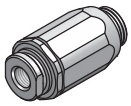
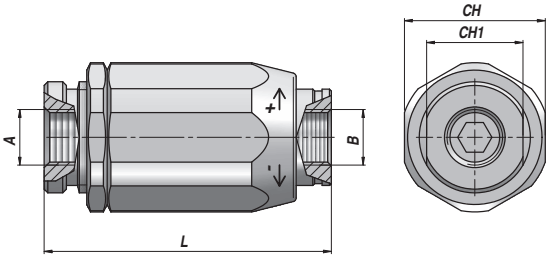
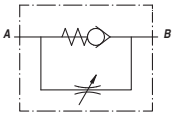
VRFC

ETRANGLEUR REGLABLE (ETANCHEITE PAR CONE)
ADJUSTABLE THROTTLE-CHECK VALVE (POPPET TYPE)







Code *Code*	A BSP	B BSP	Q MAX l/min A>B	Q MAX l/min B>A	P MAX bar	Type *Type*	L	CH	CH1	kg
VSG512.100000	1/4"	1/4"	30	30	350	VRFC 010	66.0	32	22	0,30
VSG512.200000	3/8"	3/8"	40	50	350	VRFC 020	77.5	38	26	0,48
VSG512.300000	1/2"	1/2"	50	80	350	VRFC 030	83.0	41	30	0,59
VSG512.400000	3/4"	3/4"	80	110	300	VRFC 040	104.0	55	38	1,34
VSG512.500000	1"	1"	110	160	250	VRFC 050	118.5	65	46	2,15
VSG512.600000	1"1/4	1"1/4	150	210	230	VRFC 060	135.0	80	55	3,31
VSG512.700000	1"1/2	1"1/2	210	280	230	VRFC 070	149.5	90	62	4,76

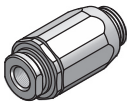
MATERIEL CORPS : ACIER
BODY MATERIAL : STEEL

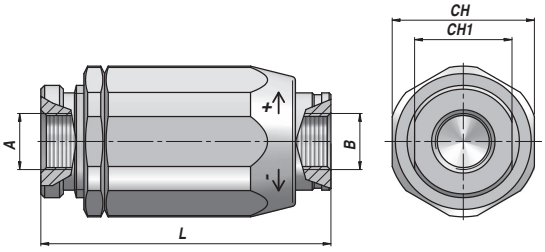
MONTAGE EN LIGNE
LINE MOUNTING

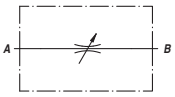
UNIDIRECTIONNEL
UNIDIRECTIONAL

VRB

ETRANGLEUR REGLABLE
ADJUSTABLE THROTTLE VALVE







Code *Code*	A BSP	B BSP	Q MAX l/min	P MAX bar	Type *Type*	L	CH	CH1	kg
VSG515.100000	1/4"	1/4"	30	350	VRB 010	66.0	32	22	0,30
VSG515.200000	3/8"	3/8"	45	350	VRB 020	77.5	38	26	0,48
VSG515.300000	1/2"	1/2"	70	350	VRB 030	83.0	41	30	0,59
VSG515.400000	3/4"	3/4"	100	300	VRB 040	104.0	55	38	1,34
VSG515.500000	1"	1"	150	250	VRB 050	118.5	60	46	2,15

MATERIEL CORPS : ACIER
BODY MATERIAL : STEEL

MONTAGE EN LIGNE
LINE MOUNTING

BIDIRECTIONNEL
BIDIRECTIONAL

Disponibilités & Tarifs en ligne sur **www.unidro-contarini.com/fr/disponibilites-tarifs**
*Availability & Rates online on **www.unidro-contarini.com/fr/disponibilites-tarifs/***

La société peut apporter toute modification au produit sans avis préalable.
The company reserves the right to modify the product at any time without prior notice.

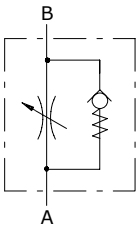
Type VSRU
needle valves

- Ball type or poppet type
- With check valve

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

	VSRU..14	VSRU..38	VSRU..12	VSRU..34	VSRU..100	VSRU..114	VSRU..112
Nominal flow from A to B	30 l/min *(7.9 US gpm)*	40 l/min *(10.6 US gpm)*	50 l/min *(13.2 US gpm)*	80 l/min *(21.1 US gpm)*	110 l/min *(29 US gpm)*	150 l/min *(39.6 US gpm)*	210 l/min *(55.5 US gpm)*
Nominal flow **C** from B to A	30 l/min *(7.9 US gpm)*	50 l/min *(13.2 US gpm)*	80 l/min *(21.1 US gpm)*	110 l/min *(29 US gpm)*	160 l/min *(42.27 US gpm)*	210 l/min *(55.5 US gpm)*	280 l/min *(74 US gpm)*
Nominal flow **S** from B to A	12 l/min *(3.17 US gpm)*	25 l/min *(6.6 US gpm)*	35 l/min *(9.25 US gpm)*	50 l/min *(13.2 US gpm)*	-	-	-
Max. pressure	350 bar *(5100 psi)*	350 bar *(5100 psi)*	350 bar *(5100 psi)*	300 bar *(4350 psi)*	250 bar *(3600 psi)*	230 bar *(3300 psi)*	230 bar *(3300 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*	0.30 kg *(0.66 lb)*	0.48 kg *(1.06 lb)*	0.59 kg *(1.3 lb)*	1.34 kg *(2.95 lb)*	2.15 kg *(4.74 lb)*	3.31 kg *(7.3 lb)*	4.76 kg *(10.49 lb)*

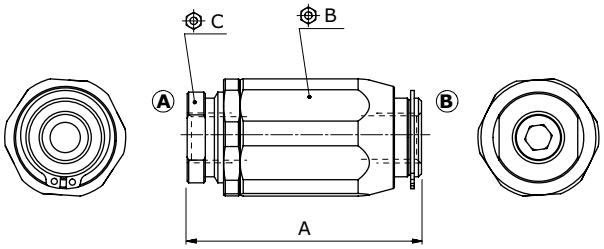
NOTE - For different conditions, please contact Sales Dpt.



Dimensions

Dimensions are in mm-*in*

Valve type	All ports	A	⌖B	⌖C
VSRU..14	G 1/4	66-*2.6*	32	22
VSRU..38	G 3/8	77.5-*3.05*	38	26
VSRU..12	G 1/2	83-*3.27*	41	30
VSRU..34	G 3/4	104-*4.09*	55	38
VSRU..100	G 1″	118.5-*4.66*	65	46
VSRU..114	G 1″ 1/4	135-*5.31*	80	55
VSRU..112	G 1″ 1/2	149.5- *5.88*	90	62

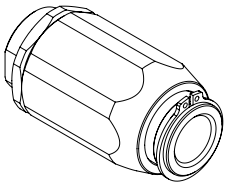


Ordering codes and description composition

Port size — Opening pressure

VSRU / C 14 Pa0,5

C poppet type
S ball type



VSRU/C Complete valves

TYPE	CODE	DESCRIPTION
Poppet type, opening pressure 0.5 bar *(7.25 psi)*		
VSRU/C 14/Pa0,5	1603110100	Steel body, G1/4 ports
VSRU/C 38/Pa0,5	1603120100	Steel body, G3/8 ports
VSRU/C 12/Pa0,5	1603130100	Steel body, G1/2 ports
VSRU/C 34/Pa0,5	1603140100	Steel body, G3/4 ports
VSRU/C 100/Pa0,5	1603150100	Steel body, G1 ports
VSRU/C 114/Pa0,5	1603160100	Steel body, G 1″ 1/4 ports
VSRU/C 112/Pa0,5	1603170100	Steel body, G 1″ 1/2 ports

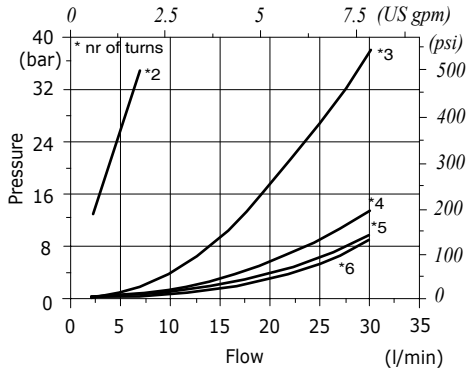
For different configurations or SAE thread please contact our Sales Dpt.

VSRU/S Complete valves

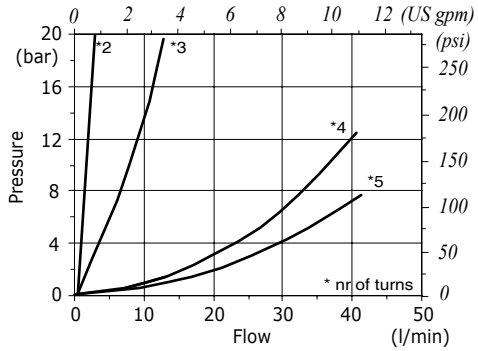
TYPE	CODE	DESCRIPTION
Ball type, opening pressure 4 bar *(58 psi)*		
VSRU/S 14/Pa4	1603010100	Steel body, G1/4 ports
VSRU/S 38/Pa4	1603020100	Steel body, G3/8 ports
VSRU/S 12/Pa4	1603030100	Steel body, G1/2 ports
VSRU/S 34/Pa4	1603040100	Steel body, G3/4 ports

Rating diagrams

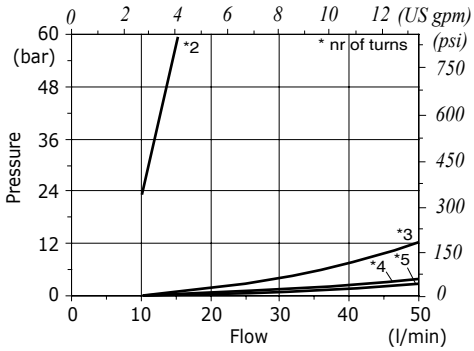
VSRU/C 14 - VSRU/S 14
pressure drop vs. flow (A→B)



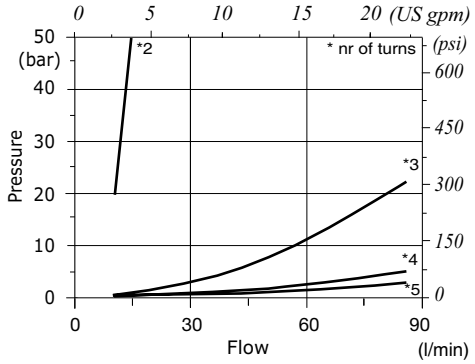
VSRU/C 38 - VSRU/S 38
pressure drop vs. flow (A→B)



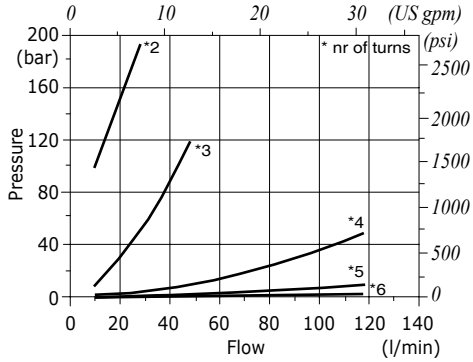
VSRU/C 12 - VSRU/S 12
pressure drop vs. flow (A→B)



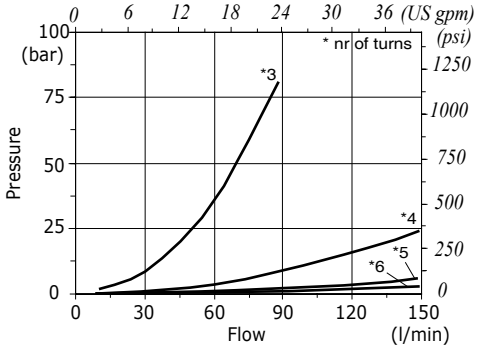
VSRU/C 34 - VSRU/S 34
pressure drop vs. flow (A→B)



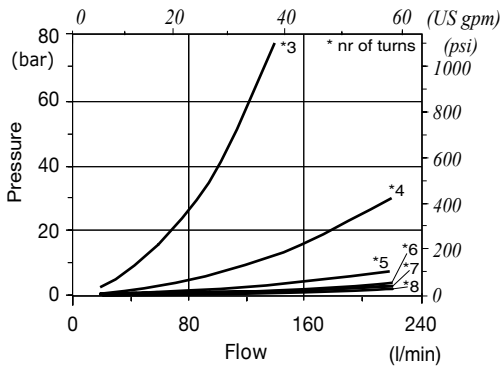
VSRU/C 100 pressure drop vs. flow (A→B)



VSRU/C 114 pressure drop vs. flow (A→B)

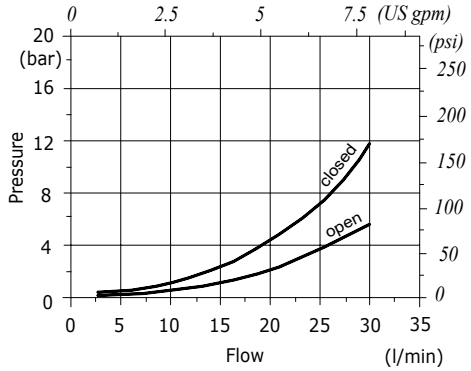


VSRU/C 112 pressure drop vs. flow (A→B)

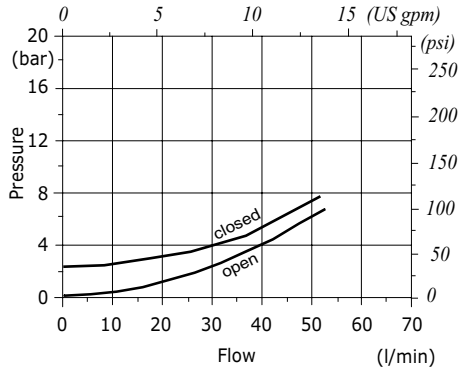


Rating diagrams

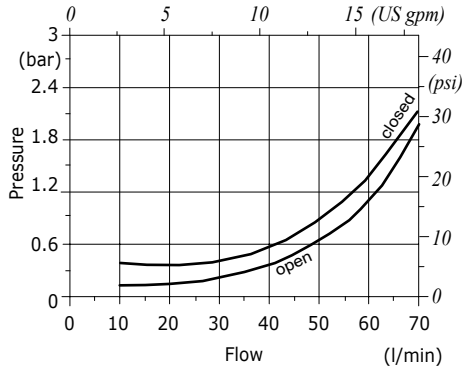
VSRU/C 14 pressure drop vs. flow (B→A)



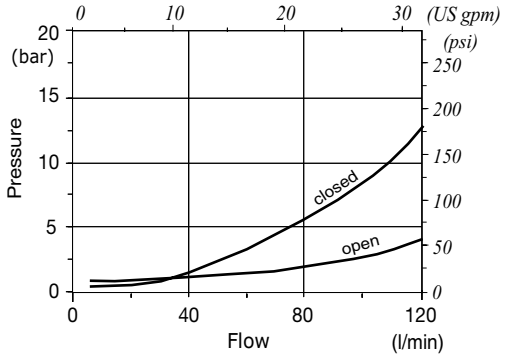
VSRU/C 38 pressure drop vs. flow (B→A)



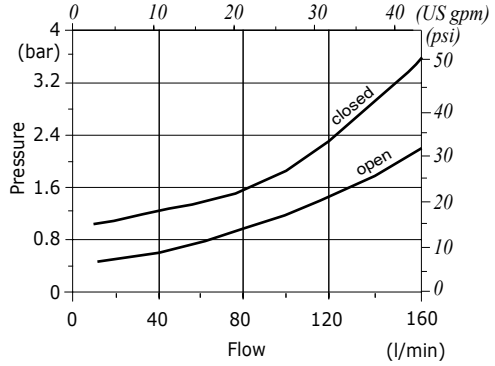
VSRU/C 12 pressure drop vs. flow (B→A)



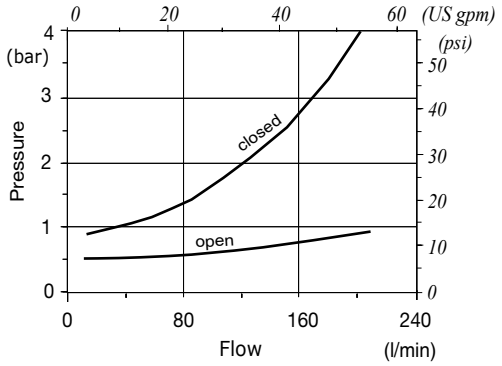
VSRU/C 34 pressure drop vs. flow (B→A)



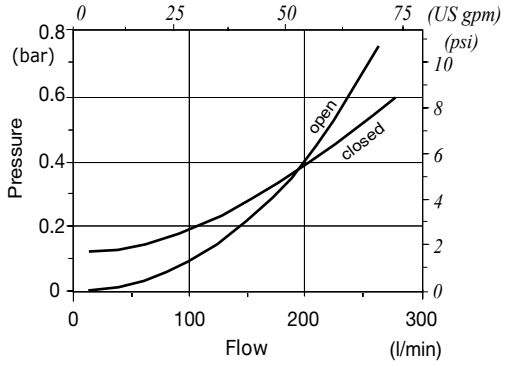
VSRU/C 100 pressure drop vs. flow (B→A)



VSRU/C 114 pressure drop vs. flow (B→A)

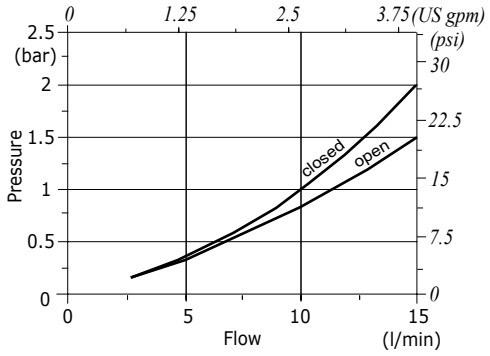


VSRU/C 112 pressure drop vs. flow (B→A)

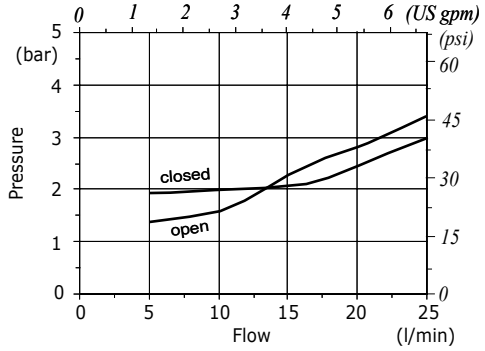


Rating diagrams

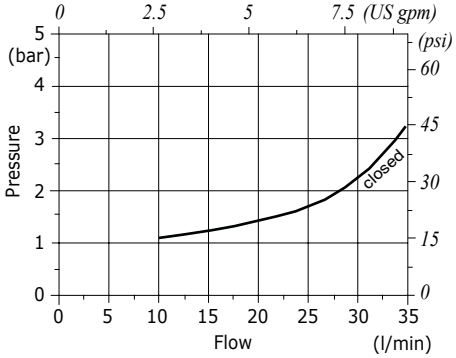
VSRU/S 14 pressure drop vs. flow (B→A)



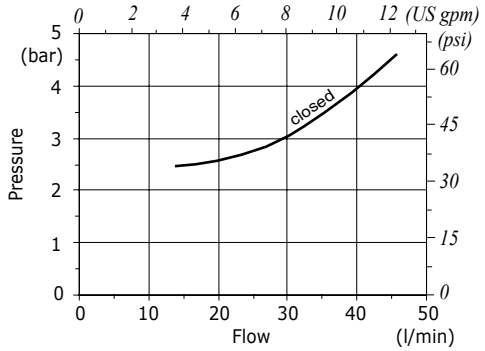
VSRU/S 38 pressure drop vs. flow (B→A)



VSRU/S 12 pressure drop vs. flow (B→A)



VSRU/S 34 pressure drop vs. flow (B→A)



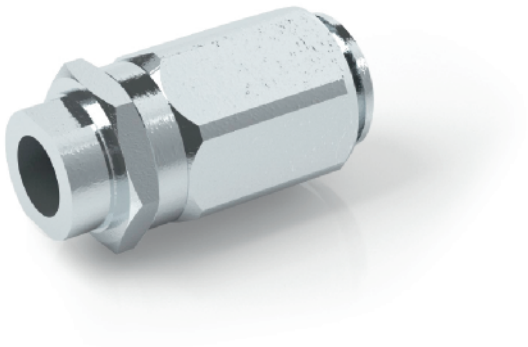
VRF512.05xxxx

VALVOLE DI REGOLAZIONE FLUSSO UNIDIREZIONALI A MANICOTTO

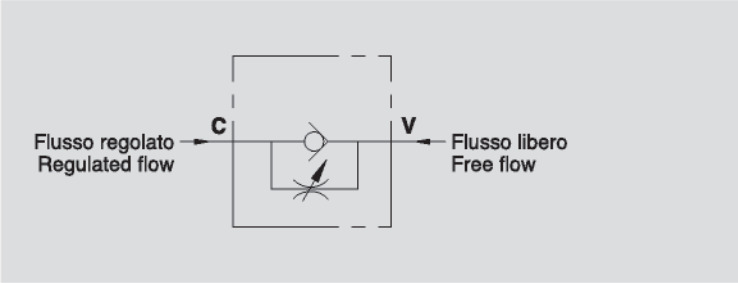
BARREL TYPE UNIDIRECTIONAL FLOW CONTROL VALVES

TIPO / TYPE

VRF



SCHEMA IDRAULICO
HYDRAULIC DIAGRAM



IMPIEGO:
Valvole che permettono di regolare la velocità di un attuatore in una direzione e consentono il flusso libero nell'altra. Non essendo compensate alla pressione, la regolazione del fluido dipenderà dalla pressione e dalla viscosità dell'olio.

MATERIALI E CARATTERISTICHE:
Corpo e camicia: acciaio zincato.
Componenti interni: acciaio temprato termicamente e rettificato.
Guarnizioni: BUNA N standard.
Tenuta: per accoppiamento. Trafilamento trascurabile a valvola chiusa.

MONTAGGIO:
Collegare V all'alimentazione e C all'attuatore da regolare. Il flusso è regolato da C a V e libero nel senso opposto. In caso di impiego su attuatori con valvola di blocco, la VRF va montata tra attuatore e valvola di blocco. La regolazione del flusso si effettua tramite la rotazione del manicotto esterno: ruotando in senso orario si aumenta il flusso e viceversa. Una volta regolata la portata, riportare la ghiera di fermo in posizione in modo da mantenere i valori impostati anche in presenza di vibrazioni.

USE AND OPERATION:
These valves are used to adjust speed of actuators in one direction; flow is free in the reverse . Pressure compensation is not provided, flow rate depends on pressure and oil viscosity.

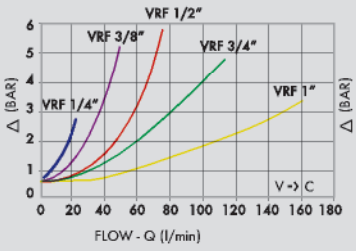
MATERIALS AND FEATURES:
Body: zinc-plated steel.
Internal parts: hardened and ground steel.
Seal: BUNA N standard.
Tightness: by diameter combination. Minor leakage with closed valve.

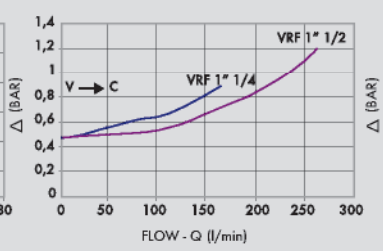
CONNECTIONS:
Connect V to the supply flow and C to the actuator to be controlled. The flow is adjusted from C to V and free in the reverse direction. When used on actuators with double pilot check valves, the VRF has to be mounted between the actuator and the double pilot check valve. Flow adjustments are made by rotating the coupling: clockwise rotation increases the flow and vice versa. Once the flow has been set, tighten the lock nut in order to keep the desired setting in case of vibrations.

PERDITE DI CARICO
PRESSURE DROP CURVE

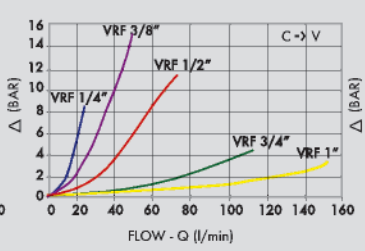
Temperatura olio: 50°C - Viscosità olio: 30 cSt
Oil temperature: 50° C - Oil viscosity: 30 cSt

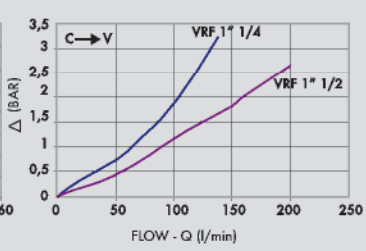
STROZZATORE TUTTO CHIUSO - FULLY CLOSED THROTTLE





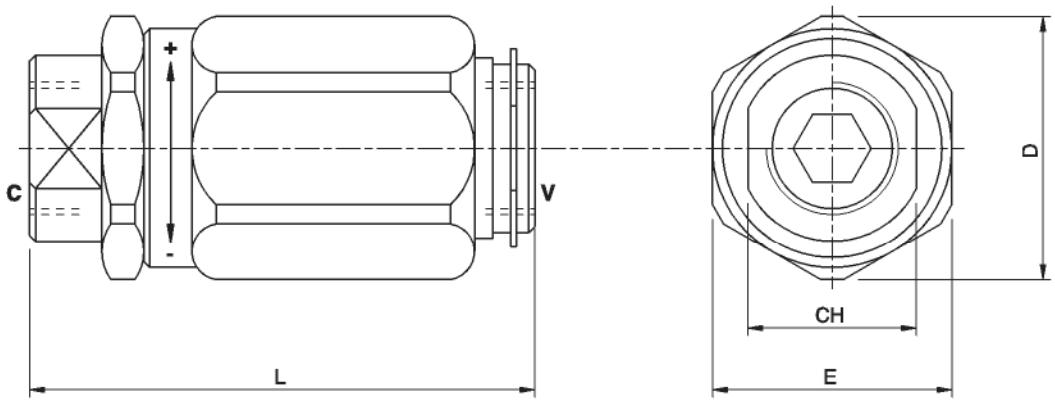
STROZZATORE TUTTO APERTO - FULLY OPENED THROTTLE





VRF512.05xxxx

CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt. / min	PRESSIONE MAX MAX PRESSURE Bar	PRESSIONE APERTURA CRACKING PRESSURE Bar
V0540	VRF 1/4"	20	300	0,5
V0550	VRF 3/8"	45	300	0,5
V0560	VRF 1/2"	70	300	0,5
V0570	VRF 3/4"	110	250	0,5
V0580	VRF 1"	160	250	0,5
V0578	VRF 1" 1/4	210	230	0,5
V0579	VRF 1" 1/2	280	230	0,5



CODICE CODE	SIGLA TYPE	V - C GAS	L mm	E mm	CH mm	D mm	PESO WIGHT kg
V0540	VRF 1/4"	G1/4"	66,5	30	19	34	0,274
V0550	VRF 3/8"	G3/8"	73	32	24	36	0,330
V0560	VRF 1/2"	G1/2"	80	38	27	42	0,484
V0570	VRF 3/4"	G3/4"	95	46	32	51	0,824
V0580	VRF 1"	G 1"	109	55	41	60	1,314
V0578	VRF 1" 1/4	G 1" 1/4	135	80	55	85	3,310
V0579	VRF 1" 1/2	G 1" 1/2	149,5	90	62	95	4,760

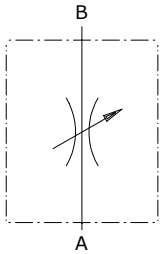
Type VSRB
needle valves

- Bidirectional

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

	VSRB 14	VSRB 38	VSRB 12	VSRB 34	VSRB 100
Nominal flow from A to B	30 l/min *(7.9 US gpm)*	45 l/min *(11.9 US gpm)*	70 l/min *(18.5 US gpm)*	100 l/min *(26.4 US gpm)*	150 l/min *(39.6 US gpm)*
Max. pressure	350 bar *(5100 psi)*	350 bar *(5100 psi)*	350 bar *(5100 psi)*	300 bar *(4350 psi)*	250 bar *(3600 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*	0.30 kg *(0.66 lb)*	0.48 kg *(1.06 lb)*	0.59 kg *(1.3 lb)*	1.34 kg *(2.95 lb)*	2.15 kg *(4.74 lb)*

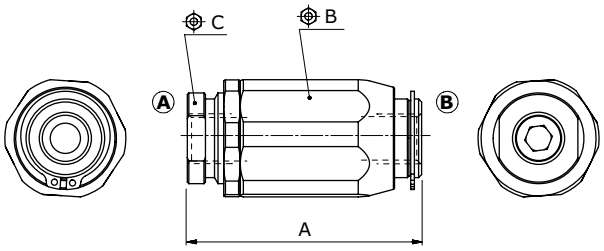
NOTE - For different conditions, please contact Sales Dpt.



Dimensions

Dimensions are in mm-*in*

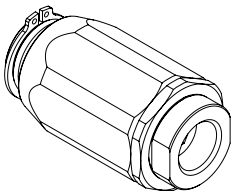
Valve type	All ports	A	⌖B	⌖C
VSRB 14	G 1/4	66-*2.6*	32	22
VSRB 38	G 3/8	77.5-*3.05*	38	26
VSRB 12	G 1/2	83-*3.27*	41	30
VSRB 34	G 3/4	104-*4.09*	55	38
VSRB 100	G 1″	118.5-*4.66*	65	46



Ordering codes and description composition

Port size

VSRB 14



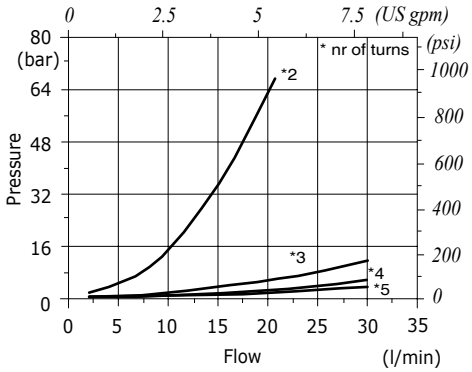
VSRB complete valves

TYPE	CODE	DESCRIPTION
VSRB 14	1603210100	Steel body, G1/4 ports
VSRB 38	1603220100	Steel body, G3/8 ports
VSRB 12	1603230100	Steel body, G1/2 ports
VSRB 34	1603240100	Steel body, G3/4 ports
VSRB 100	1603250100	Steel body, G1 ports

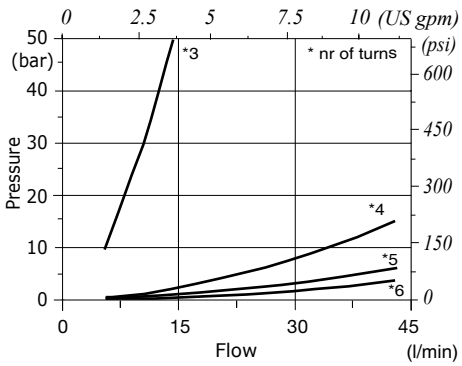
For different configurations or SAE thread please contact our Sales Dpt.

Rating diagram

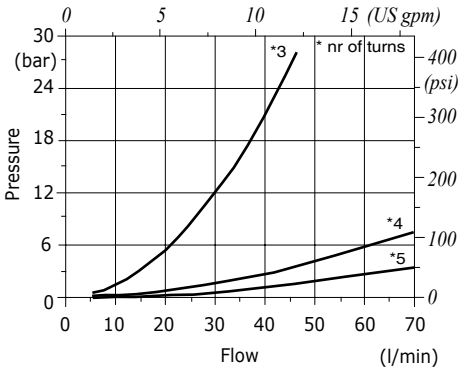
VSRB 14 pressure drop vs. flow



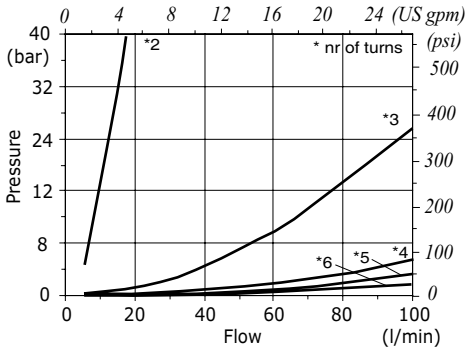
VSRB 38 pressure drop vs. flow



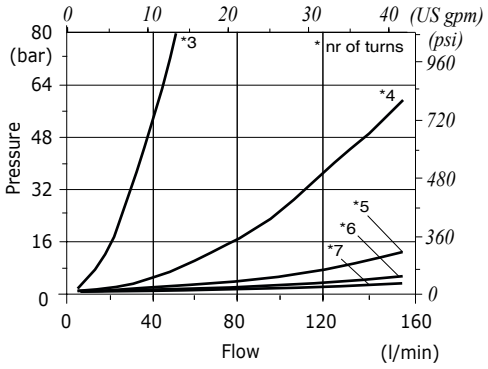
VSRB 12 pressure drop vs. flow



VSRB 34 pressure drop vs. flow



VSRB 100 pressure drop vs. flow



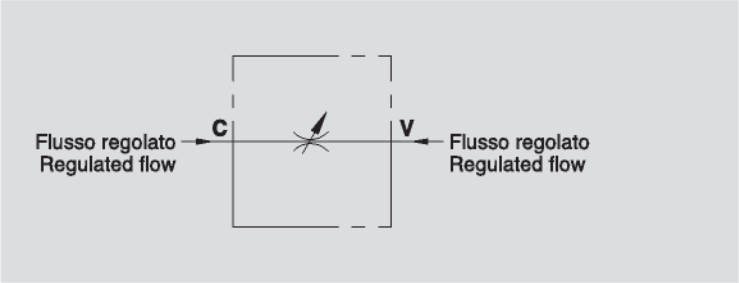
VALVOLE DI REGOLAZIONE FLUSSO BIDIREZIONALI A MANICOTTO

BARREL TYPE BIDIRECTIONAL FLOW CONTROL VALVES

TIPO / TYPE

VRB

SCHEMA IDRAULICO
HYDRAULIC DIAGRAM



IMPIEGO:

Valvole che permettono di regolare la velocità di un attuatore in entrambe le direzioni. Non essendo compensate alla pressione, la regolazione del fluido dipenderà dalla pressione e dalla viscosità dell'olio.

MATERIALI E CARATTERISTICHE:

Corpo e camicia: acciaio zincato.
Componenti interni: acciaio temprato termicamente e rettificato.
Guarnizioni: BUNA N standard.
Tenuta: per accoppiamento.
Trafilamento trascurabile a valvola chiusa.

MONTAGGIO:

Collegare V all'alimentazione e C all'attuatore da regolare. In caso di impiego su cilindri con valvola di blocco, la VRB va montata tra cilindro e valvola di blocco. La regolazione del flusso si effettua tramite la rotazione del manicotto esterno: ruotando in senso orario si aumenta il flusso e viceversa. Una volta regolata la portata, bloccare la ghiera di fermo in modo da mantenere i valori impostati anche in presenza di vibrazioni.

USE AND OPERATION:

These valves are used to adjust speed of actuators in both directions. Pressure compensation is not provided, flow rate depends on pressure and oil viscosity.

MATERIALS AND FEATURES:

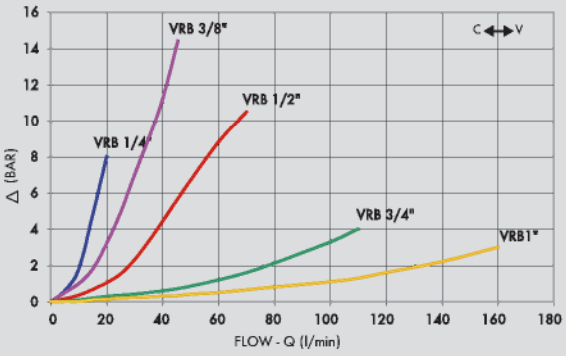
Body: zinc-plated steel.
Internal parts: hardened and ground steel.
Seal: BUNA N standard.
Load holding: matched diameters, minimal leakage when valve is closed.

CONNECTIONS:

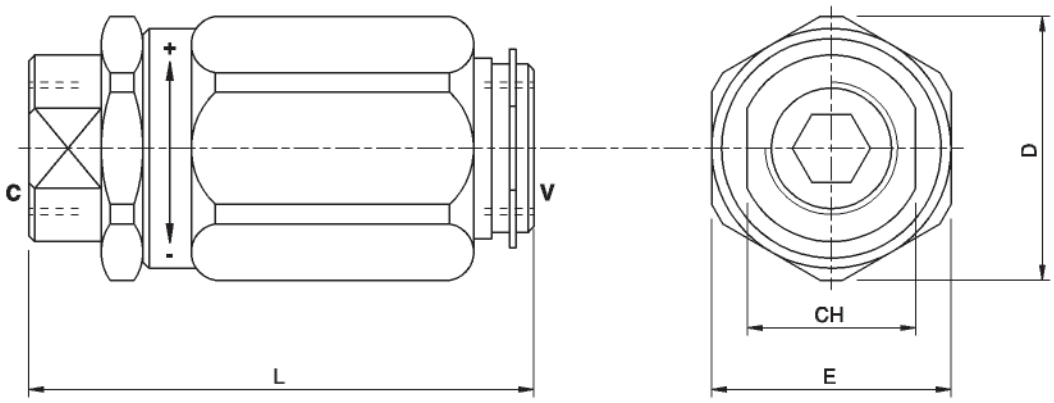
Connect V to the supply flow and C to the actuator to be controlled. The flow is adjusted from C to V and free in the reverse direction. When used on actuators with double pilot check valves, the VRB has to be mounted between the actuator and the double pilot check valve. Flow adjustments are made by rotating the coupling: clockwise rotation increases the flow and vice versa. Once the flow has been set, tighten the lock nut in order to keep the desired setting in case of vibrations.

PERDITE DI CARICO
PRESSURE DROP CURVE

Temperatura olio: 50°C - Viscosità olio: 30 cSt
Oil temperature: 50° C - Oil viscosity: 30 cSt



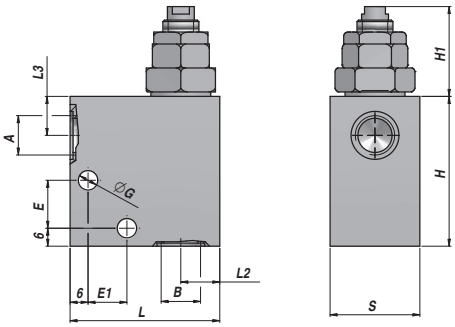
CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt. / min	PRESSIONE MAX MAX PRESSURE Bar
V0545	VRB 1/4"	20	300
V0555	VRB 3/8"	45	300
V0565	VRB 1/2"	70	300
V0575	VRB 3/4"	110	250
V0585	VRB 1"	160	250

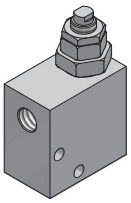


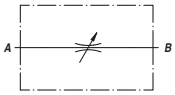
CODICE CODE	SIGLA TYPE	V - C GAS	L mm	E mm	CH mm	D mm	PESO WEIGHT kg
V0545	VRB 1/4"	G1/4"	66,5	30	19	34	0,266
V0555	VRB 3/8"	G3/8"	73	32	24	36	0,312
V0565	VRB 1/2"	G1/2"	80	38	27	42	0,456
V0575	VRB 3/4"	G3/4"	95	46	32	51	0,784
V0585	VRB 1"	G1"	109	55	41	60	1,222

REGULATEUR DE DEBIT
FLOW CONTROL VALVE

RFB







Code *Code*	A BSP	B BSP	Q MAX l/min	P MAX bar	Type *Type*	L	L2	L3	E	E1	ØG	H	H1 max	S	kg
VSG530.100000	1/4"	1/4"	20	350	RFB 20-010-1	50	16	13	16	13	6.5	50	57	30	0,30
VSG530.200000	3/8"	3/8"	20	350	RFB 20-020-1	50	16	13	16	13	6.5	50	57	30	0,30

REGLAGE - *SETTING* :
1= Vis - *Screw* (Standard)
2= Volant - *Knob*

1

2

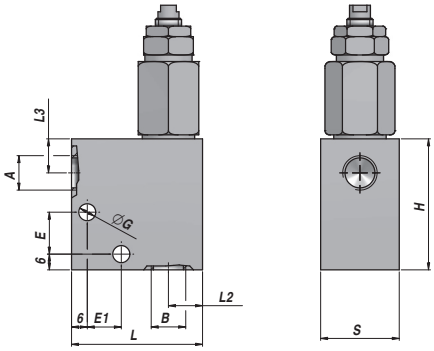
MATERIEL CORPS : ALUMINIUM
BODY MATERIAL : ALUMINIUM

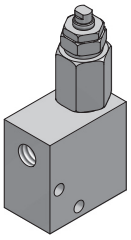
MONTAGE EN LIGNE
LINE MOUNTING

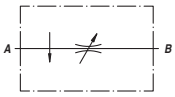
BIDIRECTIONNEL
BIDIRECTIONAL

REGULATEUR DE DEBIT COMPENSE
COMPENSATED FLOW CONTROL VALVE

RFB/C







Code *Code*	A BSP	B BSP	Q MAX l/min	P MAX bar	Type *Type*	L	L2	L3	E	E1	ØG	H	H1 max	S	kg
VSG531.100000	1/4"	1/4"	18	210	RFB/C 20-010-1	50	16	13	16	13	6.5	50	77	30	0,36
VSG531.200000	3/8"	3/8"	18	210	RFB/C 20-020-1	50	16	13	16	13	6.5	50	77	30	0,36

REGLAGE - *SETTING* :
1= Vis - *Screw* (Standard)
2= Volant - *Knob*
3= Vis+protection - *Screw + protection cup*

1

2

3

MATERIEL CORPS : ALUMINIUM
BODY MATERIAL : ALUMINIUM

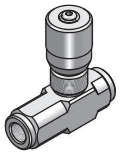
MONTAGE EN LIGNE
LINE MOUNTING

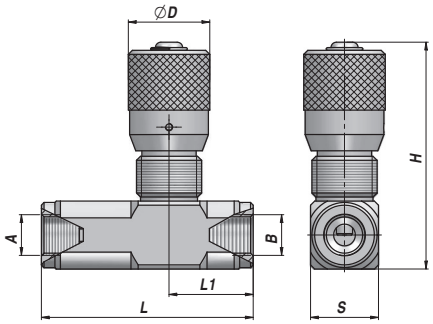
BIDIRECTIONNEL
BIDIRECTIONAL

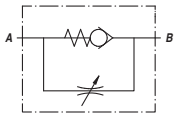
La société peut apporter toute modification au produit sans avis préalable.
The company reserves the right to modify the product at any time without prior notice.

VRFU 90

REGULATEUR DE DEBIT (ETANCHEITE PAR CONE)
FLOW CONTROL VALVE (POPPET TYPE)







Code *Code*	A BSP	B BSP	Q MAX l/min A>B	Q MAX l/min B>A	P MAX bar	Type *Type*	L	L1	ØD	F	H	S	kg
VSG521.100000	1/4"	1/4"	30	35	350	VRFU90 010	75	29.0	30	M25x1.5	82	25	0,40
VSG521.200000	3/8"	3/8"	40	50	350	VRFU90 020	78	31.0	30	M25x1.5	82	25	0,41
VSG521.300000	1/2"	1/2"	50	90	350	VRFU90 030	93	33.5	30	M25x1.5	88	30	0,58
VSG521.400000	3/4"	3/4"	80	140	320	VRFU90 040	110	41.5	42	M35x1.5	116	40	1,39
VSG521.500000	1"	1"	110	180	300	VRFU90 050	135	44.5	42	M35x1.5	116	40	1,36

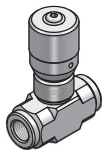
MATERIEL CORPS : ACIER
BODY MATERIAL : STEEL

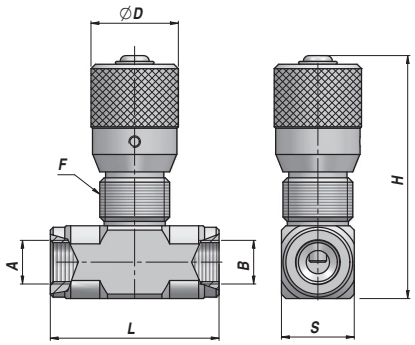
MONTAGE EN LIGNE
LINE MOUNTING

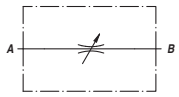
UNIDIRECTIONNEL
UNIDIRECTIONAL

VRFB 90

REGULATEUR DE DEBIT
FLOW CONTROL VALVE







Code *Code*	A BSP	B BSP	Q MAX l/min	P MAX bar	Type *Type*	L	ØD	F	H	S	kg
VSG522.100000	1/4"	1/4"	30	350	VRFB90 010	58	30	M25x1.5	82	25	0,34
VSG522.200000	3/8"	3/8"	40	350	VRFB90 020	58	30	M25x1.5	82	25	0,34
VSG522.300000	1/2"	1/2"	50	350	VRFB90 030	64	30	M25x1.5	88	30	0,43
VSG522.400000	3/4"	3/4"	80	320	VRFB90 040	89	42	M35x1.5	116	40	1,13
VSG522.500000	1"	1"	110	300	VRFB90 050	89	42	M35x1.5	116	40	1,00

MATERIEL CORPS : ACIER
BODY MATERIAL : STEEL

MONTAGE EN LIGNE
LINE MOUNTING

BIDIRECTIONNEL
BIDIRECTIONAL

Disponibilités & Tarifs en ligne sur **www.unidro-contarini.com/fr/disponibilites-tarifs**
*Availability & Rates online on **www.unidro-contarini.com/fr/disponibilites-tarifs/***

La société peut apporter toute modification au produit sans avis préalable.
The company reserves the right to modify the product at any time without prior notice.

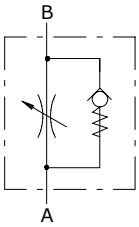
Type VRFU90
needle valves

- With check valve

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

	VRFU9001	VRFU9002	VRFU9003	VRFU9004	VRFU9005
Nominal flow from A to B	30 l/min *(7.9 US gpm)*	40 l/min *(10.6 US gpm)*	50 l/min *(23.8 US gpm)*	80 l/min *(21.1 US gpm)*	110 l/min *(29.1 US gpm)*
Nominal flow from B to A	35 l/min *(9.2 US gpm)*	50 l/min *(23.8 US gpm)*	90 l/min *(23.8 US gpm)*	140 l/min *(37 US gpm)*	180 l/min *(47.6 US gpm)*
Max. pressure	350 bar *(5100 psi)*	350 bar *(5100 psi)*	350 bar *(5100 psi)*	320 bar *(4600 psi)*	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 -30°C *(-22°F)* to 80°C *(176°F)*				
Environmental temperature for working conditions	from -40°C *(-40°F)* to 100°C *(212°F)*				
Weight *steel*	0.40 kg *(0.88 lb)*	0.41 kg *(0.9 lb)*	0.58 kg *(1.28 lb)*	1.39 kg *(3.06 lb)*	1.36 kg *(3 lb)*

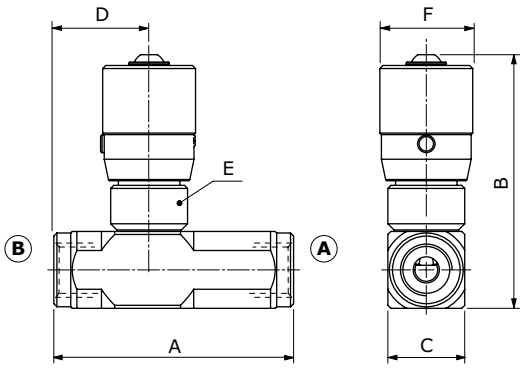
NOTE - For different conditions, please contact Sales Dpt.



Dimensions

Dimensions are in mm-*in*

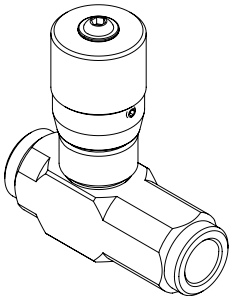
Valve type	All ports	A	B	C	D	E	F
VRFU9001	G1/4	75 - *2.95*	82 - *3.23*	25 - *0.98*	29 - *1.14*	M25X1.5	30 - *1.18*
VRFU9002	G3/8	78 - *3.07*	82 - *3.23*	25 - *0.98*	31 - *1.22*	M25X1.5	30 - *1.18*
VRFU9003	G1/2	93 - *3.66*	88 - *3.46*	30 - *1.18*	33.5 - *1.32*	M25X1.5	30 - *1.18*
VRFU9004	G3/4	110 - *4.33*	116 - *4.57*	40 - *1.57*	41.5 - *1.63*	M35X1.5	42 - *1.65*
VRFU9005	G1	135 - 5.31	116 - *4.57*	40 - *1.57*	44.5 - *1.75*	M35X1.5	42 - *1.65*



Ordering codes and description composition

Port size

VRFU90 01



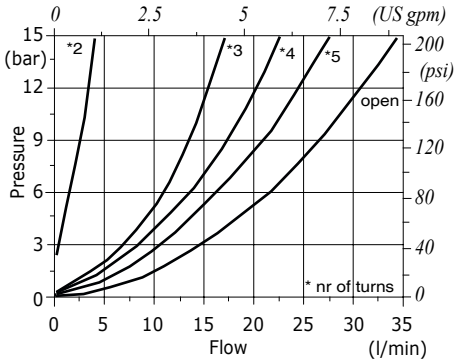
VRFU90 complete valves

TYPE	CODE	DESCRIPTION
VRFU9001	1605110100	Steel body, G1/4 ports, opening pressure 0.5 bar *(7.25 psi)*
VRFU9002	1605120100	Steel body, G3/8 ports, opening pressure 0.5 bar *(7.25 psi)*
VRFU9003	1605130100	Steel body, G1/2 ports, opening pressure 0.5 bar *(7.25 psi)*
VRFU9004	1605140100	Steel body, G3/4 ports, opening pressure 0.5 bar *(7.25 psi)*
VRFU9005	1605150100	Steel body, G1 ports, opening pressure 0.5 bar *(7.25 psi)*

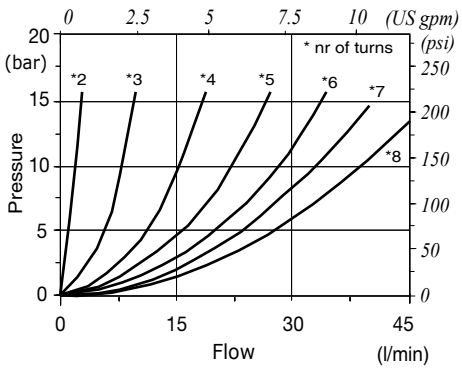
For different configurations or SAE thread please contact our Sales Dpt.

Rating diagram

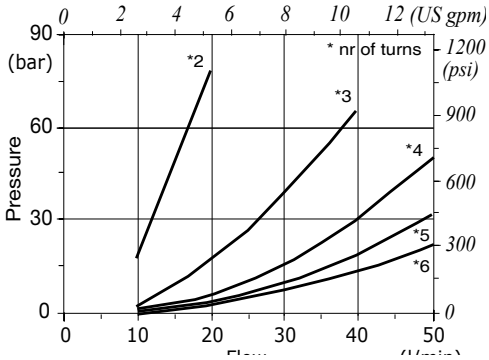
VRFU9001
pressure drop vs. flow (A→B)



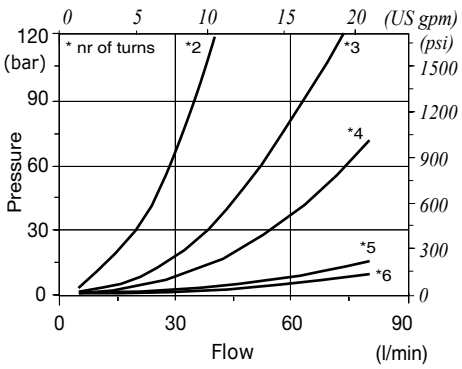
VRFU9002
pressure drop vs. flow (A→B)



VRFU9003
pressure drop vs. flow (A→B)

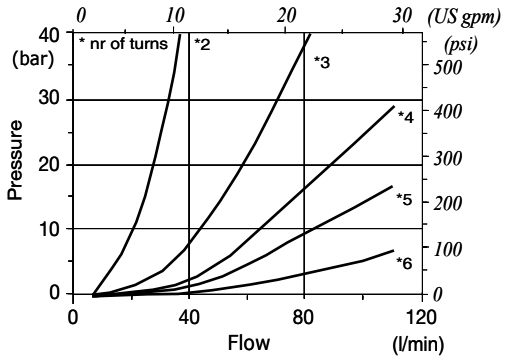


VRFU9004
pressure drop vs. flow (A→B)

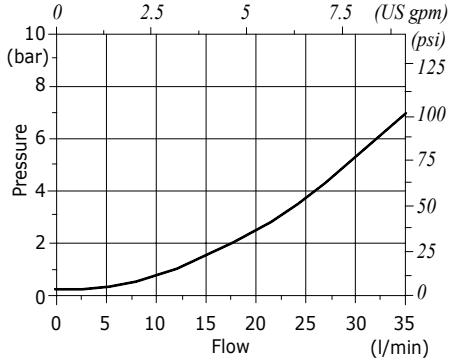


Rating diagram

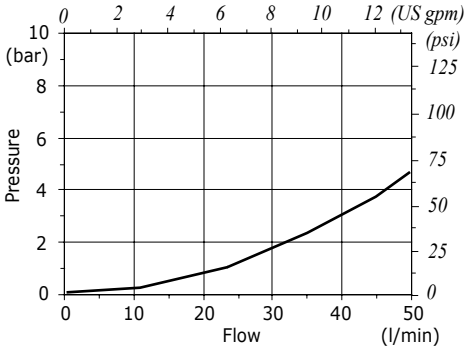
VRFU9005
pressure drop vs. flow (A→B)



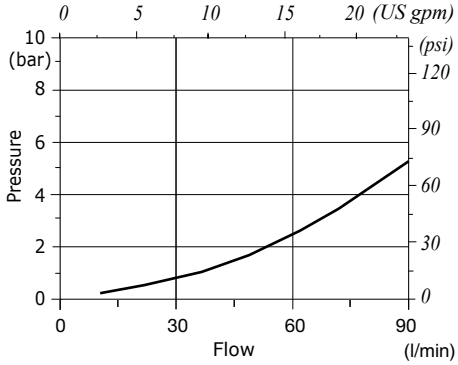
VRFU9001
pressure drop vs. flow (B→A)



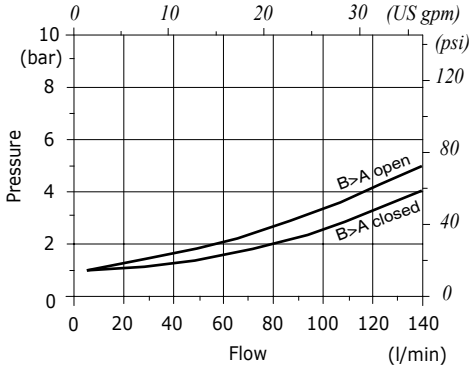
VRFU9002
pressure drop vs. flow (B→A)



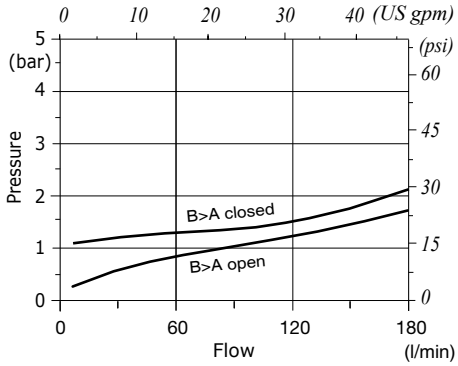
VRFU9003
pressure drop vs. flow (B→A)



VRFU9004
pressure drop vs. flow (B→A)

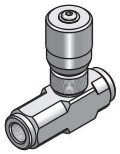


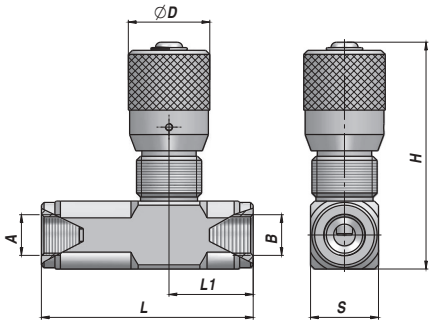
VRFU9005
pressure drop vs. flow (B→A)



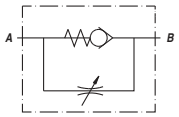
VRFU 90

REGULATEUR DE DEBIT(ETANCHEITE PAR CONE)
FLOW CONTROL VALVE (POPPET TYPE)





MOLETTE ALUMINIUM



Code *Code*	A BSP	B BSP	Q MAX l/min A>B	Q MAX l/min B>A	P MAX bar	Type *Type*	L	L1	ØD	F	H	S	kg
VSG521.10V581	1/4"	1/4"	20	20	350	V0581/AL	73	*	32	M22x1.5	82	25	0,32
VSG521.20V582	3/8"	3/8"	30	30	350	V0582/AL	83	*	32	M22x1.5	82	25	0,42
VSG521.30V583	1/2"	1/2"	50	50	350	V0583/AL	94	*	32	M22x1.5	87	30	0,58
VSG521.40V588	3/4"	3/4"	60	60	320	V0588/AL	110	*	42	M35x1.5	108.5	40	1,36
VSG521.50V576	1"	1"	80	80	300	V0576/AL	135	*	42	M35x1.5	126	40	1,39

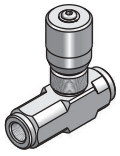
MATERIEL CORPS : ACIER
BODY MATERIAL : STEEL

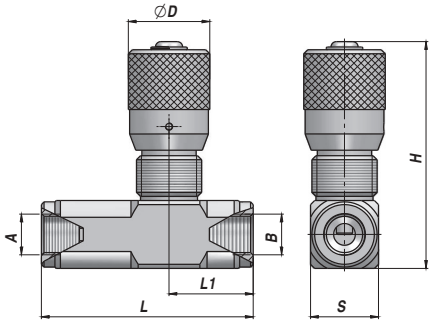
MONTAGE EN LIGNE
LINE MOUNTING

UNIDIRECTIONNEL
UNIDIRECTIONAL

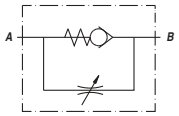
VRFU 90

REGULATEUR DE DEBIT (ETANCHEITE PAR CONE)
FLOW CONTROL VALVE (POPPET TYPE)





MOLETTE PLASTIQUE UV RESIST.



Code *Code*	A BSP	B BSP	Q MAX l/min A>B	Q MAX l/min B>A	P MAX bar	Type *Type*	L	L1	ØD	F	H	S	kg
V43167.000400	1/4"	1/4"	20	20	350	V0581	73	*	32	M22x1.5	82	25	0,32
V43167.000600	3/8"	3/8"	30	30	350	V0582	83	*	32	M22x1.5	82	25	0,42
V43167.000800	1/2"	1/2"	50	50	350	V0583	94	*	32	M22x1.5	87	30	0,58
V43167.001200	3/4"	3/4"	60	60	320	V0588	110	*	42	M35x1.5	108.5	40	1,36
V43167.001600	1"	1"	80	80	300	V0576	135	*	42	M35x1.5	126	40	1,39

MATERIEL CORPS : ACIER
BODY MATERIAL : STEEL

MONTAGE EN LIGNE
LINE MOUNTING

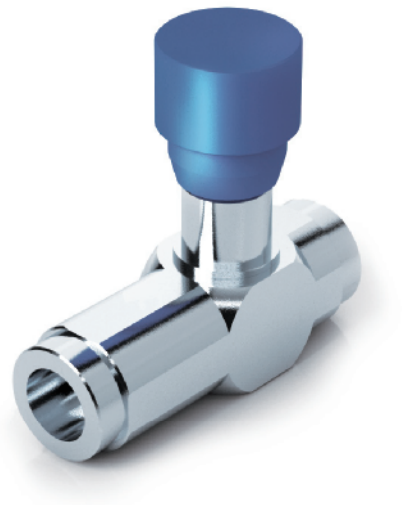
UNIDIRECTIONNEL
UNIDIRECTIONAL

VALVOLE DI REGOLAZIONE FLUSSO UNIDIREZIONALI A 90°

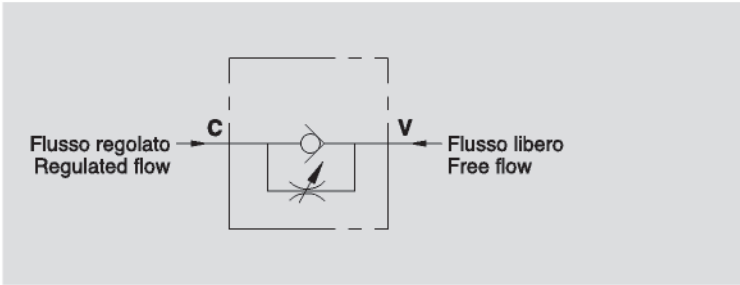
90° FLOW REGULATOR VALVES

TIPO / TYPE

VRFU 90°



SCHEMA IDRAULICO
HYDRAULIC DIAGRAM



IMPIEGO:
Valvole che permettono di regolare la velocità di un attuatore in una direzione e consentono il flusso libero nell'altra. Non essendo compensate alla pressione, la regolazione del fluido dipenderà dalla pressione e dalla viscosità dell'olio. Sono caratterizzate da un'elevata sensibilità di regolazione.

MATERIALI E CARATTERISTICHE:
Corpo: acciaio zincato.
Componenti interni: acciaio temprato termicamente e rettificato.
Guarnizioni: BUNA N standard.
Tenuta: a spillo. Trafilamento nullo a valvola chiusa.

MONTAGGIO:
Collegare V all'alimentazione e C all'attuatore da regolare. Il flusso è regolato da C a V ed è libero nel senso opposto. In caso di impiego su attuatori con valvola di blocco, la VRFU 90° va montata tra attuatore e valvola di blocco.
La regolazione avviene mediante rotazione del pomolo in plastica, previo allentamento del grano di fermo posto sul lato.

A RICHIESTA:
Pomello in alluminio (CODICE/AL).

USE AND OPERATION:
These valves are used to adjust speed of actuators in one direction; flow is free in the reverse .
Pressure compensation is not provided, flow rate depends on pressure and oil viscosity. These valves are characterised by a high adjustment accuracy.

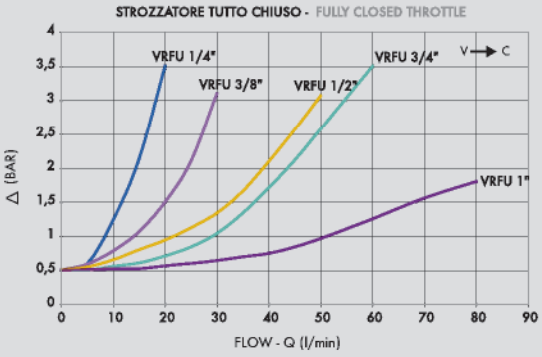
MATERIALS AND FEATURES:
Body: zinc-plated steel.
Internal parts: hardened and ground steel.
Seal: BUNA N standard.
Leakage control - needle type.
Minimal leakage when the valve is closed.

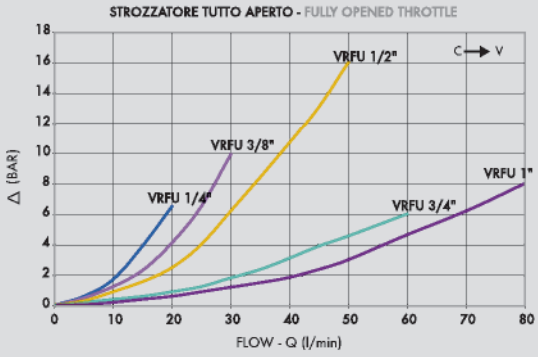
CONNECTIONS:
Connect V to the supply and C to the actuator to control; flow is adjust from C to V and is free in the reverse direction. When used on actuators with double pilot check valves, VRFU 90° has to be mounted between the actuator and the double pilot check valve. Flow adjustment is done by rotating the plastic hand knob after loosening the side locking screw. This particular configuration allows an accurate adjustment.

ON REQUEST:
Aluminum hand knob (CODE/AL).

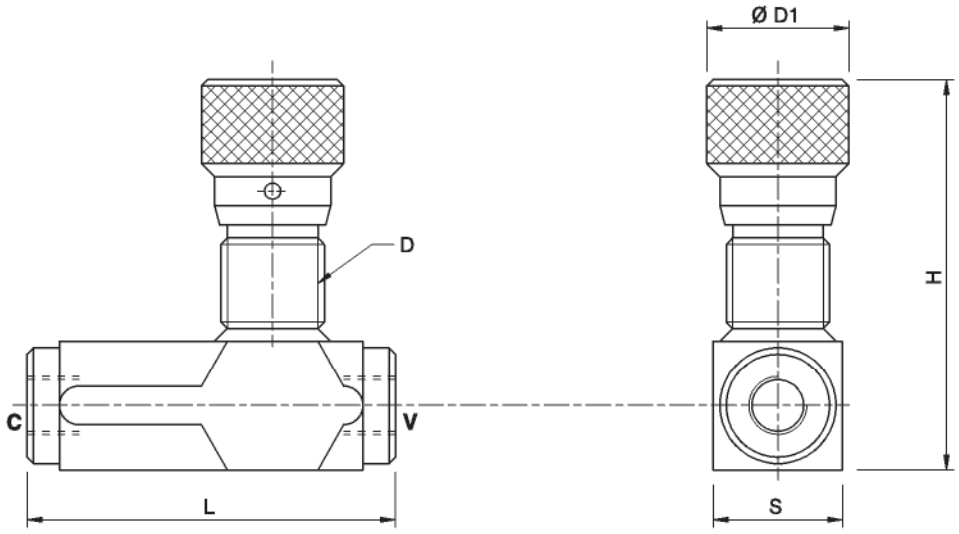
PERDITE DI CARICO
PRESSURE DROP CURVE

Temperatura olio: 50°C - Viscosità olio: 30 cSt
Oil temperature: 50° C - Oil viscosity: 30 cSt





CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt. / min	PRESSIONE MAX MAX PRESSURE Bar	PRESSIONE APERTURA CRACKING PRESSURE Bar
V0581	VRFU 90° 1/4"	15	350	0,5
V0582	VRFU 90° 3/8"	30	350	0,5
V0583	VRFU 90° 1/2"	50	350	0,5
V0588	VRFU 90° 3/4"	80	320	0,5
V0576	VRFU 90° 1"	110	300	0,5



CODICE CODE	SIGLA TYPE	V - C GAS	L mm	D mm	D1 mm	H mm	S mm	PESO WEIGHT kg
V0581	VRFU 90° 1/4"	G1/4"	73	M22X1,5	32	82	25	0,314
V0582	VRFU 90° 3/8"	G3/8"	83	M22X1,5	32	82	25	0,420
V0583	VRFU 90° 1/2"	G1/2"	94	M22X1,5	32	87	30	0,582
V0588	VRFU 90° 3/4"	G3/4"	110	M35X1,5	42	108,5	40	1,360
V0576	VRFU 90° 1"	G1"	135	M35X1,5	42	126	40	1,390

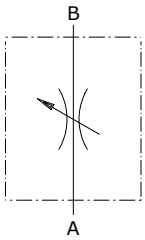
Type VRFB90
needle valves

- Bidirectional

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

	VRFB9001	VRFB9002	VRFB9003	VRFB9004	VRFB9005
Nominal flow	30 l/min *(7.9 US gpm)*	40 l/min *(10.6 US gpm)*	50 l/min *(23.8 US gpm)*	80 l/min *(21.1 US gpm)*	110 l/min *(29.1 US gpm)*
Max. pressure	350 bar *(5100 psi)*	350 bar *(5100 psi)*	350 bar *(5100 psi)*	320 bar *(4600 psi)*	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 -30°C *(-22°F)* to 80°C *(176°F)*				
Environmental temperature for working conditions	from -40°C *(-40°F)* to 100°C *(212°F)*				
Weight *steel*	0.34 kg *(0.75 lb)*	0.34 kg *(0.75 lb)*	0.43 kg *(0.95 lb)*	1.13 kg *(2.49 lb)*	1 kg *(2.2 lb)*

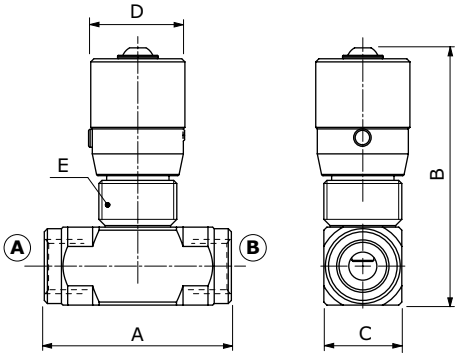
NOTE - For different conditions, please contact Sales Dpt.



Dimensions

Dimensions are in mm-*in*

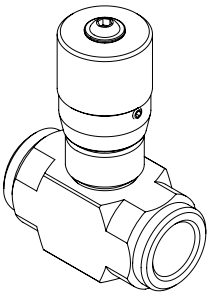
Valve type	All ports	A	B	C	D	E
VRFB9001	G1/4	58 - *2.28*	82 - *3.23*	25 - *0.98*	30 - *1.18*	M25X1.5
VRFB9002	G3/8	60 - *2.36*	82 - *3.23*	25 - *0.98*	30 - *1.18*	M25X1.5
VRFB9003	G1/2	64 - *2.52*	88 - *3.46*	30 - *1.18*	30 - *1.18*	M25X1.5
VRFB9004	G3/4	89 - *3.50*	116 - *4.57*	40 - *1.57*	42 - *1.65*	M35X1.5
VRFB9005	G1	89 - *3.50*	116 - *4.57*	40 - *1.57*	42 - *1.65*	M35X1.5



Ordering codes and description composition

Port size

VRBF90 01



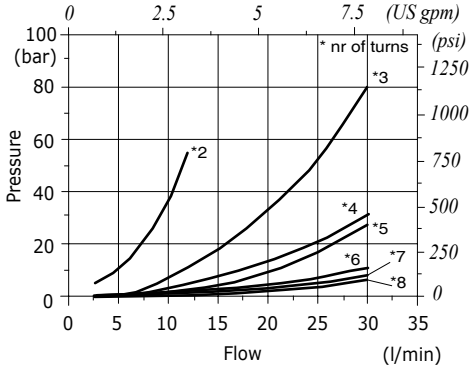
VRFB90 complete valves

TYPE	CODE	DESCRIPTION
VRFB9001	1605210100	Steel body, G1/4 ports
VRFB9002	1605220100	Steel body, G3/8 ports
VRFB9003	1605230100	Steel body, G1/2 ports
VRFB9004	1605240100	Steel body, G3/4 ports
VRFB9005	1605250100	Steel body, G1 ports

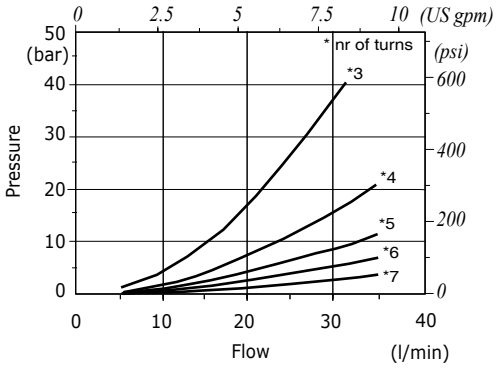
For different configurations or SAE thread please contact our Sales Dpt.

Rating diagram

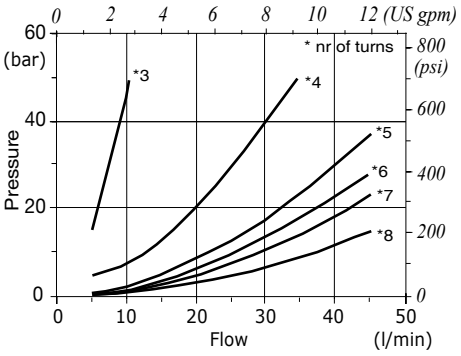
VPRFB9001
pressure drop vs. flow



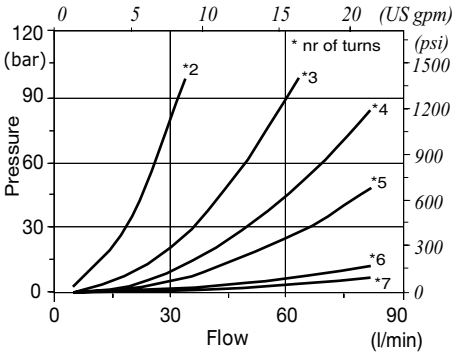
VPRFB9002
pressure drop vs. flow



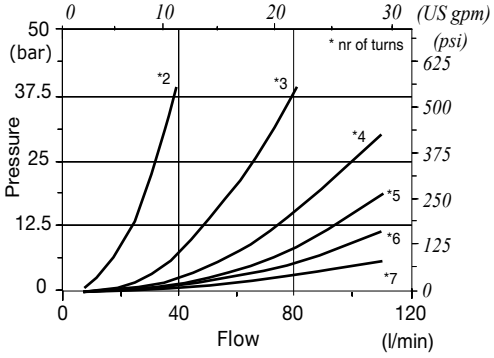
VPRFB9003
pressure drop vs. flow



VPRFB9004
pressure drop vs. flow



VPRFB9005
pressure drop vs. flow

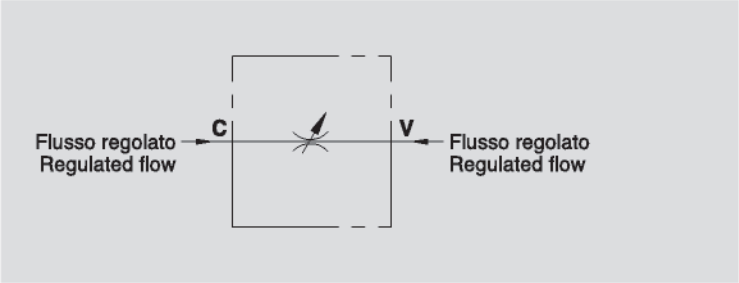


V43267 00xxxx

VALVOLE DI REGOLAZIONE FLUSSO BIDIREZIONALI A 90°
90° FLOW REGULATOR VALVES

TIPO / TYPE
VRFB 90°

SCHEMA IDRAULICO
HYDRAULIC DIAGRAM



IMPIEGO:
Valvole che permettono di regolare la velocità di un attuatore in entrambe le direzioni. Non essendo compensate alla pressione, la regolazione del fluido dipenderà dalla pressione e dalla viscosità dell'olio. Sono caratterizzate da un'elevata precisione di regolazione.

MATERIALI E CARATTERISTICHE:
Corpo: acciaio zincato.
Componenti interni: acciaio temprato termicamente e rettificato.
Guarnizioni: BUNA N standard.
Tenuta: a spillo. Trafilamento nullo a valvola chiusa.

MONTAGGIO:
Collegare uno o l'altro attacco all'alimentazione. Il flusso sarà regolato sul restante attacco. La regolazione avviene mediante rotazione del pomolo in plastica, previo allentamento del grano di fermo posto sul lato.

A RICHIESTA:
Pomello in alluminio (CODICE/AL).

USE AND OPERATION:
These valves are used to adjust speed of actuators in both directions. Pressure compensation is not provided, flow rate depends on pressure and oil viscosity. These valves are characterised by a high adjustment accuracy.

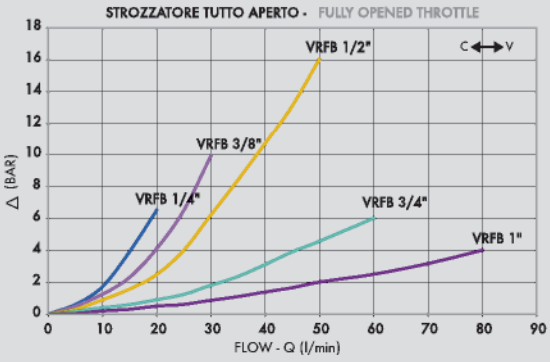
MATERIALS AND FEATURES:
Body: zinc-plated steel.
Internal parts: hardened and ground steel.
Seal: BUNA N standard.
Leakage control - needle type. Minimal leakage when the valve is closed.

CONNECTIONS:
Connect either ports to the supply and the other to the actuator to control. When used on actuators with double pilot check valves, VRFB 90° has to be mounted between the actuator and the double pilot check valve. Flow adjustment is done by rotating the plastic hand knob after loosening the side locking screw. This particular configuration allows an accurate adjustment.

ON REQUEST:
Aluminum hand knob (CODE/AL).

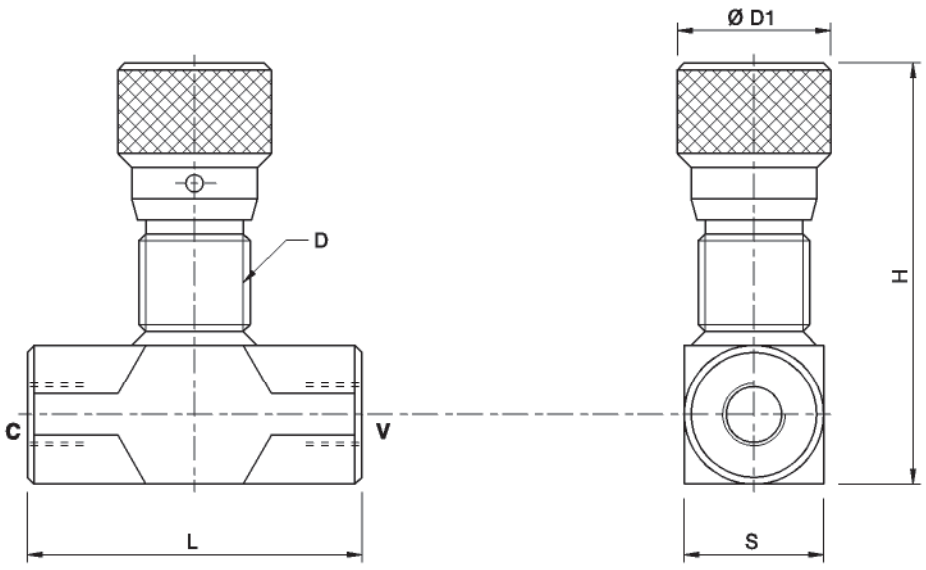
PERDITE DI CARICO
PRESSURE DROP CURVE

Temperatura olio: 50°C - Viscosità olio: 30 cSt
Oil temperature: 50° C - Oil viscosity: 30 cSt



V43267.00xxxx

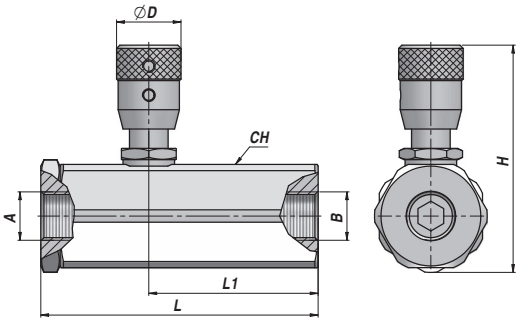
CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt. / min	PRESSIONE MAX MAX PRESSURE Bar
V0584	VRFB 90° 1/4"	15	350
V0586	VRFB 90° 3/8"	30	350
V0587	VRFB 90° 1/2"	50	350
V0589	VRFB 90° 3/4"	80	320
V0577	VRFB 90° 1"	110	300

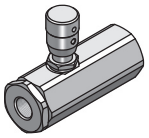


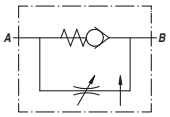
CODICE CODE	SIGLA TYPE	V - C GAS	L mm	D mm	D1 mm	H mm	S mm	PESO WEIGHT kg
V0584	VRFB 90° 1/4"	G1/4"	60	M22X1,5	32	82	25	0,366
V0586	VRFB 90° 3/8"	G3/8"	61	M22X1,5	32	82	25	0,352
V0587	VRFB 90° 1/2"	G1/2"	70	M22X1,5	32	87	30	0,468
V0589	VRFB 90° 3/4"	G3/4"	89	M35X1,5	42	108,5	40	1,080
V0577	VRFB 90° 1"	G1"	90	M35X1,5	42	129	40	1,000

REGULATEUR DE DEBIT COMPENSE (ETANCHEITE PAR CONE)
COMPENSATED FLOW CONTROL VALVE (POPPET TYPE)

VRFU 90-C







Code *Code*	A BSP	B BSP	Q MAX l/min A>B	Q MAX l/min B>A	P MAX bar	Type *Type*	L	L1	ØD	CH	H	kg
VSG523.1C0000	1/4"	1/4"	17	25	300	VRFU90-C 010	87	52.5	20	32	68	0,52
VSG523.2C0000	3/8"	3/8"	17	30	300	VRFU90-C 020	87	52.5	20	32	68	0,50
VSG523.3C0000	1/2"	1/2"	28	35	250	VRFU90-C 030	107	61.0	20	36	71	0,69

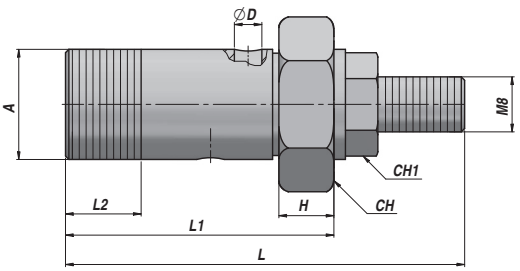
MATERIEL CORPS : ACIER
BODY MATERIAL : STEEL

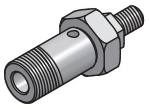
MONTAGE EN LIGNE
LINE MOUNTING

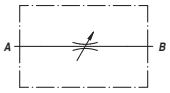
UNIDIRECTIONNEL
UNIDIRECTIONAL

REGULATEUR DE DEBIT COMPENSE
COMPENSATED FLOW CONTROL VALVE

VS







Code *Code*	A BSP	Q MAX l/min	P MAX bar	Type *Type*	L max	L1	L2	H	ØD	CH	CH1	kg x 100
V2890.1351	1/4"	-	350	VS 1/4"	36	53	15	7	2.5	19	13	5,00
V2890.1361	3/8"	-	350	VS 3/8"	39	58	15	8	3.0	22	13	8,00
V2890.1371	1/2"	-	350	VS 1/2"	46	62	16	8	4.0	27	13	14,00

REGLAGE - *SETTING* : Vis - *Screw*

MATERIEL CORPS : ACIER
BODY MATERIAL : STEEL

MONTAGE SUR VERIN
CYLINDER MOUNTING

Type VPR/2/RL/EX

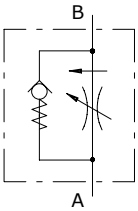
flow control pressure compensated valves

- With check valve
- Compensated

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

	VPR/2/RL/EX 14/V	VPR/2/RL/EX 38/V	VPR/2/RL/EX 12/V
Nominal flow	17 l/min *(4.5 US gpm)*	17 l/min *(4.5 US gpm)*	35 l/min *(9.2 US gpm)*
Nominal flow from B to A	25 l/min *(6.6 US gpm)*	30 l/min *(7.9 US gpm)*	45 l/min *(11.9 US gpm)*
Max. pressure	300 bar *(4350 psi)*	300 bar *(4350 psi)*	250 bar *(3600 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*	0.52 kg *(1.15 lb)*	0.50 kg *(1.1 lb)*	0.69 kg *(1.52 lb)*

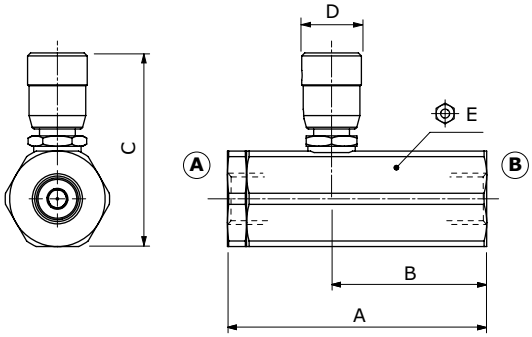
NOTE - For different conditions, please contact Sales Dpt.



Dimensions

Dimensions are in mm-*in*

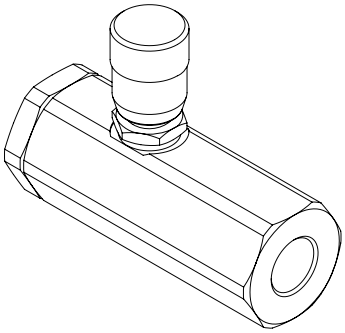
Valve type	All ports	A	B	C	D	⌖E
VPR/2/RL/EX 14/V	G1/4	87 - *3.42*	52.5 - *2.07*	68 - *2.68*	20 - *0.79*	32
VPR/2/RL/EX 38/V	G3/8	87 - *3.42*	52.5 - *2.07*	68 - *2.68*	20 - *0.79*	32
VPR/2/RL/EX 12/V	G1/2	107 - *4.21*	61 - *2.40*	71 - *2.79*	20 - *0.79*	36



Ordering codes and description composition

Port size

VPR/2/RL/EX 14/V



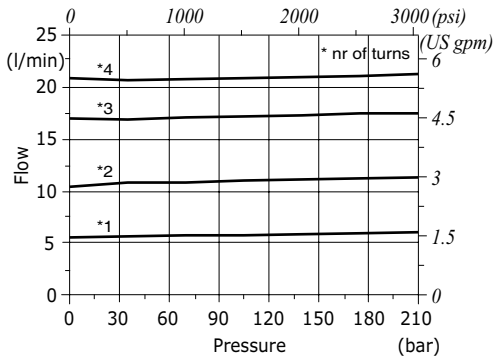
VRFU90C complete valves

TYPE	CODE	DESCRIPTION
VPR/2/RL/EX 14/V	1605510100	Steel body, G1/4 ports
VPR/2/RL/EX 38/V	1605520100	Steel body, G3/8 ports
VPR/2/RL/EX 12/V	1605530100	Steel body, G1/2 ports

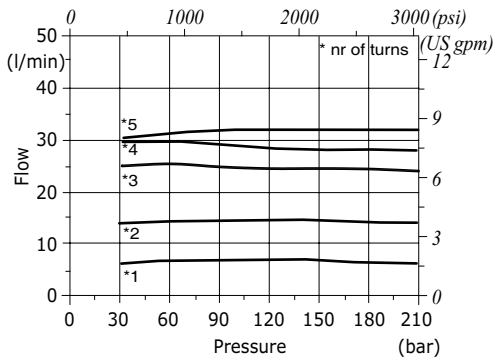
For other steel body configurations or SAE thread please contact our Sales Dpt.

Rating diagram

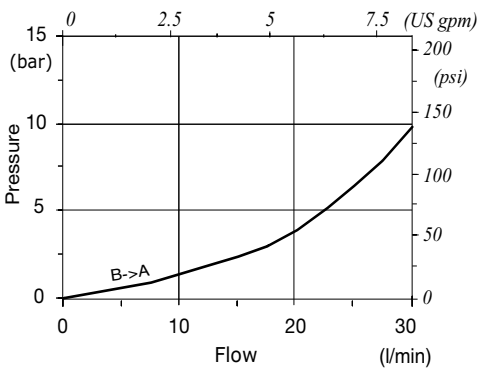
VPR/2/RL/EX 14/V - VPR/2/RL/EX 38/V
pressure drop vs. flow compensated (A→B)



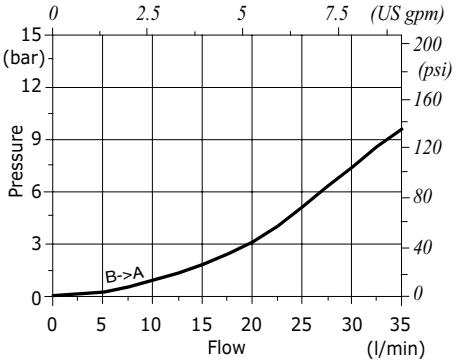
VPR/2/RL/EX 12/V
pressure drop vs. flow compensated (A→B)



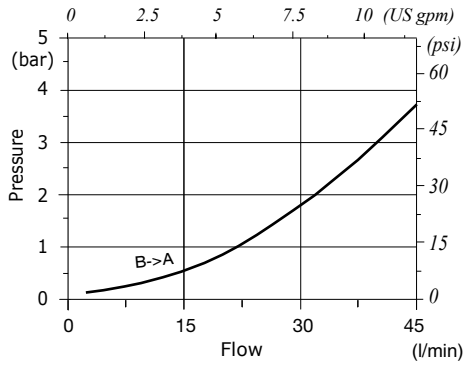
VPR/2/RL/EX 14/V
pressure drop vs. flow (B→A)



VPR/2/RL/EX 38/V
pressure drop vs. flow (B→A)



VPR/2/RL/EX 12/V
pressure drop vs. flow (B→A)

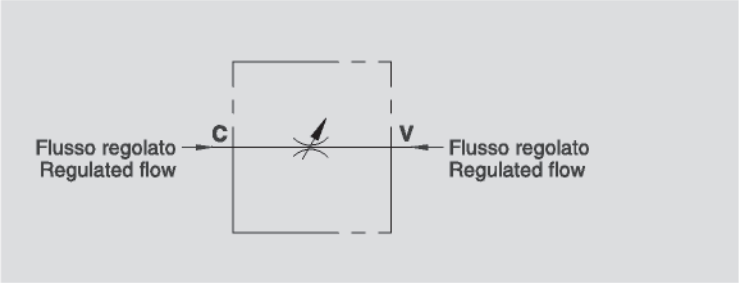


VITE STROZZATRICE
THROTTLE SCREW

TIPO / TYPE

VS

SCHEMA IDRAULICO
HYDRAULIC DIAGRAM



IMPIEGO:
Vite utilizzata sugli attuatori come strozzatore bidirezionale nei casi in cui si necessiti di una regolazione "grossolana" o quando le dimensioni di ingombro non consentono il montaggio di uno strozzatore in linea. Caratterizzato dal prezzo economico, non offre tuttavia la sicurezza di una valvola di regolazione flusso.

MATERIALI E CARATTERISTICHE:
Corpo: acciaio zincato.

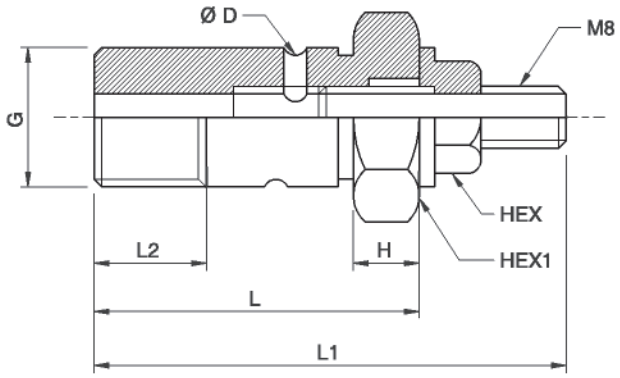
MONTAGGIO:
Avvitare la vite direttamente sulle bocche dell'attuatore.

USE AND OPERATION:
This throttle screw is used on actuators as a bi-directional restrictor when only coarse adjustment is required or when small installation dimensions don't allow the mounting of an in-line restrictor. It's a cost effective solution, but it doesn't guarantee the same security of a flow regulator valve.

MATERIALS AND FEATURES:
Body: zinc-plated steel.

CONNECTIONS:
Screw in the screw directly on actuator's ports

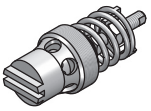
CODICE CODE	SIGLA TYPE	PRESSIONE MAX MAX PRESSURE Bar
R1351	VS 1/4"	350
R1361	VS 3/8"	350
R1371	VS 3/8"	350

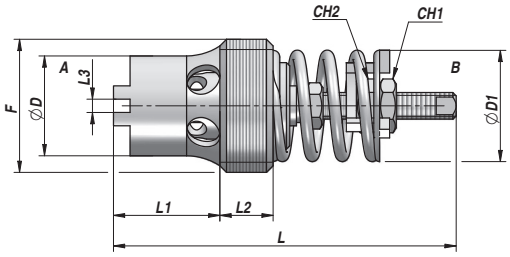


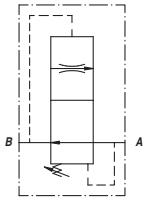
CODICE CODE	SIGLA TYPE	G GAS	L mm	L1 mm	L2 mm	H mm	D mm	E mm	E1 mm	PESO WEIGHT kg
R1351	VS 1/4"	G1/4"	36	53	15	7	2,5	13	19	0,046
R1361	VS 3/8"	G3/8"	39	58	15	8	3	13	22	0,074
R1371	VS 1/2"	G1/2"	46	62	16	8	4	13	27	0,136

VRD

VALVE DE FREINAGE REGLABLE
ADJUSTABLE DESCENT CONTROL VALVE







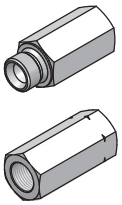
Code *Code*	F BSP	Q MAX l/min B>A	Q MAX l/min A>B	P MAX bar	Type *Type*	L	L1	L2	L3	ØD	ØD1	CH1	CH2	kg x 100
VCG501.100*00	1/4"	10	25	300	VRD 010-*	39	11.5	8.0	-	10.0	10.0	5.5	5.5	1,20
VCG501.200*00	3/8"	25	50	300	VRD 020-*	45	16.0	6.0	2	11.5	13.5	6.0	7.0	2,20
VCG501.300*00	1/2"	67	90	300	VRD 030-*	50	17.0	7.0	2	16.0	18.0	6.0	7.0	3,60
VCG501.400*00	3/4"	150	220	300	VRD 040-*	60	21.5	9.5	2	20.0	23.0	6.0	7.0	6,90

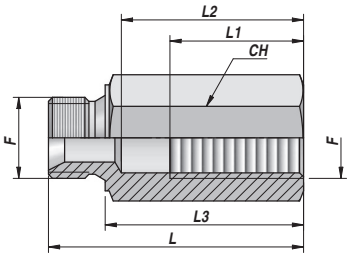
* = Plage de Réglage - *Flow Range* (l/min - 50 bar) :
* VRD 010: **1**=(1.0-1.6) - **2**=(1.6-2.5) - **3**=(2.5-4.0) - **4**=(4.0-6.3) - **5**=(6.3-10)
* VRD 020: **1**=(2.5-4.0) - **2**=(4.0-6.3) - **3**=(6.3-10) - **4**=(10-16) - **5**=(16-25)
* VRD 030: **1**=(16-21) - **2**=(21-28) - **3**=(28-37) - **4**=(37-50) - **5**=(50-67)
* VRD 040: **1**=(37-50) - **2**=(50-67) - **3**=(67-90) - **4**=(90-120) - **5**=(120-150)

MATERIEL CORPS : ACIER — CARTOUCHE
BODY MATERIAL : STEEL — CARTRIDGE

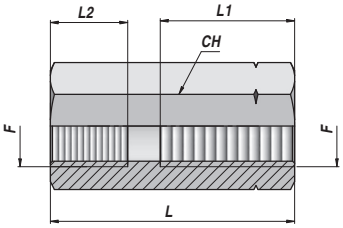
CMF x VRD CFF x VRD

RACCORD POUR VALVE "VRD"
"VRD" VALVE ADAPTER





TYPE CMF



TYPE CFF

Code *Code*	F BSP	P MAX bar	Type *Type*	L	L1	L2	L3	CH	kg x 100
MALE-FEMELLE *MALE-FEMALE*									
VCG502.100000	1/4"	350	CMFxVRD-010	76	41	61	66	19	9,00
VCG502.200000	3/8"	350	CMFxVRD-020	82	41	63	70	22	11,00
VCG502.300000	1/2"	350	CMFxVRD-030	100	45	79	86	27	16,50
VCG502.400000	3/4"	300	CMFxVRD-040	112	55	86	96	32	25,00
FEMELLE-FEMELLE *FEMALE-FEMALE*									
VCG503.100000	1/4"	350	CFFxVRD-010	66	34	12	-	19	8,00
VCG503.200000	3/8"	350	CFFxVRD-020	70	37	14	-	22	11,00
VCG503.300000	1/2"	350	CFFxVRD-030	80	41	16	-	27	16,50
VCG503.400000	3/4"	300	CFFxVRD-040	100	54	19	-	32	25,00

MATERIEL : ACIER
MATERIAL : STEEL

Disponibilités & Tarifs en ligne sur **www.unidro-contarini.com/fr/disponibilites-tarifs**
*Availability & Rates online on **www.unidro-contarini.com/fr/disponibilites-tarifs/***

La société peut apporter toute modification au produit sans avis préalable.
The company reserves the right to modify the product at any time without prior notice.

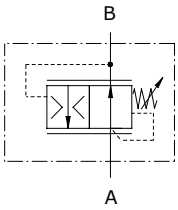
Type VDR
flow control pressure compensated valves

- 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.

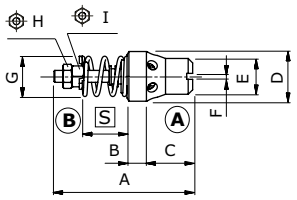
	VDR 14	VDR 38	VDR 12	VDR 34
Nominal flow from A to B	25 l/min *(6.6 US gpm)*	50 l/min *(13.2 US gpm)*	90 l/min *(23.8 US gpm)*	220 l/min *(58.1 US gpm)*
Nominal flow from B to A	10 l/min *(2.6 US gpm)*	25 l/min *(6.6 US gpm)*	67 l/min *(17.7 US gpm)*	150 l/min *(39.6 US gpm)*
Max. pressure	300 bar *(4350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

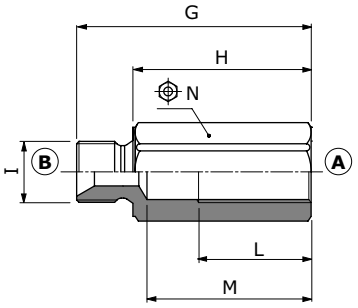


Dimension

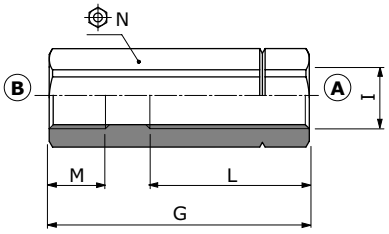
Type VDR



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

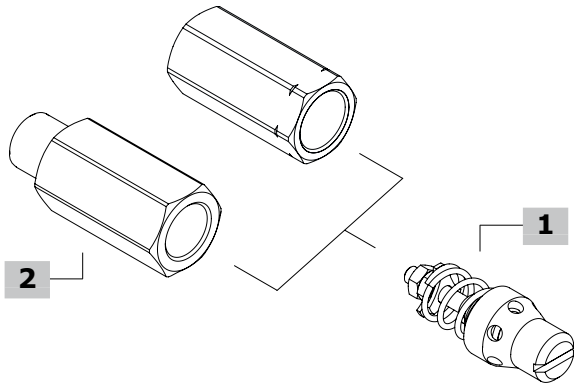
Ordering codes and description composition

Port size

VDR / F 14 - 5

2 **1**

Flow setting range



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

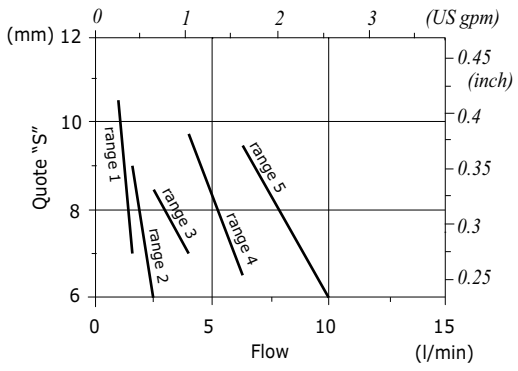
For different configurations or SAE thread please contact our Sales Dpt.

1 Valve

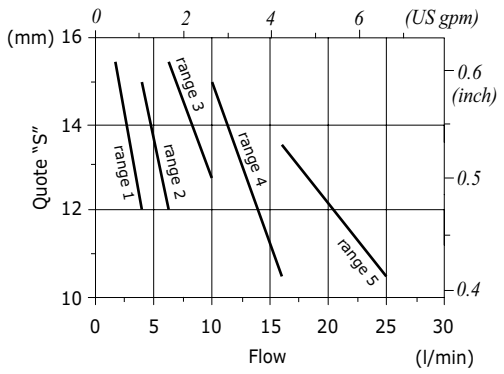
TYPE	CODE	DESCRIPTION
With G1/4 ports		
VDR 14-1	1661010100	Range type 1
VDR 14-2	1661010101	Range type 2
VDR 14-3	1661010102	Range type 3
VDR 14-4	1661010103	Range type 4
VDR 14-5	1661010104	Range type 5
With G3/8 ports		
VDR 38-1	1661020100	Range type 1
VDR 38-2	1661020101	Range type 2
VDR 38-3	1661020102	Range type 3
VDR 38-4	1661020103	Range type 4
VDR 38-5	1661020104	Range type 5
With G1/2 ports		
VDR 12-1	1661030100	Range type 1
VDR 12-2	1661030101	Range type 2
VDR 12-3	1661030102	Range type 3
VDR 12-4	1661030103	Range type 4
VDR 12-5	1661030104	Range type 5
With G3/4 ports		
VDR 34-1	1661040100	Range type 1
VDR 34-2	1661040101	Range type 2
VDR 34-3	1661040102	Range type 3
VDR 34-4	1661040103	Range type 4
VDR 34-5	1661040104	Range type 5

Rating diagrams

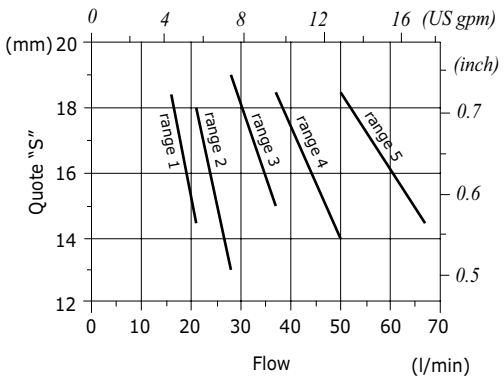
VDR 14 pressure flow setting range



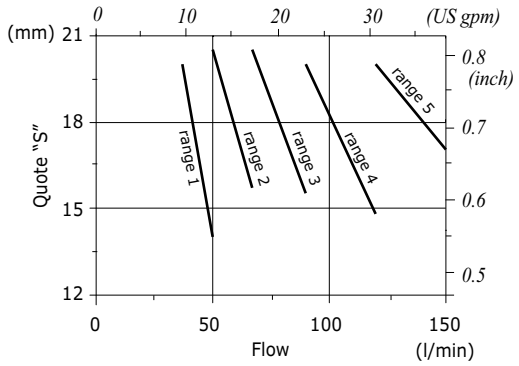
VDR 38 pressure flow setting range



VDR 12 pressure flow setting range

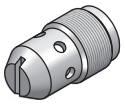


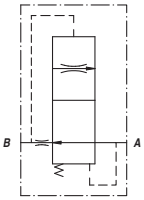
VDR 34 pressure flow setting range

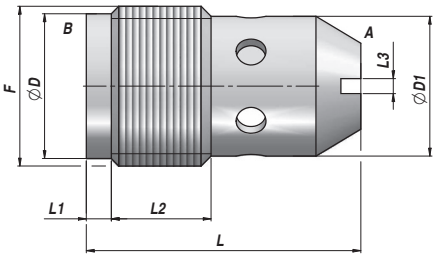


VALVE DE FREINAGE
DESCENT CONTROL VALVE

VSC







Code *Code*	F BSP	Q MAX l/min B>A	Q MAX l/min A>B	P MAX bar	Type *Type*	L	L1	L2	L3	ØD	ØD1	kg x 100
VCG505.10*000	1/4"	10	15	350	VSC 010-*	23	1.5	7.0	1.5	-	10.5	1,00
VCG505.20*000	3/8"	16	25	350	VSC 020-*	28	2.5	10.5	1.5	14.5	14.0	2,60
VCG505.30*000	1/2"	45	60	350	VSC 030-*	36	5.0	12.0	2.0	18.0	17.0	5,00

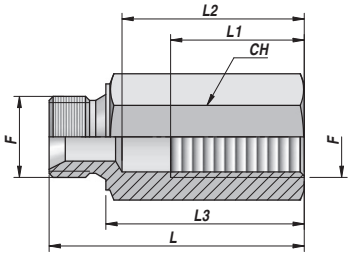
* = Débit nominal - *Nominal Flow* (l/min - 50 bar) :
* VSC010: **A**= 1 - **B**= 2 - **C**= 3 - **D**= 4 - **E**= 5 - **F**= 6 - **G**= 7 - **H**= 8 - **I**= 9 - **L**=10
* VSC020: **A**= 2 - **B**= 4 - **C**= 6 - **D**= 8 - **E**=10 - **F**=12 - **G**=14 - **H**=16
* VSC030: **A**=12 - **B**=16 - **C**=20 - **D**=25 - **E**=30 - **F**=35 - **G**=40 - **H**=45

MATERIEL CORPS : ACIER
BODY MATERIAL : STEEL

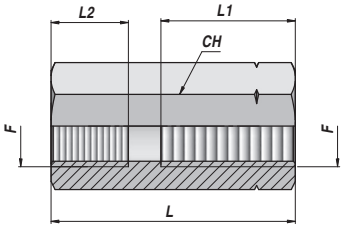
MONTAGE EN LIGNE
LINE MOUNTING

RACCORD POUR VALVE "VSC"
"VSC" VALVE ADAPTER

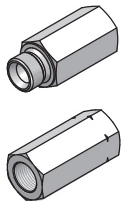
CMF x VSC **CFF x VSC**



TYPE CMF



TYPE CFF



Code *Code*	F BSP	P MAX bar	Type *Type*	L	L1	L2	L3	CH	kg x 100
MALE-FEMELLE *MALE-FEMALE*									
VCG506.100000	1/4"	350	CMFxVSC-010	62	42	45	50	19	7,00
VCG506.200000	3/8"	350	CMFxVSC-020	82	41	63	70	22	9,50
VCG506.300000	1/2"	350	CMFxVSC-030	100	45	79	86	27	14,70
FEMELLE-FEMELLE *FEMALE-FEMALE*									
VCG507.100000	1/4"	350	CFFxVSC-010 *	50	21	12	-	19	8,00
VCG507.200000	3/8"	350	CFFxVSC-020	70	37	14	-	22	11,00
VCG507.300000	1/2"	350	CFFxVSC-030	80	50	16	-	27	16,50

* = Monter la valve renversée - *Insert the valve in the inverse direction*

MATERIEL : ACIER
MATERIAL : STEEL

Type VDR/CO

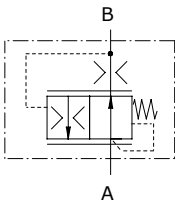
flow control pressure compensated valves

- 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.

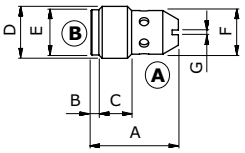
		VDR/CO 14	VDR/CO 38	VDR/CO 12
Nominal flow from A to B		15 l/min *(3.96 US gpm)*	25 l/min *(6.6 US gpm)*	60 l/min *(15.9 US gpm)*
Nominal flow from B to A		10 l/min *(2.6 US gpm)*	16 l/min *(4.2 US gpm)*	45 l/min *(11.9 US gpm)*
Max. pressure			350 bar *(5100 psi)*	
Fluid			mineral based oil	
Viscosity			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 Sales Dpt.

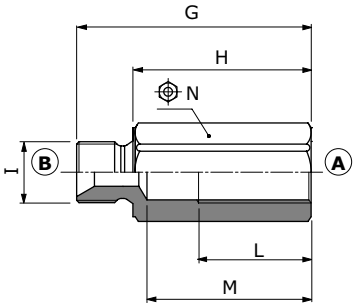


Dimension

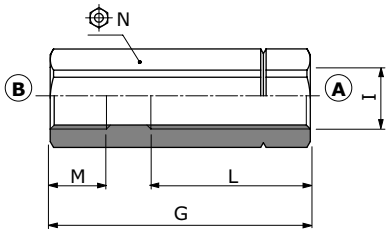
Type VDR/CO



Housing type VDR/CO/M



Housing type VDR/CO/F



Dimensions are in mm-*in*

Valve type	A	B	C	D	E	F	G
VDR/CO 14	23 *0.9*	1.5 *0.06*	7 *0.27*	G 1/4	-	10.5 *0.41*	1.5 *0.06*
VDR/CO 38	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*
VDR/CO 12	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
MF	**14**	62 *2.44*	50 *1.97*	G 1/4	42 *1.65*	45 *1.77*	19
	38	82 *3.23*	70 *2.75*	G 3/8	41 *1.61*	63 *2.48*	22
	12	80 *3.15*	66 *2.60*	G 1/2	50 *1.97*	57 *2.32*	27
FF	**14***	50 *1.97*	-	G 1/4	21 *0.83*	12.5 *0.49*	19
	38	70 *2.75*	-	G 3/8	37 *1.46*	14 *0.55*	22
	12	80 *3.15*	-	G 1/2	50 *1.97*	16 *0.63*	27

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

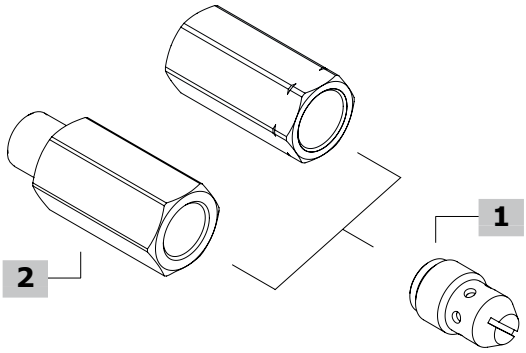
Ordering codes and description composition

Port size

VDR/CO / F 14 - 2 l/min

2 **1**

Nominal flow



VDR/CO complete valves

Chartridge with steel housing

TYPE	CODE	DESCRIPTION
VDR/CO/F 14-2	1661610100	Female-female G1/4 ports, range 2 l/min - *0.53 US gpm*
VDR/CO/F 38-2	1661620100	Female-female G3/8 ports, range 2 l/min - *0.53 US gpm*
VDR/CO/F 12-12	1661630100	Female-female G1/2 ports, range 12 l/min - *3.2 US gpm*
VDR/CO/M 14-2	1661710100	Male-female G1/4 ports, range 2 l/min - *0.53 US gpm*
VDR/CO/M 38-2	1661720100	Male-female G3/8 ports, range 2 l/min - *0.53 US gpm*
VDR/CO/M 12-12	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.
MF14	CMFVSC01	G1/4, M-F	**MF03**	CMFVSC03	G1/2, M-F
FF14	CFFVUBA-VSC01	G1/4, F-F	**FF03**	CFFVSC03	G1/2, F-F
MF02	CMFVSC02	G3/8, M-F			
FF02	CFFVSC02	G3/8, F-F			

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

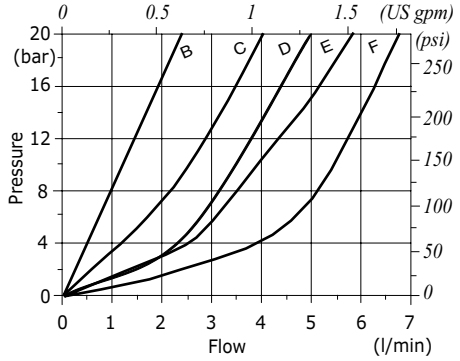
1 Valve

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

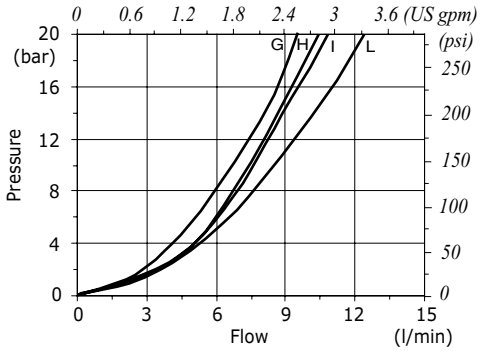
NOTE - Nominal flow ± 10% @ 100 bar - *1440 psi*

Rating diagrams

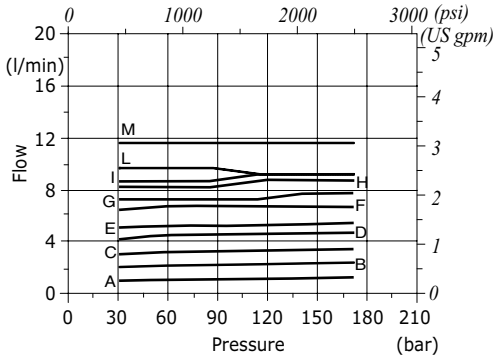
VDR/CO 14 pressure drop vs. flow (A→B) B-C-D-E-F nominal flow



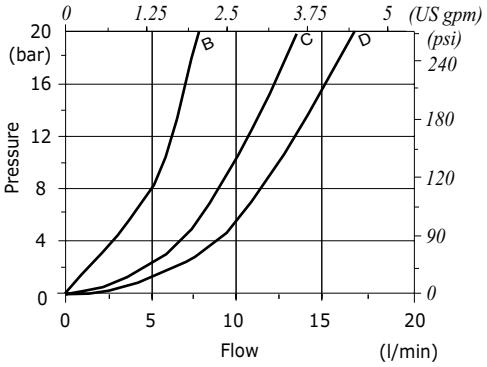
VDR/CO 14 pressure drop vs. flow (A→B) G-H-I-L nominal flow



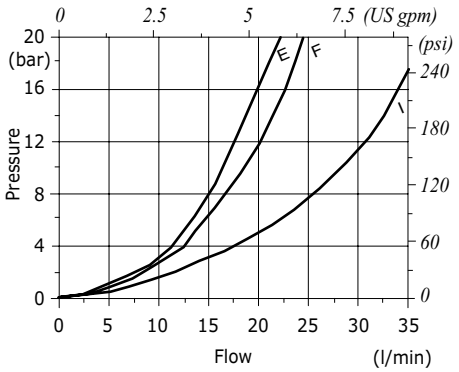
VDR/CO 14 pressure drop vs. flow (B→A) compensation diagram



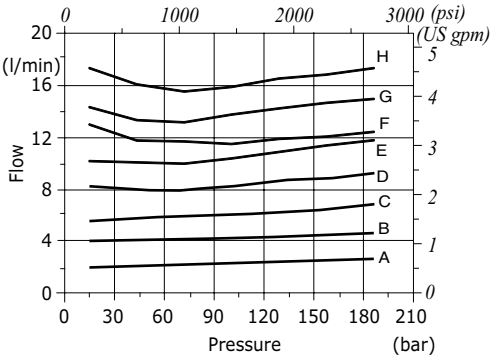
VDR/CO 38 pressure drop vs. flow (A→B) B-C-D nominal flow



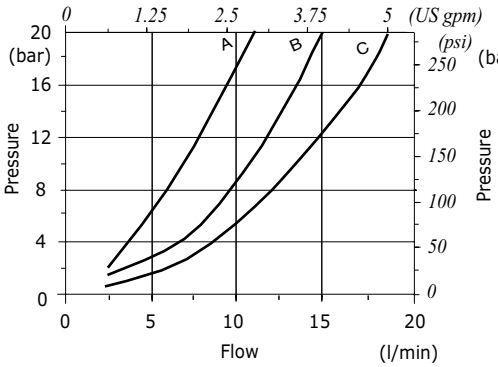
VDR/CO 38 pressure drop vs. flow (A→B) E-F-I nominal flow



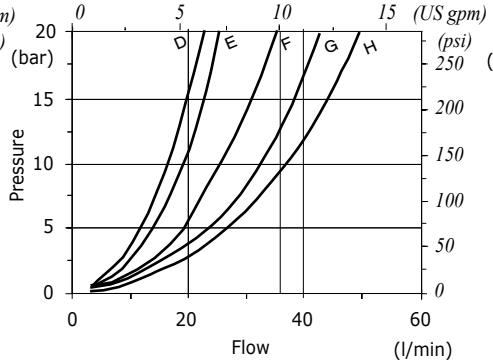
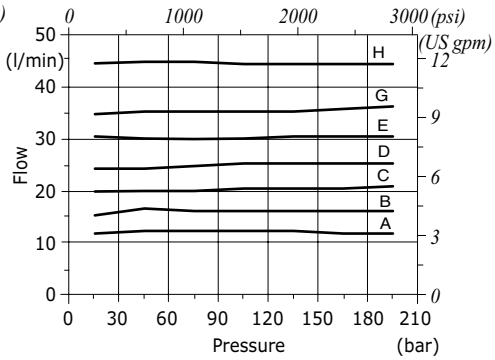
VDR/CO 38 pressure drop vs. flow (B→A) compensation diagram



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