# Angle Control Valve and Globe Control Valve

### 2/2-way continuous control, 1/2" to 4"

- High cycle life and maintenance-free operation
- Stainless IP65 and 67, NEMA4 protection
- Excellent control characteristics and impact resistance
- Simple to install and commission



### **ELEMENT Control Valves**

As part of a remarkable range of attractive and process control components our hardworking angle control valves offer high flows for large capacity heat exchange operations while our globe valves offer extreme precision and quiet operation. Both can be incorporated in the superlative 8802 control valve system. The 8802 Continuous ELEMENT architecture enables the easy integration of three levels of automation modules: a simple blind Positioner; a positioner with display; and a fully functional process controller. A range of fieldbus interfaces (AS-i, Profibus or DeviceNET) can be added with ease.

Simple, intuitive, multilingual menu driven HMI allows you to control your loop with the minimum time investment.

Threaded, OD tube weld ends, clamp, and flanged connections make this an easily installed part of your control loop. These control valves offer unmatched life cycle performance. Truly Intelligent, Integrated and Beautiful.

### Technical Data

|                     | 0000 4 1 0 1                    | 0004 01 1     |  |  |  |  |
|---------------------|---------------------------------|---------------|--|--|--|--|
|                     | 2300 Angle Seat                 | 2301 Globe    |  |  |  |  |
| Orifice             | 1/2" (DN15)                     | 3/8" (DN10)   |  |  |  |  |
|                     | to 2 1/2" (DN65)                | to 4" (DN100) |  |  |  |  |
| Medium temperature  | 14°F to 365°F; -10°C to +       | -185°C        |  |  |  |  |
| Ambient temperature | Max. 55°C; 131°F                |               |  |  |  |  |
| Body material       | 316L stainless steel            |               |  |  |  |  |
| Sealing material    | PTFE/stainless steel            |               |  |  |  |  |
| Actuator material   | PPS/stainless steel band        |               |  |  |  |  |
| Control medium      | Instrument air at 85-100 PSI    |               |  |  |  |  |
| Flow direction      | Under seat anti water-hammer    |               |  |  |  |  |
| Port connection     | 2300/2301 NPT/OD Tube/Clamp and |               |  |  |  |  |
|                     | 2301 ANSI Flanged               |               |  |  |  |  |
| Safe position       | Normally closed                 |               |  |  |  |  |



### 8692 Technical Data

Protection type

| Material   |   |
|--|---|
| Body   | PPS, stainless steel  |
| Cover  | PC  |
| Sealing  | EPDM  |
| Control medium Dust concentration Particle density Pressure condensation Oil concentration | neutral gases, air, quality classes acc. to ISO 8573-1<br>Class 7 (<40µm particle size)<br>Class 5 (<10mg/m³)<br>Class 3 (<-20°C)<br>Class X (<25mg/m³) |
| Supply pressure  | Low air flow rate 0-101.52 PSI (0 to 7 bar 1)<br>High air flow rate 43.5-101.52 PSI (3 to 7 bar)  |
| Pilot air ports  | Threaded ports G1/8 stainless steel   |
| Seal material  | EPDM  |
| <b>Electrical Connection</b>   |   |
| Multipole connection   | M12, 8-pins or 4-pins   |
| Cable gland  | $2xM16 \times 1.5$ (cable-Ø 5 – 10 mm) with connection terminals for cable cross-sections $0.14 - 1.5 \text{ mm}^2$                                     |
| Ambient temperature  | -10°C to 55°C; 14°F to 131°F  |

<sup>&</sup>lt;sup>1</sup> The supply pressure has to be 7.25-14.05 bar above the minimum required pilot pressure

IP65/IP67 acc. to EN 60529, Type 4X acc. to NEMA 250 standard

### Dimensions [inch] (see datasheet for more details)

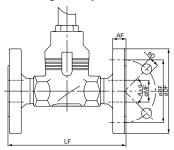
# Dimensions [inch] (see datasheet for more details)

# 2301 without and with TopControl Type 8692

| Size   | Actuator |      |       |              |
|--------|----------|------|-------|--------------|
|        | [mm]     | ØΑ   | Н     | HS with 8692 |
| 1/2"   | 70       | 3.58 | 9.40  | 15.07        |
| 3/4"   | 70       | 3.58 | 9.64  | 15.31        |
| 1"     | 90       | 4.72 | 11.85 | 17.52        |
| 1 1/2" | 130      | 6.26 | 15.19 | 20.86        |
| 2"     | 130      | 6.26 | 15.43 | 21.10        |
| 2 1/2" | 130      | 6.26 | 17.55 | 23.22        |
| 3"     | 130      | 6.26 | 17.87 | 23.54        |
| 4"     | 130      | 6 26 | 18 26 | 23 93        |

# ¥

## 2301 flanged body



| Port size     | Actuator  | Actuator [mm] |       |      |      |      |      |  |  |
|---------------|-----------|---------------|-------|------|------|------|------|--|--|
| (tube) [inch] | size [mm] | ØDF           | LF    | ØBF  | AF   | ØD   | ØMF  |  |  |
| 1/2           | 70        | 3.50          | 7.24  | 2.38 | 0.41 | 0.61 | 0.61 |  |  |
| 3/4           | 70        | 3.89          | 7.24  | 2.75 | 0.50 | 0.61 | 0.81 |  |  |
| 1             | 70        | 4.25          | 7.24  | 3.11 | 0.55 | 0.61 | 1.05 |  |  |
| 1-1/2         | 90        | 5.00          | 8.74  | 3.88 | 0.68 | 0.61 | 1.05 |  |  |
| 2             | 130       | 5.98          | 10.00 | 4.75 | 0.75 | 0.75 | 2.07 |  |  |
| 2 1/2         | 130       | 7.00          | 10.86 | 5.50 | 0.87 | 0.75 | 2.48 |  |  |
| 3             | 130       | 7.48          | 11.73 | 6.00 | 0.94 | 0.75 | 3.07 |  |  |
| 4             | 130       | 9.01          | 13.85 | 7.50 | 0.94 | 0.75 | 4.01 |  |  |

# Ordering charts

# Angle Control Valve (2300 + 8692)

| Size   | Orifice | Cv    | Pressure | NPT         |               | Tube        |               | Clamp       |               |
|--------|---------|-------|----------|-------------|---------------|-------------|---------------|-------------|---------------|
|        | [mm]    |       |          | PTFE/St.st. | St.st./St.st. | PTFE/St.st. | St.st./St.st. | PTFE/St.st. | St.st./St.st. |
| 1/2"   | 15      | 5.8   | 232      | 336 492     | 337 376       | 336 509     | 337 391       | 337 343     | 336 461       |
| 3"4"   | 20      | 11.6  | 232      | 336 494     | 467 877       | 336 511     | 337 395       | 337 344     | 337 420       |
| 1"     | 25      | 18.5  | 232      | 336 495     | 337 378       | 336 512     | 337 402       | 337 346     | 338 033       |
| 1 1/2" | 40      | 41.6  | 232      | 336 496     | 467 878       | 337 313     | 337 408       | 337 373     | 338 034       |
| 2"     | 50      | 61.3  | 232      | 336 504     | 467 874       | 337 314     | 336 458       | 333 086     | 338 036       |
| 2 1/2" | 65      | 104.1 | 232      | 336 508     | 337 287       | 337 315     | 337 412       | 337 375     | 333 091       |

## Globe Control Valve (2301 + 8692)

| Size   | Orifice | Cv    | Pressure | Flange      |               | NI          | PT            |
|--------|---------|-------|----------|-------------|---------------|-------------|---------------|
|        | [mm]    |       |          | PTFE/St.st. | St.st./St.st. | PTFE/St.st. | St.st./St.st. |
| 1/2"   | 15      | 5     | 232      | 338 037     | 337 323       | 337 384     | 467 880       |
| 3"4"   | 20      | 8.3   | 232      | 338 038     | 337 324       | 338 073     | 337 413       |
| 1"     | 25      | 13.9  | 232      | 338 039     | 337 338       | 467 881     | 337 134       |
| 1 1/2" | 40      | 27.7  | 232      | 338 042     | 337 339       | 338 075     | 337 414       |
| 2"     | 50      | 43    | 232      | 338 045     | 467 872       | 338 124     | 337 416       |
| 2 1/2" | 65      | 75.6  | 232      | 338 049     | 333 067       | 338 216     | 337 419       |
| 3"     | 80      | 116.3 | 145      | 338 070     | 333 059       | -           | -             |
| 4"     | 100     | 162.8 | 87       | 338 072     | 337 340       | -           | -             |

| Size   | Orifice | Cv    | Pressure | Tube        |               | Clamp       |               |
|--------|---------|-------|----------|-------------|---------------|-------------|---------------|
|        | [mm]    |       |          | PTFE/St.st. | St.st./St.st. | PTFE/St.st. | St.st./St.st. |
| 1/2"   | 10      | 3.1   | 232      | 338 227     | 337 316       | -           | -             |
|        | 15      | 5     | 232      | -           | -             | 338 255     | 333 093       |
| 3"4"   | 15      | 5     | 232      | 338 234     | 337 317       | 337 288     | 338 257       |
| 1"     | 20      | 8.3   | 232      | 338 239     | 336 479       | 337 289     | 338 249       |
| 1 1/2" | 32      | 20.7  | 232      | 338 242     | 336 459       | 337 290     | 338 259       |
| 2"     | 40      | 27.7  | 232      | 336 462     | 336 474       | 338 256     | 338 253       |
| 2 1/2" | 50      | 43    | 232      | 338 244     | 338 223       | -           | -             |
| 3"     | 65      | 75.58 | 232      | 338 246     | 337 320       | -           | -             |
| 4"     | 100     | 162.8 | 87       | 338 248     | 336 350       | -           | -             |