



- 50 psi bubble tight shut-off
- Long stem design allows for 2" insulation
- Valve face-to-face dimensions comply with API 609 & MSS-SP-67
- Completely assembled and tested, ready for installation

### Application

These valves are designed to meet the needs of HVAC and commercial applications requiring bubble tight shut-off for liquids. Typical applications include chiller isolation, cooling tower isolation, change-over systems, large air handler coil control, bypass and process control applications. The large  $C_v$  values provide for an economical control valve solution for larger flow applications. Designed for use in Victaulic piping systems when mated to Victaulic 41 series flange nipples.

### Jobsite Note

Valves should be stored in a weather protected area prior to construction. Complete installation recommendations can be found in Belimo's Installation and Maintenance Instructions for F6...HDU Butterfly Valves.

| Technical Data            |   |
|---------------------------|---|
| Service                   | chilled, hot water, 60% glycol          |
| Flow characteristic       | modified equal percentage               |
| Action                    | 90° rotation                            |
| Sizes                     | 2" to 12"                               |
| Type of end fitting       | for use with ANSI Class 125/150 flanges |
| Materials                 |   |
| Body                      | ductile iron ASTM A536                  |
| Body finish               | epoxy powder coated                     |
| Disc                      | 304 stainless steel                     |
| Seat                      | EPDM                                    |
| Shaft                     | 416 stainless steel                     |
| O-ring                    | EPDM                                    |
| Upper bushing             | RPTFE                                   |
| Middle bushings           | RPTFE                                   |
| Lower bushing             | RPTFE                                   |
| Media temperature range   | -22°F to 250°F [-30°C to 120°C]         |
| Ambient temperature range | -22°F to 122°F [-30°C to 50°C]          |
| Body pressure rating      | ASME/ANSI Class 125/150<br>200 psi      |
| Close-off pressure        | 50 psi                                  |
| Rangeability              | 10:1 (for 30° to 70° range)             |
| Maximum velocity          | 12 FPS                                  |
| Leakage                   | bubble tight                            |

| Valve     |           | Nominal Size |         | Type     | Suitable Actuators |            |           | Electronic Fail-Safe |
|-----------|-----------|--------------|---------|----------|--------------------|------------|-----------|----------------------|
| $C_v$ 90° | $C_v$ 60° | IN           | DN [mm] | 2-way    | Spring             | Non-Spring |           |                      |
| 115       | 44        | 2"           | 50      | F650HDU  | AF Series          | AM Series  |           |                      |
| 196       | 75        | 2½"          | 65      | F665HDU  |                    |            |           |                      |
| 302       | 116       | 3"           | 80      | F680HDU  |                    | GM         |           |                      |
| 600       | 230       | 4"           | 100     | F6100HDU |                    |            |           |                      |
| 1022      | 392       | 5"           | 125     | F6125HDU |                    | DR         | SY Series | DKR                  |
| 1579      | 605       | 6"           | 150     | F6150HDU |                    |            |           |                      |
| 3136      | 1202      | 8"           | 200     | F6200HDU |                    | GK Series  |           |                      |
| 5340      | 2047      | 10"          | 250     | F6250HDU |                    |            |           |                      |
| 8250      | 3062      | 12"          | 300     | F6300HDU |                    |            |           |                      |

| Valve    | Size | $C_v$ | MOD |     |     |      |      |      |      |      | ON/OFF |  |
|----------|------|-------|-----|-----|-----|------|------|------|------|------|--------|--|
|          |      |       | 10° | 20° | 30° | 40°  | 50°  | 60°  | 70°  | 80°  | 90°    |  |
| F650HDU  | 2"   | 115   | .06 | 3   | 7   | 15   | 27   | 44   | 70   | 105  | 115    |  |
| F665HDU  | 2½"  | 196   | .10 | 6   | 12  | 25   | 45   | 75   | 119  | 178  | 196    |  |
| F680HDU  | 3"   | 302   | .20 | 9   | 18  | 39   | 70   | 116  | 183  | 275  | 302    |  |
| F6100HDU | 4"   | 600   | .30 | 17  | 36  | 78   | 139  | 230  | 364  | 546  | 600    |  |
| F6125HDU | 5"   | 1022  | .50 | 29  | 61  | 133  | 237  | 392  | 620  | 930  | 1022   |  |
| F6150HDU | 6"   | 1579  | .80 | 45  | 95  | 205  | 366  | 605  | 958  | 1437 | 1579   |  |
| F6200HDU | 8"   | 3136  | 2   | 89  | 188 | 408  | 727  | 1202 | 1903 | 2854 | 3136   |  |
| F6250HDU | 10"  | 5340  | 3   | 151 | 320 | 694  | 1237 | 2047 | 3240 | 4859 | 5340   |  |
| F6300HDU | 12"  | 8250  | 4   | 234 | 495 | 1072 | 1911 | 3062 | 5005 | 7507 | 8250   |  |

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# F6 Series, 2-Way, HDU Butterfly Valve

## Resilient Seat, 304 Stainless Disc



### Maximum Dimensions (Inches)

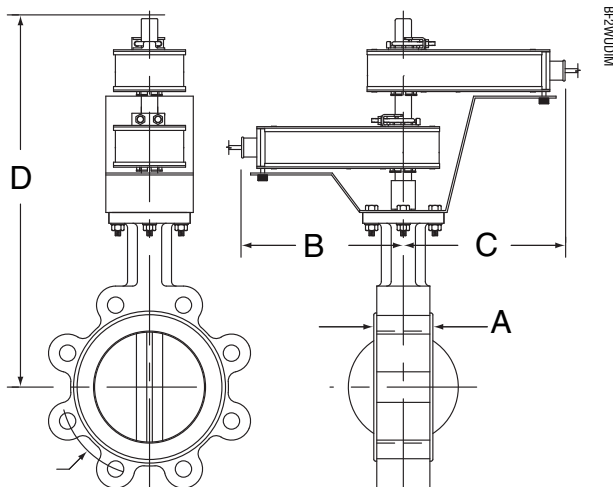
| Valve    | Size | C <sub>v</sub> 90° | C <sub>v</sub> 60° | A    | B    | C     | D(Max) | BHC   | No. of Holes | Lug Bolt   | Actuator | Close-Off (PSI) |                      |    |
|----------|------|--------------------|--------------------|------|------|-------|--------|-------|--------------|------------|----------|-----------------|----------------------|----|
| F650HDU  | 2"   | 115                | 44                 | 1.65 | 9.00 | 9.00  | 19.50  | 4.75  | 4            | 5/8-11 UNC | AF       | 50              | Spring Return        |    |
| F665HDU  | 2½"  | 196                | 75                 | 1.76 | 9.00 | 9.00  | 20.00  | 5.50  | 4            | 5/8-11 UNC |          | 50              |                      |    |
| F680HDU  | 3"   | 302                | 116                | 1.78 | 9.00 | 9.00  | 20.50  | 6.00  | 4            | 5/8-11 UNC |          | 50              |                      |    |
| F6100HDU | 4"   | 600                | 230                | 2.05 | 9.00 | 9.00  | 21.00  | 7.50  | 8            | 5/8-11 UNC |          | 2*AF            |                      | 50 |
| F6125HDU | 5"   | 1022               | 392                | 2.14 | 9.00 | 9.00  | 22.00  | 8.50  | 8            | 3/4-10 UNC |          | 50              |                      |    |
| F6100HDU | 4"   | 600                | 230                | 2.05 | 8.00 | 8.00  | 17.00  | 7.50  | 8            | 5/8-11 UNC | GK       | 50              | Electronic Fail-Safe |    |
| F6125HDU | 5"   | 1022               | 392                | 2.14 | 8.00 | 8.00  | 17.50  | 8.50  | 8            | 3/4-10 UNC |          | 50              |                      |    |
| F6150HDU | 6"   | 1579               | 605                | 2.19 | 8.00 | 8.00  | 22.50  | 9.50  | 8            | 3/4-10 UNC | 2*GK     | 50              |                      |    |
| F650HDU  | 2"   | 115                | 44                 | 1.65 | 7.00 | 7.00  | 15.00  | 4.75  | 4            | 5/8-11 UNC | AM       | 50              | Non-Spring Return    |    |
| F665HDU  | 2½"  | 196                | 75                 | 1.76 | 7.00 | 7.00  | 15.50  | 5.50  | 4            | 5/8-11 UNC |          | 50              |                      |    |
| F680HDU  | 3"   | 302                | 116                | 1.78 | 7.00 | 7.00  | 16.00  | 6.00  | 4            | 5/8-11 UNC |          | 50              |                      |    |
| F6100HDU | 4"   | 600                | 230                | 2.05 | 8.00 | 8.00  | 17.00  | 7.50  | 8            | 5/8-11 UNC |          | GM              |                      | 50 |
| F6125HDU | 5"   | 1022               | 392                | 2.14 | 8.00 | 8.00  | 17.50  | 8.50  | 8            | 3/4-10 UNC |          | 50              |                      |    |
| F6150HDU | 6"   | 1579               | 605                | 2.19 | 8.00 | 8.00  | 22.50  | 9.50  | 8            | 3/4-10 UNC | 2*GM     | 50              |                      |    |
| F650HDU  | 2"   | 115                | 44                 | 1.65 | 4.25 | 4.25  | 15.50  | 4.75  | 4            | 5/8-11 UNC | SY1...   | 50              | Non-Spring Return    |    |
| F665HDU  | 2½"  | 196                | 75                 | 1.76 | 4.25 | 4.25  | 16.00  | 5.50  | 4            | 5/8-11 UNC |          | 50              |                      |    |
| F680HDU  | 3"   | 302                | 116                | 1.78 | 4.25 | 4.25  | 16.25  | 6.00  | 4            | 5/8-11 UNC |          | 50              |                      |    |
| F6100HDU | 4"   | 600                | 230                | 2.05 | 8.00 | 13.00 | 22.00  | 7.50  | 8            | 5/8-11 UNC |          | SY2...          |                      | 50 |
| F6125HDU | 5"   | 1022               | 392                | 2.14 | 8.00 | 13.00 | 22.50  | 8.50  | 8            | 3/4-10 UNC |          | 50              |                      |    |
| F6150HDU | 6"   | 1579               | 605                | 2.19 | 8.00 | 13.00 | 23.00  | 9.50  | 8            | 3/4-10 UNC | 50       |                 |                      |    |
| F6200HDU | 8"   | 3136               | 1202               | 2.37 | 8.00 | 13.00 | 24.25  | 11.75 | 8            | 3/4-10 UNC | SY3...   | 50              |                      |    |
| F6250HDU | 10"  | 5340               | 2047               | 2.58 | 8.00 | 13.00 | 25.50  | 14.25 | 12           | 7/8-9 UNC  |          | 50              |                      |    |
| F6300HDU | 12"  | 8250               | 3062               | 3.01 | 8.00 | 13.00 | 27.25  | 17.00 | 12           | 7/8-9 UNC  |          | 50              |                      |    |

Dimension "A" is compressed, add .125" for relaxed state.  
 AF, AM and GM maximum actuator ambient temperature is 122°F.  
 SY maximum actuator ambient temperature is 150°F.  
 Model SY1... does not have handwheel - override is via 8mm wrench on bottom side of actuator.

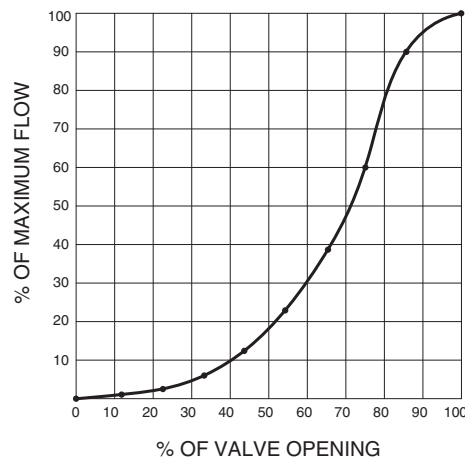
### Application Notes

1. Valves are rated at 50 psi differential pressure in the closed position.
2. Valves are furnished with lugs tapped for use with ANSI Class 125/150 flanges. Installation flanges and hardware are not included.
3. 2-way assemblies are furnished assembled and tested, ready for installation.
4. Dimension "D" allows for actuator removal without the need to remove the valve from the pipe.
5. Weather shields are available, dimensional data upon request.
6. Dual actuated valves have actuators mounted on a common valve shaft.
7. Belimo SY Series actuators are NEMA 4X rated.

### Dimensions



### Flow Pattern



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- 200 psi (2" to 12") and 150 psi (14"-30") bubble tight shut-off
- Long stem design allows for 2" insulation
- Valve face-to-face dimensions comply with API 609 & MSS-SP-67
- Completely assembled and tested, ready for installation

### Application

These valves are designed to meet the needs of HVAC and commercial applications requiring bubble tight shut-off for liquids. Typical applications include chiller isolation, cooling tower isolation, change-over systems, large air handler coil control, bypass and process control applications. The large  $C_v$  values provide for an economical control valve solution for larger flow applications. Designed for use in Victaulic piping systems when mated to Victaulic 41 series flange nipples.

### Jobsite Note

Valves should be stored in a weather protected area prior to construction. Complete installation recommendations can be found in Belimo's Installation and Maintenance Instructions for F6...HD Butterfly Valves.

| Technical Data            |                                     |
|---------------------------|-------------------------------------|
| Service                   | chilled, hot water, 60% glycol      |
| Flow characteristic       | modified equal percentage           |
| Action                    | 90° rotation                        |
| Sizes                     | 2" to 30"                           |
| Type of end fitting       | for use with ANSI 125/150 flanges   |
| Materials                 |                                     |
| Body                      | ductile iron ASTM A536              |
| Body finish               | epoxy powder coated                 |
| Disc                      | 304 stainless steel                 |
| Seat                      | EPDM standard                       |
| Shaft                     | 416 stainless steel                 |
| O-ring                    | EPDM                                |
| Upper bushing             | RPTFE                               |
| Middle bushings           | RPTFE                               |
| Lower bushing             | RPTFE                               |
| Media temperature range   | -22°F to 250°F [-30°C to 120°C]     |
| Ambient temperature range | -22°F to 122°F [-30°C to 50°C]      |
| Body pressure rating      | ASME/ANSI Class 125/150<br>200 psi  |
| Close-off pressure        | 200 psi (2"-12"), 150 psi (14"-30") |
| Rangeability              | 10:1 (for 30° to 70° range)         |
| Maximum velocity          | 12 FPS                              |
| Leakage                   | bubble tight                        |

| $C_v$<br>90° | $C_v$<br>60° | Valve Nominal Size |         | Type    | Suitable Actuators |        |            |                      |    |      |
|--------------|--------------|--------------------|---------|---------|--------------------|--------|------------|----------------------|----|------|
|              |              | IN                 | DN [mm] |         | 2-way              | Spring | Non-Spring | Electronic Fail-Safe |    |      |
| 115          | 44           | 2"                 | 50      | F650HD  | AF Series          | AM     | SY Series  | DKR                  | GK | 2*GK |
| 196          | 75           | 2½"                | 65      | F665HD  |                    | GM     |            |                      |    |      |
| 302          | 116          | 3"                 | 80      | F680HD  | DR                 |        |            |                      |    |      |
| 600          | 230          | 4"                 | 100     | F6100HD |                    |        |            |                      |    |      |
| 1022         | 392          | 5"                 | 125     | F6125HD |                    |        |            |                      |    |      |
| 1579         | 605          | 6"                 | 150     | F6150HD |                    |        |            |                      |    |      |
| 3136         | 1202         | 8"                 | 200     | F6200HD |                    |        |            |                      |    |      |
| 5340         | 2047         | 10"                | 250     | F6250HD |                    |        |            |                      |    |      |
| 8250         | 3062         | 12"                | 300     | F6300HD |                    |        |            |                      |    |      |
| 11917        | 4568         | 14"                | 350     | F6350HD |                    |        |            |                      |    |      |
| 16388        | 6282         | 16"                | 400     | F6400HD |                    |        |            |                      |    |      |
| 21705        | 8320         | 18"                | 450     | F6450HD |                    |        |            |                      |    |      |
| 27908        | 10698        | 20"                | 500     | F6500HD |                    |        |            |                      |    |      |
| 43116        | 16528        | 24"                | 600     | F6600HD |                    |        |            |                      |    |      |
| 73426        | 28146        | 30"                | 750     | F6750HD |                    |        |            |                      |    |      |

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| Valve   | Size   | $C_v$ | MOD |      |      |      |       |       |       |       |       | ON/OFF |
|---------|--------|-------|-----|------|------|------|-------|-------|-------|-------|-------|--------|
|         |        |       | 10° | 20°  | 30°  | 40°  | 50°   | 60°   | 70°   | 80°   | 90°   |        |
| F650HD  | 2"     | 115   | .06 | 3    | 7    | 15   | 27    | 44    | 70    | 105   | 115   |        |
| F665HD  | 2-1/2" | 196   | .10 | 6    | 12   | 25   | 45    | 75    | 119   | 178   | 196   |        |
| F680HD  | 3"     | 302   | .20 | 9    | 18   | 39   | 70    | 116   | 183   | 275   | 302   |        |
| F6100HD | 4"     | 600   | .30 | 17   | 36   | 78   | 139   | 230   | 364   | 546   | 600   |        |
| F6125HD | 5"     | 1022  | .50 | 29   | 61   | 133  | 237   | 392   | 620   | 930   | 1022  |        |
| F6150HD | 6"     | 1579  | .80 | 45   | 95   | 205  | 366   | 605   | 958   | 1437  | 1579  |        |
| F6200HD | 8"     | 3136  | 2   | 89   | 188  | 408  | 727   | 1202  | 1903  | 2854  | 3136  |        |
| F6250HD | 10"    | 5340  | 3   | 151  | 320  | 694  | 1237  | 2047  | 3240  | 4859  | 5340  |        |
| F6300HD | 12"    | 8250  | 4   | 234  | 495  | 1072 | 1911  | 3062  | 5005  | 7507  | 8250  |        |
| F6350HD | 14"    | 11917 | 6   | 338  | 715  | 1549 | 2761  | 4568  | 7230  | 10844 | 11917 |        |
| F6400HD | 16"    | 16388 | 8   | 464  | 983  | 2130 | 3797  | 6282  | 9942  | 14913 | 16388 |        |
| F6450HD | 18"    | 21705 | 11  | 615  | 1302 | 2822 | 5028  | 8320  | 13168 | 19752 | 21705 |        |
| F6500HD | 20"    | 27908 | 14  | 791  | 1674 | 3628 | 6465  | 10698 | 16931 | 25396 | 27908 |        |
| F6600HD | 24"    | 43116 | 22  | 1222 | 2587 | 5605 | 9989  | 16528 | 26157 | 39236 | 43116 |        |
| F6750HD | 30"    | 73426 | 37  | 2081 | 4405 | 9545 | 17011 | 28146 | 44545 | 66818 | 73426 |        |

# F6 Series 2-Way, HD Butterfly Valve

## Resilient Seat, 304 Stainless Disc



### Maximum Dimensions (Inches)

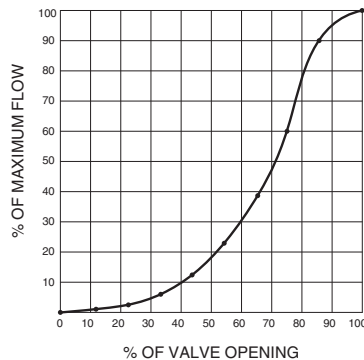
| Valve   | Size | C <sub>v</sub> 90° | C <sub>v</sub> 60° | A    | B     | C     | D(Max) | BHC   | No. of Holes | Lug Bolt    | Actuator | Close-Off (PSI) |                      |
|---------|------|--------------------|--------------------|------|-------|-------|--------|-------|--------------|-------------|----------|-----------------|----------------------|
| F650HD  | 2"   | 115                | 44                 | 1.65 | 9.00  | 9.00  | 19.50  | 4.75  | 4            | 5/8-11 UNC  | AF       | 200             | Spring Return        |
| F665HD  | 2½"  | 196                | 75                 | 1.76 | 9.00  | 9.00  | 20.00  | 5.50  | 4            | 5/8-11 UNC  | 2*AF     | 200             |                      |
| F680HD  | 3"   | 302                | 116                | 1.78 | 9.00  | 9.00  | 20.50  | 6.00  | 4            | 5/8-11 UNC  | 2*AF     | 200             |                      |
| F680HD  | 3"   | 302                | 116                | 1.78 | 8.00  | 8.00  | 16.00  | 6.00  | 4            | 5/8-11 UNC  | GK       | 200             | Electronic Fail-Safe |
| F6100HD | 4"   | 600                | 230                | 2.05 | 8.00  | 8.00  | 21.00  | 7.50  | 8            | 5/8-11 UNC  | 2*GK     | 200             |                      |
| F650HD  | 2"   | 115                | 44                 | 1.65 | 7.00  | 7.00  | 15.00  | 4.75  | 4            | 5/8-11UNC   | AMB(X)   | 200             | Non-Spring Return    |
| F665HD  | 2½"  | 196                | 75                 | 1.76 | 7.00  | 7.00  | 15.50  | 5.50  | 4            | 5/8-11UNC   | AMB(X)   | 200             |                      |
| F680HD  | 3"   | 302                | 116                | 1.78 | 8.00  | 8.00  | 16.00  | 6.00  | 4            | 5/8-11 UNC  | GMB(X)   | 200             |                      |
| F6100HD | 4"   | 600                | 230                | 2.05 | 8.00  | 8.00  | 21.00  | 7.50  | 8            | 5/8-11 UNC  | 2*GMB(X) | 200             |                      |
| F650HD  | 2"   | 115                | 44                 | 1.65 | 8.00  | 13.00 | 20.25  | 4.75  | 4            | 5/8-11 UNC  | SY2...   | 200             |                      |
| F665HD  | 2½"  | 196                | 75                 | 1.76 | 8.00  | 13.00 | 20.75  | 5.50  | 4            | 5/8-11 UNC  |          | 200             |                      |
| F680HD  | 3"   | 302                | 116                | 1.78 | 8.00  | 13.00 | 21.00  | 6.00  | 4            | 5/8-11 UNC  |          | 200             |                      |
| F6100HD | 4"   | 600                | 230                | 2.05 | 8.00  | 13.00 | 21.75  | 7.50  | 8            | 5/8-11 UNC  |          | 200             |                      |
| F6125HD | 5"   | 1022               | 392                | 2.14 | 8.00  | 13.00 | 22.25  | 8.50  | 8            | 3/4-10 UNC  |          | 200             |                      |
| F6150HD | 6"   | 1579               | 605                | 2.19 | 8.00  | 13.00 | 22.75  | 9.50  | 8            | 3/4-10 UNC  | SY3...   | 200             |                      |
| F6200HD | 8"   | 3136               | 1202               | 2.37 | 12.00 | 15.00 | 29.00  | 11.75 | 8            | 3/4-10 UNC  | SY4...   | 200             |                      |
| F6250HD | 10"  | 5340               | 2047               | 2.58 | 12.00 | 15.00 | 30.00  | 14.25 | 12           | 7/8-9 UNC   |          | 200             |                      |
| F6300HD | 12"  | 8250               | 3062               | 3.01 | 12.00 | 15.00 | 32.00  | 17.00 | 12           | 7/8-9 UNC   | SY5...   | 200             |                      |
| F6350HD | 14"  | 11917              | 4568               | 3.02 | 12.00 | 15.00 | 33.00  | 18.75 | 12           | 1-8 UNC     |          | 150             |                      |
| F6400HD | 16"  | 16388              | 6282               | 3.39 | 12.00 | 15.00 | 34.50  | 21.25 | 16           | 1-8 UNC     | SY6...†  | 150             |                      |
| F6450HD | 18"  | 21705              | 8320               | 4.13 | 14.00 | 21.00 | 39.25  | 22.75 | 16           | 1 1/8-7 UNC | SY8...†  | 150             |                      |
| F6500HD | 20"  | 27908              | 10698              | 5.00 | 14.00 | 21.00 | 41.50  | 25.00 | 20           | 1 1/8-7 UNC |          | 150             |                      |
| F6600HD | 24"  | 43116              | 16528              | 5.94 | 14.00 | 22.00 | 53.25  | 29.50 | 20           | 1 1/4-7 UNC |          | SY11...†        | 150                  |
| F6750HD | 30"  | 73426              | 28146              | 6.57 | 14.00 | 22.00 | 57.50  | 36.00 | 28           | 1 1/4-7 UNC | SY12...† | 150             |                      |

Dimension "A" is compressed, add .125" for relaxed state.  
 †SY6 and larger available in 110/220 VAC versions only.  
 AF, AM and GM maximum actuator ambient temperature is 122°F.  
 SY... maximum actuator ambient temperature is 150°F.

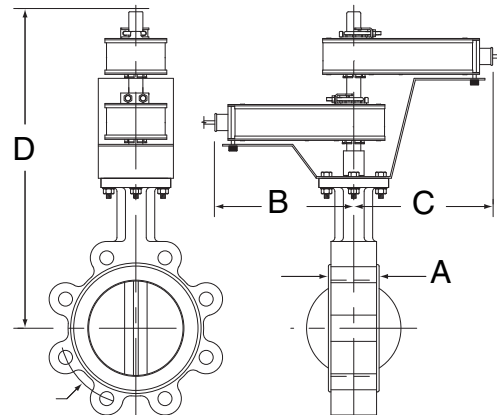
### Application Notes

- Valves are rated at 200 psi differential pressure in the closed position (SY... 150 psi 14"+).
- Valves are furnished with lugs tapped for use with ANSI Class 125/150 flanges. Installation flanges and hardware are not included.
- 2-way assemblies are furnished assembled and tested, ready for installation.
- Dimension "D" allows for actuator removal without the need to remove the valve from the pipe.
- Weather shields are available, dimensional data upon request.
- Dual actuated valves have actuators mounted on a common valve shaft.
- Belimo SY Series actuators are NEMA 4X rated.

### Flow Pattern



### Dimensions



BF2WUDIM

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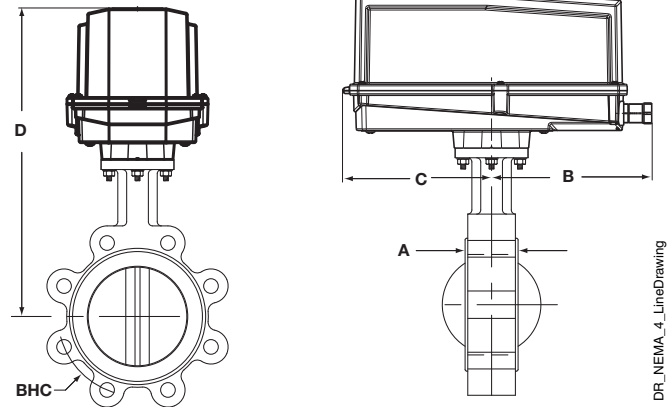
### Models

DKRX24-MFT-T w/terminal block  
 DKRX24-MFT-T N4 w/terminal block

### Technical Data

|                       |   |
|-----------------------|---|
| Control               | 2 to 10 VDC, 4 to 20 mA (default) variable (VDC, floating point, on/off)  |
| Power supply          | 24 VAC ± 20% 50/60 Hz<br>24 VDC ± 10%   |
| Power consumption     | running 12 W<br>holding 3 W   |
| Transformer sizing    | 21 VA (class 2 power source)  |
| Electrical connection | screw terminal (for 22 to 12 AWG wire)  |
| Overload protection   | electronic throughout 0° to 90° rotation  |
| Input impedance       | 100 kΩ (0.1 mA)<br>500 Ω<br>1500 Ω (floating point, on/off)   |
| Angle of rotation     | 90°<br>electronically variable  |
| Position indication   | visual pointer (N4)   |
| Manual override       | internal push button (UL Type 4)<br>external push button (UL Type 2)  |
| Running time          | 150 seconds (default)<br>variable (75 to 290 seconds)   |
| Fail-Safe             | 35 seconds  |
| Humidity              | 5 to 100% RH (UL Type 4)<br>5 to 95% RH non condensation (UL Type 2)  |
| Ambient temperature   | -22°F to 122°F [-30°C to 50°C]  |
| Storage temperature   | -40°F to 176°F [-40°C to 80°C]  |
| Housing type          | UL Type 4/NEMA 4/IP66<br>UL Type 2/NEMA 2/IP54  |
| Housing material      | Polycarbonate   |
| Agency listings       | cULus according to UL 60730-1A, UL 60730-2-14 and CAN/CSA E60730-1;<br>Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14" |
| EMC                   | CE according to 2004/108/EC   |
| Quality standard      | ISO 9001  |
| Servicing             | maintenance free  |

### Dimensions with 2-Way Valve



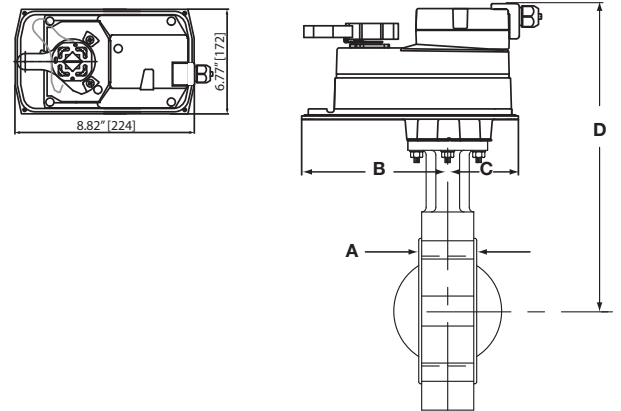
DR\_NEMA\_4\_LineDrawing

### Valve Nominal Size

### Dimensions (Inches [mm])

| Valve Body | Inches | DN [mm] | A           | B          | C          | D           | FLG |
|------------|--------|---------|-------------|------------|------------|-------------|-----|
| F6100HD    | 4"     | 100     | 2.05 [52.1] | 7.34 [186] | 6.77 [172] | 15.47 [393] | F07 |
| F6150HDU   | 6"     | 150     | 2.19 [55.6] | 7.34 [186] | 6.77 [172] | 16.47 [418] | F07 |

### Dimensions without Housing



DRC24A\_TP\_LineDrawing

### Valve Nominal Size

### Dimensions (Inches [mm])

| Valve Body | Inches | DN [mm] | A           | B          | C           | D           | FLG |
|------------|--------|---------|-------------|------------|-------------|-------------|-----|
| F6100HD    | 4"     | 100     | 2.05 [52.1] | 5.81 [148] | 2.64 [67.1] | 13.25 [337] | F07 |
| F6150HDU   | 6"     | 150     | 2.19 [55.6] | 5.81 [148] | 2.64 [67.1] | 14.25 [362] | F07 |

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## Wiring Diagrams

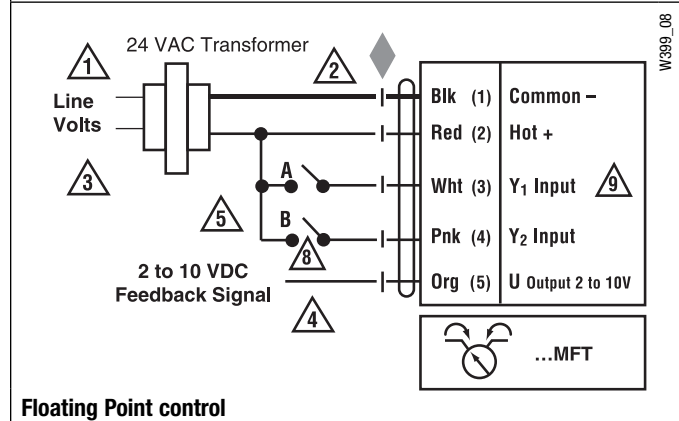
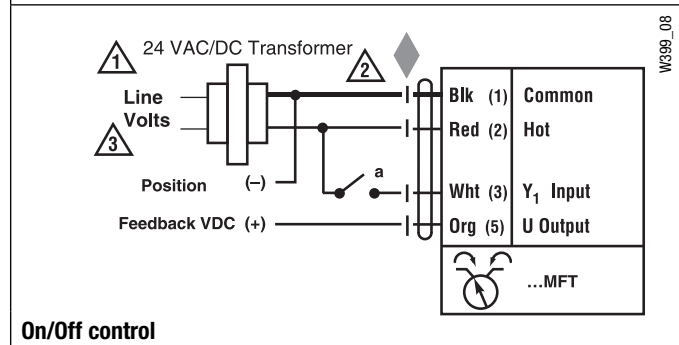
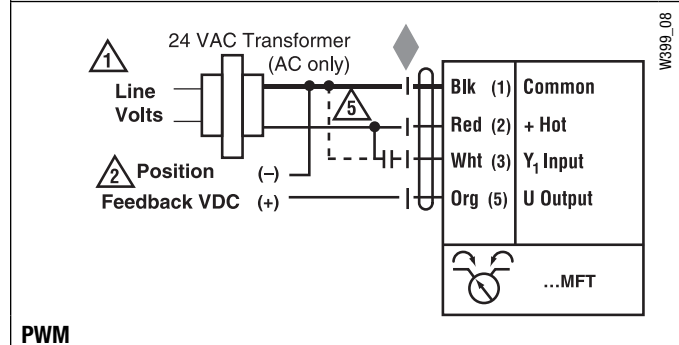
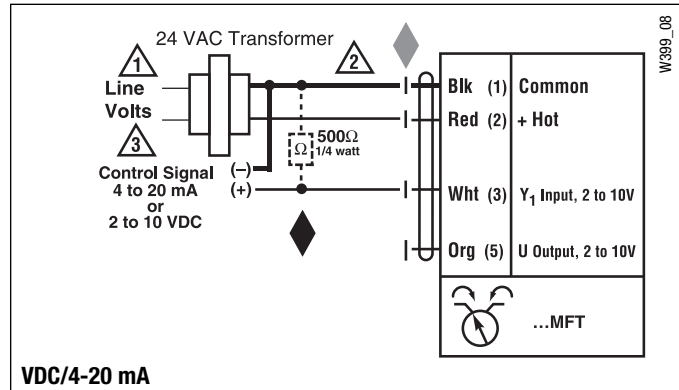
### INSTALLATION NOTES

- 1 Provide overload protection and disconnect as required.
- 2 **CAUTION Equipment Damage!**  
Actuators may be connected in parallel if not mechanically mounted to the same shaft. Power consumption and input impedance must be observed.
- 3 Actuators may also be powered by 24 VDC.
- 4 Position feedback cannot be used with Triac sink controller. The actuator internal common reference is not compatible.
- 5 Control signal may be pulsed from either the Hot (source) or the Common (sink) 24 VAC line.
- 8 Contact closures A & B also can be triacs. A & B should both be closed for triac source and open for triac sink.
- 9 For triac sink the common connection from the actuator must be connected to the hot connection of the controller.

### APPLICATION NOTES

- ◆ Meets UL requirements without the need of an electrical ground connection.
- ◆ The ZG-R01 500 Ω resistor may be used.

**WARNING Live Electrical Components!**  
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.



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