

# Control Valves

## Series 4000

Cryogenic Control Valves

# BUROCCO

## INDUSTRIAL VALVES srl

BUROCCO INDUSTRIAL VALVES srl VIA NOVEIS, 33 - 13867 PRAY (BI) - ITALY

burocco@burocco.it - www.burocco.it

Tel.: +39 015 76.72.78 - Fax: +39 015 76.71.36

### Technical data

|                       |  |
|-----------------------|--|
| Size (DN)             | DN 10 — 40   |
| Pressure rating       | PN16 (DN32/40); PN16/40 (DN10/25)  |
| Connections           | Welded BW  |
| Type sealing          | Soft (Class VI)<br>Metallic (Class IV - V)                                       |
| Characteristic Action | Linear, Equalpercentage (eqp%)<br>Pneumatic with diaphragm<br>(supply max 3 bar) |
| Temperature           | from -196 to +100 °C   |

### Description

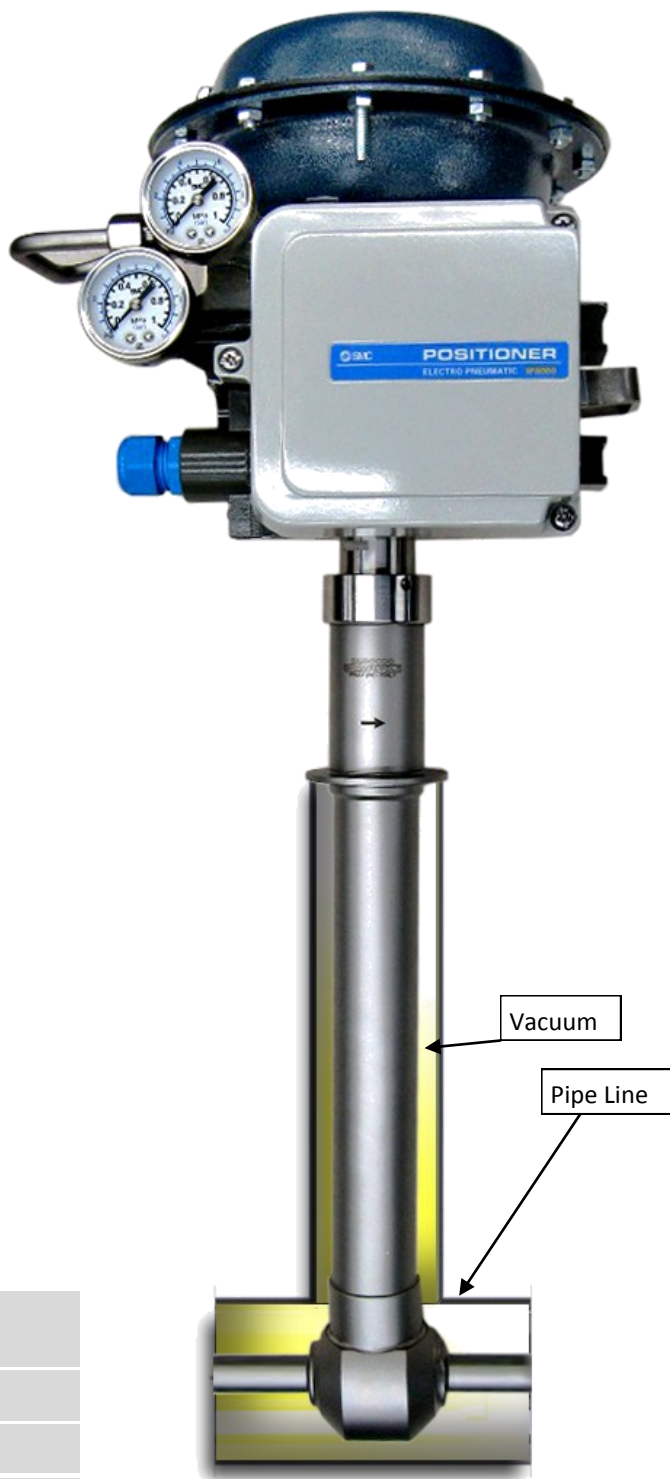
Control valves Series 4000 are designed for super vacuum insulated cryogenic plants and can also be used in pilot and experimental plants. Their body is built from stainless steel bars and is therefore completely configurable according to the type of application. All internal parts are completely removable without removing valve body from the pipe line, so all maintenance operations are made more easily. All Burocco valves are delivered after testing and calibration and ready for a long utilize, without maintenance.

### Options

- ⇒ Full stainless steel actuator for corrosive environment
- ⇒ Handwheel for emergency operation
- ⇒ Valve positioners and Position feedback
- ⇒ Stroke limiter and limit switches
- ⇒ Airset
- ⇒ Electric linear actuators  
(230 V AC, 110/115 V AC, 24 VAC/DC)
- ⇒ Hand operating (manual)
- ⇒ Pneumatic with piston actuator (service ON/OFF)
- ⇒ Body and extension special cleaning for Oxiges services
- ⇒ Special project design on request

### Materials

|                    |  |
|--------------------|--|
| Valve body         | S.S. 316L (1.4404/4401)  |
| Trim (plug - seat) | S.S. 316L (1.4404/4401)  |
| Steam              | S.S. 316L (1.4404/4401)  |
| Packing            | Metallic bellows 316L double wall PN16<br>Metallic bellows 316L triple wall PN40 |
| Acuator            | Fe (epoxy varnish)<br>Stainless steel  |
| Yoke               | Stainless steel  |



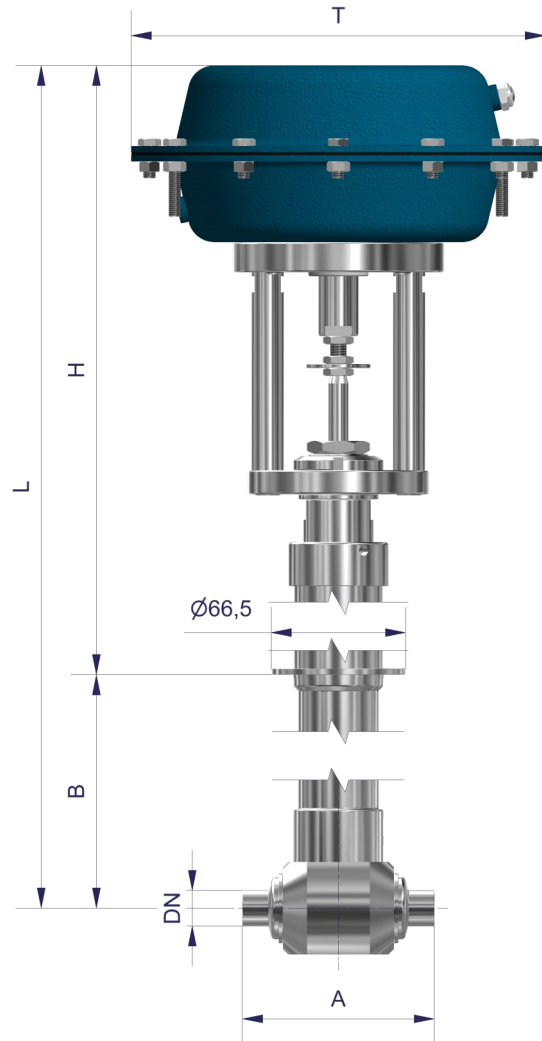
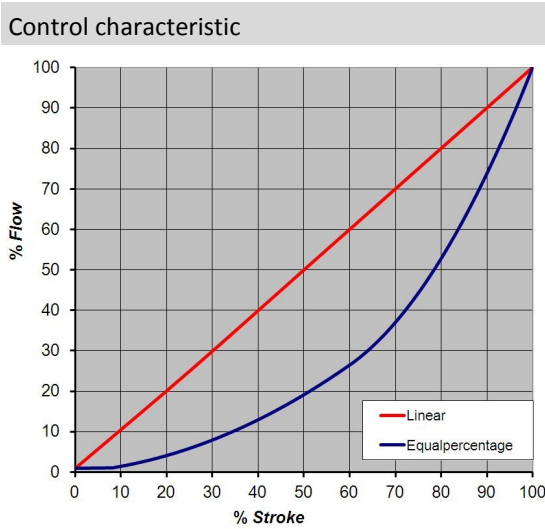
# Control Valves

## Series 4000

Cryogenic Control Valves

# BUROCCO

## INDUSTRIAL VALVES srl



| Flow rate coefficient (CV) |         |        |        |         |          |
|----------------------------|---------|--------|--------|---------|----------|
| DN                         | ¼" (10) | ½"(15) | ¾"(20) | 1" (25) | 1½" (40) |
| CV                         | -       | -      | -      | -       | -        |
|                            | -       | -      | -      | -       | 28       |
|                            | -       | -      | -      | -       | 18       |
|                            | -       | -      | -      | 12      | 12       |
|                            | -       | -      | 7      | 7       | 7        |
|                            | -       | 4      | 4      | 4       | 4        |
|                            | 2,5     | 2,5    | 2,5    | 2,5     | 2,5      |
|                            | 2       | 2      | 2      | 2       | 2        |
|                            | 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   |         |          |

| Size (mm) - (valve body with connections BW) |                               |     |     |     |     |      |              |
|--|-------------------------------|-----|-----|-----|-----|------|--------------|
| Size   | BW<br>Ø <sub>est.</sub> x sp. | A   | B   | H   | L   | T    | Body<br>Size |
| DN10   | 13 x 1,5                      | 80  | 285 | 330 | 615 | Ø205 | Ø44,5        |
| DN15   | 18 x 1,5                      | 95  | 290 | 330 | 620 | Ø205 | Ø65          |
| DN20   | 23 x 1,5                      | 120 | 300 | 330 | 630 | Ø205 | Ø80          |
| DN25   | 28 x 1,5                      | 140 | 300 | 330 | 630 | Ø205 | Ø80          |
| DN32   | 36 x 2                        | 150 | 300 | 330 | 630 | Ø275 | Ø95          |
| DN40   | 44 x 2                        | 150 | 300 | 330 | 630 | Ø275 | Ø95          |