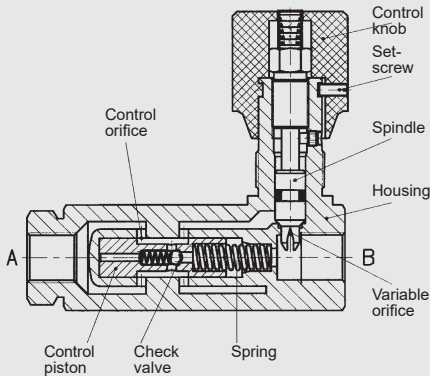


up to 160 l/min
up to 210 bar

2-Way Flow Regulator Pressure Compensated Direct-acting Inline and Manifold Mounted – 210 bar SRVR / SRVRP 08 to 20

FUNCTION



The SRVR / SRVRP is a pressure-compensated flow control valve which maintains a constant outlet flow by means of a control function. The flow rate is largely independent of the pressure and viscosity. The valve has a variable orifice with pressure compensator spool. The variable orifice determines the flow cross section. If oil is flowing from A to B, a pressure drop occurs at the variable orifice. The pressure compensator moves into the control position which corresponds to the force equilibrium. This is created by the pressure drop acting on the control piston area and overcoming the spring force.

As the flow rate increases (increasing pressure drop), the diameter of the control orifice is reduced until the forces are equal again. A constant flow rate from A to B is therefore achieved. In the reverse direction there is free flow via a built-in check valve. **Important:** if the required control pressure differential is not reached, the valve operates as a non-compensated throttle valve.

FEATURES

- For regulating the speed of loads independently of the pressure
- For limiting the max. speed of lifting gear
- For limiting the flow rate for control oil circuits in the main circuit and offline
- Choice of five sizes for optimum adaptability to the system
- Space-saving installation
- Optional nickel-plated version available (SRVR-10 to 16, SRVRP-10 and 12)

SPECIFICATIONS*

Operating pressure:	max. 210 bar	
Nominal flow:	SRVR / SRVRP08 up to max. 12 l/min SRVR / SRVRP10 up to max. 22 l/min SRVR / SRVRP12 up to max. 55 l/min SRVR / SRVRP16 up to max. 90 l/min SRVR 20 up to max. 160 l/min	
Media operating temperature range:	min. -20 °C to max. +80 °C	
Ambient temperature range:	min. -20 °C to max. +80 °C	
Operating fluid:	Hydraulic oil to DIN 51524 Part 1, 2 and 3	
Viscosity range:	min. 2.8 mm ² /s to max. 800 mm ² /s	
Filtration:	Class 19/17/14 according to ISO 4406 or cleaner	
MTTF _d :	150 - 1200 years, according to DIN EN ISO 13849-1	
Installation:	No orientation restrictions, preferably horizontal	
Materials:	Valve body: steel Piston: hardened and ground steel Seals: FKM	
Weight:	SRVR-08 = 0.6 kg SRVRP-08 = 0.9 kg SRVR-10 = 0.9 kg SRVRP-10 = 1.4 kg SRVR-12 = 1.7 kg SRVRP-12 = 2.3 kg SRVR-16 = 2.2 kg SRVRP-16 = 3.3 kg SRVR-20 = 4.0 kg	

* see "Conditions and instructions for valves" in brochure 53.000

MODEL CODE

SRVR – 10 – 01 . X / 0

Basic model

SRVR = flow control valve for inline mounting with bypass check valve

SRVRP = flow control valve for manifold mounting with bypass check valve

Nominal size

08, 10, 12, 16,
20 (SRVR only)

Type

01 = standard, casing phosphated
12 = casing nickel-plated, seals FKM with protective dome nut – adjustment with tool (only SRVR-10 to 16 and SRVRP-10 and 12)

Other types on request

Series

determined by manufacturer

Threaded connection (SRVR only)

0 = BSP thread, threaded connection Form X to DIN 3852 Part 2
5 = NPTF thread

Note:

Spindle slightly open on delivery.

Standard models

Model code	Part No.
SRVR-08-01.X/0	706067
SRVR-10-01.X/0	706075
SRVR-12-01.X/0	706083
SRVR-16-01.X/0	706091
SRVR-20-01.X/0	706115
SRVRP-08-01.X	706151
SRVRP-10-01.X	706153
SRVRP-12-01.X	706155
SRVRP-16-01.X	706157

Other models on request

Seal kits

Code	Part No.
SEAL KIT 08FKM DV/P DRV/P DVE RVP SRVR/P	555090
SEAL KIT 10FKM DV/P DRV/P DVE RVP SRVR/P	555091
SEAL KIT 12FKM DV/P DRV/P DVE RVP SRVR/P	555092
SEAL KIT 16FKM DV/P DRV/P DVE RVP SRVR/P	555093
SEAL KIT 20FKM DV/P DRV/P RVP SRVR	555094

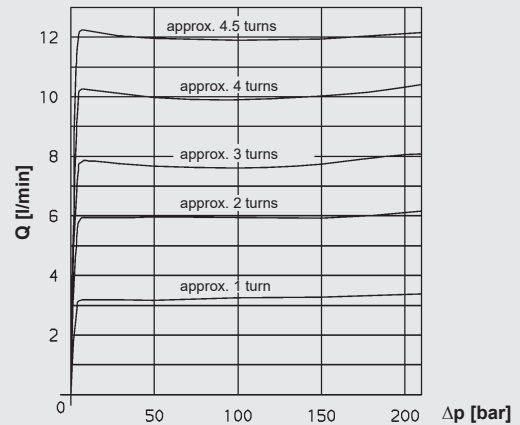
TYPICAL PERFORMANCE

Flow rate, pressure-dependent

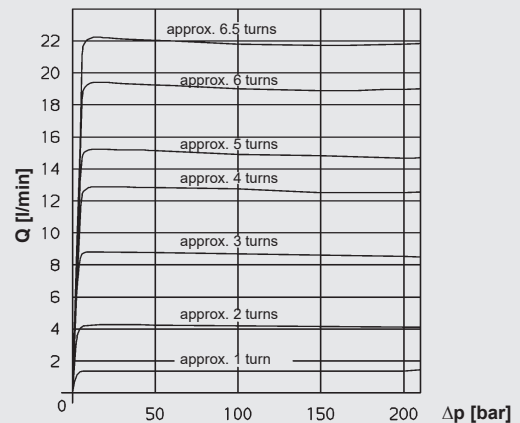
Flow direction A to B

Q- Δp curve measured at $v = 34 \text{ mm}^2/\text{s}$ and $t_{oil} = 46 \text{ }^\circ\text{C}$

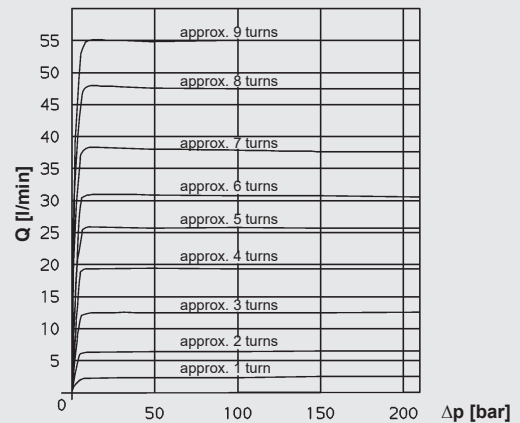
SRVR / SRVRP-08-01.X



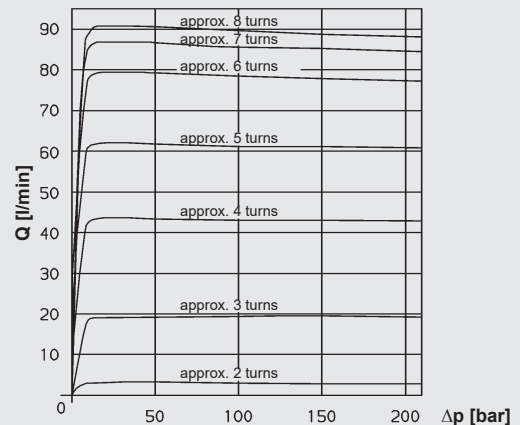
SRVR / SRVRP-10-01.X



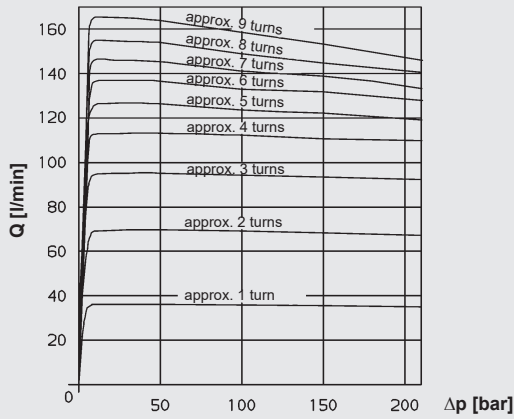
SRVR / SRVRP-12-01.X



SRVR / SRVRP-16-01.X



SRVR-20-01.X

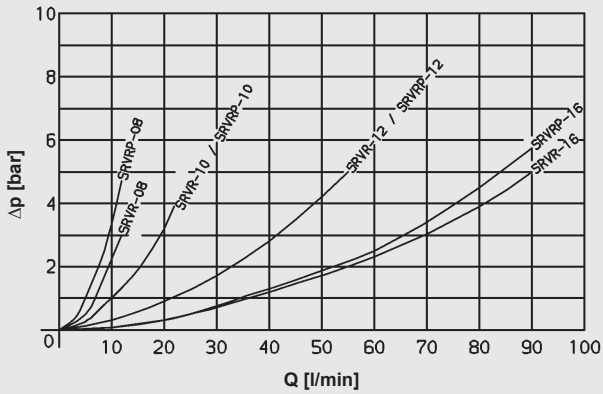


Pressure drops, dependent on flow rate

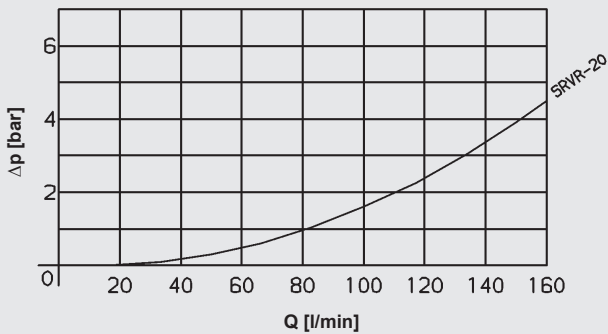
Flow direction from B to A

Pressure differential Δp dependent on flow rate Q via variable orifice and check valve (SRVR / SRVRP) with fully open spindle measured at $v = 34 \text{ mm}^2/\text{s}$ and $t_{\text{oil}} = 46 \text{ }^\circ\text{C}$

SRVR/SRVRP, Nominal sizes 8-16



SRVR, Nominal size 20

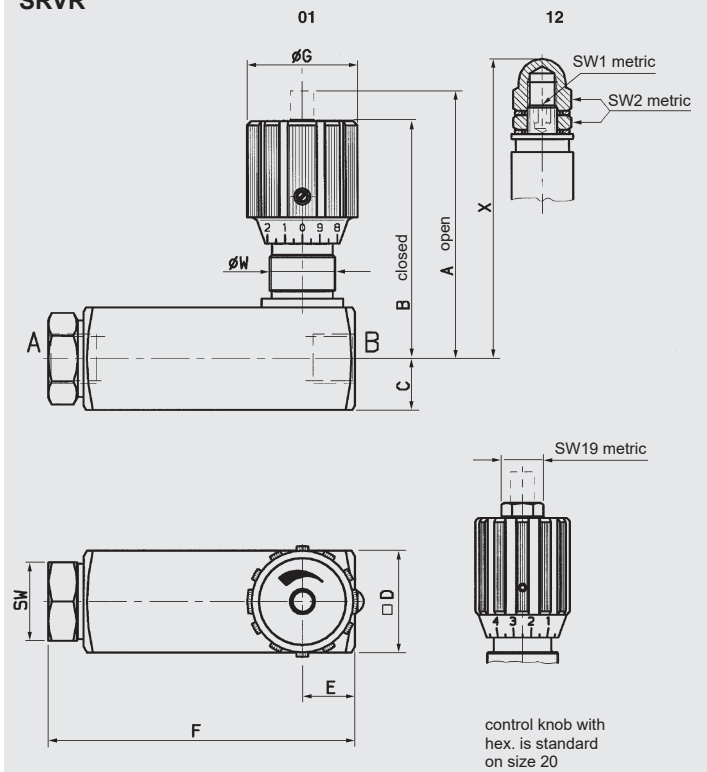


Flow rate / Operating pressure ranges

Nominal size	Flow rate (l/min)	Required control pressure differential $\Delta p = p_1 - p_2$ (bar)
08	12	7
10	22	7
12	55	7
16	90	7
20	160	12

DIMENSIONS

SRVR

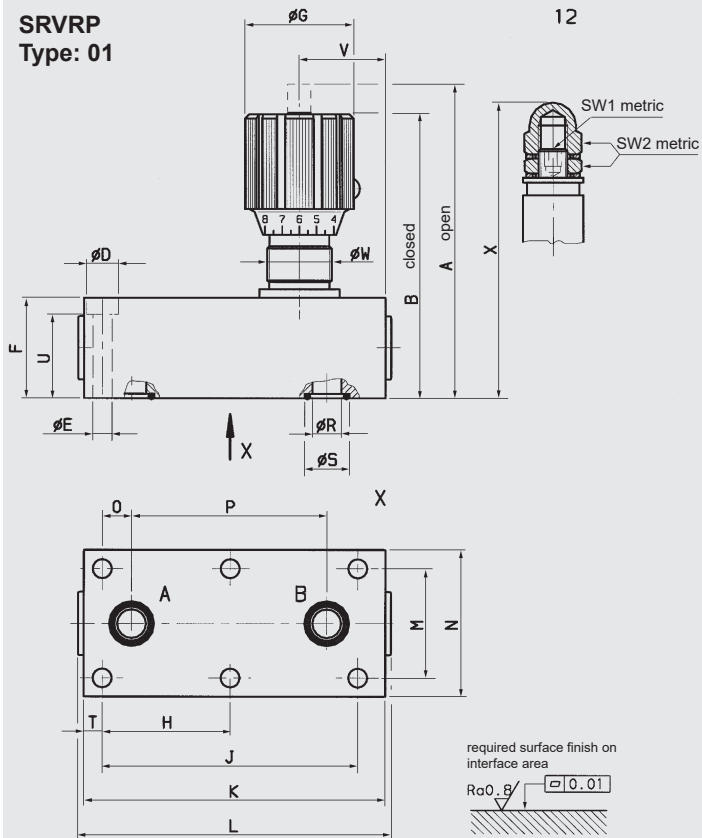


Size	Threaded connection	A	B	C	D	E	F	G
08	G 1/4	76	68	15	30	17.5	92	29
10	G 3/8	91	81.5	17.5	35	18	105	38
12	G 1/2	106.5	96.5	22.5	45	21	125	38
16	G 3/4	109	100	25	50	26	140	38
20	G 1	150	134	30	60	33	175	49

	W	SW	SW1	SW2	X	Weight (kg)
PG11		24	-	-	-	0.60
PG16		27	5	17	85.5	0.90
PG16		32	6	19	104.5	1.70
PG16		41	6	19	107	2.20
PG29		50	-	-	-	4.00

DIMENSIONS

SRVRP
Type: 01



NOTE

The information in this brochure relates to the operating conditions and applications described. For applications and operating conditions not described, please contact the relevant technical department. Subject to technical modifications.

Size	A	B	D	E	F	G	H	J	K	L
08	91	83	11	6.6	30	29	-	73	86	89
10	108.5	99	11	6.6	35	38	-	89	105	107.5
12	129	119	11	6.6	45	38	-	105	118	121.5
16	134	125	15	9	50	38	62	124	145	145.5

M	N	O	P	R	S	T	U	V	W	SW1	SW2	X	Weight [kg]
33.5	45	9.5	54	7.5	12.7	6.5	23	22.5	PG11	-	-	-	0.85
38	51	10.2	68	10	15.6	6.4	28	30	PG16	5	17	103	1.40
44.5	60	12.5	79	13	18.6	6.5	38	29.5	PG16	6	19	127	2.30
54	70	16	92	17	24.5	10.5	41	39	PG16	-	-	-	3.30