

## DIAPHRAGM SENSING PRESSURE REDUCING VALVE PRV300 (1" – 11/4"; DN 25 – DN 32)

### DESCRIPTION

The ADCA PRV300 series direct acting, spring-loaded diaphragm sensing, balanced plug pressure reducing valves, are designed for use with compressed air, water and other gases and liquids compatible with the materials of construction.

They are suitable for high accuracy pressure reducing stations at the point of use on laundry machines, dyeing, food industries, sterilizers, etc.

### MAIN FEATURES

- Compact design.
- Large high accuracy diaphragm.
- Balanced valve plug.
- Machined from bar stock materials and investment casting.

- OPTIONS:**
- Different soft valves for water and gases.
  - Relieving – Internal relief valve to allow reduced outlet pressure in a no-flow condition.
  - Built-in strainer.
  - 1/4" outlet gauge connection on body.
  - RTop cap (adjustment screw with cover).

- USE:**
- Compressed air, water and other gases and liquids compatible with the construction.

- AVAILABLE MODELS:**
- PRV300SS – stainless steel, diaphragm sensing.

- SIZES:**
- 1" and 11/4"; DN 25 and DN 32.

- CONNECTIONS:**
- Female threaded ISO 7 Rp.
  - Flanged EN 1092-1 PN 16.
  - Flanged ASME B16.5 Class 150.

- INSTALLATION:**
- Horizontal installation.
  - A "Y" strainer should be installed upstream of the valve.
  - See IMI – Installation and maintenance instructions.

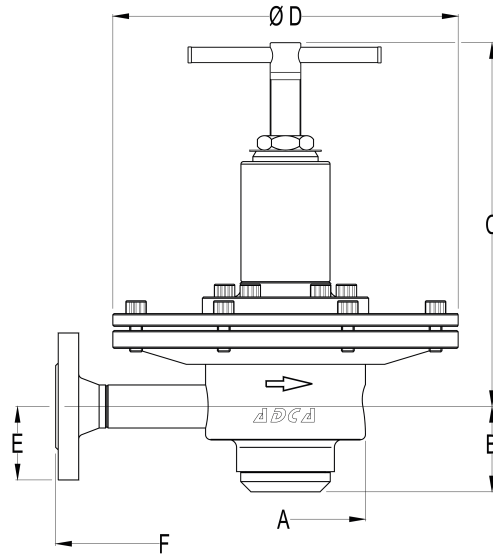


| CE MARKING – GROUP 2 (PED – European Directive) |          |
|---|----------|
| PN 16   | Category |
| 1" to 11/4" – DN 25 to 32                       | SEP      |

| FLOW RATE COEFFICIENTS (m <sup>3</sup> /h) |            |               |
|--|------------|---------------|
| SIZE                                       | 1" – DN 25 | 11/4" – DN 32 |
| Kvs  | 6,5        | 7,2           |

| LIMITING CONDITIONS                |          |
|------------------------------------|----------|
| Valve model                        | PRV300   |
| Body design conditions             | PN 16    |
| Maximum upstream pressure          | 16 bar   |
| Maximum downstream pressure        | 1,7 bar  |
| Minimum downstream pressure        | 0,05 bar |
| Maximum design temperature *       | 80 °C    |
| Maximum recommended reducing ratio | 40:1     |

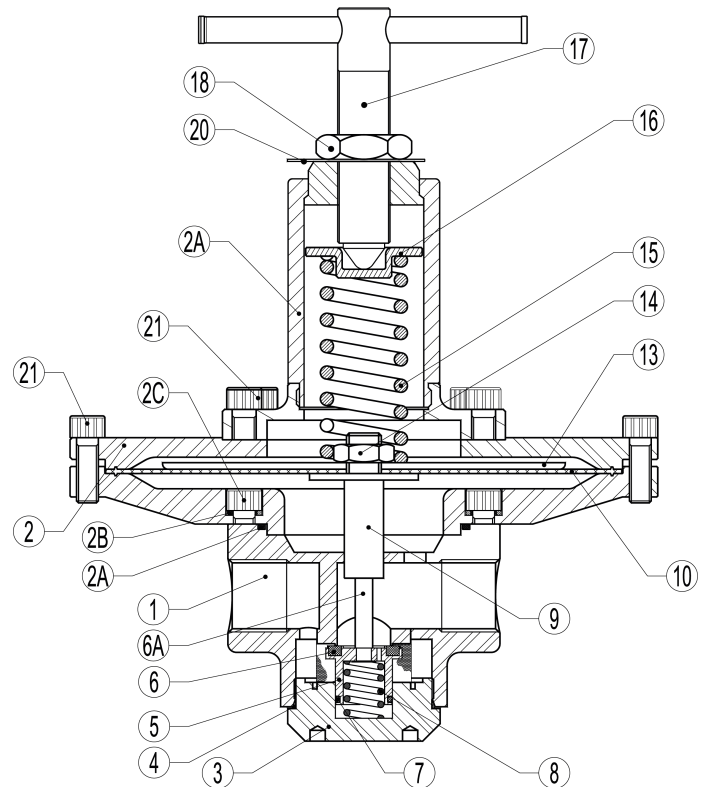
\* Others on request.



| DIMENSIONS (mm) |              |    |              |     |             |       |              |             |
|-----------------|--------------|----|--------------|-----|-------------|-------|--------------|-------------|
| THREADED        |              |    |              |     |             | PN 16 |              |             |
| SIZE            | A            | B  | C            | D   | WEIGHT (kg) | E     | F *          | WEIGHT (kg) |
| 1" – DN 25      | ** 105 / 125 | 66 | ** 295 / 285 | 270 | 15,9        | 58    | ** 160 / 320 | 18,5        |
| 1 1/4" – DN 32  | ** 105 / 125 | 66 | ** 295 / 285 | 270 | 15,9        | 70    | 320          | 22,3        |

\* Different lenghts on request; \*\* Standard face to face dimensions for A351 CF8M version.

| MATERIALS |                     |  |
|-----------|---------------------|--|
| POS. N°   | DESIGNATION         | MATERIAL                                 |
| 1         | Valve body          | AISI 316 / 1.4401;<br>A351 CF8M / 1.4408 |
| 2         | Cover               | AISI 316 / 1.4401                        |
| 2A        | Spring cover        | AISI 316 / 1.4401;<br>A351 CF8M / 1.4408 |
| 2B        | Bolts               | Stainless steel A2-70                    |
| 3         | Seat cover          | AISI 316 / 1.4401                        |
| 4         | * O-ring            | NBR                                      |
| 5         | * Piston valve      | AISI 316 / 1.4401                        |
| 6         | * Valve head        | NBR                                      |
| 6A        | * Pushrod           | AISI 316 / 1.4401                        |
| 7         | * O-ring            | NBR                                      |
| 8         | * Valve spring      | AISI 302 / 1.4300                        |
| 8A        | ** Strainer screen  | AISI 304 / 1.4301                        |
| 9         | Pusher disc         | AISI 304 / 1.4301                        |
| 10        | * Diaphragm         | Rubber                                   |
| 13        | Spring plate        | AISI 304 / 1.4301                        |
| 14        | Nut                 | Stainless steel A2-70                    |
| 15        | * Adjustment spring | Steel                                    |
| 16        | Top spring plate    | AISI 304 / 1.4301                        |
| 17        | Adjustment screw    | AISI 304 / 1.4301                        |
| 18        | Locknut             | Stainless steel A2-70                    |
| 20        | Spring Id. plate    | Aluminium                                |



\* Available spare parts; \*\* Optional.

Remarks: All valves have a serial number. In case of non-standard valves this number must be supplied if spare parts are ordered.

| ORDERING CODES PRV300  |      |   |   |   |   |   |   |     |     |   |    |   |
|--|------|---|---|---|---|---|---|-----|-----|---|----|---|
| Valve model  | R300 | . | 1 | W | N | B | R |     | .   | A | 25 |   |
| PRV300SS – diaphragm sensing pressure reducing valve                                       | R300 |   |   |   |   |   |   |     |     |   |    |   |
| <b>Regulating range</b>  |      |   |   |   |   |   |   |     |     |   |    |   |
| N° 1 – 0,05 to 0,3 bar   |      |   | 1 |   |   |   |   |     |     |   |    |   |
| N° 2 – 0,2 to 1,7 bar  |      |   | 2 |   |   |   |   |     |     |   |    |   |
| <b>Application</b>   |      |   |   |   |   |   |   |     |     |   |    |   |
| Water  |      |   |   | W |   |   |   |     |     |   |    |   |
| Gases  |      |   |   | G |   |   |   |     |     |   |    |   |
| Oxygen (degreased)   |      |   |   | O |   |   |   |     |     |   |    |   |
| <b>Seal material a)</b>  |      |   |   |   |   |   |   |     |     |   |    |   |
| NBR  |      |   |   |   | N |   |   |     |     |   |    |   |
| EPDM   |      |   |   |   | E |   |   |     |     |   |    |   |
| PTFE   |      |   |   |   | T |   |   |     |     |   |    |   |
| FPM / Vito   |      |   |   |   | V |   |   |     |     |   |    |   |
| <b>Maximum inlet pressure</b>  |      |   |   |   |   |   |   |     |     |   |    |   |
| 16 bar   |      |   |   |   |   | B |   |     |     |   |    |   |
| <b>Diaphragm</b>   |      |   |   |   |   |   |   |     |     |   |    |   |
| Rubber/PTFE (Relieving or non-relieving)   |      |   |   |   |   |   | R |     |     |   |    |   |
| <b>Gauge port 1/4"</b>   |      |   |   |   |   |   |   |     |     |   |    |   |
| Without gauge ports  |      |   |   |   |   |   |   | (1) |     |   |    |   |
| Gauge port on the left side (relative to the flow direction)                               |      |   |   |   |   |   |   | 4   |     |   |    |   |
| Gauge port on the right side (relative to the flow direction)                              |      |   |   |   |   |   |   | 3   |     |   |    |   |
| Gauge ports on both sides  |      |   |   |   |   |   |   | 2   |     |   |    |   |
| <b>Relieving</b>   |      |   |   |   |   |   |   |     |     |   |    |   |
| Non-relieving  |      |   |   |   |   |   |   |     | (1) |   |    |   |
| Relieving (for non-dangerous gases only)   |      |   |   |   |   |   |   |     | R   |   |    |   |
| <b>Pipe connection</b>   |      |   |   |   |   |   |   |     |     |   |    |   |
| Female threaded ISO 7 Rp   |      |   |   |   |   |   |   |     |     | A |    |   |
| Female threaded NPT ASME B1.20.1   |      |   |   |   |   |   |   |     |     | C |    |   |
| Socket weld (SW) ASME B16.11   |      |   |   |   |   |   |   |     |     | H |    |   |
| Butt weld (BW) ASME B16.25   |      |   |   |   |   |   |   |     |     | I |    |   |
| Flanged EN 1092-1 PN 40  |      |   |   |   |   |   |   |     |     | N |    |   |
| Flanged EN 1092-1 PN 63  |      |   |   |   |   |   |   |     |     | O |    |   |
| Flanged ASME B16.5 Class 150   |      |   |   |   |   |   |   |     |     | U |    |   |
| Flanged ASME B16.5 Class 300   |      |   |   |   |   |   |   |     |     | V |    |   |
| Flanged ASME B16.5 Class 600   |      |   |   |   |   |   |   |     |     | W |    |   |
| <b>Size</b>  |      |   |   |   |   |   |   |     |     |   |    |   |
| 1" or DN 25  |      |   |   |   |   |   |   |     |     |   | 25 |   |
| 1 1/4" or DN 32  |      |   |   |   |   |   |   |     |     |   | 32 |   |
| <b>Special valves / Extras</b>   |      |   |   |   |   |   |   |     |     |   |    |   |
| Full description or additional codes have to be added in case of non-standard combination. |      |   |   |   |   |   |   |     |     |   |    | E |

(1) Omitted if a standard valve is requested.

a) Valve limited to the materials' maximum operating temperature. Contact manufacturer for more details.