1.2 | 2.4 | 0.375 | 2.6 | 5.9 | 3.82 | 4.62 | 6.00 | F04 | 1.65 | 0.28 |
| 3/4" | 1.6 | 0.256 | 0.39 | 1.3 | 4.7 | 1.2 | 2.4 | 0.375 | 2.7 | 6.3 | 3.82 | 4.62 | 6.00 | F04 | 1.65 | 0.28 |
| 1" S.P. | 1.6 | 0.256 | 0.39 | 1.3 | 4.7 | 1.2 | 2.4 | 0.375 | 2.7 | 6.3 | 4.29 | 5.00 | 6.50 | F04 | 1.65 | 0.28 |
| 1" | 2.2 | 0.335 | 0.47 | 1.4 | 5.5 | 1.4 | 3.3 | 0.500 | 3.4 | 7.5 | 4.29 | 5.00 | 6.50 | F05 | 1.97 | 0.28 |
| 1 1/4" S.P. | 2.2 | 0.335 | 0.47 | 1.4 | 5.5 | 1.4 | 3.3 | 0.500 | 3.4 | 7.5 | 4.61 | 5.50 | 7.00 | F05 | 1.97 | 0.28 |
| 1 1/4" | 2.2 | 0.335 | 0.47 | 1.6 | 5.8 | 1.4 | 3.3 | 0.500 | 3.6 | 8.0 | 4.61 | 5.50 | 7.00 | F05 | 1.97 | 0.28 |
| 1 1/2" S.P. | 2.2 | 0.335 | 0.47 | 1.6 | 5.8 | 1.4 | 3.3 | 0.500 | 3.6 | 8.0 | 5.08 | 6.50 | 7.50 | F05 | 1.97 | 0.28 |
| 1 1/2" | 2.7 | 0.433 | 0.55 | 1.8 | 6.6 | 1.8 | 3.6 | 0.625 | 4.0 | 9.0 | 5.08 | 6.50 | 7.50 | F05/F07 | 1.97/2.76 | 0.28/0.35 |
| 2" S.P. | 2.7 | 0.433 | 0.55 | 1.8 | 6.6 | 1.8 | 3.6 | 0.625 | 4.0 | 9.0 | 5.59 | 7.00 | 8.50 | F05/F07 | 1.97/2.76 | 0.28/0.36 |
| 2" | 2.7 | 0.433 | 0.55 | 2.8 | 7.0 | 1.8 | 3.6 | 0.625 | 4.3 | 9.9 | 5.59 | 7.00 | 8.50 | F05/F07 | 1.97/2.76 | 0.28/0.37 |
| 2 1/2" S.P. | 2.7 | 0.433 | 0.55 | 2.8 | 7.0 | 1.8 | 3.6 | 0.625 | 4.3 | 9.9 | 6.85 | 7.50 | 9.50 | F05/F07 | 1.97/2.76 | 0.28/0.38 |
| 2 1/2" | 3.9 | 0.591 | 0.63 | 3.3 | 8.5 | 2.0 | 5.0 | 0.875 | 5.2 | 11.9 | 6.85 | 7.50 | 9.50 | F07/F10 | 2.76/4.02 | 0.35/0.41 |
| 3" S.P. | 3.9 | 0.591 | 0.63 | 3.3 | 8.5 | 2.0 | 5.0 | 0.875 | 5.2 | 11.9 | 7.60 | 8.00 | 11.12 | F07/F10 | 2.76/4.02 | 0.35/0.42 |
| 3" | 3.9 | 0.591 | 0.63 | 4.1 | 8.8 | 2.0 | 5.0 | 0.875 | 5.6 | 12.7 | 7.60 | 8.00 | 11.12 | F07/F10 | 2.76/4.02 | 0.35/0.43 |
| 4" S.P. | 3.9 | 0.591 | 0.63 | 4.1 | 8.8 | 2.0 | 5.0 | 0.875 | 5.6 | 12.7 | N/A | 9.00 | 12.00 | F07/F10 | 2.76/4.02 | 0.35/0.44 |

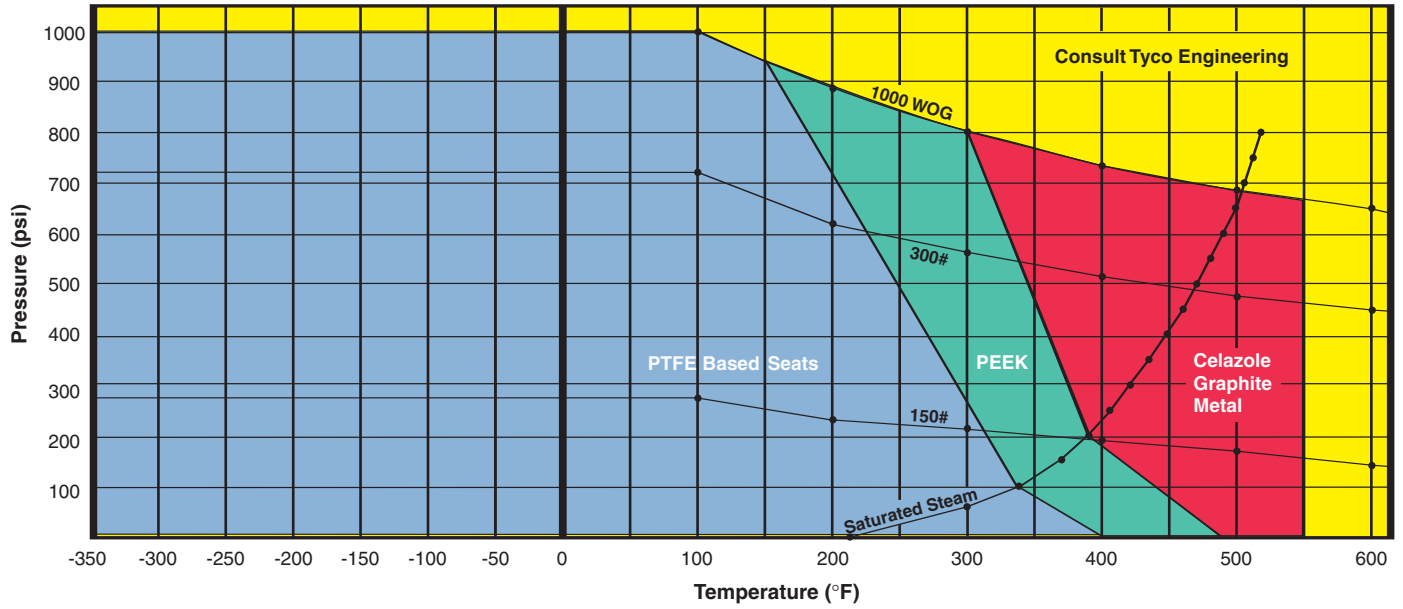
Tyco Variable Port Control Valve

Floating Ball Design

C_v Chart Values

| Size | Vari-V | 100% | 90% | 80% | 70% | 60% | 50% | 40% | 30% | 20% | 10% | 0% |
|----------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|------|------|
| 1/2 | 10 | 2.95 | 2.36 | 1.94 | 1.53 | 1.19 | 0.84 | 0.51 | 0.36 | 0.00 | 0.00 | 0.00 |
| | 30 | 5.76 | 3.99 | 3.15 | 2.22 | 1.46 | 0.89 | 0.51 | 0.32 | 0.02 | 0.00 | 0.00 |
| | 60 | 10.13 | 6.93 | 4.56 | 3.18 | 2.02 | 1.32 | 0.73 | 0.33 | 0.03 | 0.00 | 0.00 |
| | 90 | 15.28 | 9.83 | 6.29 | 4.10 | 2.57 | 1.58 | 0.84 | 0.34 | 0.03 | 0.00 | 0.00 |
| 3/4 | 10 | 4.27 | 3.55 | 2.70 | 2.13 | 1.55 | 1.19 | 0.66 | 0.37 | 0.03 | 0.00 | 0.00 |
| | 30 | 8.43 | 6.45 | 4.88 | 3.51 | 2.18 | 1.49 | 0.79 | 0.38 | 0.03 | 0.00 | 0.00 |
| | 60 | 16.84 | 11.09 | 7.59 | 5.12 | 3.17 | 2.09 | 0.95 | 0.41 | 0.03 | 0.00 | 0.00 |
| | 90 | 27.63 | 17.52 | 11.28 | 6.70 | 4.14 | 2.47 | 1.29 | 0.46 | 0.03 | 0.00 | 0.00 |
| 3/4 SP | 10 | 3.01 | 2.22 | 1.84 | 1.31 | 1.01 | 0.71 | 0.49 | 0.27 | 0.00 | 0.00 | 0.00 |
| | 30 | 4.96 | 3.62 | 2.89 | 2.13 | 1.45 | 0.83 | 0.53 | 0.27 | 0.04 | 0.00 | 0.00 |
| | 60 | 8.16 | 5.84 | 4.54 | 3.00 | 1.82 | 1.18 | 0.67 | 0.26 | 0.04 | 0.00 | 0.00 |
| | 90 | 11.18 | 7.73 | 5.57 | 3.87 | 2.39 | 1.36 | 0.83 | 0.27 | 0.04 | 0.00 | 0.00 |
| 1 | 10 | 5.88 | 4.97 | 4.25 | 3.28 | 2.14 | 1.74 | 1.06 | 0.84 | 0.34 | 0.00 | 0.00 |
| | 30 | 12.34 | 9.86 | 7.50 | 5.36 | 3.89 | 2.41 | 1.63 | 0.95 | 0.36 | 0.00 | 0.00 |
| | 60 | 26.91 | 17.37 | 12.47 | 8.19 | 5.45 | 3.45 | 2.16 | 1.14 | 0.30 | 0.00 | 0.00 |
| | 90 | 40.62 | 26.78 | 17.96 | 11.74 | 7.48 | 4.49 | 2.55 | 1.05 | 0.20 | 0.00 | 0.00 |
| 1 SP | 10 | 4.03 | 3.29 | 2.48 | 2.02 | 1.50 | 0.98 | 0.58 | 0.34 | 0.01 | 0.00 | 0.00 |
| | 30 | 7.63 | 5.93 | 4.59 | 3.30 | 2.38 | 1.33 | 0.72 | 0.35 | 0.01 | 0.00 | 0.00 |
| | 60 | 15.82 | 10.80 | 7.47 | 4.74 | 3.18 | 1.96 | 0.95 | 0.36 | 0.01 | 0.00 | 0.00 |
| | 90 | 19.37 | 13.37 | 9.17 | 6.28 | 4.07 | 2.47 | 1.44 | 0.60 | 0.02 | 0.00 | 0.00 |
| 1 1/4 | 10 | 10.24 | 6.87 | 6.86 | 5.22 | 3.73 | 2.86 | 2.23 | 1.19 | 0.52 | 0.00 | 0.00 |
| | 30 | 20.10 | 16.09 | 12.17 | 8.66 | 6.09 | 4.22 | 2.55 | 1.67 | 0.56 | 0.00 | 0.00 |
| | 60 | 39.26 | 27.25 | 19.36 | 13.11 | 8.82 | 5.60 | 3.25 | 1.75 | 0.56 | 0.00 | 0.00 |
| | 90 | 70.96 | 44.32 | 29.44 | 18.79 | 11.83 | 7.44 | 4.51 | 2.32 | 0.75 | 0.00 | 0.00 |
| 1 1/4 SP | 10 | 5.74 | 5.09 | 4.10 | 3.13 | 2.32 | 1.59 | 1.09 | 0.66 | 0.38 | 0.00 | 0.00 |
| | 30 | 10.75 | 9.40 | 6.63 | 5.04 | 3.55 | 2.30 | 1.54 | 0.68 | 0.35 | 0.00 | 0.00 |
| | 60 | 23.30 | 15.59 | 11.03 | 8.11 | 5.04 | 3.20 | 1.96 | 0.95 | 0.24 | 0.00 | 0.00 |
| | 90 | 37.20 | 26.09 | 17.26 | 10.44 | 6.91 | 4.37 | 2.38 | 1.04 | 0.22 | 0.00 | 0.00 |
| 1 1/2 | 10 | 12.76 | 11.06 | 7.65 | 5.94 | 5.21 | 3.50 | 2.41 | 0.89 | 0.00 | 0.00 | 0.00 |
| | 30 | 28.60 | 22.35 | 15.23 | 11.38 | 8.30 | 5.48 | 2.46 | 1.37 | 0.46 | 0.00 | 0.00 |
| | 60 | 55.73 | 40.16 | 26.54 | 17.53 | 11.87 | 7.31 | 3.07 | 1.59 | 0.34 | 0.00 | 0.00 |
| | 90 | 96.99 | 62.87 | 38.90 | 24.95 | 15.69 | 9.73 | 5.46 | 2.37 | 0.62 | 0.00 | 0.00 |
| 1 1/2 SP | 10 | 9.90 | 8.02 | 6.72 | 5.03 | 4.42 | 3.22 | 1.90 | 0.78 | 0.36 | 0.00 | 0.00 |
| | 30 | 20.13 | 15.89 | 12.12 | 8.88 | 6.58 | 4.50 | 2.38 | 1.00 | 0.26 | 0.00 | 0.00 |
| | 60 | 37.09 | 27.38 | 19.01 | 13.56 | 9.17 | 6.10 | 3.45 | 1.24 | 0.28 | 0.00 | 0.00 |
| | 90 | 66.22 | 43.48 | 28.48 | 18.44 | 12.28 | 8.08 | 4.51 | 1.68 | 0.35 | 0.00 | 0.00 |
| 2 | 10 | 21.53 | 16.98 | 16.01 | 12.47 | 10.07 | 5.26 | 4.43 | 2.37 | 0.79 | 0.00 | 0.00 |
| | 30 | 47.47 | 37.46 | 27.32 | 20.75 | 14.12 | 9.65 | 6.53 | 3.05 | 1.15 | 0.00 | 0.00 |
| | 60 | 92.06 | 69.69 | 49.08 | 31.92 | 21.36 | 13.98 | 8.52 | 4.21 | 1.31 | 0.00 | 0.00 |
| | 90 | 173.40 | 110.49 | 73.44 | 48.50 | 29.56 | 18.56 | 11.54 | 5.13 | 1.44 | 0.00 | 0.00 |
| 2 SP | 10 | 13.41 | 10.22 | 8.12 | 5.98 | 4.74 | 3.88 | 2.43 | 1.28 | 0.00 | 0.00 | 0.00 |
| | 30 | 27.15 | 20.92 | 15.36 | 11.54 | 7.25 | 4.90 | 3.43 | 1.37 | 0.41 | 0.00 | 0.00 |
| | 60 | 49.56 | 35.81 | 24.77 | 17.20 | 10.88 | 7.21 | 4.10 | 1.71 | 0.37 | 0.00 | 0.00 |
| | 90 | 80.14 | 52.63 | 35.60 | 23.75 | 14.43 | 9.03 | 5.42 | 2.07 | 0.00 | 0.00 | 0.00 |
| 2 1/2 | 10 | 35.16 | 29.35 | 24.60 | 19.68 | 14.70 | 10.63 | 7.63 | 3.85 | 1.32 | 0.00 | 0.00 |
| | 30 | 79.21 | 63.94 | 49.22 | 34.32 | 25.24 | 15.90 | 9.98 | 4.98 | 2.16 | 0.00 | 0.00 |
| | 60 | 150.59 | 107.54 | 80.65 | 52.93 | 34.89 | 22.72 | 14.87 | 6.44 | 2.02 | 0.00 | 0.00 |
| | 90 | 253.06 | 180.69 | 119.78 | 84.32 | 50.76 | 32.69 | 21.11 | 11.67 | 1.79 | 0.00 | 0.00 |
| 2 1/2 SP | 10 | 18.63 | 14.82 | 12.28 | 8.98 | 7.00 | 5.01 | 3.09 | 1.97 | 0.49 | 0.00 | 0.00 |
| | 30 | 41.74 | 33.58 | 26.16 | 18.52 | 13.60 | 8.59 | 4.71 | 2.56 | 0.53 | 0.00 | 0.00 |
| | 60 | 83.22 | 60.04 | 44.35 | 29.98 | 20.41 | 12.56 | 7.33 | 3.71 | 0.65 | 0.00 | 0.00 |
| | 90 | 139.40 | 89.84 | 61.63 | 41.32 | 27.57 | 17.68 | 9.76 | 5.27 | 0.99 | 0.00 | 0.00 |
| 3 | 10 | 47.02 | 32.65 | 26.34 | 19.84 | 15.89 | 12.27 | 7.97 | 3.98 | 1.81 | 0.00 | 0.00 |
| | 30 | 105.15 | 80.57 | 58.10 | 42.90 | 29.96 | 19.58 | 12.14 | 5.04 | 1.96 | 0.00 | 0.00 |
| | 60 | 190.26 | 136.08 | 112.14 | 82.22 | 54.10 | 40.01 | 23.23 | 13.54 | 11.06 | 0.00 | 0.00 |
| | 90 | 388.90 | 235.03 | 157.48 | 99.49 | 64.78 | 40.42 | 23.16 | 11.64 | 3.53 | 0.00 | 0.00 |
| 3 SP | 10 | 34.93 | 23.88 | 19.89 | 16.25 | 13.56 | 10.52 | 7.60 | 3.99 | 2.18 | 0.71 | 0.00 |
| | 30 | 73.79 | 56.60 | 43.67 | 33.42 | 22.87 | 15.24 | 10.22 | 6.82 | 2.47 | 0.69 | 0.00 |
| | 60 | 138.23 | 101.69 | 74.53 | 51.94 | 34.94 | 21.55 | 13.98 | 7.69 | 2.14 | 0.54 | 0.00 |
| | 90 | 240.46 | 154.55 | 114.28 | 73.22 | 47.24 | 31.57 | 17.96 | 10.50 | 4.49 | 0.21 | 0.00 |
| 4 | 10 | 58.97 | 52.74 | 43.58 | 33.52 | 25.93 | 18.16 | 11.12 | 7.42 | 3.66 | 1.65 | 0.00 |
| | 30 | 160.29 | 131.67 | 100.78 | 72.91 | 53.71 | 35.10 | 19.49 | 10.73 | 3.90 | 1.34 | 0.00 |
| | 60 | 332.17 | 243.98 | 174.60 | 118.86 | 81.15 | 51.80 | 24.79 | 15.34 | 6.48 | 1.01 | 0.00 |
| | 90 | 652.77 | 401.89 | 262.88 | 170.63 | 111.42 | 73.39 | 43.49 | 24.32 | 7.20 | 1.38 | 0.00 |
| 4 SP | 10 | 44.07 | 33.64 | 27.16 | 21.85 | 16.37 | 11.61 | 8.46 | 4.82 | 1.66 | 0.00 | 0.00 |
| | 30 | 95.43 | 77.54 | 57.24 | 42.34 | 28.95 | 19.77 | 13.05 | 6.04 | 2.06 | 0.00 | 0.00 |
| | 60 | 171.46 | 139.82 | 103.63 | 68.86 | 47.12 | 27.80 | 16.79 | 7.85 | 2.07 | 0.00 | 0.00 |
| | 90 | 283.27 | 208.78 | 147.71 | 98.21 | 62.96 | 41.66 | 25.34 | 10.82 | 3.15 | 0.00 | 0.00 |
| 6 SP | 10 | 61.52 | 48.10 | 39.16 | 30.30 | 23.76 | 17.04 | 12.15 | 7.06 | 2.96 | 1.10 | 0.00 |
| | 30 | 145.48 | 120.32 | 88.07 | 70.33 | 48.30 | 29.92 | 18.03 | 6.90 | 5.62 | 1.00 | 0.00 |
| | 60 | 262.37 | 210.70 | 160.36 | 113.21 | 76.64 | 51.29 | 30.40 | 11.53 | 5.38 | 0.45 | 0.00 |
| | 90 | 437.17 | 318.01 | 231.24 | 158.72 | 105.15 | 70.52 | 44.42 | 20.91 | 7.18 | 1.02 | 0.00 |

Pressure/Temperature Data



Other Tyco Control Valve Products



KTM Single-V



KTM VS-V



KTM Dual-V

Tyco Variable Port Control Valve

Floating Ball Design

Ordering Information

| | 01 | F | NPT – SS | SS – TFE | GRA – 60V | T | FE | | | | |
|----------------------|-------------------------------|-------------------------|-----------------|--------------------|-----------------|------------------|------------------|----------------|-------------|-------------|--|
| Size | 01 1/2" valve | 02 3/4" valve | 03 1" valve | 04 1 1/4" valve | 05 1 1/2" valve | 06 2" valve | 07 2 1/2" valve | 08 3" valve | 09 4" valve | 10 6" valve | Specials/Others |
| | | | | | | | | | | | FE Fugitive Emission |
| | | | | | | | | | | | DS Drag Sleeve |
| | | | | | | | | | | | 3W 3-Way Diverter |
| | | | | | | | | | | | NS No Special |
| | | | | | | | | | | | LB Lock-out Bracket |
| | | | | | | | | | | | DB Drilled Ball (upstream side) |
| | | | | | | | | | | | HT High Temperature |
| | | | | | | | | | | | S7 17-4 Ph Stem, 316 Ball |
| Port | S Standard Port | F Full Port | | | | | | | | | Handle |
| | | | | | | | | | | | T Tee Handle |
| | | | | | | | | | | | B Bare Shaft for Actuation |
| | | | | | | | | | | | G Gear Box |
| | | | | | | | | | | | O Other |
| Connection | NPT National Pipe Thread | BSP British Pipe Thread | SWE Socket Weld | BWE Butt Weld | TCE Tri Clover | 150 150# Flanged | 300 300# Flanged | OTH Other | | | Vari-V |
| | | | | | | | | | | | 10V 10° |
| | | | | | | | | | | | 30V 30° |
| | | | | | | | | | | | 60V 60° |
| | | | | | | | | | | | LNV Linear |
| | | | | | | | | | | | HTV High Turndown |
| | | | | | | | | | | | FLV Filler |
| | | | | | | | | | | | NON None |
| Body Material | A2 Alloy (Carpenter 20-Cb3)20 | CS Carbon Steel (WCB) | HB Hastelloy® B | HC Hastelloy® C276 | KM K Monel® | SS 316 SS (CF8M) | I6 Inconel 625 | 17 Inconel 718 | | | Packing |
| | | | | | | | | | | | CHV Teflon® Chevron |
| | | | | | | | | | | | GRA Standard GRAFOIL® |
| | | | | | | | | | | | AGR Angled GRAFOIL® |
| Trim | SS | HB | HC | KM | OT | | | | | | Seat Material |
| | | | | | | | | | | | BRZ Bronze-filled Teflon® |
| | | | | | | | | | | | CLZ Celazole |
| | | | | | | | | | | | CPK 30% Carbon Ketron PEEK |
| | | | | | | | | | | | DEL Delrin® |
| | | | | | | | | | | | ENG Encapsulated Nickel Graphite |
| | | | | | | | | | | | ECZ Encapsulated Celazole® |
| | | | | | | | | | | | EPK Encapsulated PEEK |
| | | | | | | | | | | | GRP Graphite |
| | | | | | | | | | | | HFB Hard faced ball/seats |
| | | | | | | | | | | | KLF Kel-F® |
| | | | | | | | | | | | N60 Nitronic 60 |
| | | | | | | | | | | | NYL Moly-filled Nylon |
| | | | | | | | | | | | PEK Virgin PEEK |
| | | | | | | | | | | | PLY Vespel® |
| | | | | | | | | | | | ST6 Stellite 6 |
| | | | | | | | | | | | TCF Teflon®/25% Carbon-filled |
| | | | | | | | | | | | TFE TFM-1600 (2nd generation virgin Teflon®, or Hostafion) |
| | | | | | | | | | | | TMB Flourisint 207 (Mica bonded PTFE) |
| | | | | | | | | | | | TSF 50% Teflon®/50% SS |
| | | | | | | | | | | | UMP UHMWPE |
| | | | | | | | | | | | ZYM Zymaxx |

Sample Part Number: 01FNPT-SSSS-TFEGRA-60VTFE

1/2", full port, NPT end connections, 316 SS body, 316 SS trim, virgin Teflon® seats, standard GRAFOIL® packing, 60° Vari-V, tee handle, fugitive emission.

Notes

1. If you require a material that is not listed, please contact your local Tyco representative.
2. Hastelloy® is a registered trademark of Haynes International.
3. GRAFOIL® is a registered trademark of UCAR Carbon.
4. Kel-F®, Teflon®, and Vespel® are registered trademarks of E. I. du Pont de Nemours Company.
5. Monel® is a registered trademark of International Nickel Company.

Facility Phone: 866-832-9706

Tyco Valves & Controls

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