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## IVS SERIES PNEUMATIC VALVES

IVS pneumatic on/off valves are right-angle valves with CF8M steel body, butt weld or flanged connections and a servo control made of 304 stainless steel. Seal on valve seat is of soft type, and can be made of different materials according to customer's needs. Tightness stem is guaranteed by packing glands made of PTFE + graphite-loaded PTFE.



| TECHNICAL DATA    |  |
|-------------------|--|
| Valve type        | 2-way globe valve, with right angle body, unidirectional (under shutter flow).                                       |
| Ø Servo Control   | 32                      70                      80                      125                      160                 |
| DN                | 8 (1/4") ÷ 20 (3/4")    15 (1/2") ÷ 25 (1")    25 (1") ÷ 50 (2")    40 (1 1/2") ÷ 100 (4")    80 (3") ÷ 150 (6")     |
| Max. allowed P    | 40 bar (DN 8÷11); 16 bar (DN 15÷50); 10 bar (DN 65÷100); 6 bar (DN 125÷150).   |
| Min. allowed P    | 0 bar  |
| Connections       | Butt welding; flanged; (MM GAS on demand)  |
| Seal              | PTFE                      EPDM, PTFE-coated EPDM, PTFE   |
| Max temperature   | +150 °C with EPDM seal   |
|                   | +155° with PTFE-coated EPDM seal   |
| Min. temperature  | +140 °C.                      +200 °C with PTFE seal   |
| Min. temperature  | -10°C (in liquid phase)  |
| Air couplings     | RILSAN quick coupling Ø 6-4 mm.  |
| Feeding fluid     | instrument air   |
| Feeding pressure  | 6 – 8 bar  |
| Optional          | inductive or magnetic sensors; pneumatic or electromechanical limit switches; stroke limit switches; solenoid valves |
| MATERIALS         |  |
| Body material     | CF8M   |
| Intermediate body | CF8M                      CF8 + S31600 + S30400  |
| Stem              | S31600   |
| Shutter plate     | S31600   |
| Seat seal         | PTFE                      EPDM, PTFE-coated EPDM, PTFE   |
| Stem seal         | PTFE+GRAPHITE-LOADED PTFE  |
| Body gaskets      | PTFE (DN 8#11) / NOVATEC or GRAPHITE+KEVLAR (DN 15#150)  |
| Servo Control     | S30400   |

### Air consumption table

| CONTROL PRESSURE | AIR CONSUMPTION OF IVS SERIES VALVES [ NI / cycle] |                    |                    |                     |                     |
|------------------|--|--------------------|--------------------|---------------------|---------------------|
|                  | Servo control Ø 32                                 | Servo control Ø 70 | Servo control Ø 80 | Servo control Ø 125 | Servo control Ø 160 |
| 6 bar            | 0.087  | 0.824              | 1.182              | 4.982               | 12.667              |

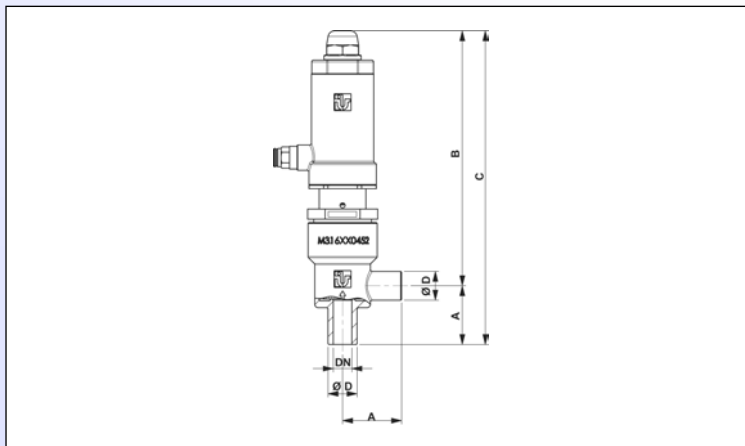
### Table Δp of sealing (bar) for N.C. valves - without air supply.

| Ø Servo c. | DN 8     | DN 11 | DN 15 | DN 20 | DN 25 | DN 32 | DN 40 | DN 50 | DN 65 | DN 80 | DN 100 | DN 125 | DN 150 |
|------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 32         | 20       | 12    | 7     | 4     |       |       |       |       |       |       |        |        |        |
| 70         | reduced  |       | 5     | 5     | 3.5   |       |       |       |       |       |        |        |        |
|            | standard |       | 16    | 14    | 9.5   |       |       |       |       |       |        |        |        |
| 80         | reduced  |       |       |       |       | 3.2   | 2.3   | 1.5   |       |       |        |        |        |
|            | standard |       |       |       |       | 16    | 14    | 10    | 6.5   |       |        |        |        |
| 125        | reduced  |       |       |       |       |       |       |       | 3     | 2.5   | 1.6    |        |        |
|            | standard |       |       |       |       |       |       | 14    | 16    | 9.5   | 6.5    | 3      |        |
| 160        | reduced  |       |       |       |       |       |       |       |       |       |        | 1.1    | 0.75   |
|            | standard |       |       |       |       |       |       |       |       | 7.5   | 4.5    | 3.5    | 2.5    |
|            | enhanced |       |       |       |       |       |       |       |       | 10    | 6      | 5.5    | 3.7    |

**IVS valve dimensions - Ø 32 servo control**

| DN          | 8<br>1/4" | 11<br>3/8" | 15<br>1/2" | 20<br>3/4" |
|-------------|-----------|------------|------------|------------|
| A           | 35        | 35         | 68         | 68         |
| B           | 152       | 151        | 169,5      | 169,5      |
| C           | 187       | 186        | 237,5      | 237,5      |
| Ø D         | 13,7      | 17,2       | 21,3       | 26,9       |
| Kv [ m³/h ] | 1,8       | 3,2        | 9          | 9          |

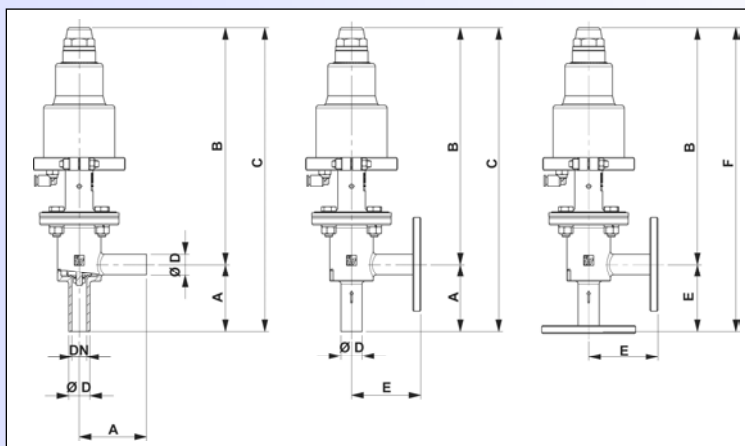
Dimensions are in mm



**IVS valve dimensions - Ø 70 and Ø 80 servo control**

| DN          | 15<br>1/2" | 20<br>3/4" | 25<br>1" | 32<br>1 1/4" | 40<br>1 1/2" | 50<br>2" |
|-------------|------------|------------|----------|--------------|--------------|----------|
| Ø SERV.     | 70         | 70         | 70       | 80           | 80           | 80       |
| A           | 68         | 68         | 78       | 88           | 98           | 113      |
| B           | 245        | 245        | 245      | 263          | 270          | 297      |
| C           | 313        | 313        | 323      | 341          | 358          | 410      |
| Ø D         | 21,3       | 26,9       | 33,7     | 42,4         | 48,3         | 60,3     |
| E           | 70         | 70         | 80       | 90           | 100          | 115      |
| F           | 315        | 315        | 325      | 343          | 360          | 412      |
| Kv [ m³/h ] | 6          | 11,2       | 17,7     | 26,2         | 37,9         | 54,1     |

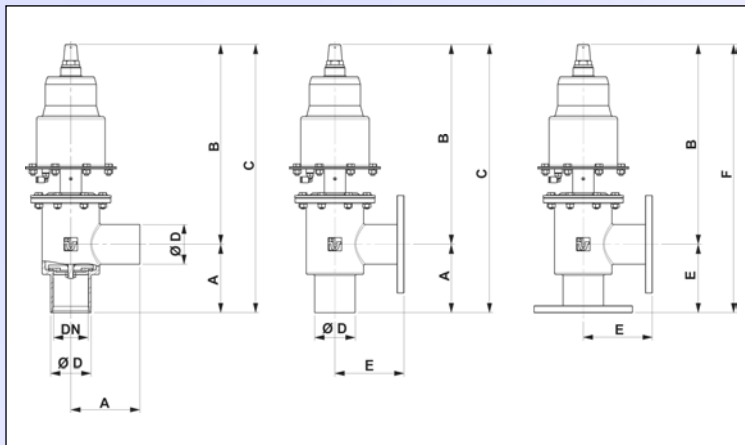
Dimensions are in mm



**IVS valve dimensions - Ø 125 servo control**

| DN          | 40<br>1 1/2" | 50<br>2" | 65<br>2 1/2" | 80<br>3" | 100<br>4" |
|-------------|--------------|----------|--------------|----------|-----------|
| A           | 98           | 113      | 130          | 135      | 148       |
| B           | 366          | 385      | 392          | 402      | 426       |
| C           | 464          | 498      | 522          | 537      | 574       |
| Ø D         | 48,3         | 60,3     | 76,1         | 89       | 114,3     |
| E           | 100          | 115      | 130          | 135      | 150       |
| F           | 466          | 500      | 522          | 537      | 575       |
| Kv [ m³/h ] | 53,9         | 69,7     | 65           | 121,5    | 185,2     |

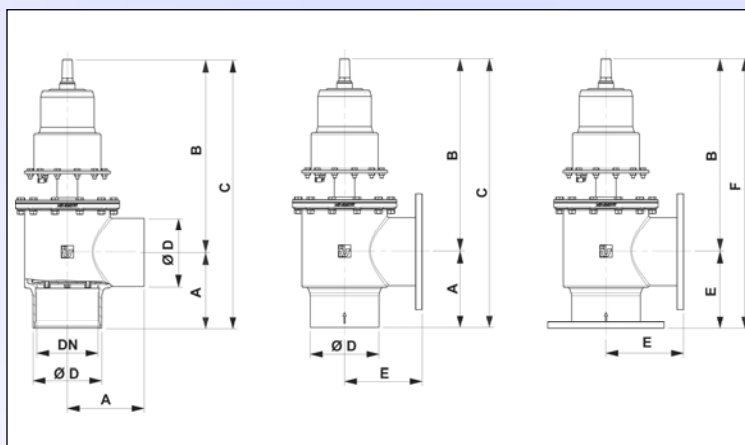
Dimensions are in mm



**IVS valve dimensions - Ø 160 servo control**

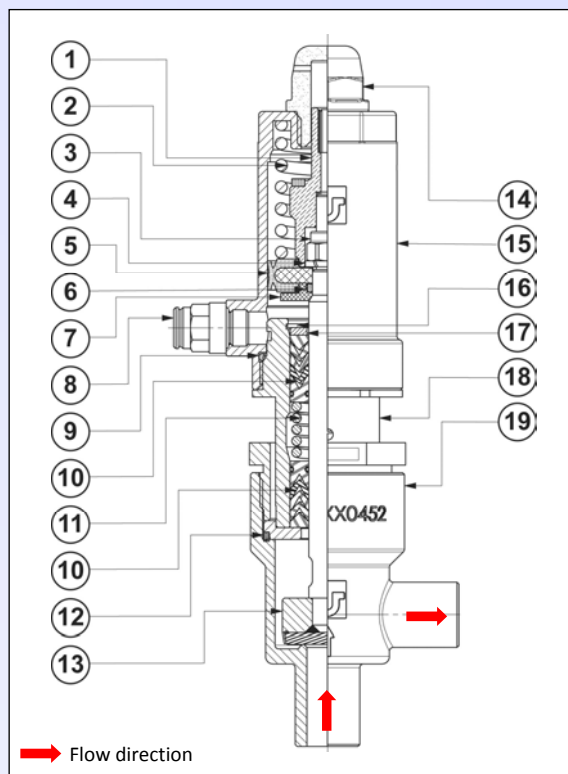
| DN          | 80<br>3" | 100<br>4" | 125<br>5" | 150<br>6" |
|-------------|----------|-----------|-----------|-----------|
| A           | 135      | 148       | 135       | 148       |
| B           | 448,5    | 475       | 458       | 475       |
| C           | 583,5    | 623       | 593       | 623       |
| Ø D         | 89       | 114,3     | 139,7     | 168,3     |
| E           | 135      | 150       | 165       | 190       |
| F           | 583,5    | 625       | 623       | 665       |
| Kv [ m³/h ] | 155      | 225       | 355       | 411       |

Dimensions are in mm



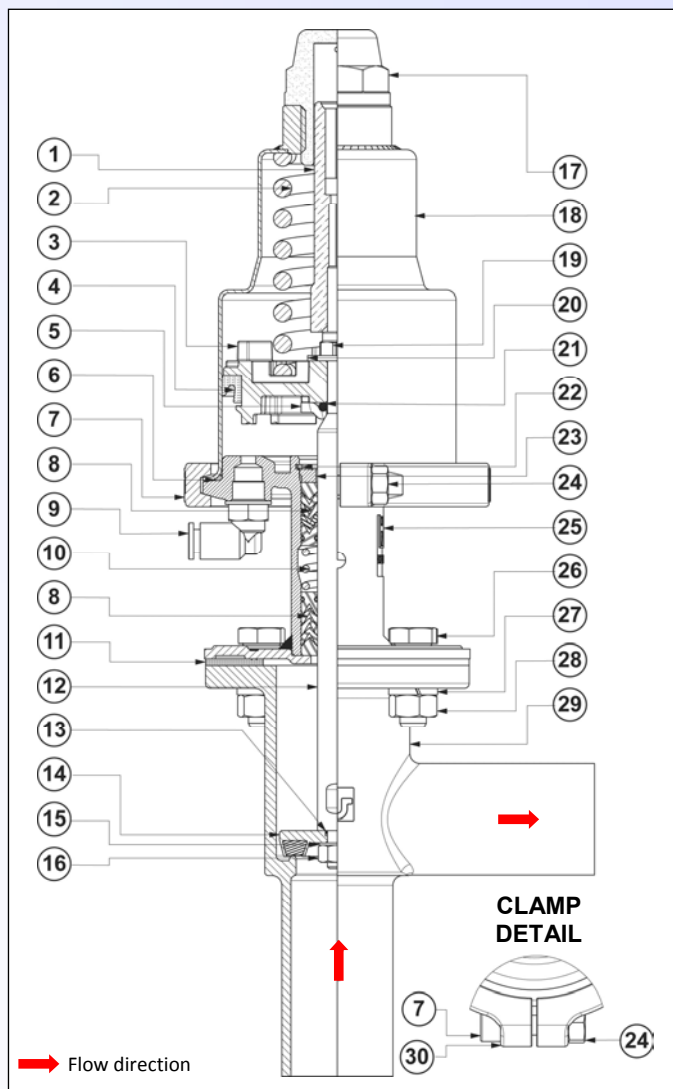
**Table of Ø 32 servo control IVS components**

| REF | DESCRIPTION             |
|-----|-------------------------|
| 1   | Stroke indicator        |
| 2   | Servo control spring    |
| 3   | Self- locking nut       |
| 4   | Spring washer           |
| 5   | NADUOP piston           |
| 6   | Or gasket               |
| 7   | Piston bearing washer   |
| 8   | Air inlet fitting       |
| 9   | Or gasket               |
| 10  | Packing gland           |
| 11  | Packing gland spring    |
| 12  | Body gasket             |
| 13  | Shaft with shutter      |
| 14  | Transparent cap         |
| 15  | Spring housing cylinder |
| 16  | Seeger ring             |
| 17  | Distance ring washer    |
| 18  | Intermediate body       |
| 19  | Valve body              |



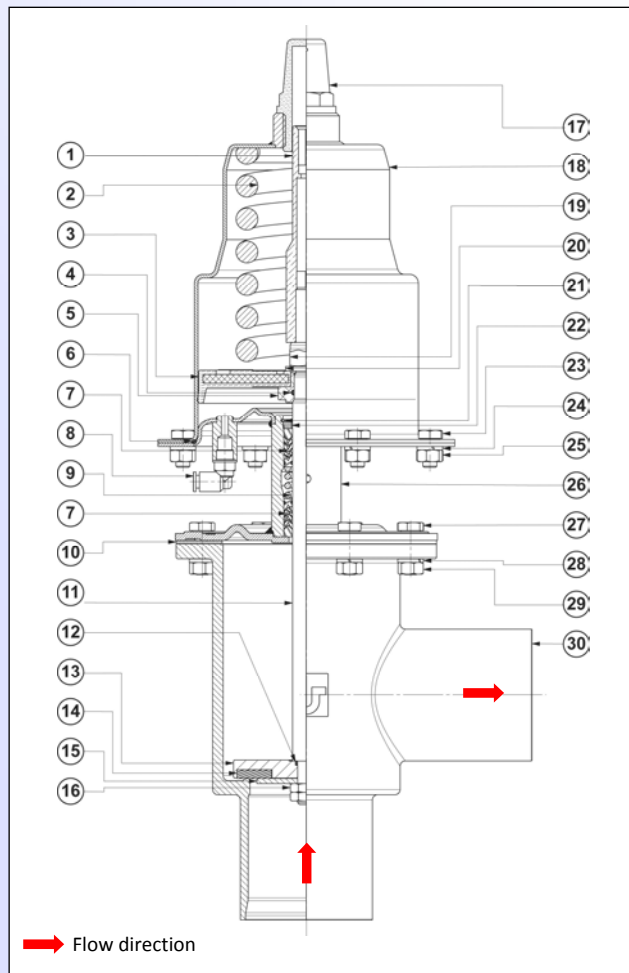
**Table of Ø 70-80 servo control IVS components**

| REF | DESCRIPTION             |
|-----|-------------------------|
| 1   | Stroke indicator        |
| 2   | Servo control spring    |
| 3   | Piston                  |
| 4   | DE gasket               |
| 5   | Piston bearing washer   |
| 6   | Or gasket               |
| 7   | Clamp                   |
| 8   | Packing gland           |
| 9   | Air inlet fitting       |
| 10  | Packing gland spring    |
| 11  | Body gasket             |
| 12  | Shaft                   |
| 13  | Or gasket               |
| 14  | Plug holder with plug   |
| 15  | Safety washer           |
| 16  | Hexagon nut             |
| 17  | Transparent cap         |
| 18  | Spring housing cylinder |
| 19  | Self- locking nut       |
| 20  | Flat washer             |
| 21  | Or gasket               |
| 22  | Seeger ring             |
| 23  | Distance ring washer    |
| 24  | Hexagon nut             |
| 25  | Intermediate body       |
| 26  | Hexagon head screw      |
| 27  | Spring washer           |
| 28  | Hexagon nut             |
| 29  | Valve body              |
| 30  | Cylinder head screw     |



**Table of Ø 125 servo control IVS components**

| REF | DESCRIPTION             |
|-----|-------------------------|
| 1   | Stroke indicator        |
| 2   | Servo control spring    |
| 3   | TDUOP piston            |
| 4   | Or gasket               |
| 5   | Piston bearing washer   |
| 6   | Or gasket               |
| 7   | Packing gland           |
| 8   | Air inlet fitting       |
| 9   | Packing gland spring    |
| 10  | Body gasket             |
| 11  | Shaft                   |
| 12  | Or gasket               |
| 13  | Cap holder              |
| 14  | Cap                     |
| 15  | Cap stop washer         |
| 16  | Hexagon nut             |
| 17  | Transparent cap         |
| 18  | Spring housing cylinder |
| 19  | Self- locking nut       |
| 20  | Flat washer             |
| 21  | Seeger ring             |
| 22  | Distance ring washer    |
| 23  | Hexagon head screw      |
| 24  | Spring washer           |
| 25  | Hexagon nut             |
| 26  | Intermediate body       |
| 27  | Hexagon head screw      |
| 28  | Spring washer           |
| 29  | Hexagon nut             |
| 30  | Valve body              |



**Table of Ø 160 servo control IVS components**

| REF | DESCRIPTION             |
|-----|-------------------------|
| 1   | Stroke indicator        |
| 2   | Servo control spring    |
| 3   | Self- locking nut       |
| 4   | Spring-holding plate    |
| 5   | TDUOP piston            |
| 6   | Piston bearing washer   |
| 7   | Or gasket               |
| 8   | Spring washer           |
| 9   | Packing gland           |
| 10  | Air inlet fitting       |
| 11  | Packing gland spring    |
| 12  | Body gasket             |
| 13  | Shaft with plug holder  |
| 14  | Cap                     |
| 15  | Cap stop washer         |
| 16  | Hexagon nut             |
| 17  | Transparent cap         |
| 18  | Spring housing cylinder |
| 19  | Seeger ring             |
| 20  | Distance ring washer    |
| 21  | Hexagon head screw      |
| 22  | Hexagon nut             |
| 23  | Intermediate body       |
| 24  | Hexagon head screw      |
| 25  | Spring washer           |
| 26  | Hexagon nut             |
| 27  | Valve body              |

