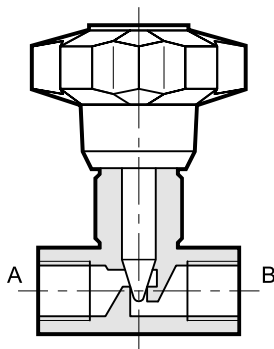


**RS\*****DOUBLE-ACTING THROTTLE  
FLOW CONTROL VALVE  
SERIES 30****THREADED PORTS  
CARTRIDGE TYPE****p** max (see table of performances)**Q** max (see table of performances)**OPERATING PRINCIPLE**

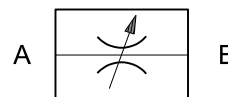
- The RS\* and RS\*-I valves are throttle flow control valves for in-line mounting, directly in the line or as a cartridge complete with threading for in-block mounting.
- Adjustment is obtained with a conical throttle that operates in a cylindrical seat and allows a good linearity of the adjusted flow.
- They are also used as flow shut-off valves since they guarantee good sealing when completely closed.
- The valves are always supplied with an adjustment knob that can be locked in any position with a transverse positioned grub screw, as may be required.

**PERFORMANCES** (obtained with mineral oil with viscosity of 36 cSt at 50°C)

| Valve code | Port dimensions<br>BSP | Nominal flow rate<br>[l/min] | Mass<br>[kg] | Max. operating pressure<br>[bar] |
|------------|------------------------|------------------------------|--------------|----------------------------------|
| RS2        | 1/4"                   | 15                           | 0,2          | 400                              |
| RS3        | 3/8"                   | 30                           | 0,4          |                                  |
| RS4        | 1/2"                   | 50                           | 0,6          |                                  |
| RS5        | 3/4"                   | 80                           | 1,3          |                                  |
| RS6        | 1"                     | 150                          | 2,6          | 320                              |
| RS7        | 1 1/4"                 | 200                          | 3,0          |                                  |
| RS8        | 1 1/2"                 | 220                          | 4,2          |                                  |

|       |   |     |      |     |
|-------|---|-----|------|-----|
| RS2-I | — | 15  | 0,15 | 320 |
| RS3-I | — | 30  | 0,2  |     |
| RS4-I | — | 50  | 0,3  |     |
| RS5-I | — | 80  | 0,6  |     |
| RS6-I | — | 150 | 1,2  |     |

|                            |                                           |           |
|----------------------------|-------------------------------------------|-----------|
| Ambient temperature range  | °C                                        | -20 / +50 |
| Fluid temperature range    | °C                                        | -20 / +80 |
| Fluid viscosity range      | cSt                                       | 10 ÷ 400  |
| Fluid contamination degree | According to ISO 4406:1999 class 20/18/15 |           |
| Recommended viscosity      | cSt                                       | 25        |

**HYDRAULIC SYMBOL**

Архангельск (8182)63-90-72  
Астана (7172)727-132  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89  
Иваново (4932)77-34-06

Ижевск (3412)26-03-58  
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Смоленск (4812)29-41-54  
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Ставрополь (8652)20-65-13

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Тверь (4822)63-31-35  
Томск (3822)98-41-53  
Тула (4872)74-02-29  
Тюмень (3452)66-21-18  
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Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

Россия (495)268-04-70

Казахстан (772)734-952-31

## 1 - IDENTIFICATION CODE

Throttle flow control valve

Nominal dimension:

|                 |                   |
|-----------------|-------------------|
| <b>2</b> = 1/4" | <b>5</b> = 3/4"   |
| <b>3</b> = 3/8" | <b>6</b> = 1"     |
| <b>4</b> = 1/2" | <b>7</b> = 1 1/4" |
|                 | <b>8</b> = 1 1/2" |

|          |          |  |          |  |          |           |          |  |
|----------|----------|--|----------|--|----------|-----------|----------|--|
| <b>R</b> | <b>S</b> |  | <b>-</b> |  | <b>/</b> | <b>30</b> | <b>/</b> |  |
|----------|----------|--|----------|--|----------|-----------|----------|--|

Seals:  
omit for mineral oils  
**V** = viton for special fluids

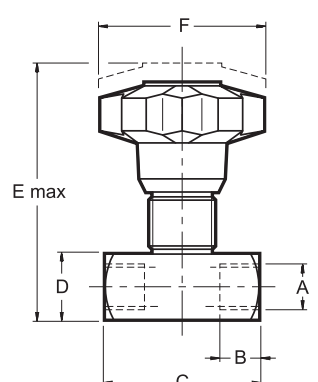
Series No. (the overall and mounting dimensions remain unchanged from 30 to 39)

**I** = In-block cartridge version, available only in dimensions 2-3-4-5-6  
Omit for version with threaded ports

## 2 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals. For fluids HFDR type (phosphate esters) use FPM seals (code V). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department. Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics. The fluid must be preserved in its physical and chemical characteristics.

## 3 - OVERALL AND MOUNTING DIMENSIONS RS\*

|                  |                                                                                    |            |          |      |     |     |          |     |
|------------------|------------------------------------------------------------------------------------|------------|----------|------|-----|-----|----------|-----|
| dimensions in mm |  | Valve      | A<br>BSP | B    | C   | ∅ D | E<br>max | ∅ F |
|                  |                                                                                    | <b>RS2</b> | 1/4"     | 12,5 | 49  | 20  | 78       | 50  |
|                  |                                                                                    | <b>RS3</b> | 3/8"     | 12,5 | 59  | 25  | 93       | 70  |
|                  |                                                                                    | <b>RS4</b> | 1/2"     | 15,5 | 68  | 30  | 107      | 80  |
|                  |                                                                                    | <b>RS5</b> | 3/4"     | 17   | 86  | 40  | 132,5    | 100 |
|                  |                                                                                    | <b>RS6</b> | 1"       | 20   | 105 | 50  | 167,5    | 120 |
|                  |                                                                                    | <b>RS7</b> | 1 1/4"   | 22   | 120 | 55  | 172,5    | 120 |
|                  |                                                                                    | <b>RS8</b> | 1 1/2"   | 24   | 134 | 65  | 181      | 120 |

## 4 - OVERALL AND MOUNTING DIMENSIONS RS\*-I

dimensions in mm

\* "BONDED SEAL"  
seal excluded from the supply

| valve | ØF  | G<br>max | H    | L<br>6H | ØM<br>+ 0.2<br>0 | N   | P<br>min | R<br>±0.2 | S<br>+ 0.2<br>0 | ØT<br>H8 | ØU<br>max | V<br>±0.2 | Z<br>min | CH | OR<br>type | BK<br>type | BS*<br>type |
|-------|-----|----------|------|---------|------------------|-----|----------|-----------|-----------------|----------|-----------|-----------|----------|----|------------|------------|-------------|
| RS2-I | 50  | 49.5     | 26.5 | M20x1.5 | 27               | 1   | 12       | 16.5      | 1               | 14       | 5         | 13.3      | 27       | 27 | 2043       | 2043       | 400-513     |
| RS3-I | 70  | 57.5     | 30.5 | M20x1.5 | 27               | 1   | 12       | 20        | 1.2             | 16       | 8         | 15.2      | 32       | 27 | 2050       | 2050       | 400-513     |
| RS4-I | 80  | 66.5     | 40   | M27x2   | 33               | 1.3 | 18       | 28        | 1.2             | 19       | 10        | 22        | 41       | 32 | 2062       | 2062       | 400-520     |
| RS5-I | 100 | 76.5     | 44   | M33x2   | 40               | 1.3 | 18       | 30.5      | 1.2             | 27       | 12        | 23        | 45.5     | 41 | 130        | 130        | 400-515     |
| RS6-I | 120 | 102      | 52.5 | M42x2   | 50               | 1.3 | 21.5     | 36.5      | 1.5             | 35       | 16        | 28.5      | 55       | 50 | 3118       | 3118       | 400-516     |

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