

# ART 6200 PN16

## PN16 Adjustable Pressure Reducing Valve



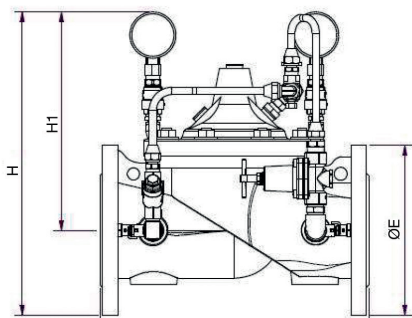
### Technical data

Max pressure: 16 Bar

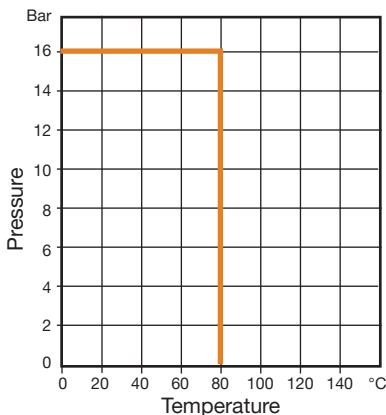
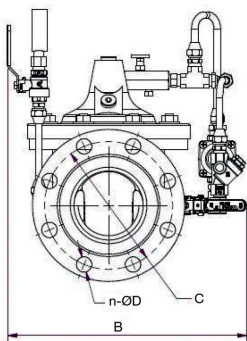
Working temp: 0°C to +80°C

### Features

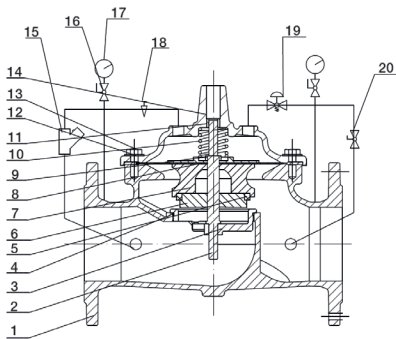
- Automatic Control Valve
- Suitable for potable water applications
- Pressure adjusted by integral pilot valve
- Conforms to BS EN558-1 Series 1
- Flange conforms to BS EN1092 PN16
- Available flanged PN25
- Stainless Steel pilot tubing and valves
- Fully WRAS Approved valve - Cert No. 2105035



| DN   | 50   | 65   | 80   | 100  | 125  | 150  | 200   | 250   | 300   |
|------|------|------|------|------|------|------|-------|-------|-------|
| L    | 230  | 290  | 310  | 350  | 400  | 480  | 600   | 730   | 850   |
| E    | 165  | 185  | 200  | 220  | 250  | 285  | 340   | 405   | 460   |
| C    | 125  | 145  | 160  | 180  | 210  | 240  | 295   | 355   | 410   |
| n-Ød | 4-19 | 4-19 | 8-19 | 8-19 | 8-19 | 8-23 | 12-23 | 12-28 | 12-28 |
| B    | 265  | 300  | 310  | 320  | 350  | 385  | 440   | 505   | 560   |
| H    | 452  | 462  | 470  | 483  | 498  | 513  | 540   | 573   | 598   |
| H1   | 369  | 370  | 370  | 373  | 373  | 376  | 376   | 378   | 396   |
| Kgs  | 13   | 17   | 23   | 30   | 65   | 69   | 132   | 315   | 420   |

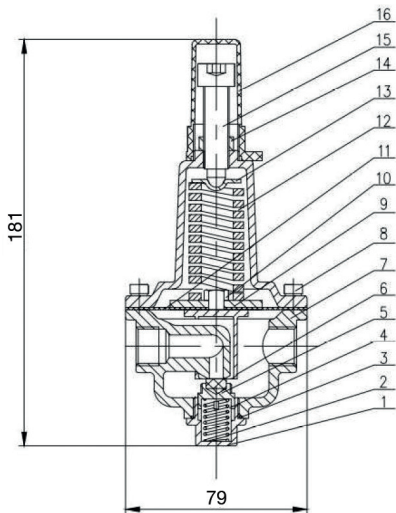


# ART 6200 PN16



| N. | Part Name        | Materials           |
|----|------------------|---------------------|
| 1  | Body             | Ductile Iron        |
| 2  | Stem             | Stainless Steel 304 |
| 3  | Seat             | Stainless Steel 304 |
| 4  | O-Ring           | NBR                 |
| 5  | Disc Ring        | NBR                 |
| 6  | Disc Retainer    | Ductile Iron        |
| 7  | Disc Guide       | Ductile Iron        |
| 8  | Diaphragm        | EPDM                |
| 9  | Diaphragm Washer | Ductile Iron        |
| 10 | Spring           | Stainless Steel 304 |
| 11 | Cover Bearing    | Stainless Steel 304 |
| 12 | Screw            | Stainless Steel 304 |
| 13 | Washer           | Stainless Steel 304 |
| 14 | Cover            | Ductile Iron        |
| 15 | Strainer         | Stainless Steel 304 |
| 16 | Ball Valve       | Stainless Steel 304 |
| 17 | Gauge            | Stainless Steel 304 |
| 18 | Needle Valve     | Stainless Steel 304 |
| 19 | Pilot Valve      | Stainless Steel 304 |
| 20 | Ball Valve       | Stainless Steel 304 |

## Pilot Valve Detail - ART 6250



| N. | Part Name        | Materials           |
|----|------------------|---------------------|
| 1  | Plug             | Stainless Steel 304 |
| 2  | Spring           | Stainless Steel 304 |
| 3  | O-Ring           | NBR                 |
| 4  | Seat             | Stainless Steel 304 |
| 5  | Disc             | NBR                 |
| 6  | Yoke             | Stainless Steel 304 |
| 7  | Body             | Stainless Steel 304 |
| 8  | Screw            | Stainless Steel 304 |
| 9  | Diaphragm Washer | Stainless Steel 304 |
| 10 | Nut              | Stainless Steel 304 |
| 11 | Diaphragm        | EPDM                |
| 12 | Spring           | Stainless Steel 304 |
| 13 | Spring Holder    | Stainless Steel 304 |
| 14 | Locking Nut      | Stainless Steel 304 |
| 15 | Adjusting Screw  | Stainless Steel 304 |
| 16 | Cap              | ABS                 |

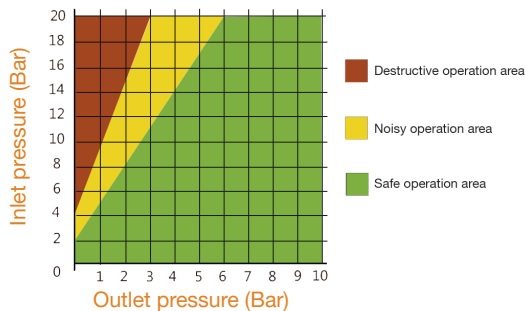
Fitted with standard Pilot Valve  
0.70 to 12.00 Bar (10 to 175 PSI)  
Factory set to 3.5 Bar (50 PSI)

Other Pilot Valves available  
1.40 to 12.00 Bar (20 to 175 PSI)  
2.10 to 20.00 Bar (30 to 300 PSI)

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## Cavitation Chart



## Flow Volume vs Velocity (water)

| Size<br>DN | Volume m3/h |            |            |            |            |            |            |            |            |            |            |            |            |            |
|------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|            | 0.4<br>m/s  | 0.6<br>m/s | 0.8<br>m/s | 1.0<br>m/s | 1.2<br>m/s | 1.4<br>m/s | 1.6<br>m/s | 1.8<br>m/s | 2.0<br>m/s | 2.2<br>m/s | 2.4<br>m/s | 2.6<br>m/s | 2.8<br>m/s | 3.0<br>m/s |
| 50         | 2.8         | 4.2        | 5.7        | 7.1        | 8.5        | 9.9        | 11.3       | 12.7       | 14.1       | 15.6       | 17.0       | 18.4       | 19.8       | 21.2       |
| 65         | 4.8         | 7.2        | 9.6        | 11.9       | 14.3       | 16.7       | 19.1       | 21.5       | 23.9       | 26.3       | 28.7       | 31.1       | 33.4       | 35.8       |
| 80         | 7.2         | 10.9       | 14.5       | 18.1       | 21.7       | 25.3       | 29.0       | 32.6       | 36.2       | 39.8       | 43.4       | 47.0       | 50.7       | 54.3       |
| 100        | 11.3        | 17.0       | 22.6       | 28.3       | 33.9       | 39.6       | 45.2       | 50.9       | 56.5       | 62.2       | 67.9       | 73.5       | 79.2       | 84.8       |
| 125        | 17.7        | 26.5       | 35.3       | 44.2       | 53.0       | 61.9       | 70.7       | 79.5       | 88.4       | 97.2       | 106.0      | 114.9      | 123.7      | 132.5      |
| 150        | 25.4        | 38.2       | 50.9       | 63.6       | 76.3       | 89.1       | 101.8      | 114.5      | 127.2      | 140.0      | 152.7      | 165.4      | 178.1      | 190.9      |
| 200        | 45.2        | 67.9       | 90.5       | 113.1      | 135.7      | 158.3      | 181.0      | 203.6      | 226.2      | 248.8      | 271.4      | 294.1      | 316.7      | 339.3      |
| 250        | 70.7        | 106.0      | 141.4      | 176.7      | 212.1      | 247.4      | 282.7      | 318.1      | 353.4      | 388.8      | 424.1      | 459.5      | 494.8      | 530.1      |
| 300        | 101.8       | 152.7      | 203.6      | 254.5      | 305.4      | 356.3      | 407.1      | 458.0      | 508.9      | 559.8      | 610.7      | 661.6      | 712.5      | 763.4      |

Note; for good pressure control within the valves optimum flow rate, the pressure reducing valve should be sized on on a velocity of 1 to 2m/s.

## Flow curve of the main valve at fully open status

