



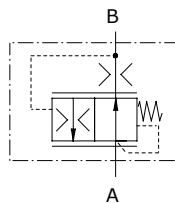
## Type VDR/CO flow control pressure compensated valves

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

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

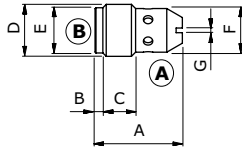
	VDR/CO 14	VDR/CO 38	VDR/CO 12
Nominal flow from A to B	15 l/min (3.96 US gpm)	25 l/min (6.6 US gpm)	60 l/min (15.9 US gpm)
Nominal flow from B to A	10 l/min (2.6 US gpm)	16 l/min (4.2 US gpm)	45 l/min (11.9 US gpm)
Max. pressure	350 bar (5100 psi)		
Fluid	mineral based oil		
Viscosity	from 10 to 200 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 temperature for working conditions	from -40°C (-40°F) to 100°C (212°F)		
Weight	steel 0.01 kg (0.022 lb)	0.026 kg (0.057 lb)	0.05 kg (0.11 lb)

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

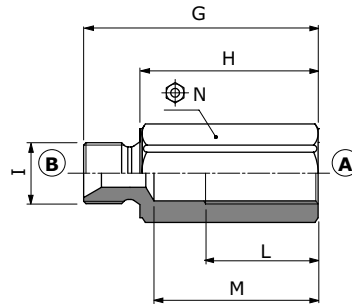


### Dimension

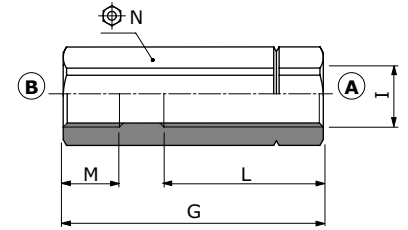
Type VDR/CO



Housing type VDR/CO/M



Housing type VDR/CO/F



Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G
<b>VDR/CO 14</b>	23 0.9	1.5 0.06	7 0.27	G 1/4	-	10.5 0.41	1.5 0.06
<b>VDR/CO 38</b>	28 1.1	2.5 0.1	10.5 0.41	G 3/8	14.5 0.57	14 0.55	1.5 0.06
<b>VDR/CO 12</b>	36 1.42	5 0.2	12 0.47	G 1/2	18 0.71	17 0.67	2 0.08

Dimensions are in mm-in

Housing type	G	H	I	L	M	N
<b>14</b>	62 2.44	50 1.97	G 1/4	42 1.65	45 1.77	19
<b>MF 38</b>	82 3.23	70 2.75	G 3/8	41 1.61	63 2.48	22
<b>12</b>	80 3.15	66 2.60	G 1/2	50 1.97	57 2.32	27
<b>14*</b>	50 1.97	-	G 1/4	21 0.83	12.5 0.49	19
<b>FF 38</b>	70 2.75	-	G 3/8	37 1.46	14 0.55	22
<b>12</b>	80 3.15	-	G 1/2	50 1.97	16 0.63	27

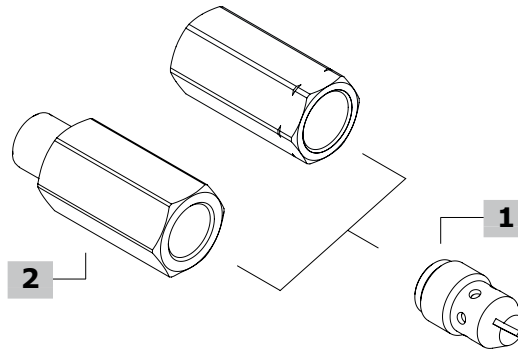
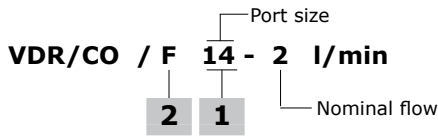
NOTE - (\*) valve to be inserted in the reverse direction.

## Flow control valves

Flow control pressure compensated valves

VDR/CO

### Ordering codes and description composition



#### VDR/CO complete valves

Cartridge with steel housing

TYPE	CODE	DESCRIPTION
<b>VDR/CO/F 14-2</b>	1661610100	Female-female G1/4 ports, range 2 l/min - 0.53 US gpm
<b>VDR/CO/F 38-2</b>	1661620100	Female-female G3/8 ports, range 2 l/min - 0.53 US gpm
<b>VDR/CO/F 12-12</b>	1661630100	Female-female G1/2 ports, range 12 l/min - 3.2 US gpm
<b>VDR/CO/M 14-2</b>	1661710100	Male-female G1/4 ports, range 2 l/min - 0.53 US gpm
<b>VDR/CO/M 38-2</b>	1661720100	Male-female G3/8 ports, range 2 l/min - 0.53 US gpm
<b>VDR/CO/M 12-12</b>	1661730100	Male-female G1/2 ports, range 12 l/min - 3.2 US gpm

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.
<b>MF14</b>	CMFVSC01	G1/4, M-F	<b>MF03</b>	CMFVSC03	G1/2, M-F
<b>FF14</b>	CFFVUBA-VSC01	G1/4, F-F	<b>FF03</b>	CFFVSC03	G1/2, F-F
<b>MF02</b>	CMFVSC02	G3/8, M-F			
<b>FF02</b>	CFFVSC02	G3/8, F-F			

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

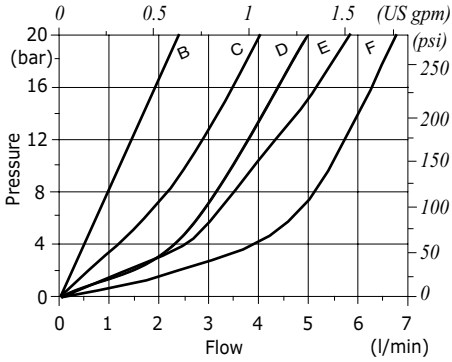
#### 1 Valve

TYPE	CODE	DESCRIPTION
<b>With G1/4 ports</b>		
<b>VDR/CO 14-1</b>	1661510100	Nominal flow 1 l/min - 0.26 US gpm
<b>VDR/CO 14-2</b>	1661510101	Nominal flow 2 l/min - 0.53 US gpm
<b>VDR/CO 14-3</b>	1661510102	Nominal flow 3 l/min - 0.79 US gpm
<b>VDR/CO 14-4</b>	1661510103	Nominal flow 4 l/min - 1.06 US gpm
<b>VDR/CO 14-5</b>	1661510104	Nominal flow 5 l/min - 1.32 US gpm
<b>VDR/CO 14-6</b>	1661510105	Nominal flow 6 l/min - 1.58 US gpm
<b>VDR/CO 14-7</b>	1661510106	Nominal flow 7 l/min - 1.85 US gpm
<b>VDR/CO 14-8</b>	1661510107	Nominal flow 8 l/min - 2.11 US gpm
<b>VDR/CO 14-9</b>	1661510108	Nominal flow 9 l/min - 2.38 US gpm
<b>VDR/CO 14-10</b>	1661510109	Nominal flow 10 l/min - 2.64 US gpm
<b>With G3/8 ports</b>		
<b>VDR/CO 38-2</b>	1661520100	Nominal flow 2 l/min - 0.53 US gpm
<b>VDR/CO 38-4</b>	1661520101	Nominal flow 4 l/min - 1.06 US gpm
<b>VDR/CO 38-6</b>	1661520102	Nominal flow 6 l/min - 1.58 US gpm
<b>VDR/CO 38-8</b>	1661520103	Nominal flow 8 l/min - 2.11 US gpm
<b>VDR/CO 38-10</b>	1661520104	Nominal flow 10 l/min - 2.64 US gpm
<b>VDR/CO 38-12</b>	1661520105	Nominal flow 12 l/min - 3.2 US gpm
<b>VDR/CO 38-14</b>	1661520106	Nominal flow 14 l/min - 3.7 US gpm
<b>VDR/CO 38-16</b>	1661520107	Nominal flow 16 l/min - 4.2 US gpm
<b>With G1/2 ports</b>		
<b>VDR/CO 12-12</b>	1661530100	Nominal flow 12 l/min - 3.2 US gpm
<b>VDR/CO 12-16</b>	1661530101	Nominal flow 16 l/min - 4.2 US gpm
<b>VDR/CO 12-20</b>	1661530102	Nominal flow 20 l/min - 5.3 US gpm
<b>VDR/CO 12-25</b>	1661530103	Nominal flow 25 l/min - 6.6 US gpm
<b>VDR/CO 12-30</b>	1661530104	Nominal flow 30 l/min - 7.9 US gpm
<b>VDR/CO 12-35</b>	1661530105	Nominal flow 35 l/min - 9.3 US gpm
<b>VDR/CO 12-40</b>	1661530106	Nominal flow 40 l/min - 10.6 US gpm
<b>VDR/CO 12-45</b>	1661530107	Nominal flow 45 l/min - 11.9 US gpm

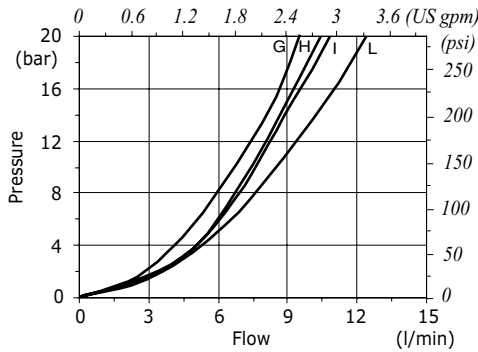
NOTE - Nominal flow ± 10% @ 100 bar - 1440 psi

### Rating diagrams

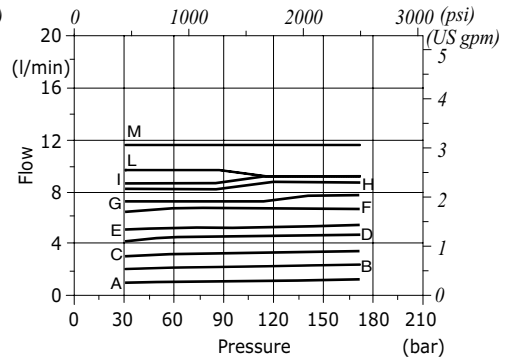
**VDR/CO 14 pressure drop vs. flow  
(A→B)  
B-C-D-E-F nominal flow**



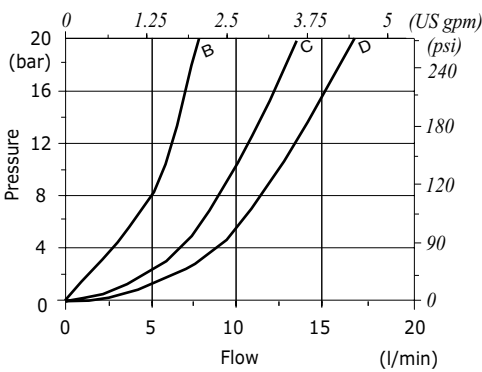
**VDR/CO 14 pressure drop vs. flow  
(A→B)  
G-H-I-L nominal flow**



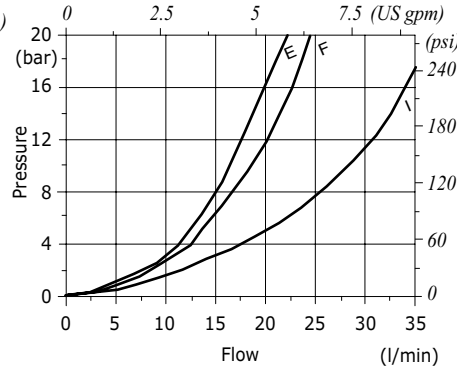
**VDR/CO 14 pressure drop vs. flow  
(B→A)  
compensation diagram**



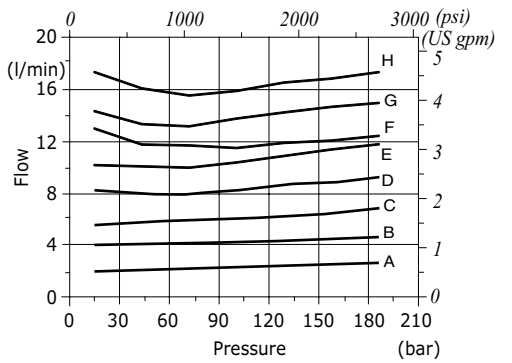
**VDR/CO 38 pressure drop vs. flow  
(A→B)  
B-C-D nominal flow**



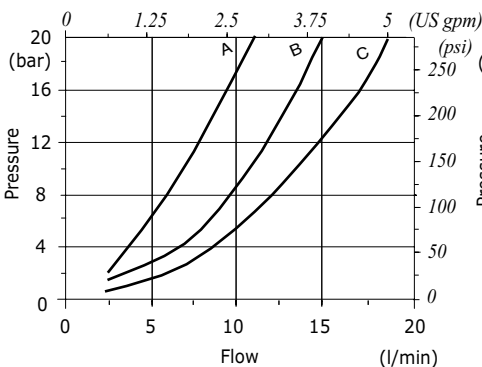
**VDR/CO 38 pressure drop vs. flow  
(A→B)  
E-F-I nominal flow**



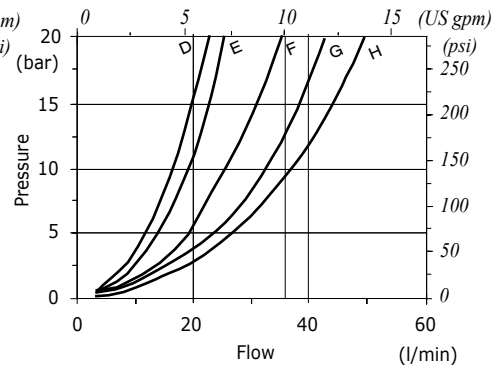
**VDR/CO 38 pressure drop vs. flow  
(B→A)  
compensation diagram**



**VDR/CO 12 pressure drop vs. flow  
(A→B)  
A-B-C-D nominal flow**



**VDR/CO 12 pressure drop vs. flow  
(A→B)  
E-F-I nominal flow**



**VDR/CO 12 pressure drop vs. flow  
(B→A)  
compensation diagram**

