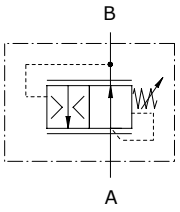
Type VDR
flow control pressure compensated valves

- 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.

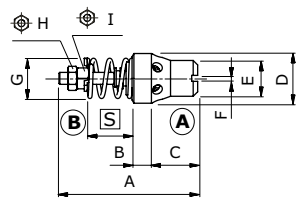
	VDR 14	VDR 38	VDR 12	VDR 34
Nominal flow from A to B	25 l/min *(6.6 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	220 l/min *(58.1 US gpm)*
Nominal flow from B to A	10 l/min *(2.6 US gpm)*	25 l/min *(6.6 US gpm)*	67 l/min *(17.7 US gpm)*	150 l/min *(39.6 US gpm)*
Max. pressure	300 bar *(4350 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)*

NOTES - They can be supplied preset at the required flow, to be mentioned in the order.
Tolerance on nominal flow rate = ±7%@50 bar.
For different conditions, please contact Walvoil Sales Dpt.

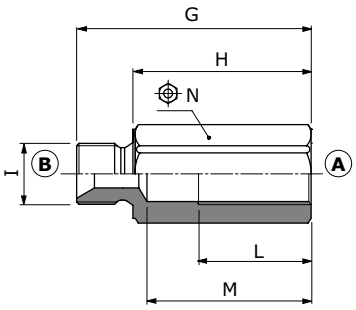


Dimension

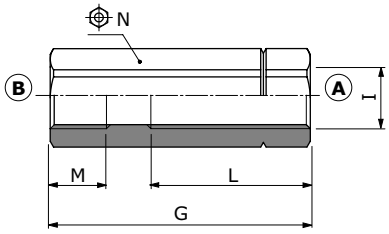
Type VDR



Housing type VDR/M



Housing type VDR/F



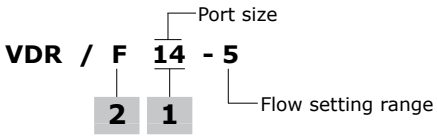
Dimensions are in mm-*in*

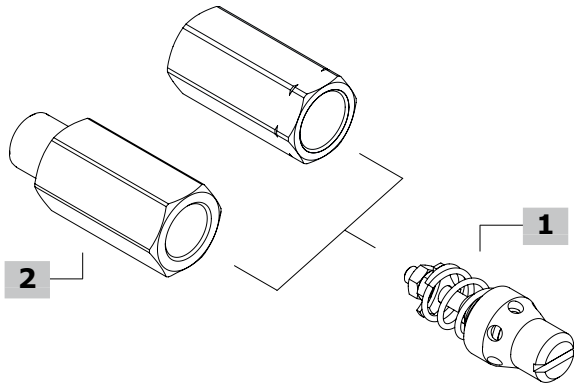
Valve type	A	B	C	D	E	F	G	⌖H	⌖I	S min-max
VDR 14	39 *1.53*	8 *0.31*	11.5 *0.45*	G 1/4	10 *0.39*	-	10 *0.39*	5.5	5.5	6-10.5 *0.236-0.413*
VDR 38	45 *1.77*	6 *0.24*	16 *0.63*	G 3/8	11.5 *0.45*	2 *0.08*	13.5 *0.53*	6	7	10.5-15.5 *0.413-0.61*
VDR 12	50 *1.97*	7 *0.27*	17 *0.67*	G 1/2	16 *0.63*	2 *0.08*	18 *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

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

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

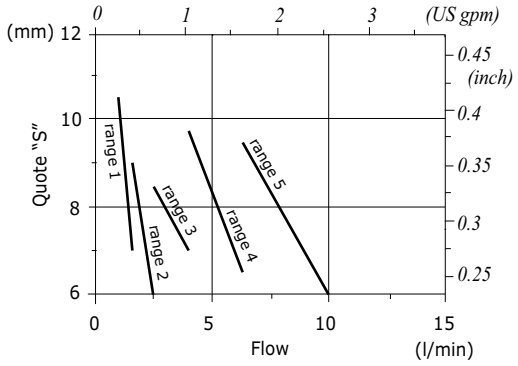
1 Valve

Nominal regulated flow tolerance ±10% with setting pressure Δp=50 bar *(720 psi)*.

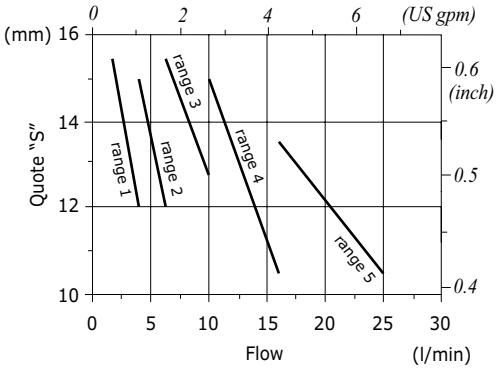
TYPE	CODE	DESCRIPTION
With G1/4 ports		
VDR 14-1	1661010100	Range type 1; setting 1.2 l/min *(0.32 USgpm)*
VDR 14-2	1661010101	Range type 2; setting 1.9 l/min *(0.50 USgpm)*
VDR 14-3	1661010102	Range type 3; setting 3.1 l/min *(0.82 USgpm)*
VDR 14-4	1661010103	Range type 4; setting 4.9 l/min *(1.29 USgpm)*
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

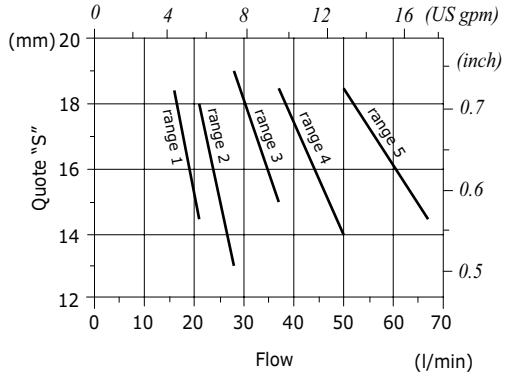
VDR 14 pressure flow setting range



VDR 38 pressure flow setting range



VDR 12 pressure flow setting range



VDR 34 pressure flow setting range