



**DIPLOMATIC**  
HYDRAULICS

31 200/103 ED



# RS\*

## DOUBLE-ACTING THROTTLE FLOW CONTROL VALVE SERIES 30

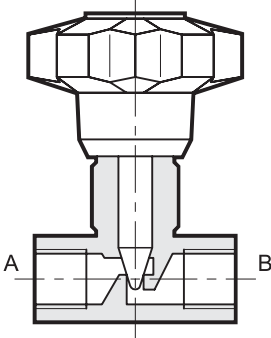
**THREADED PORTS**

**CARTRIDGE TYPE**

**p** max (see technical specifications table)

**Q** max (see technical specifications table)

### OPERATING PRINCIPLE

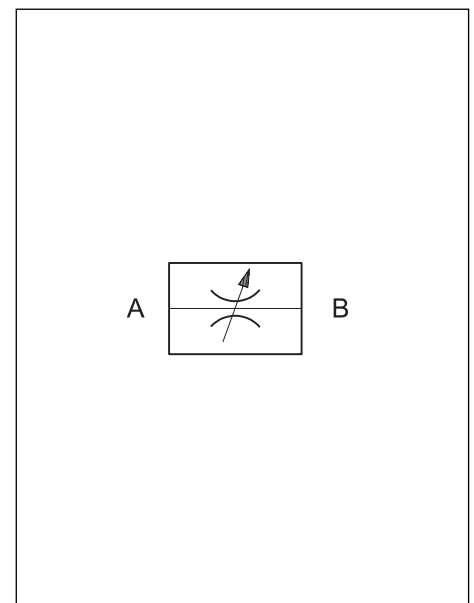


- The RS\* and RS\*-I valves are throttle flow control valves for in-line mounting, directly in the line or as a cartridge complete with threading for in-block mounting.
- Adjustment is obtained with a conical throttle that operates in a cylindrical seat and allows a good linearity of the adjusted flow.
- 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.

### TECHNICAL SPECIFICATIONS (obtained with mineral oil with viscosity of 36 cSt at 50°C)

Valve code	Port dimensions BSP	Nominal flow rate [l/min]	Mass [kg]	Max. operating pressure [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	

### HYDRAULIC SYMBOL



Ambient temperature range	°C	-20 ÷ +50
Fluid temperature range	°C	-20 ÷ +80
Fluid viscosity range	cSt	10 ÷ 400
Recommended viscosity	cSt	25
Degree of fluid contamination	According to NAS 1638 class 10	



**1 - IDENTIFICATION CODE**

	<b>R</b>	<b>S</b>	-	/	<b>30</b>	/	
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Throttle flow control valve

Nominal dimension:  
 2 = 1/4"    5 = 3/4"  
 3 = 3/8"    6 = 1"  
 4 = 1/2"    7 = 1.1/4"  
 8 = 1.1/2"

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, with the addition of suitable anti-frothing and anti-oxidizing agents. For the use of other types (water glycol, phosphate esters and others), please consult our technical department.

**3 - OVERALL AND MOUNTING DIMENSIONS**

RS+

RS\*-I

dimensions in mm

dimensions in mm

Valve	A BSP	B	C	∅ D	E max	∅ F
RS2	1/4"	12,5	49	20	78	50
RS3	3/8"	12,5	59	25	93	70
RS4	1/2"	15,5	68	30	107	80
RS5	3/4"	17	86	40	132,5	100
RS6	1"	20	105	50	167,5	120
RS7	1.1/4"	22	120	55	172,5	120
RS8	1.1/2"	24	134	65	181	120

\* "BONDED SEAL" seal excluded from the supply

Valve	∅ F	G max	H	L 6H	∅ M +0.2 0	N	P min	R ±0.2	S +0.2 0	∅ T H8	∅ U max	V ±0.2	Z min	CH	OR type	BK type	BS* 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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