A TKOMATIC

50000 Series

Stainless Steel, Direct Lift, Pressure 0 to 3000 psig (207 bar), High Temperature High Pressure Valve Configurable for Variety of Fluid Applications



Features

- Designed for high temperature fluids, maximum nominal temperature rating of 750° F (399° C)
- Direct lift valve
- Barstock construction
- Mounted with coil oriented down to minimize convection heating of coil from hot media
- Flow orifices of ¾6", ¾2", ½", and ¾6"
- Cv from 0.093 to 0.72
- Available with NPT pipe ports or welded pipe stubs as "standard" catalog items
- Normally closed and normally open versions available
- Available in pipe size from %" through 1" NPT or %" through 1" tube stubs
- Pressures up to 3000 psig (207 bar)

- Stainless steel construction on all pressure containing parts: 316 for machined parts and CF8M for cast parts.
- Plunger material is 416 stainless that is treated for increased corrosion resistance
- Will handle fluids with viscosity up to 150 SUS
- Suitable for use with wide variety of fluid including: air, gasses, liquids, hydraulic fluids, steam, cryogenic fluids, and corrosive fluids
- Stellite® seat (cobalt alloy for wear and corrosion resistance)
- Extended stem to reduce heat transfer from fluid to coil (two lengths available depending on fluid temperature)
- · Class H coils are standard

Circle Seal Controls

50000 Series

Operational Pressures (No minimum pressure differential)

Normally closed, extended stem, 50800-50850

| | GASES | | LIQUIDS 1 | TO 40 SUS | LIQUIDS OVER 40 SUS | | |
|---------------------|-------|-------|-----------|-----------|---------------------|------|--|
| ORIFICE SIZE | AC | DC | AC | DC | AC | DC | |
| 1/16 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | |
| 3∕32 | 2500 | 2500 | 2000 | 2000 | 2000 | 2000 | |
| 1/8 | 1,200 | 1,200 | 900 | 900 | 900 | 900 | |
| ₹16 | 500 | 500 | 350 | 350 | 350 | 350 | |

Normally closed, short stem, 50900-50950

| | GASES | | LIQUIDS 1 | TO 40 SUS | LIQUIDS OVER 40 SUS | | |
|---------------------|-------|-------|-----------|-----------|---------------------|------|--|
| ORIFICE SIZE | AC | DC | AC | DC | AC | DC | |
| 1/16 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | |
| ₹32 | 3000 | 3000 | 2500 | 2500 | 2500 | 2500 | |
| 1/8 | 1,200 | 1,200 | 1000 | 1000 | 1000 | 1000 | |
| ₹16 | 600 | 600 | 450 | 450 | 450 | 450 | |

Normally open, extended stem, 50801-50851

| | GASES | | LIQUIDS TO 40 SUS | | LIQUIDS OVER 40 SUS | |
|---------------------|-------|-------|-------------------|------|---------------------|------|
| ORIFICE SIZE | AC | DC | AC | DC | AC | DC |
| 1/16 | 2500 | 2500 | 2000 | 2000 | 2000 | 2000 |
| ₹32 | 1,200 | 1,200 | 1000 | 1000 | 1000 | 1000 |
| 1/8 | 400 | 400 | 350 | 350 | 350 | 350 |
| ₹16 | 250 | 250 | 150 | 150 | 150 | 150 |

Normally open, short stem, 50901-50951

| | GA: | SES | LIQUIDS TO 40 SUS | | LIQUIDS O | VER 40 SUS |
|---------------------|-------|-------|-------------------|-------|-----------|------------|
| ORIFICE SIZE | AC | DC | AC | DC | AC | DC |
| 1/16 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 |
| ₹32 | 1,600 | 1,600 | 1,200 | 1,200 | 1,200 | 1,200 |
| 1/8 | 400 | 400 | 350 | 350 | 350 | 350 |
| ₹16 | 250 | 250 | 150 | 150 | 150 | 150 |

NOTE: Normally open valves are rated for intermittent duty only on 50000 Series valves.

NOTE: Normally open 50000 Series valves are not available with 50 Hz coils for operational pressures above 1500 psi.

Dimensions and Shipping Weights

50800 Series Normally Closed

(extended stem for fluid temperatures of 500° F to 750° F)

| CATALOG NUM. PREFIX | PIPE SIZE | X | Υ | Z | SHIPPING WEIGHT (Ibs) |
|---------------------|-----------|-----|-----|--------|--------------------------|
| 50800 | 1/8" | 10″ | 8%" | 41/16" | 14 |
| 50810 | 1/4" | 10″ | 8%″ | 41/16" | 14 |
| 50820 | ¾″ | 10″ | 8%" | 41/16" | 14 |
| 50830 | 1/2″ | 10″ | 8%″ | 41/16" | 14 |
| 50840 | 3/4″ | 10″ | 8%" | 41/16" | 14 |
| 50850 | 1″ | 10″ | 8%″ | 41/16" | 14 |

50900 Series Normally Closed

(standard stem for fluid temperatures up to 500° F)

| CATALOG NUM. PREFIX | PIPE SIZE | Х | Y | Z | SHIPPING WEIGHT (Ibs) |
|---------------------|-----------|-------|-----|--------|--------------------------|
| 50900 | 1/8" | 71/2" | 5¾″ | 41/16" | 10 |
| 50910 | 1/4" | 71/2" | 5¾″ | 41/16" | 10 |
| 50920 | ¾″ | 71/2" | 5¾″ | 41/16" | 10 |
| 50930 | 1/2" | 71/2" | 5¾″ | 41/16" | 10 |
| 50940 | 3/4" | 71/2" | 5¾″ | 41/16" | 10 |
| 50950 | 1″ | 71/2" | 5¾″ | 41/16" | 10 |

50901 Series Normally Open

(standard stem for fluid temperatures up to 500° F)

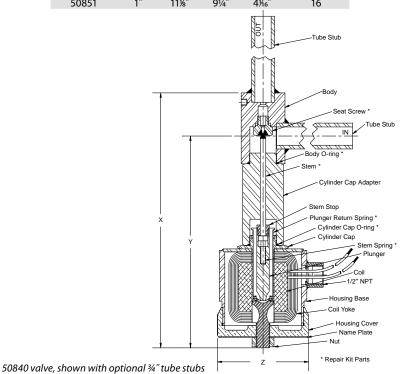
| • | | | • | | • |
|---------------------|-----------|-----|-----|--------|--------------------------|
| CATALOG NUM. PREFIX | PIPE SIZE | X | Y | Z | SHIPPING WEIGHT (Ibs) |
| 50901 | 1/8" | 8%" | 6%" | 41/16" | 12 |
| 50911 | 1/4" | 8%" | 6%" | 41/16" | 12 |
| 50921 | ¾″ | 8%" | 6%" | 41/16" | 12 |
| 50931 | 1/2" | 8%″ | 6%" | 41/16" | 12 |
| 50941 | 3/4" | 8%″ | 6%" | 41/16" | 12 |
| 50951 | 1″ | 8%" | 6%" | 41/16" | 12 |

Cv Flow Factors

| ORIFICE SIZE | Cv | | | | | |
|--------------|-------|--|--|--|--|--|
| 1/16 | 0.093 | | | | | |
| ₹32 | 0.22 | | | | | |
| 1/8 | 0.44 | | | | | |
| ₹16 | 0.72 | | | | | |

50801 Series Normally Open (extended stem for fluid temperatures of 500° F to 750° F)

| CATALOG NUM. PREFIX | PIPE SIZE | X | Y | Z | SHIPPING WEIGHT (Ibs) |
|---------------------|-----------|-------|-------|--------|--------------------------|
| 50801 | ½″ | 11%″ | 91⁄4" | 41/16" | 16 |
| 50811 | 1/4" | 11%″ | 91⁄4" | 41/16" | 16 |
| 50821 | ¾″ | 11%″ | 91⁄4" | 41/16" | 16 |
| 50831 | 1/2" | 11%″ | 91⁄4" | 41/16" | 16 |
| 50841 | 3/4" | 11%″ | 91⁄4" | 41/16" | 16 |
| 50851 | 1″ | 1116" | Q1/4" | 1160 | 16 |



50000 Series

How to Order

