

Control Valves

Series 3000

Low Flow Valves



KLINGER ITALY SRL - Viale Alcide De Gasperi, 88—20017 RHO (MI) ITALY

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Technical data

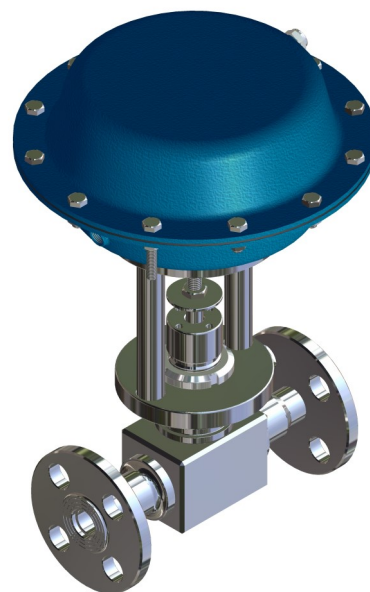
| | |
|-----------------------|---|
| Size (DN) | DN 10—50 (1/4" - 2") |
| Pressure rating | UNI/DIN PN16-160, ANSI 150-600 |
| Connections | Flanges UNI PN16-160 Flanges ANSI 150-600; Threaded G NPT; Welded BW, SW; Clamp |
| Type sealing | Soft (Class VI) Metallic (Class IV - V - VI) |
| Characteristic Action | Equalpercentage (eqp%) Pneumatic with diaphragm (supply max 3 bar) |
| Temperature | from -196 to +350 °C |

Description

The valves 2-ways 3000 series are designed also for the control of small flow "microflow" in pilot and experimental plants. The body is constructed from stainless steel bars or special alloys and is therefore completely configurable according to the type of application. The valves offer superior performance in almost all applications with a wide temperature range. All Burocco valves are delivered after testing and calibration and ready for a long utilize, without maintenance.

Options

- ⇒ Characteristic linear
- ⇒ High temperature extension (finned bonnet)
- ⇒ Extension (- 100°C)
- ⇒ Cryogenic extension (- 196 °C)
- ⇒ Bellows seal (double wall PN16, triple wall PN40)
- ⇒ Full stainless steel actuator for corrosive environment
- ⇒ 3-way (mixing or diverting) valves (see brochure 3003)
- ⇒ Special alloys for body: Hastelloy, Duplex, Monel
- ⇒ Special rating PN160/250
- ⇒ Stroke limiter
- ⇒ Handwheel for emergency operation
- ⇒ Valve positioners
- ⇒ Limit switches
- ⇒ Position feedback
- ⇒ Airset
- ⇒ Electric linear actuators
(230 V AC, 110/115 V AC, 24 VAC/DC)
- ⇒ Hand operating (manual)
- ⇒ Pneumatic with piston actuator (service ON/OFF)



Flow rate coefficient (CV)

| DN | ¾" (10) | ½"(15) | ¾"(20) | 1" (25) | 1¼"(32) | 1½" (40) | 2" (50) |
|------|---------|--------|--------|---------|---------|----------|---------|
| CV | - | - | - | - | - | - | 48 |
| | - | - | - | - | - | 28 | 28 |
| | - | - | - | - | 18 | 18 | 18 |
| | - | - | - | 12 | 12 | 12 | 12 |
| | - | - | 7 | 7 | 7 | 7 | 7 |
| | - | 4 | 4 | 4 | 4 | 4 | 4 |
| | 2,5 | 2,5 | 2,5 | 2,5 | 2,5 | 2,5 | 2,5 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 1,5 | 1,5 | 1,5 | 1,5 | 1,5 | 1,5 | 1,5 |
| | 1 | 1 | 1 | 1 | - | - | - |
| | 0,8 | 0,8 | 0,8 | 0,8 | - | - | - |
| | 0,5 | 0,5 | 0,5 | 0,5 | - | - | - |
| | 0,3 | 0,3 | 0,3 | 0,3 | - | - | - |
| | 0,2 | 0,2 | 0,2 | 0,2 | - | - | - |
| | 0,1 | 0,1 | 0,1 | 0,1 | - | - | - |
| | 0,08 | 0,08 | 0,08 | 0,08 | - | - | - |
| | 0,06 | 0,06 | 0,06 | 0,06 | - | - | - |
| | 0,05 | 0,05 | 0,05 | 0,05 | - | - | - |
| | 0,03 | 0,03 | 0,03 | 0,03 | - | - | - |
| 0,02 | 0,02 | 0,02 | 0,02 | - | - | - | |
| 0,01 | 0,01 | 0,01 | 0,01 | - | - | - | |

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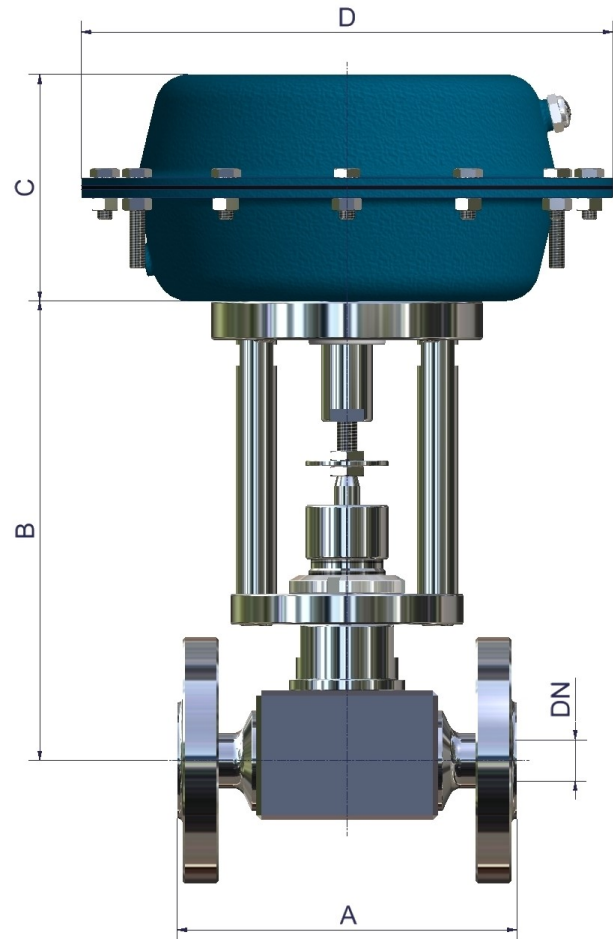
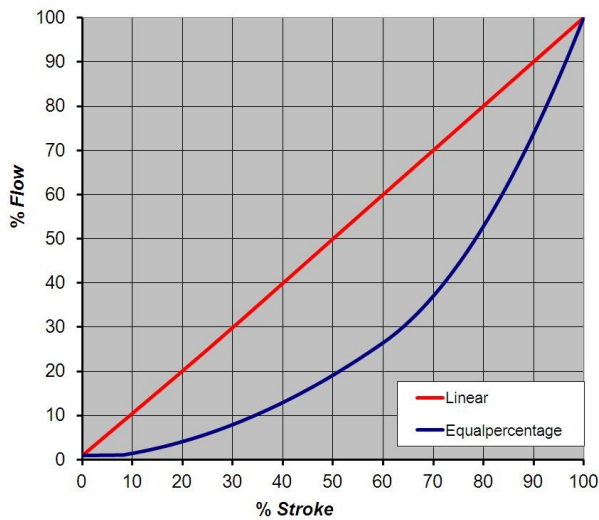
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| Materials | |
|--------------------|---|
| Valve body | S.S.316L |
| Trim (plug - seat) | S.S.316L / 17-4PH / S.S.316L+Stellite / |
| Steam | 316L / Hastelloy / Duplex / Monel |
| Packing | PTFE, PTFE+'OR' FPM, special |
| Body gasket | PTFE, SIL C4500, special |
| Acuator | FE (epoxy varnish) Stainless steel |
| Yoke | Stainless steel |

Control characteristic



Dimensions Series 3000 face-to-face (mm)

| A Flanged valves | | | | | | A Threaded / welding valves | | | |
|------------------|--------|--------|------------|-----|-----|-----------------------------|----------------|-----|-----|
| DN | DIN PN | | ANSI CLASS | | | DN | G / NPT Female | BW | SW |
| | 16-40 | 63-100 | 150 | 300 | 600 | | | | |
| 15 | 130 | 210 | 178 | 190 | 203 | ¼" - ½" | 112 | 124 | 124 |
| 20 | 150 | 230 | 181 | 194 | 206 | ¾" | 142 | 145 | 142 |
| 25 | 160 | 230 | 184 | 197 | 210 | 1" | 142 | 155 | 142 |
| 32 | ** | 260 | - | - | - | 1¼" | 190 | ** | 190 |
| 40 | 200 | 260 | 222 | 235 | 251 | 1 ½" | 190 | 194 | 190 |
| 50 | 230 | 300 | 254 | 267 | 286 | 2" | 190 | 224 | 190 |

** on request

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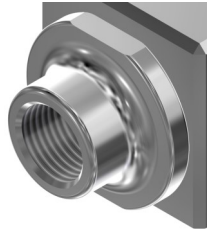


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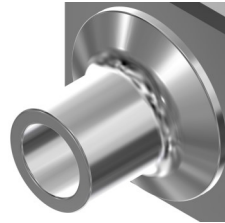
End connections



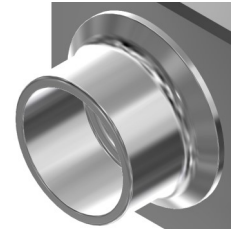
Flanges UNI/DIN - ANSI



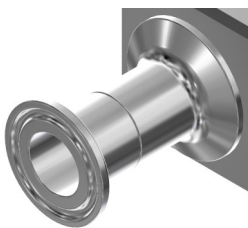
Threaded GAS - NPT



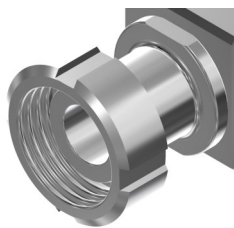
Welded BW



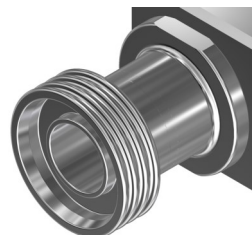
Welded SW



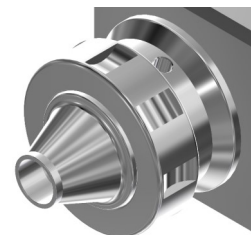
Clamp ISO



DIN 11851 (male)

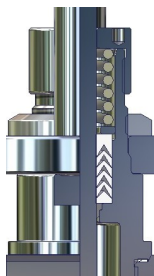


DIN 11851 (female)

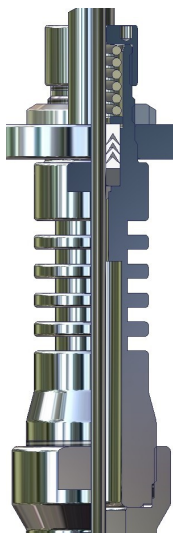


Special (on request)

Bonnet specifications (temperatures limit employment)



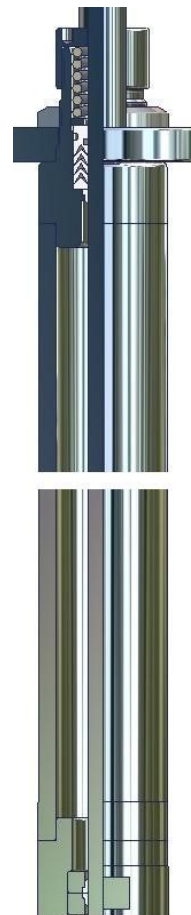
Standard (-30°C / +250 °C)



Finned (-30°C / +350 °C)



Bellows (-100°C / +250 °C)



Criogenic (-196°C / +180 °C)

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| Dimensions Series 3000 (mm) | | | | | | |
|-------------------------------|---------|----------|---------------------|---------------------|---------------------|---------|
| B at different bonnet designs | | | | | | |
| DN | | Standard | -100 °C (extension) | -200 °C (cryogenic) | High Temp. (finned) | Bellows |
| 15 | ¼" - ½" | 180 | 305 | 660 | 305 | 300 |
| 20 | ¾" | 190 | 310 | 665 | 310 | 305 |
| 25 | 1" | 190 | 310 | 665 | 310 | 305 |
| 32 | 1 ¼" | 220 | On request | On request | On request | 405 |
| 40 | 1 ½" | 220 | On request | On request | On request | 405 |
| 50 | 2" | 220 | On request | On request | On request | 405 |

| Weight Series 3000 (kg) flanged valves (without actuator) | | | | | | | | | |
|---|-----------------------------|------------|------------|------------|------------|------------------------------------|------------|------------|---------|
| DN | Weight with standard bonnet | | | | | Extra weight with bonnet extension | | | |
| | PN16-40 | PN63-100 | ANSI 150 | ANSI 300 | ANSI 600 | -100 °C | -200 °C | High Temp. | Bellows |
| 15 | 5 | 6,5 | 5 | 5,5 | 6 | + 1 | + 3 | + 1 | + 1,5 |
| 20 | 7,5 | 8,5 | 7,5 | 7,5 | 8,5 | + 1 | + 3 | + 1 | + 1,5 |
| 25 | 8,5 | 9,5 | 8 | 8,5 | 9,5 | + 1 | + 3 | + 1 | + 1,5 |
| 32 | 15,5 | On request | On request | On request | On request | On request | On request | On request | + 3 |
| 40 | 15,5 | On request | On request | On request | On request | On request | On request | On request | + 3 |
| 50 | 18 | On request | On request | On request | On request | On request | On request | On request | + 3 |

| Weight Series 3000 (kg) threaded, welded valves | | | | | |
|---|--|------------------------------------|------------|------------|---------|
| DN | Weight with standard bonnet (without actuator) | Extra weight with bonnet extension | | | |
| | | -100 °C | -200 °C | High Temp. | Bellows |
| ¼" - ½" | 3,5 | + 1 | + 3 | + 1 | + 1,5 |
| ¾" | 5,5 | + 1 | + 3 | + 1 | + 1,5 |
| 1" | 6 | + 1 | + 3 | + 1 | + 1,5 |
| 1 ¼" | 12 | On request | On request | On request | + 3 |
| 1 ½" | 12 | On request | On request | On request | + 3 |
| 2" | 13,5 | On request | On request | On request | + 3 |

| Dimensions (mm) and weight (kg) Actuators | | | | |
|---|-----|-----|----------------|--------|
| Actuator | C | D | Air connection | Weight |
| S-200 | 90 | 205 | 1/8" GAS FF | 2,5 |
| S-275 | 100 | 275 | 1/4" GAS FF | 6 |
| S-340 | 135 | 340 | 1/4" GAS FF | 13 |
| S-430 | 140 | 430 | 1/4" GAS FF | 17 |