

## HIGH ACCURACY PRESSURE REDUCING VALVE PRV300 1 1/2" – 2"; DN 40 – DN 50

### 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 or 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.
  - Outlet 1/4" gauge connection on body.
  - Regulating screw with top cap.

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

- AVAILABLE MODELS:**
- PRV300SS – stainless steel.

- SIZES:**
- 1 1/2" and 2".
  - DN 40 and DN 50.

- CONNECTIONS:**
- Female threaded ISO 7 Rp.
  - Flanged EN 1092-1 PN16 or ANSI.

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

- ORDER REQUIREMENTS:**
- Type of fluid.
  - Maximum operating temperature.
  - Inlet and outlet pressures.
  - Flow rate (maximum and minimum).

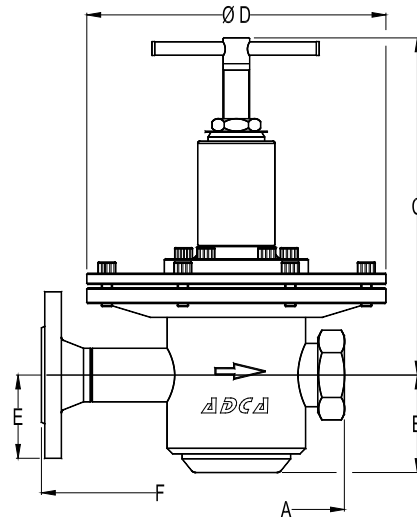


| CAPACITIES |                |            |
|------------|----------------|------------|
| Valve size | 1 1/2" – DN 40 | 2" – DN 50 |
| Kvs (m3/h) | 12,7           | 13,7       |

| LIMITING CONDITIONS                |          |
|------------------------------------|----------|
| Valve model                        | PRV300   |
| Body design conditions             | PN16     |
| 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

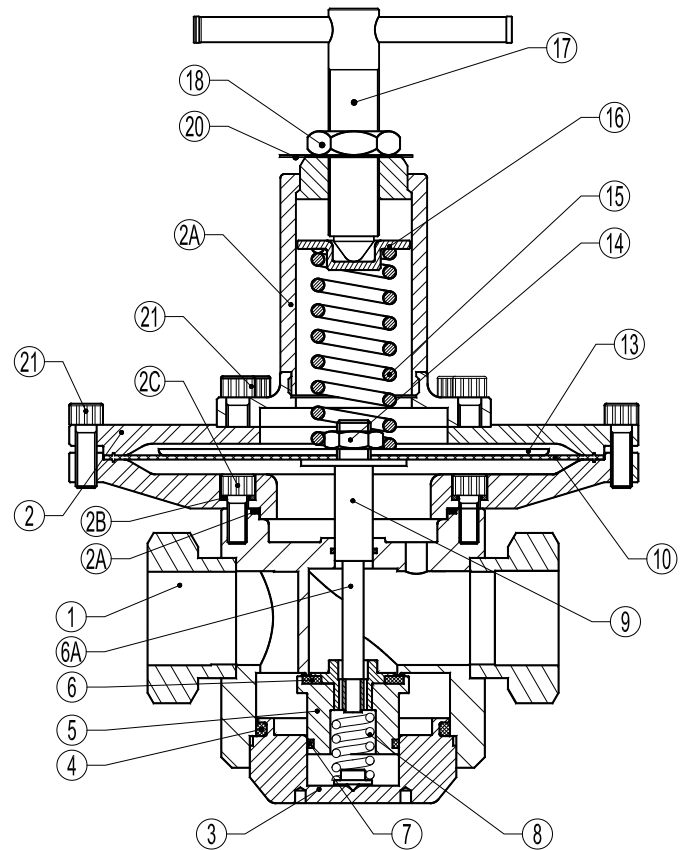
| CE MARKING – GROUP 2 (PED – European Directive) |          |
|---|----------|
| PN16  | Category |
| 1 1/2" to 2" – DN 40 to 50                      | SEP      |



| DIMENSIONS (mm) |     |    |     |     |             |      |     |             |
|-----------------|-----|----|-----|-----|-------------|------|-----|-------------|
| THREADED        |     |    |     |     |             | PN16 |     |             |
| SIZE            | A   | B  | C   | D   | WEIGHT (kg) | E    | F   | WEIGHT (kg) |
| 1 1/2" – DN 40  | 205 | 80 | 297 | 270 | 23,2        | 75   | 320 | 28          |
| 2" – DN 50      | 201 | 75 | 302 | 270 | 23,6        | 82,5 | 320 | 28,7        |

\* Different lengths on request.

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



\* Available spare parts.

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 | 4 | R | .   | A | 40 |   |
| PRV300SS – Diaphragm sensing   | R300 |   |   |   |   |   |   |   |   |     |   |    |   |
| <b>Outlet spring 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</b>   |      |   |   |   |   |   |   |   |   |     |   |    |   |
| NBR  |      |   |   |   | N |   |   |   |   |     |   |    |   |
| EPDM   |      |   |   |   | E |   |   |   |   |     |   |    |   |
| PTFE   |      |   |   |   | T |   |   |   |   |     |   |    |   |
| FPM / Viton  |      |   |   |   | V |   |   |   |   |     |   |    |   |
| <b>Maximum inlet pressure</b>  |      |   |   |   |   |   |   |   |   |     |   |    |   |
| 16 bar   |      |   |   |   |   | B |   |   |   |     |   |    |   |
| <b>Diaphragm material</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 (only for non dangerous gases)   |      |   |   |   |   |   |   |   |   | R   |   |    |   |
| <b>Pipe connection</b>   |      |   |   |   |   |   |   |   |   |     |   |    |   |
| Threaded ISO 7 Rp  |      |   |   |   |   |   |   |   |   |     | A |    |   |
| Threaded NPT ANSI B1.20.1  |      |   |   |   |   |   |   |   |   |     | C |    |   |
| Socket weld SW ANSI B16.11   |      |   |   |   |   |   |   |   |   |     | H |    |   |
| Butt weld BW ANSI B16.25   |      |   |   |   |   |   |   |   |   |     | I |    |   |
| Flanged EN 1092-1 PN16   |      |   |   |   |   |   |   |   |   |     | L |    |   |
| Flanged EN 1092-1 PN40   |      |   |   |   |   |   |   |   |   |     | N |    |   |
| Flanged ANSI B16.5 150 lb  |      |   |   |   |   |   |   |   |   |     | U |    |   |
| Flanged ANSI B16.5 300 lb  |      |   |   |   |   |   |   |   |   |     | V |    |   |
| Flanged ANSI B16.5 600 lb  |      |   |   |   |   |   |   |   |   |     | W |    |   |
| <b>Size</b>  |      |   |   |   |   |   |   |   |   |     |   |    |   |
| 1 1/2" or DN 40  |      |   |   |   |   |   |   |   |   |     |   | 40 |   |
| 2" or DN 50  |      |   |   |   |   |   |   |   |   |     |   | 50 |   |
| <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.