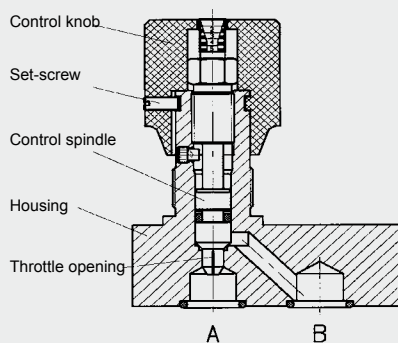


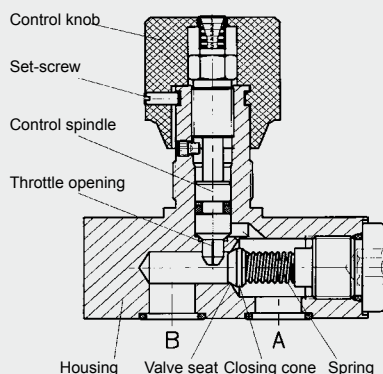
Up to 300 l/min
Up to 350 bar

FUNCTION

DVP



DRVP



The DVP is a manifold mounted flow control valve which controls the flow rate by adjusting the cross-section. The flow rate is therefore dependent on the pressure differential and viscosity. Starting with the throttle spindle in the fully closed position, the flow rate increases in accordance with the appropriate curve as the control knob is turned. The flow is controlled in both directions. The scale and coloured rings on the top of the control knob enable accurate repeat setting. The DRVP is a manifold mounted flow control valve which allows the same fine flow adjustment, but in one direction only. Unrestricted flow in the reverse direction is via the built-in check valve (cracking pressure 0.5 bar).

Needle Valves with and without Reverse Flow Check Direct-Acting Manifold Mounted – 350 bar DVP, DRVP 06 to 40

FEATURES

- For regulating the speed of loads
- For fine adjustment and shut-off of the flow
- For system-related damping in hydraulic circuits
- To release pressure from accumulator systems
- As an emergency drain for lowering a load
- High level of safety provided by patented spindle safety mechanism
- A set-screw locks the setting
- Choice of nine sizes ensures best possible adaptability to the system
- Hardened and ground valve components to ensure minimal wear and extended service life
- Optional nickel-plated version available (up to size 12)

SPECIFICATIONS

Operating pressure:	max. 350 bar	
Nominal flow:	DVP, DRVP-06	max. 20 l/min
	DVP, DRVP-08	max. 50 l/min
	DVP, DRVP-10	max. 60 l/min
	DVP, DRVP-12	max. 90 l/min
	DVP, DRVP-16	max. 180 l/min
	DVP, DRVP-20	max. 300 l/min
	DVP, DRVP-25	max. 300 l/min
	DVP, DRVP-30	max. 300 l/min
	DRVP-40	max. 300 l/min
Cracking pressure (on DRVP):	0.5 bar	
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 and 2	
Viscosity range:	min. 2.8 mm ² /s to max. 800 mm ² /s	
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner	
MTTF _d :	150 years (see "Conditions and instructions for valves" in brochure 5.300)	
Installation:	No orientation restrictions, preferably horizontal	
Materials:	Valve body:	steel
	Piston:	hardened and ground steel
	Seals:	FKM (standard)
	Back-up rings:	PTFE
Weight:	DVP 06 = 0.2 kg	DRVP 06 = 0.3 kg
	DVP 08 = 0.4 kg	DRVP 10 = 0.8 kg
	DVP 10 = 0.6 kg	DRVP 12 = 1.1 kg
	DVP 12 = 1.0 kg	DRVP 16 = 2.5 kg
	DVP 16 = 1.7 kg	DRVP 25 = 6.7 kg
	DVP 20 = 3.6 kg	DRVP 30 = 3.9 kg
	DVP 25 = 5.5 kg	DRVP 40 = 17.5 kg
	DVP 30 = 7.5 kg	

MODEL CODE

DRVP - 08 - 01 . X

Basic model

Needle valve DVP

Needle valve with check valve DRVP

Nominal size

06, 08, 10, 12, 16, 20, 25, 30

Type

01 = standard

(housing phosphated, seals FKM)

12 = housing nickel-plated, fine throttle spindle in steel,
with protective dome nut - adjustment with tool
(not for size 40)

Other types on request

Series

(determined by manufacturer)

Standard models

Code	Part No.
DVP-06-01.X	705351
DVP-08-01.X	705353
DVP-10-01.X	705355
DVP-12-01.X	705357
DVP-16-01.X	705359
DVP-20-01.X	705361
DVP-25-01.X	705363
DVP-30-01.X	705365
DRVP-06-01.X	705777
DRVP-08-01.X	705779
DRVP-10-01.X	705781
DRVP-12-01.X	705783
DRVP-16-01.X	705785
DRVP-20-01.X	705787
DRVP-25-01.X	705789
DRVP-30-01.X	705791
DRVP-40-01.X	705792

Other models on request

Seal kits

Code	Part No.
SEAL KIT 06FKM DV/P DRV/P RVP	555089
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
SEAL KIT 25FKM DV/P DRV/P RVP	555095
SEAL KIT 30FKM DV/P DRV/P RVP	555096
SEAL KIT 40FKM DV/P DRV/P RVP	561456

PERFORMANCE

Pressure drop, dependent on flow rate

DVP = flow direction A → B and B → A

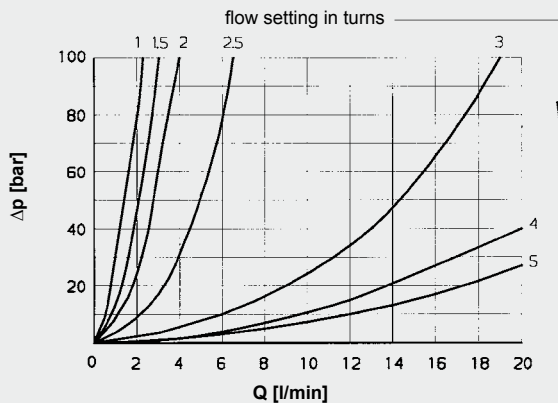
DRVP = flow direction A → B

Pressure differential Δp measured against flow rate

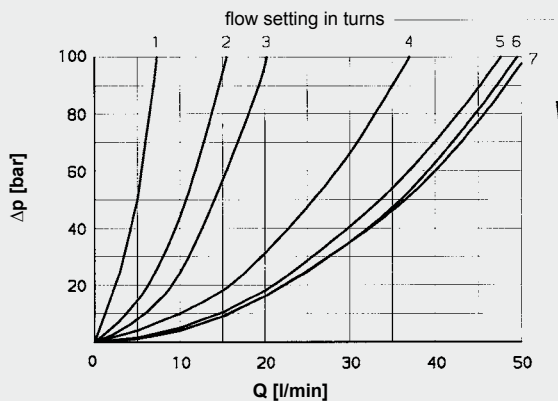
Measured at constant flow setting, $v = 54 \text{ mm}^2/\text{s}$

and $T_{\text{oil}} = 36^\circ\text{C}$

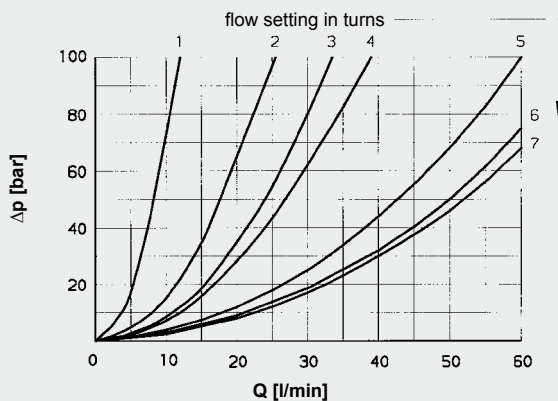
DVP/DRVP-06-01.X



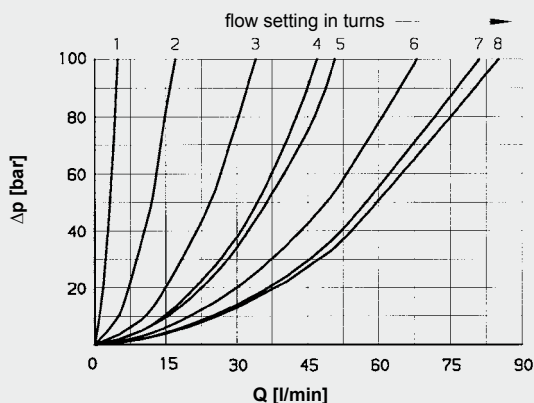
DVP-DRVP-08-01.X



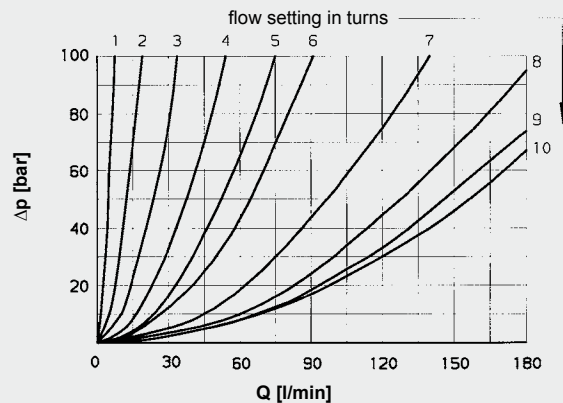
DVP/DRVP-10-01.X



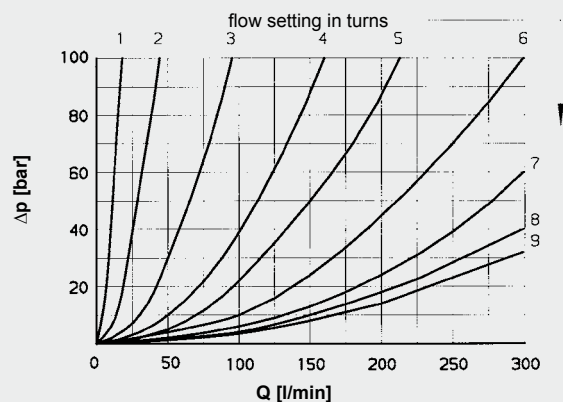
DVP/DRVP-12-01.X



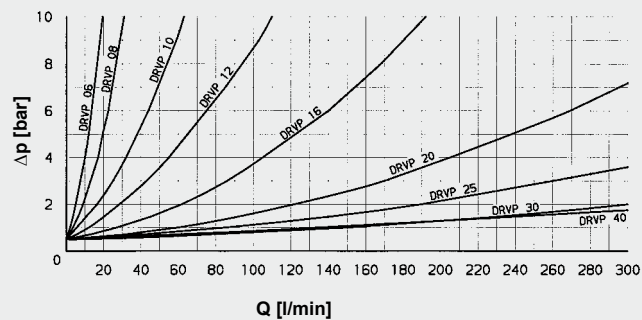
DVP/DRVP-16-01.X



DVP/DRVP-20 to 40-01.X

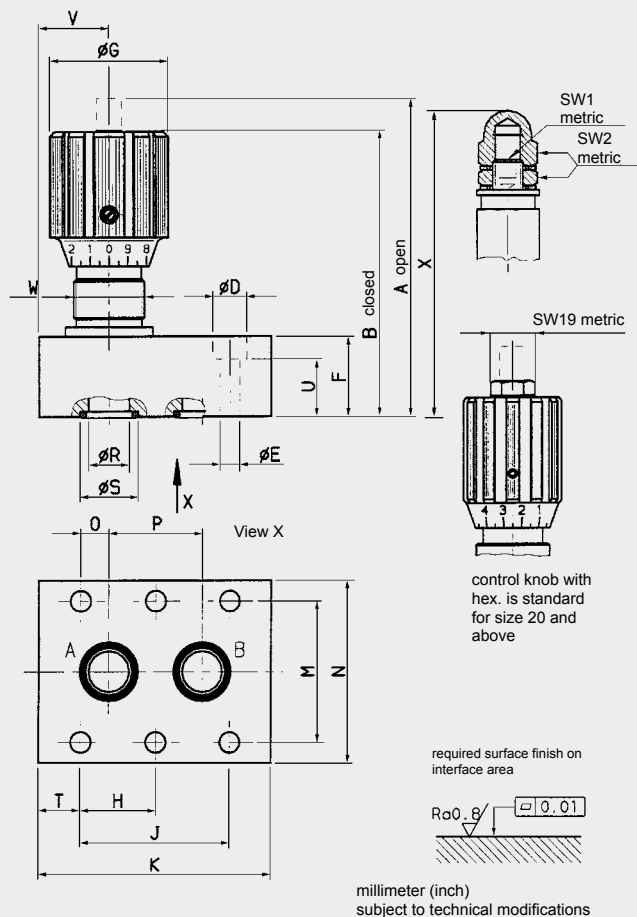


DRVP-06 to DRVP-40-01.X



DIMENSIONS

DVP

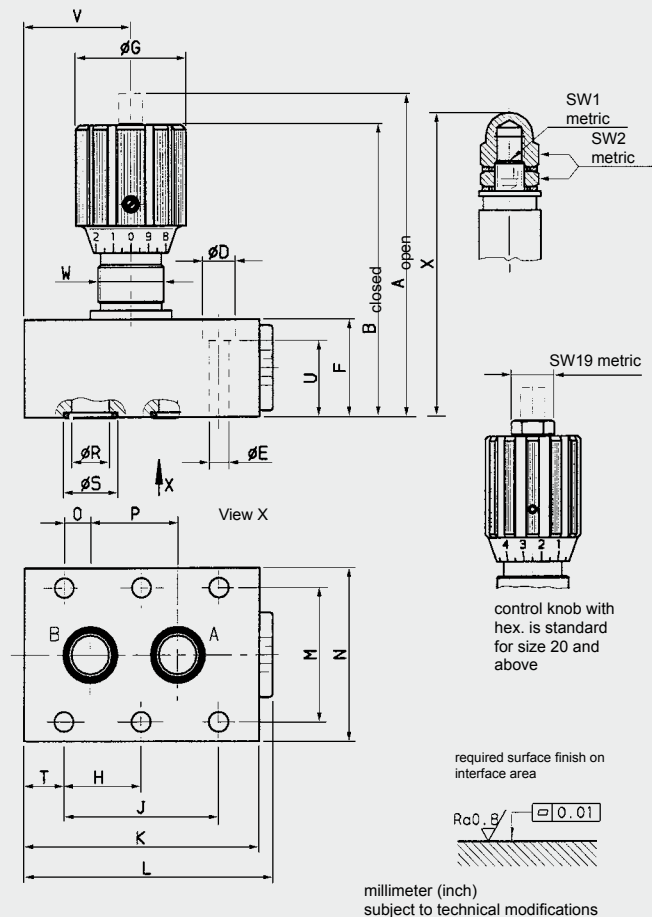


Size	A	B	D	E	F	G	H	J	K	M
06	63	58	11	6.6	16	24	—	19.0	35.0	28.5
08	79	72	11	6.6	20	29	—	35.0	47.5	33.5
10	84	77	11	6.6	25	29	—	33.5	51.0	38.0
12	99	89	11	6.6	25	38	—	38.0	75.0	44.5
16	113	103	14	9.0	30	38	38.0	76.0	93.5	54.0
20	165	148	14	9.0	45	49	47.5	95.0	111.0	60.0
25	165	148	18	11.5	45	49	60.0	120.5	143.0	76.0
30	170	153	20	14.0	50	49	71.5	143.0	171.0	92.0
40	170	153	20	14.0	50	49	67.0	133.5	192.0	111.0

Size	N	O	P	R	S	T	U	V	W	Weight [kg]
06	41.5	1.5	16.0	5.0	9.7	8.0	9	9.5	PG 7	0.20
08	46.0	4.5	25.5	7.0	12.7	6.5	13	12.0	PG 11	0.40
10	51.0	4.2	25.5	10.0	15.6	8.5	18	14.0	PG 11	0.60
12	57.5	4.0	30.0	13.0	18.6	18.5	18	22.5	PG 16	1.00
16	70.0	11.0	54.0	17.0	24.5	8.5	21	19.5	PG 16	1.70
20	76.5	19.1	57.0	22.0	30.5	8.0	36	31.5	PG 29	3.60
25	100.0	20.8	79.5	28.5	37.4	11.0	34	46.0	PG 29	5.50
30	112.0	23.8	95.0	35.0	43.4	15.0	37	39.0	PG 29	7.50
40	140.0	25.5	89.0	47.5	57.5	16.0	37	58.0	PG 29	8.20

DIMENSIONS

DRVP



Size	A	B	D	E	F	G	H	J	K	L	M	N
06	63	58	11	6.6	16	24	—	19.0	41.5	46.0	28.5	41.5
08	79	72	11	6.6	20	29	—	35.0	63.5	67.0	33.5	46.0
10	84	77	11	6.6	25	29	—	33.5	70.0	74.0	38.0	51.0
12	106	96	11	6.6	32	38	—	38.0	80.0	84.5	44.5	57.5
16	128	118	14	9.0	45	38	38.0	76.0	104.0	109.5	54.0	70.0
20	170	153	14	9.0	50	49	47.5	95.0	127.0	133.0	60.0	76.5
25	175	158	18	11.5	55	49	60.0	120.5	165.0	172.0	76.0	100.0
30	195	178	20	14.0	75	49	71.5	143.0	186.0	196.0	92.0	115.0
40	220	203	20	14.0	100	49	67.0	133.5	192.0	201.0	111.0	140.0

Size	O	P	R	S	T	U	V	W	SW1	SW2	X	Weight [kg]
06	1.6	16.0	5.0	9.7	6.4	9	13.5	PG 7	—	—	—	0.26
08	4.8	25.5	7.0	12.7	14.2	13	31.0	PG 11	—	—	—	0.50
10	4.0	25.5	10.0	15.6	18.0	18	29.5	PG 11	6	13	81	0.80
12	4.0	30.0	13.0	18.6	21.0	25	36.5	PG 16	6	17	100	1.10
16	11.0	54.0	17.0	24.5	14.0	36	49.0	PG 16	8	19	127	2.50
20	19.0	57.0	22.0	30.5	16.0	41	49.0	PG 29	—	—	—	3.90
25	20.6	79.5	28.5	37.4	15.0	44	77.0	PG 29	—	—	—	6.70
30	23.8	95.0	35.0	43.4	15.0	62	85.0	PG 29	—	—	—	11.00
40	25.5	89.0	47.5	57.5	16.0	87	64.0	PG 29	—	—	—	17.50