



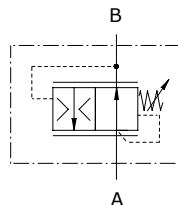
Type VDR flow control pressure compensated valves

- Cartridge compensated
- With steel housing M-F or F-F
- Flow regulator adjustable type

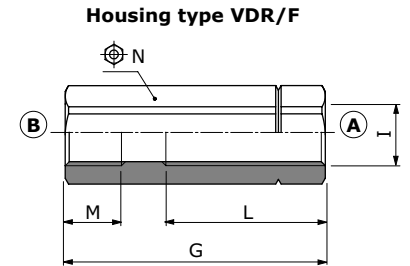
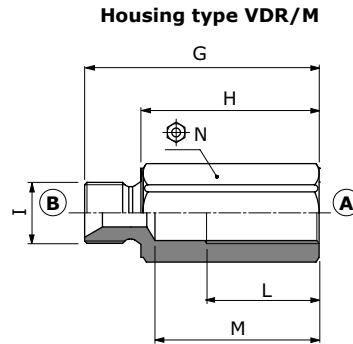
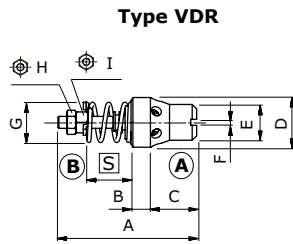
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	VDR 14	VDR 38	VDR 12	VDR 34
Nominal flow from A to B	25 l/min (6.6 US gpm)	50 l/min (13.2 US gpm)	90 l/min (23.8 US gpm)	220 l/min (58.1 US gpm)
Nominal flow from B to A	10 l/min (2.6 US gpm)	25 l/min (6.6 US gpm)	67 l/min (17.7 US gpm)	150 l/min (39.6 US gpm)
Max. pressure	300 bar (4350 psi)			
Fluid	mineral based oil			
Viscosity	from 10 to 200 cSt			
Max. level of contamination	18/16/13 ISO4406			
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)			
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)			
Weight	steel 0.012 kg (0.026 lb)	0.022 kg (0.048 lb)	0.036 kg (0.079 lb)	0.069 kg (0.152 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Dimension



Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	⌀H	⌀I	S min-max
VDR 14	39 1.53	8 0.31	11.5 0.45	G 1/4	10 0.39	-	10 0.39	5.5	5.5	6-10.5 0.236-0.413
VDR 38	45 1.77	6 0.24	16 0.63	G 3/8	11.5 0.45	2 0.08	13.5 0.53	6	7	10.5-15.5 0.413-0.61
VDR 12	50 1.97	7 0.27	17 0.67	G 1/2	16 0.63	2 0.08	18 0.71	6	7	13-19 0.511-0.748
VDR 34	60 2.36	9.5 0.37	21.5 0.55	G 3/4	20 0.79	2 0.08	23 0.9	6	7	14-20.5 0.551-0.807

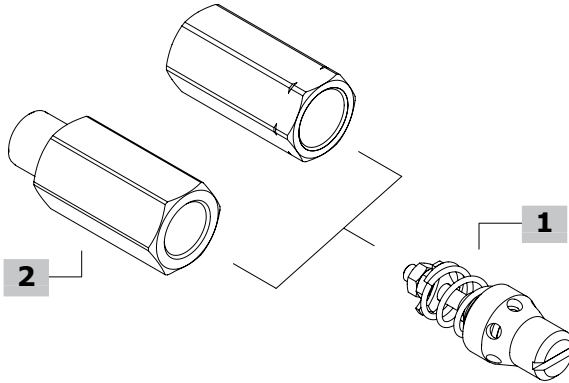
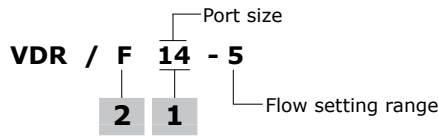
Dimensions are in mm-in

Housing type	G	H	I	L	M	⌀N	
M	14	78 3.07	66 2.6	G 1/4	41 1.61	61 2.40	19
	38	82 3.23	70 2.75	G 3/8	41 1.61	63 2.48	22
	12	100 3.94	86 3.38	G 1/2	45 1.77	79 3.11	27
	34	112 4.41	96 3.78	G 3/4	55 2.16	86 3.39	32
F	14	66 2.6	-	G 1/4	34 1.34	12.5 0.49	19
	38	70 2.75	-	G 3/8	37 1.45	14 0.55	22
	12	80 3.15	-	G 1/2	38.5 1.52	15 0.59	27
	34	100 3.94	-	G 3/4	54 2.12	16.5 0.65	32

Flow control valves

Flow control pressure compensated valves

Ordering codes and description composition



Type	Flow setting range			
	VDR 14	VDR 38	VDR 12	VDR 34
	l/min US gpm	l/min US gpm	l/min US gpm	l/min US gpm
1	1 - 1.6 0.26 - 0.42	2.5 - 4 0.66 - 1.06	16 - 21 4.2 - 5.6	37 - 50 9.8 - 13.2
2	1.6 - 2.5 0.42 - 0.66	4 - 6.3 1.06 - 1.66	21 - 28 5.5 - 7.4	50 - 67 13.2 - 17.7
3	2.5 - 4 0.66 - 1.06	6.3 - 10 1.66 - 2.64	28 - 37 7.4 - 9.8	67 - 90 17.7 - 23.8
4	4 - 6.3 1.06 - 1.66	10 - 16 2.64 - 4.2	37 - 50 9.8 - 13.2	90 - 120 23.8 - 31.7
5	6.3 - 10 1.66 - 2.64	16 - 25 4.2 - 6.6	50 - 67 13.2 - 17.7	120 - 150 31.7 - 39.6

NOTE - l/min @ 50 bar (720 psi)

VDR complete valves

Chartridge with steel housing

TYPE	CODE	DESCRIPTION
VDR/F 14-1	1661110100	Female-female G1/4 ports, range type 1
VDR/F 38-2	1661120100	Female-female G3/8 ports, range type 2
VDR/F 12-2	1661130100	Female-female G1/2 ports, range type 2
VDR/F 34-3	1661140100	Female-female G3/4 ports, range type 3
VDR/M 14-1	1661210100	Male-female G1/4 ports, range type 1
VDR/M 38-2	1661220100	Male-female G3/8 ports, range type 2
VDR/M 12-2	1661230100	Male-female G1/2 ports, range type 2
VDR/M 34-3	1661240100	Male-female G3/4 ports, range type 3

For different configurations or SAE thread please contact our Sales Dpt.

2 Housing

M-F (male-female) or F-F (female-female) steel housing

TYPE	CODE	DESCR.	TYPE	CODE	DESCR.
MF14	CMFVRD01	G1/4, M-F	MF03	CMFVRD03	G1/2, M-F
FF14	CFFVRD01	G1/4, F-F	FF03	CFFVRD03	G1/2, F-F
MF02	CMFVRD02	G3/8, M-F	MF04	CMFVRD04	G3/4, M-F
FF02	CFFVRD02	G3/8, F-F	FF04	CFFVRD04	G3/4, F-F

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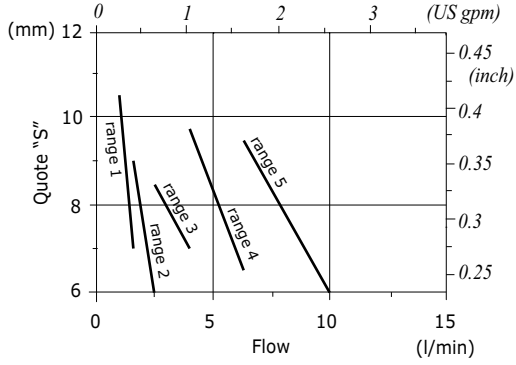
1 Valve

Nominal regulated flow tolerance $\pm 10\%$ with setting pressure $\Delta p=50$ bar (720 psi).

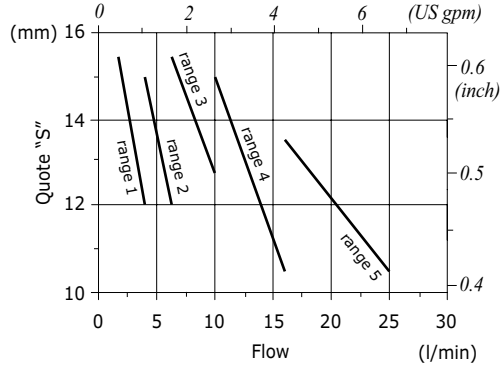
TYPE	CODE	DESCRIPTION
With G1/4 ports		
VDR 14-1	1661010100	Range type 1; setting 1.2 l/min (0.32 USgpm)
VDR 14-2	1661010101	Range type 2; setting 1.9 l/min (0.50 USgpm)
VDR 14-3	1661010102	Range type 3; setting 3.1 l/min (0.82 USgpm)
VDR 14-4	1661010103	Range type 4; setting 4.9 l/min (1.29 USgpm)
VDR 14-5	1661010104	Range type 5; setting 8.6 l/min (2.27 USgpm)
With G3/8 ports		
VDR 38-1	1661020100	Range type 1; setting 3.5 l/min (0.92 USgpm)
VDR 38-2	1661020101	Range type 2; setting 5.5 l/min (1.45 USgpm)
VDR 38-3	1661020102	Range type 3; setting 8 l/min (2.11 USgpm)
VDR 38-4	1661020103	Range type 4; setting 13 l/min (3.43 USgpm)
VDR 38-5	1661020104	Range type 5; setting 20 l/min (5.28 USgpm)
With G1/2 ports		
VDR 12-1	1661030100	Range type 1; setting 19 l/min (5.02 USgpm)
VDR 12-2	1661030101	Range type 2; setting 25 l/min (6.60 USgpm)
VDR 12-3	1661030102	Range type 3; setting 30 l/min (7.92 USgpm)
VDR 12-4	1661030103	Range type 4; setting 43 l/min (11.36 USgpm)
VDR 12-5	1661030104	Range type 5; setting 58 l/min (15.32 USgpm)
With G3/4 ports		
VDR 34-1	1661040100	Range type 1; setting 42 l/min (11.09 USgpm)
VDR 34-2	1661040101	Range type 2; setting 61 l/min (16.11 USgpm)
VDR 34-3	1661040102	Range type 3; setting 81 l/min (21.40 USgpm)
VDR 34-4	1661040103	Range type 4; setting 107 l/min (28.27 USgpm)
VDR 34-5	1661040104	Range type 5; setting 144 l/min (38.04 USgpm)

Rating diagrams

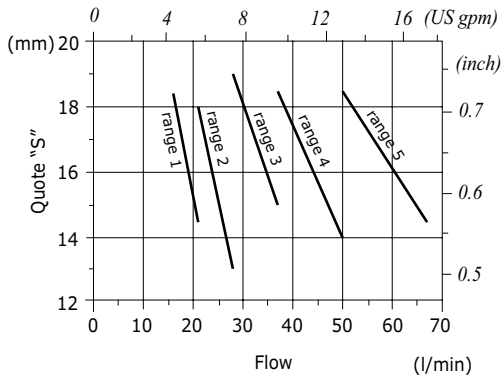
VDR 14 pressure flow setting range



VDR 38 pressure flow setting range



VDR 12 pressure flow setting range



VDR 34 pressure flow setting range

