

## Technical data sheet

# Type 10TER and 10TER RC

## Pressure reducing valve

**Desbordes®**

### Applications and special features



- Control and maintain the downstream pressure at an adjustable reduced value, whether there is a flow or not.
- Maintain the outlet pressure at a constant value, even when there are variations in the upstream pressure (the downstream pressure cannot vary more than 10 % from the variation of the upstream pressure, according to the Standard).
- For domestic water distribution and industrial use.
- No maintenance required, not affected by scale or dirt.
- Can be installed in any position/directions.
- Guarantee a high flow rate at a constant outlet pressure because of low head loss.
- Works as pressure reducing valve (standard terminology) a regulator or as a pressure regulating valve (when used for Gas applications).
- Pre-set at 3bar
- Downstream setting : 1bar to 6 bar; indicative value according to EN1567
- 2 side pressure cocks for pressure gauge
- Also available with compensating spring : type 10 TER RC, for lower downstream pressure. (DN 32-80mm)

### Technical description

| DN  | PFA<br>bar | PS (bar) |    |    |    | Cat | References<br>10 Ter | Vvs-nr | References<br>10 Ter RC | Vvs-nr |
|-----|------------|----------|----|----|----|-----|----------------------|--------|-------------------------|--------|
|     |            | L1       | L2 | G1 | G2 |     |                      |        |                         |        |
| 32  | 16         | 16       | 16 | X  | 16 | 3.3 | 149B7032             |        | 149B7038                |        |
| 40  | 16         | 16       | 16 | X  | 16 | 3.3 | 149B7033             |        | 149B7039                |        |
| 50  | 16         | 16       | 16 | X  | 16 | 3.3 | 149B7034             |        | 149B7040                |        |
| 60  | 16         | 16       | 16 | X  | 16 | 3.3 | 149B7035             |        | 149B7041                |        |
| 65  | 16         | 16       | 16 | X  | 15 | 3.3 | 149B7036             |        | 149B7042                |        |
| 80  | 16         | 16       | 16 | X  | 12 | 3.3 | 149B7037             |        | 149B7043                |        |
| 100 | 16         | 16       | 16 | X  | 10 | 3.3 | 149B7226             |        | -                       |        |

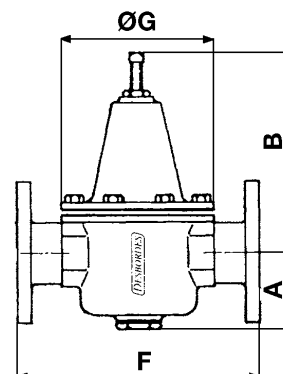
L1, L2, G1 and G2 correspond to liquids/gas classified into degree of danger according to the Pressure Equipment Directive (PED). The article 3.3 applies to equipments with no CE marking.

- **Connection** : for PN 10/16 flanges
- **Downstream pressure gauge connection**: 1/4"
- **Permissible operating pressure PFA - water** : See table
- **Maximum permissible pressure PS - other mediums** : See table
- **θ** : Mini. -10 °C  
Maxi. in permanent service : 80 °C  
(40°C domestic fuel oil)
- **Mediums** : water, air and neutral gas , domestic fuel oil.
- **Approvals** : **WRAS** (10ter) - ACS -
- **International construction Standards** :  
Pressure reducing valves EN 1567  
Thread connection NF EN EN 1092

### Overall dimensions

| DN    | A   | B   | F   | G   | Weight |
|-------|-----|-----|-----|-----|--------|
|       | mm  | mm  | mm  | mm  | (kg)   |
| 32    | 77  | 180 | 240 | 155 | 8,50   |
| 40    | 84  | 205 | 260 | 172 | 10,90  |
| 50    | 105 | 235 | 288 | 198 | 14,30  |
| 60(*) | 105 | 235 | 288 | 198 | 15,40  |
| 65    | 118 | 270 | 305 | 215 | 21,30  |
| 80    | 143 | 300 | 330 | 234 | 27,90  |
| 100   | 120 | 350 | 385 | 250 | 50,00  |

\* DN 60 : according to the old standard : flange Ø 175 - 4 holes Ø 18 on Ø 135

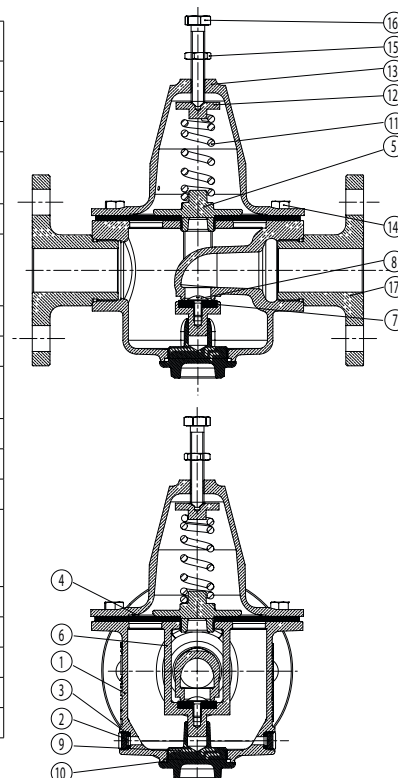


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**Spare parts list and materials**

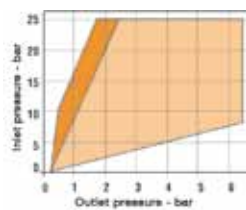
| N°  | Description         | Material                           | EURO                                   | ANSI       |
|-----|---------------------|------------------------------------|--|------------|
| 1   | CASING              | Bronze                             | CuSn5Zn5Pb5-C                          | ASTM B 505 |
| 2   | PRESSURE GAUGE CAP  | DZR brass                          | CuZn36Pb2As                            |            |
| 3   | FLAT SEAL           | NBR (Nitrile)                      |  |            |
| 4   | MEMBRANE            | NBR (polyamide reinforced Nitrile) |  |            |
| 5   | MEMBRANE WASHER     | Brass                              | CuZn40Pb2                              |            |
| 6   | STIRRUP             | Alu-Bronze or DZR brass or Bronze  | CuAl9<br>CuZn36Pb2As<br>CuSn5Zn5Pb5-C  |            |
| 7   | SEAL                | NBR (Nitrile)                      |  |            |
| 8   | SCREW               | Stainless steel                    | X5CrNi 18-10                           | AISI 304   |
| 9   | CAP COVER           | Brass or bronze                    | CuZn39Pb3<br>CuSn5Zn5Pb5-C             |            |
| 10  | SEAL                | NBR (Nitrile) or fibre             |  |            |
| 11  | SPRING              | Anticorrosive steel                | SH ou VD CrSi                          |            |
| 12  | PLATE               | Brass                              | CuZn39Pb3                              |            |
| 13  | CAP                 | Brass or Alu-Bronze or Bronze      | CuZn39Pb1<br>CuAl9 ou<br>CuSn5Zn5Pb5-C |            |
| 14  | SCREW               | Stainless steel                    | X5CrNi 18-10                           | AISI 304   |
| 15  | NUT                 | Stainless steel                    | X5CrNi 18-10                           | AISI 304   |
| 16  | ADJUSTING SCREW     | Stainless steel                    | X5CrNi 18-10                           | AISI 304   |
| 17  | FLANGE              | Bronze                             | CuSn5Zn5Pb5-C                          | ASTM B 505 |
| 18* | COMPENSATING SPRING | Stainless steel                    | X10CrNi 18-8                           | AISI 302   |

Spare part list for DN 100 - consult us  
\* Type 10ter\_rc only



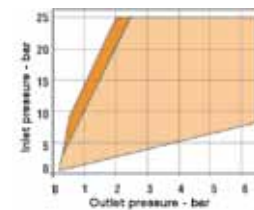
**Working principle**

**• Pressure setting range**



(DN 32 to 50 mm)

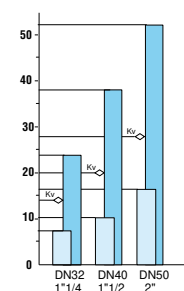
- NORMAL operating zone
- Zone requiring a COMPENSATING SPRING (10Bis RC) (Except DN 4")



(DN 60 to 100 mm)

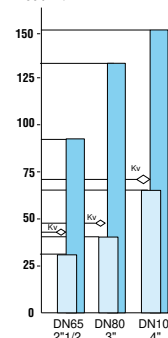
**• Flow capacity**

Flow in m<sup>3</sup>/h



- Flow at the velocity used in the Standard (2 m/s).
  - Maximum flow (at 0 outlet pressure) for upstream pressure of 8 bar.
- Kv : Flow in m<sup>3</sup>/h when the outlet pressure becomes 1 bar lower than its setting at zero flow.

Débit m<sup>3</sup>/h



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