



**BREVINI®***Motion Systems*

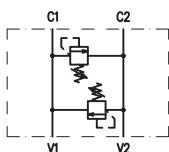
VALVES & ACCESSORIES

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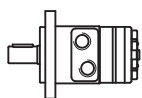
BGM



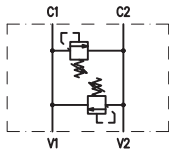
VAF 06-D



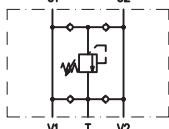
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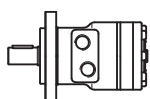
VAF 08-D
VAF E8-D



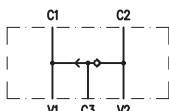
VAAF 31



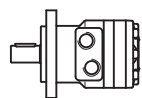
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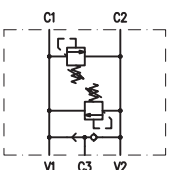
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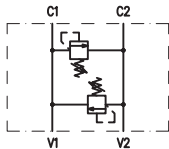
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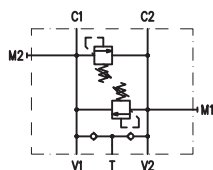
VAF 08-D/AF



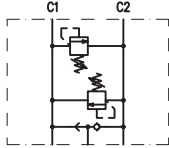
VAF 09-D



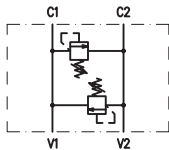
VAAF 09/40



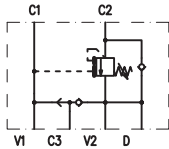
VAF 09-D/AF



VAF 10-D

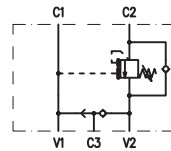


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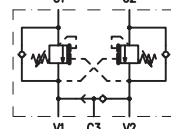


The valves showed on this catalogue, are in metric version.
For SAE version, please contact us

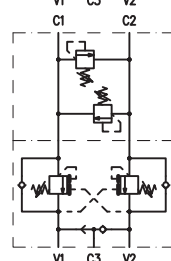
VCD 08-S/AF
VCD E8-S/AF



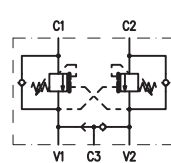
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VCR1 E8-D/AF



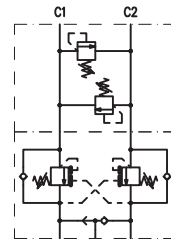
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VCR1 E8-D/AF-LDP



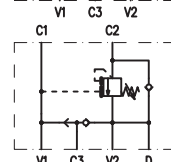
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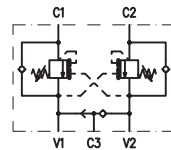
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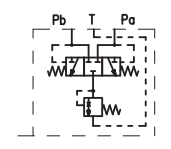
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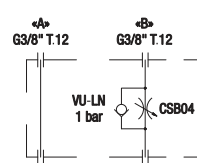
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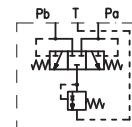
VSC



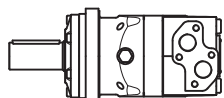
VRP 09



VSC



HT



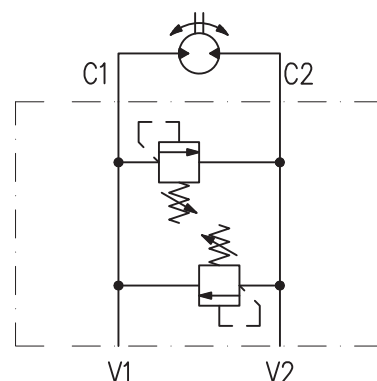
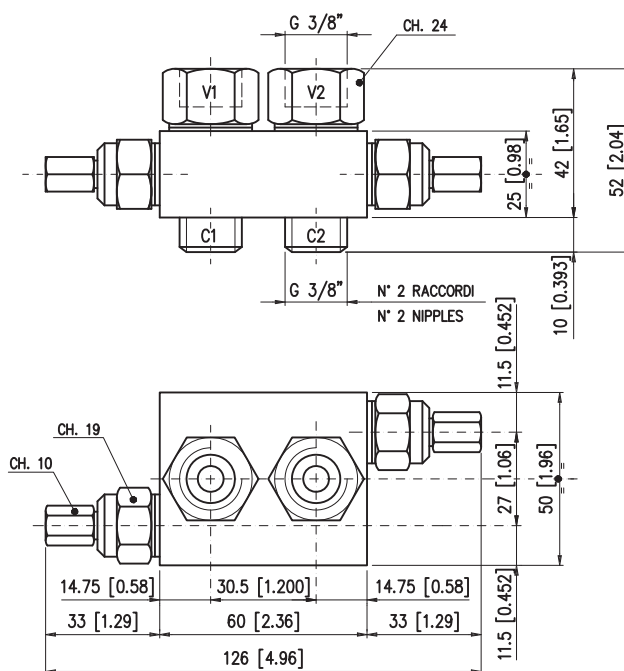
VAF 06-D

Pressure relief valve, flangeable on **BGM** series hydraulic motors which protects the motor from excessive peak pressure, especially at start, stop and inversion.

Double cartridge (VAF 06-D) as standard.

For shaft rotation in one direction only, a single cartridge version (VAF 06-S) is available as well. If not requested, valves are supplied not set.

Any setting requirement must be specified at ordering by stating pressure and flow. Setting range between 50 and 150 bar [725 and 2175 psi].



VAF 06 - S (50÷150 bar / 725÷2175 psi) Code: 521.3025.0111

VAF 06 - D (50÷150 bar / 725÷2175 psi) Code: 521.3025.0121

Max working pressure	250 bar [3625 psi]
Max flow	20 l/min [5.28 U.S. gpm]
Weight	0.2 kg [0.4 lb]

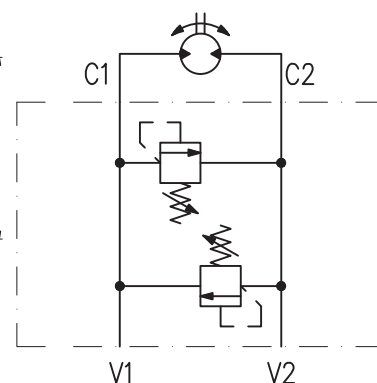
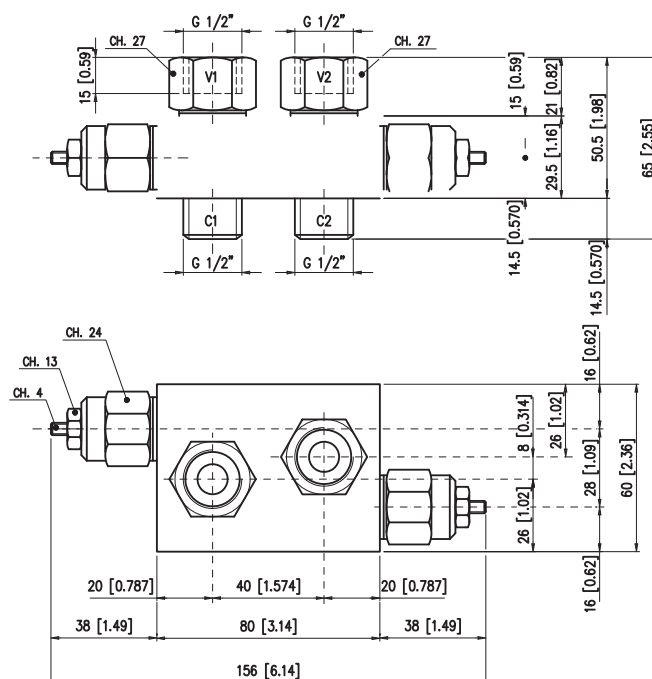
VAF 08 - D

Pressure relief valve, flangeable on **AR, BR, BG** series motors which protects the motor from excessive peak pressure, particularly at start, stop and inversion.

Double cartridge (VAF 08-D) as standard.

For shaft rotation in one direction only, a single cartridge version (VAF 08-S) is available as well. If not requested, valves are supplied not set.

Any setting requirement must be specified at ordering by stating pressure and flow. Two setting ranges are available: 70 to 200 bar [1015 to 2900 psi] as standard and 30 to 70 bar [435 to 1015 psi] as optional.



VAF 08 - S (30÷70 bar / 435÷1015 psi) Code: 521.3030.1111

VAF 08 - D (30÷70 bar / 435÷1015 psi) Code: 521.3030.1121

VAF 08 - S (70÷200 bar / 1015÷2900 psi) Code: 521.3030.0111

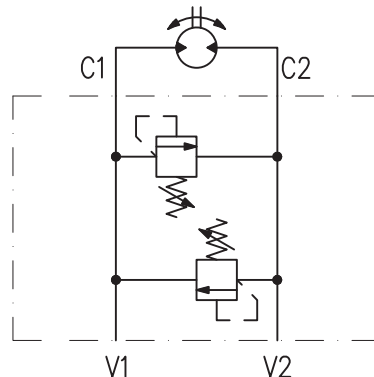
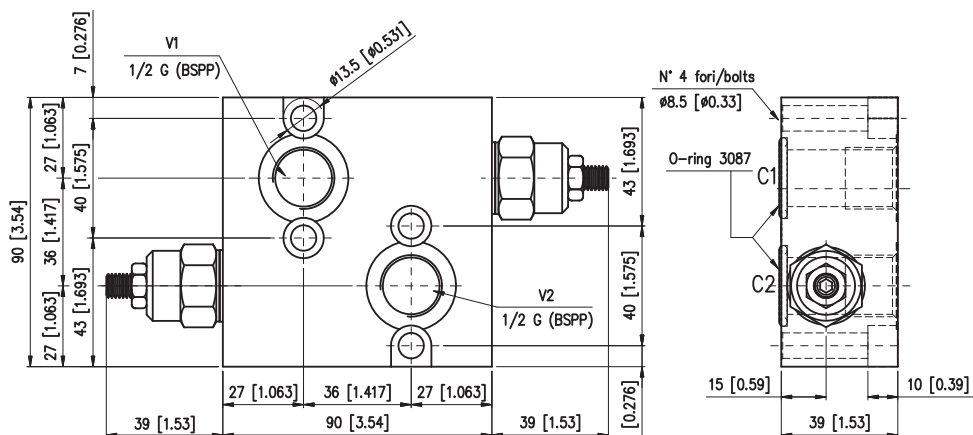
VAF 08 - D (70÷200 bar / 1015÷2900 psi) Code: 521.3030.0121

Max working pressure	250 bar [3625 psi]
Max flow	50 l/min [13.2 U.S. gpm]
Weight	0.8 kg [1.76 lb]

VAF E8 - D

Pressure relief valve, flangeable on **BR E**, **BG E** series motors which protects the motor from excessive peak pressure, particularly at start, stop and inversion. If not requested, valves are supplied not set. Any setting requirement must be specified at ordering by stating pressure and flow.

Two setting ranges are available: 50 to 130 bar [725 to 1885 psi] as standard and 100 to 200 bar [1450 to 2900 psi] as optional.



Warning: minimum quantity for order 20 pieces

VAF E8 - D (100÷200 bar / 1450÷2900 psi) Code: SPO00000206

VAF E8 - D (50÷130 bar / 725÷1885 psi) Code: SPO00000207

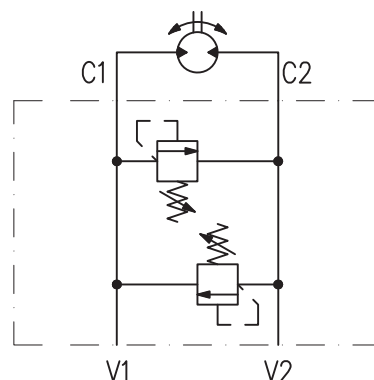
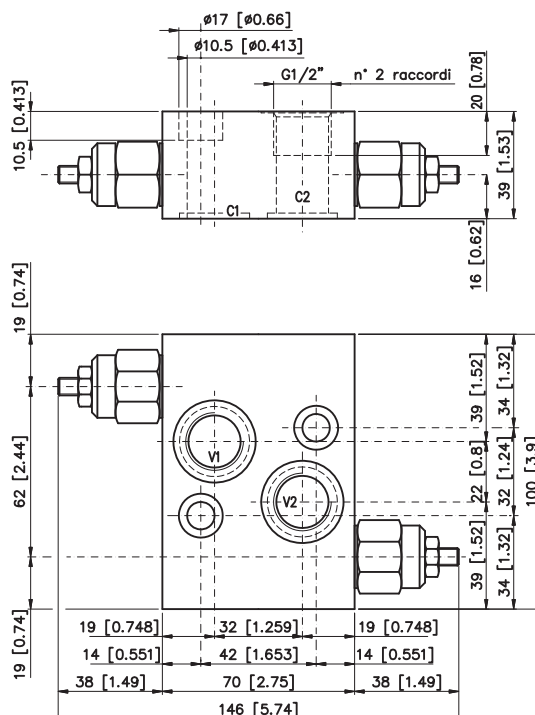
Max working pressure	250 bar [3625 psi]
Max flow	50 l/min [13.2 U.S. gpm]
Weight	0.8 kg [1.76 lb]

VAF 09 - D

Pressure relief valve flangeable on **HR** series motors which protects the motor from excessive peak pressure build-up particularly at start, stop and inversion. If not requested, valves are supplied not set.

Any setting requirement must be specified at ordering by stating pressure and flow.

Two setting ranges are available: 100 to 200 bar [1450 to 2900 psi] as standard and 50 to 100 bar [725 to 1450 psi] as optional.



Max working pressure	250 bar [3625 psi]
Max flow	50 l/min [13.2 U.S. gpm]
Weight	0.8 kg [1.76 lb]

VAF 09 - D (100÷200 bar / 1450÷2900 psi) Code: SPO00000209

VAF 09 - D (50÷100 bar / 725÷1450 psi) Code: SPO00000210

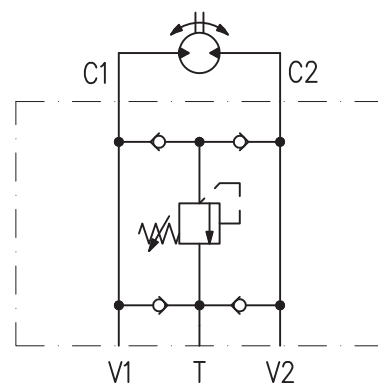
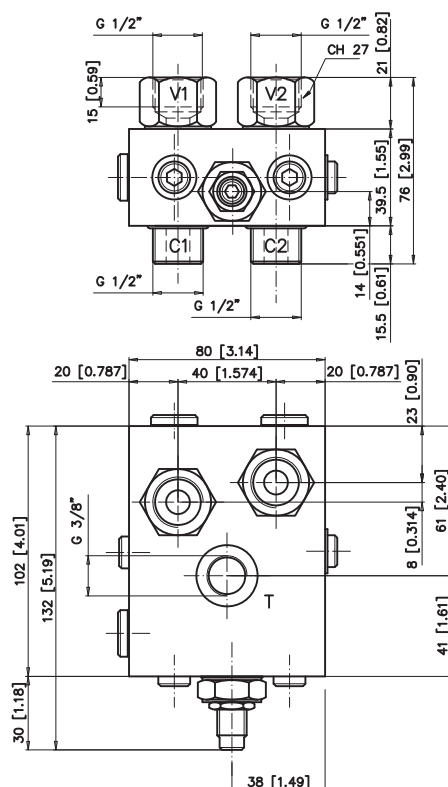
VAAF - 31

Anticavitation and antishock valve, flangeable on **AR, BR, BG** motors, which protects from excessive peak pressure when driving a high inertia mass, as well as protects from cavitation at stop and inversion.

If not requested, valves are supplied not set.

The standard setting range is 50÷130 bar [725÷1885 psi]

(100÷250 bar [1450÷3625 psi] on option).



Max working pressure	250 bar [3625 psi]
Max flow	45 l/min [11.88 U.S. gpm]
Weight	1.2 kg [2.64 lb]

VAAF 31 (50÷130 bar / 725÷1885 psi) Code: 521.2030.0114

VAAF 31 (100÷250 bar / 1450÷3625 psi) Code: 521.2030.0115

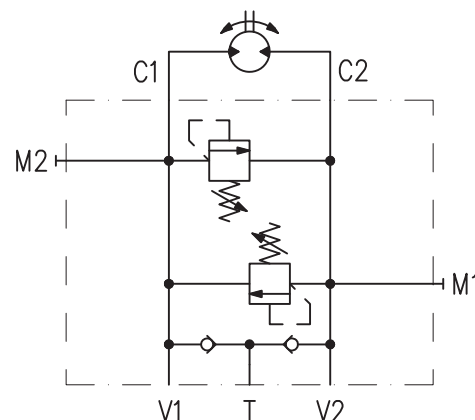
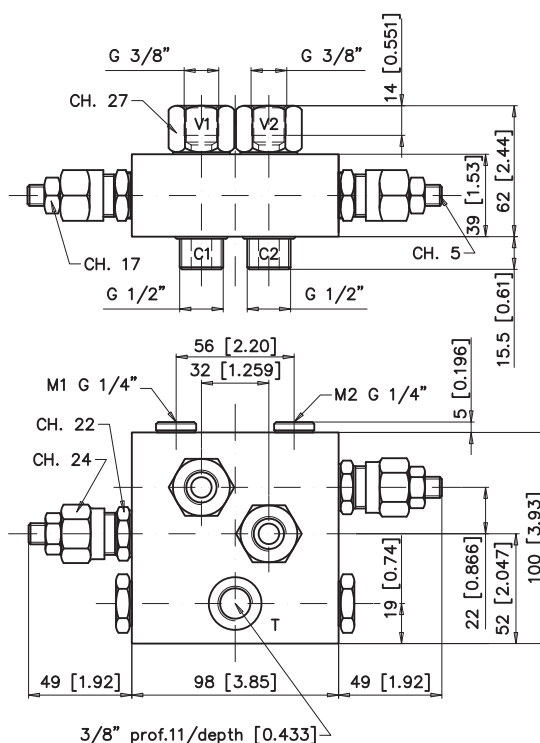
VAAF 09/40

Anticavitation and antishock valve, flangeable on **HR** motors, that protects from excessive pressure buildup when driving a high inertial mass, as well as protect from cavitation at stop and inversion.

Unless otherwise requested, valves are supplied not set.

The setting range is 50÷210 bar [725÷3045 psi]

(pressure increase: 47 bar [681 psi] screw turn).



Max working pressure	210 bar [3045 psi]
Max flow	40 l/min [10.5 U.S. gpm]
Weight	1.7 kg [3.74 lb]

VAAF 09/40 Code: 521.2040.0123

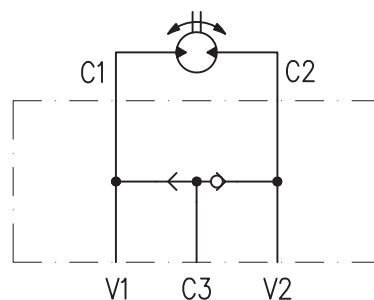
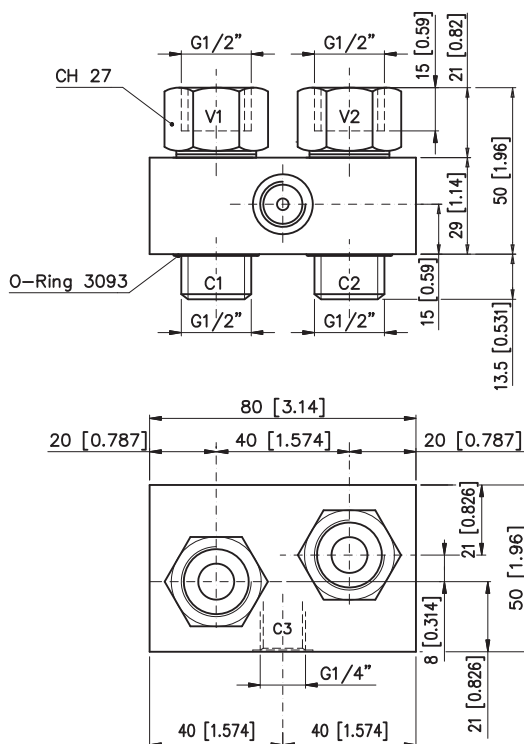
AF

Shuttle-valve flangeable on **AR**, **BR**, **BG** motors, which diverts oil under pressure to negative brakes in order to disengage them.

Suitable for ARF brake motors as well as for FP brake.

The brakes featured by the ARF are, like the FP brakes, for static use. Hence the AF shuttle valve can be used only for those applications where the brake will not be used as dynamic.

An open centre control valve bank is recommended.



Max working pressure	250 bar [3625 psi]
Max flow	60 l/min [15.8 U.S. gpm]
Weight	0.5 kg [1.10 lb]

AF Code: 521.9010.0000

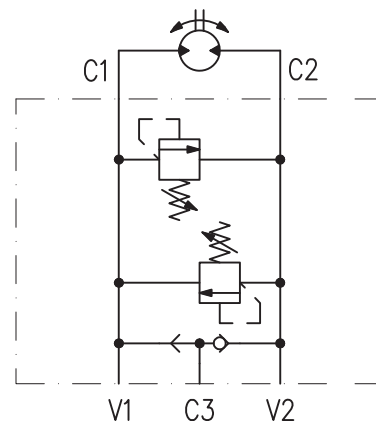
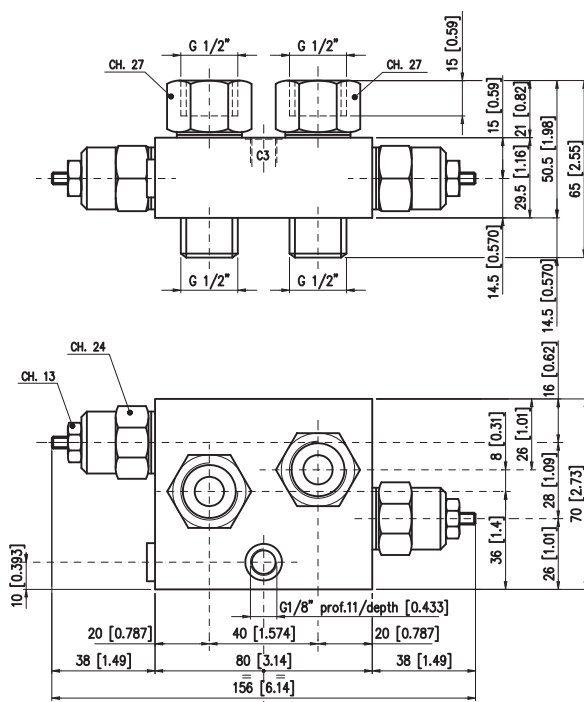
VAF 08 - D/AF

Pressure relief valve with shuttle valve, flangeable on **AR, BR, BG** series motors which protects the motor from excessive peak pressure particularly at start, stop and inversion.

If not requested, valves are supplied not set.

Any setting requirement must be specified at ordering by stating pressure and flow.

Two setting ranges are available:
70 to 200 bar [1015 to 2900 psi]
as standard and 30 to 70 bar [435
to 1015 psi] as optional.



Max working pressure	250 bar [3625 psi]
Max flow	50 l/min [13.2 U.S. gpm]
Weight	0.9 kg [1.98 lb]

VAF 08 - D/AF (30÷70 bar / 435÷1015 psi) Code: 521.3070.1121

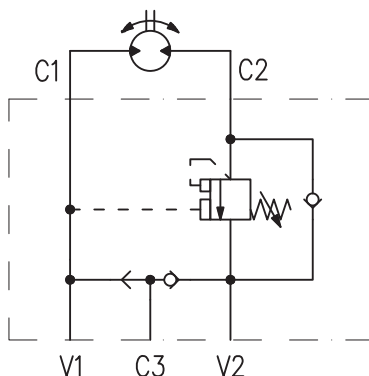
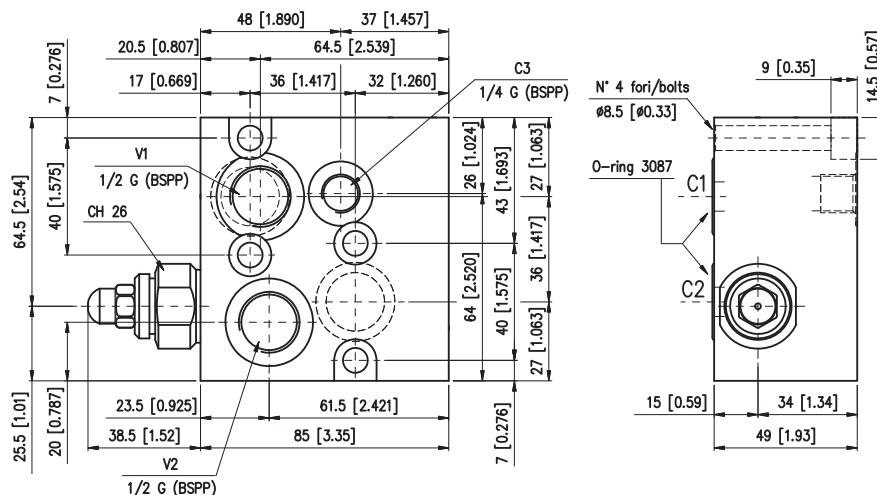
VAF 08 - D/AF (70÷200 bar / 1015÷2900 psi) Code: 521.3070.0121

VCD E8 - S/AF

Single-acting overcentre valve with shuttle valve, flangeable on **BR E, BG E** motors.

Usually flanged on winch driving brake motors with pressure released brake to control load lowering and avoid unwanted acceleration.

If not specified the valve is supplied not set. Setting range between 100 and 350 bar [1450 and 5075 psi]. The standard pilot ratio is 3,5:1.



Warning: minimum quantity for order 20 pieces VCD E8 - S/AF (3,5:1) Code: SPO00000208

Pilot ratio	3.5:1
Max working pressure	250 bar [3625 psi]
Max flow	50 l/min [13.2 U.S. gpm]
Weight	1.7 kg [3.74 lb]

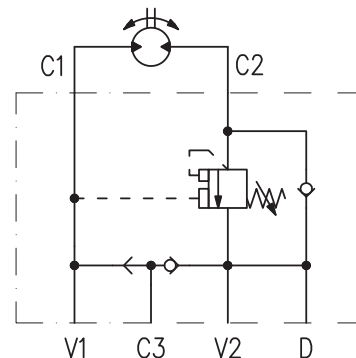
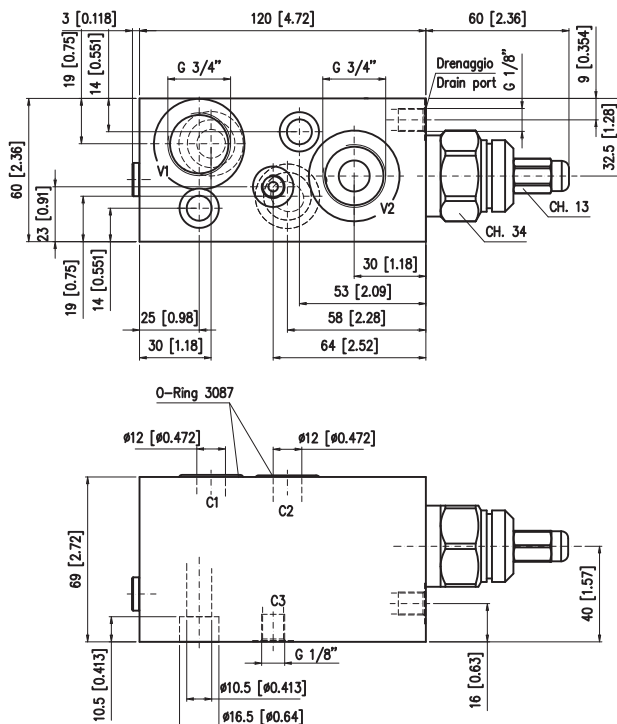
VCD1 09 - S/AF

Single acting overcentre valve with shuttle valve meant for **HR** motors, usually flanged on winch driving brake motors with pressure released brake to control load-lowering and avoid unwanted acceleration.

It's widely used also to slow down the travelling of mobile machinery before the static brake engages. It operates, of course, in one direction only. If not specified the valve is supplied not set.

It is possible to use the valve with open centre distributors.

Setting range between 100 and 210 bar [1450 and 3045 psi].



Pilot ratio	7:1 3:1
Max working pressure	250 bar [3625 psi]
Max flow	75 l/min [19.8 U.S. gpm]
Weight	1.5 kg [3.3 lb]

VCD1 09 - S/AF (7:1) Code: SPO00000155

VCD1 09 - S/AF (3:1) Code: SPO00000156

VCR1 08 - D/AF

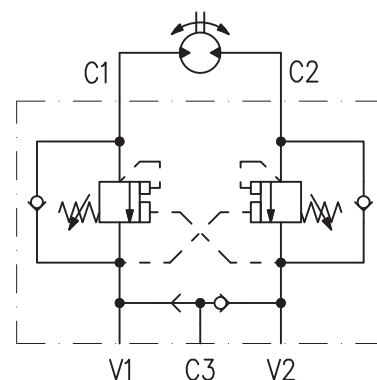
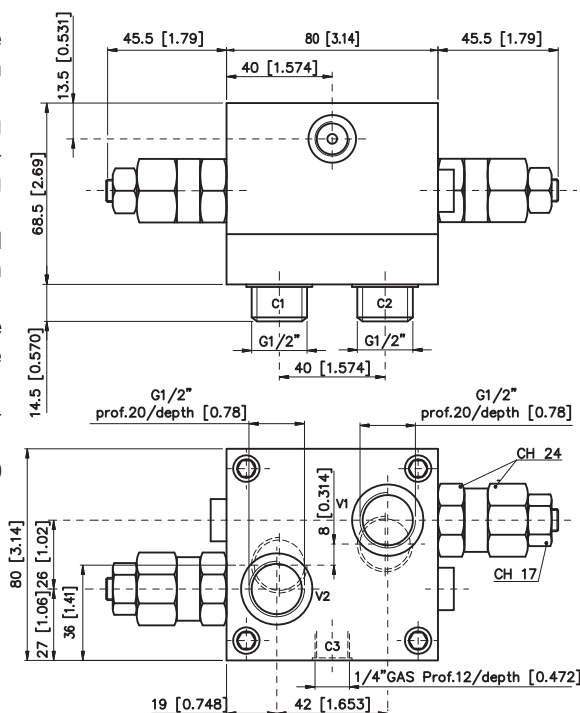
Double-acting overcentre valve with shuttle valve, flangeable on **AR, BR, BG** motors.

Usually flanged on winch driving brake motors with pressure released brake, to control load lowering and avoid unwanted acceleration. Slew drive control of cranes, aerial platforms, etcetera are common applications too.

For such applications ARF brake motors, as well as FP brakes, are widely employed.

If not specified the valve is supplied not set.

Setting range between 30 and 220 bar [435 and 3190 psi].



Pilot ratio	8:1 4.25:1
Max working pressure	350 bar [5075 psi]
Max flow	60 l/min [15.8 U.S. gpm]
Weight	1.8 kg [3.96 lb]

VCR1 08 - D/AF (4.25:1) Code: 521.2060.1007

VCR1 08 - D/AF (8:1) Code: 521.2061.1007

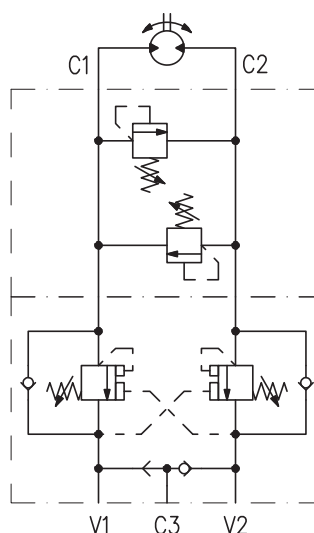
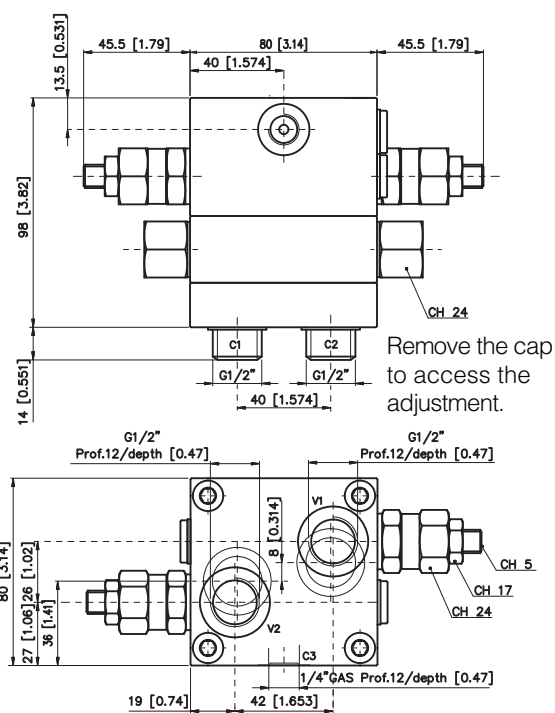
VCR1 08 - D/AF - LDP

Double-acting overcentre valve with shuttle valve, flangeable on **AR, BR, BG** motors.

Usually flanged on winch driving brake motors with pressure released brake, to control load lowering and avoid unwanted acceleration. Slew drive control of cranes, aerial platforms, etcetera are common applications too.

When it is employed in hoisting equipment the main relief valve or any anti-shock valve fitted on the hydraulic motor control valve section shall be set at pressure values higher than the VCR1 08 - D/AF - LDP relief valve. If not required the valve is supplied not set.

Setting range between 30 and 220 bar [435 and 3190 psi].



Pilot ratio	8:1 4.25:1
Max working pressure	350 bar [5075 psi]
Max flow	60 l/min [15.8 U.S. gpm]
Weight	2.5 kg [5.51 lb]

VCR1 08 - D/AF - LDP (8:1) Code: 521.2062.1017

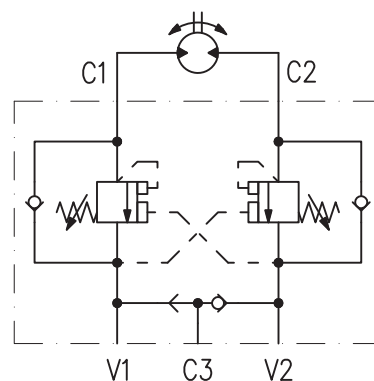
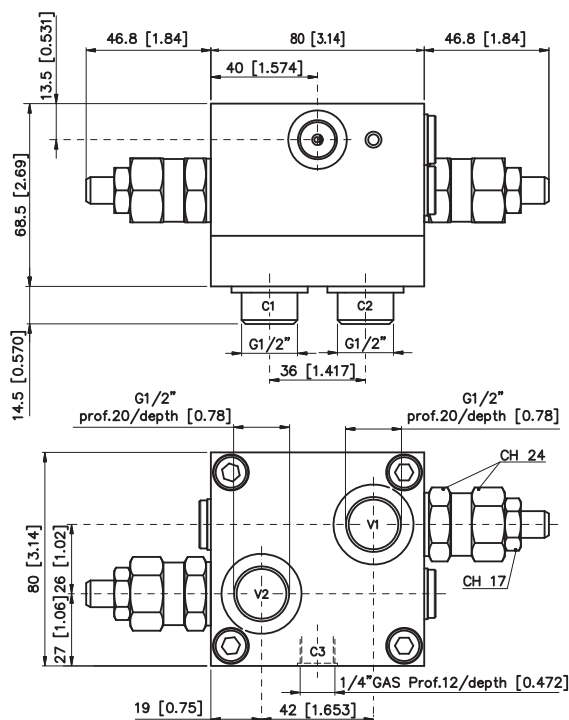
VCR1 08 - D/AF - LDP (4.25:1) Code: 521.2060.1017

VCR1 E8 - D/AF

Double-acting overcentre valve with shuttle valve, flangeable on **BR E**, **BG E** motors.

Usually flanged on winch driving brake motors with pressure released brake, to control load lowering and avoid unwanted acceleration. Slew drive control of cranes, aerial platforms, etcetera are common applications too.

If not specified the valve is supplied not set. Setting range between 30 and 220 bar [435 and 3190 psi].



Pilot ratio	4.25:1
Max working pressure	350 bar [5075 psi]
Max flow	60 l/min [15.8 U.S. gpm]
Weight	1.8 kg [3.96 lb]

Warning: minimum quantity for order 20 pieces
VCR1 E8 - D/AF (4.25:1) Codice/Code: 521.3185.0000

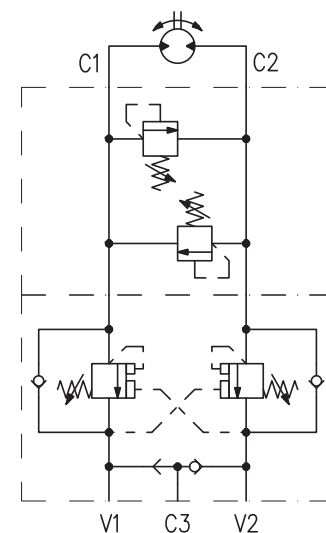
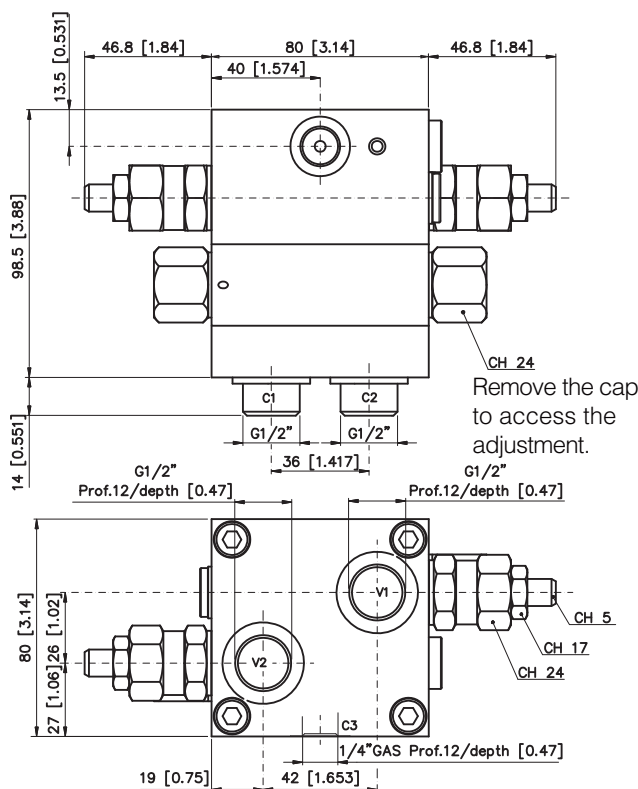
VCR1 E8 - D/AF - LDP

Double-acting overcentre valve with shuttle valve, flangeable on **BR E**, **BG E** motors.

Usually flanged on winch driving brake motors with pressure released brake, to control load lowering and avoid unwanted acceleration. Slew drive control of cranes, aerial platforms, etcetera are common applications too.

When it is employed in hoisting equipment the main relief valve or any anti-shock valve fitted on the hydraulic motor control valve section shall be set at pressure values higher than the VCR1 E8 - D/AF - LDP relief valve.

If not required the valve is supplied not set. Setting range between 30 and 220 bar [435 and 3190 psi].



Pilot ratio	4.25:1
Max working pressure	350 bar [5075 psi]
Max flow	60 l/min [15.8 U.S. gpm]
Weight	2.5 kg [5.51 lb]

Warning: minimum quantity for order 20 pieces
VCR1 E8 - D/AF - LDP (4.25:1) Code: 521.3190.0000

VCR1 09 - D/AF

Double-acting overcentre valve with shuttle valve, flangeable on **HR** motors.

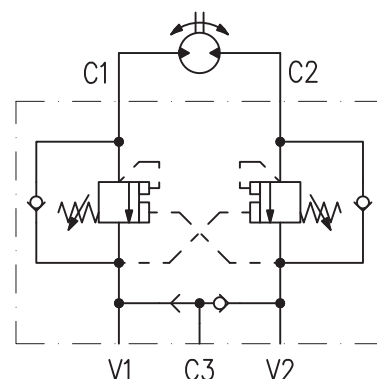
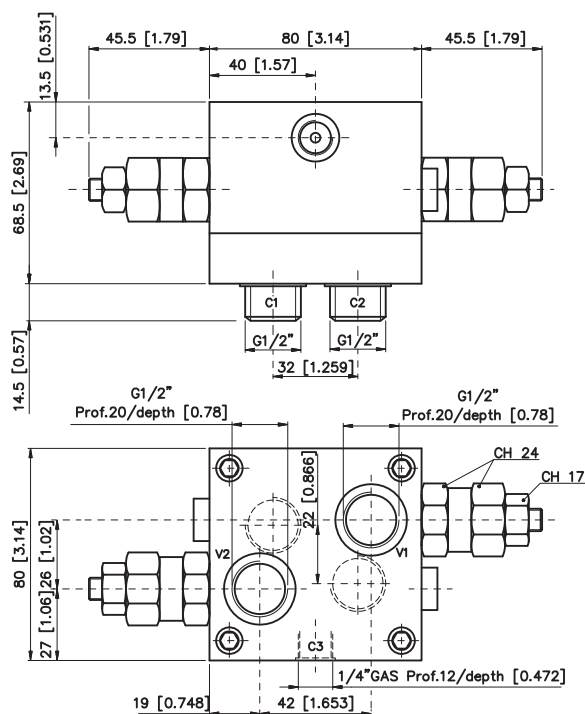
Usually flanged on winch driving brake motors with pressure released brake, to control load lowering and avoid unwanted acceleration.

Slew drive control of cranes, aerial platforms, etcetera are common applications too.

For such applications versions F and L brake motors, are widely employed.

If not specified the valve is supplied not set.

Setting range between 30 and 220 bar [435 and 3190 psi].



Pilot ratio	4.25:1
Max working pressure	250 bar [3626 psi]
Max flow	60 l/min [15.8 U.S. gpm]
Weight	1.8 kg [3.96 lb]

VCR1 09 - D/AF (4.25:1) Code: 521.2060.1037

VCR1 09 - D/AF - LDP

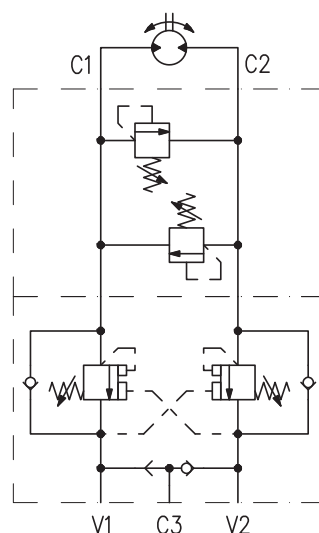
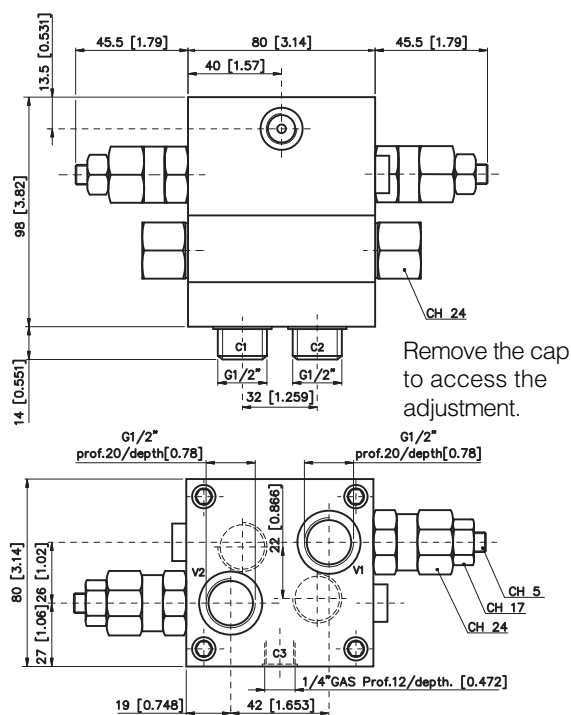
Double-acting overcentre valve with shuttle valve, flangeable on **HR** motors.

Usually flanged on winch driving brake motors with pressure released brake, to control load lowering and avoid unwanted acceleration.

Slew drive control of cranes, aerial platforms, etcetera are common applications too. When it is employed in hoisting equipment, the main relief valve or any anti-shock valve fitted on the hydraulic-motor control valve section shall be set at pressure values higher than the VCR1 09-D/AF-LDP relief valve.

If not required the valve is supplied not set.

Setting range between 30 and 220 bar [435 and 3190 psi].



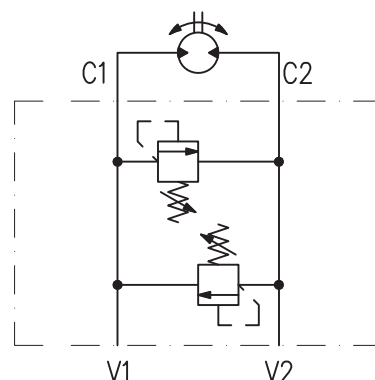
Pilot ratio	4.25:1
Max working pressure	250 bar [3626 psi]
Max flow	60 l/min [15.8 U.S. gpm]
Weight	2.5 kg [5.51 lb]

VCR1 09 - D/AF - LDP (4.25:1) Code: 521.2060.1047

Pressure relief valve flangeable on HT and HTC series motors which protects the motor from excessive peak of pressure particularly at start, stop and inversion.

Any setting requirement must be specified at ordering by stating pressure and flow.

Two setting ranges are available:
100 to 200 bar [1450 to 2900 psi]
as standard and 210 to 300 bar
[3045 to 4350 psi] as optional.



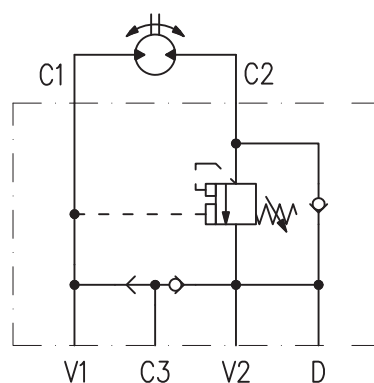
Max working pressure	250 bar [3625 psi]
Max flow	100 l/min [26.4 U.S. gpm]
Weight	1.5 kg [3.30 lb]

VAF 10 - D (100÷200 bar / 1450÷2900 psi) Code: 521.2080.0100 (Standard)
VAF 10 - D (210÷300 bar / 3045÷4350 psi) Code: 521.2080.0101

Single acting overcentre valve with shuttle valve flangeable on **HT** and **HTC** motors, usually flanged on winch with pressure released brake to control load lowering and avoid unwanted acceleration. If not specified the valve is supplied not set.

Available setting range: standard
between 100 and 350 bar [1450
and 5075 psi]

Optional: between 30 and 210 bar
[435 and 3045 psi].



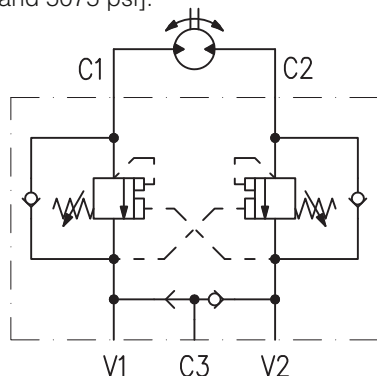
Pilot ratio	7:1
Max working pressure	350 bar [5075 psi]
Max flow	100 l/min [26.4 U.S. gpm]
Weight	2.05 kg [4.51 lb]

VCR1 10 - D/AF

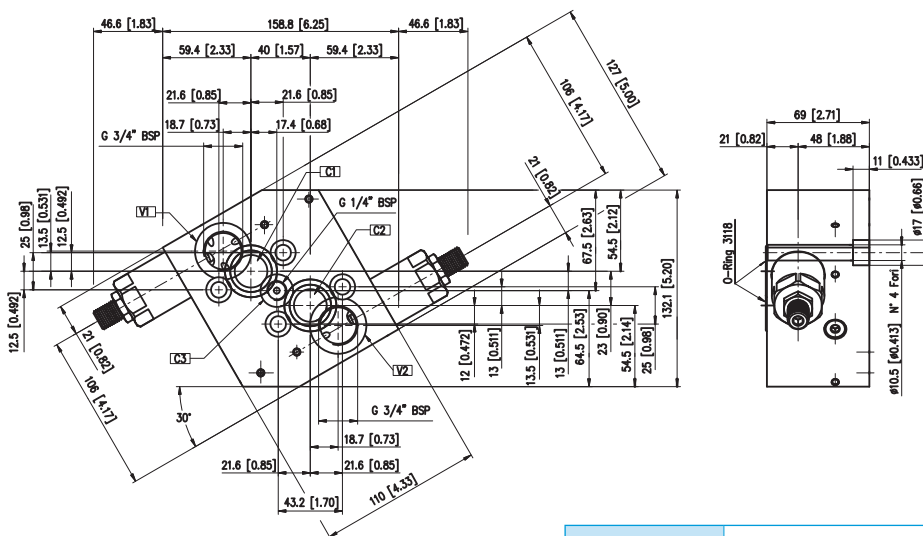
Double-acting overcentre valve with shuttle valve, flangeable on **HT** and **HTC** motors.

Usually flanged on winch with pressure released brake, to control load lowering and avoid unwanted acceleration.

Slew drive control of cranes, aerial platforms, etcetera are common applications too. If not specified the valve is supplied not set. Setting range between 100 and 350 bar [1450 and 5075 psi].



VCR1 - 10 D/AF (7:1) Code: SPO00000212
VCR1 - 10 D/AF (10:1) Code: SPO00000189



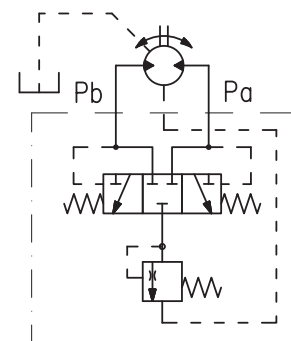
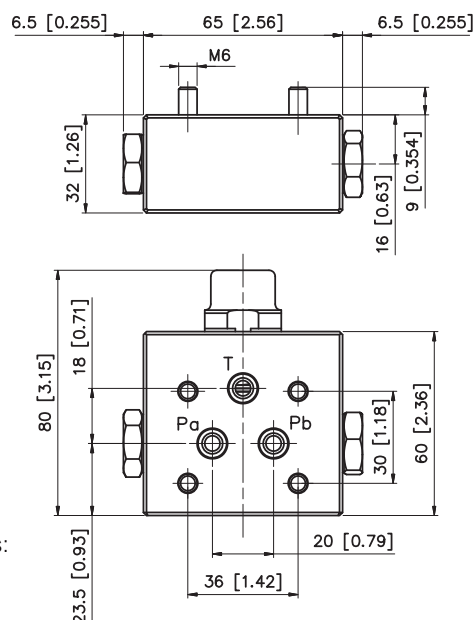
Pilot ratio	10:1 7:1
Max working pressure	250 bar [3626 psi]
Max flow	100 l/min [26.4 U.S. gpm]
Weight	2.0 kg [4.40 lb]

VSC

Flushing valve for **HR** and **HT** motors used in closed circuit hydrostatic transmissions. Allows an oil cooling action, which is recommended when operating at high speed and power.

The unit is made by a three positions - three way spool valve that allows a small oil flow from the low pressure line of the circuit into the motor casing, then into the tank.

For a correct operation it is necessary to connect the drain port of the motor with the tank. The valve can be mounted only with a dedicated cover on the motor (see motor catalogue).



The shuttle valve can be fitted in following versions:

Code	Description	Theoretical flow [319 psi]	Orifice Diameter
521.5200.0000	VSC 06F VALVE	6 l/min [1.5 U.S. gpm]	1.5 mm [0.05 in]
521.5210.0000	VSC 09F VALVE	10.5 l/min [2.7 U.S. gpm]	2 mm [0.07 in]
521.5220.0000	VSC 15F VALVE	15 l/min [3.9 U.S. gpm]	2.5 mm [0.09 in]
521.5230.0000	VSC 21F VALVE	20 l/min [5.2 U.S. gpm]	3.3 mm [0.12 in]

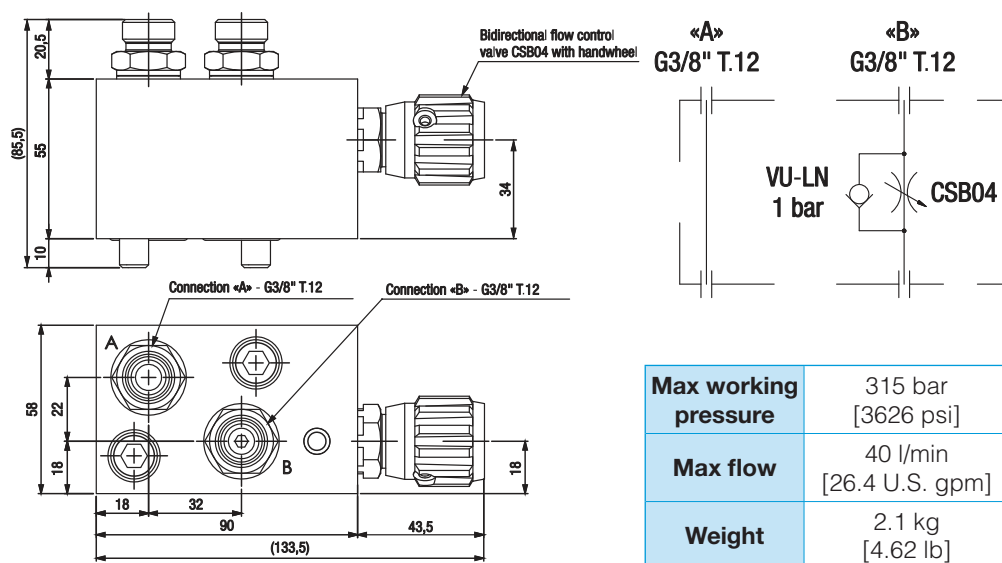
VRP 09

The valve flangeable on **HR** motor series permit the flow control by the means of a non-compensated throttle valve.

The control is possible in one direction only and the regulation is obtained by turning to the left or right the screw or the hand wheel. The valves are made completely in steel and are protected on surface by tropicalized zinc plating.

A high degree of mechanical sealing is ensured along with negligible leakage.

VRP 09 Code: P15111618



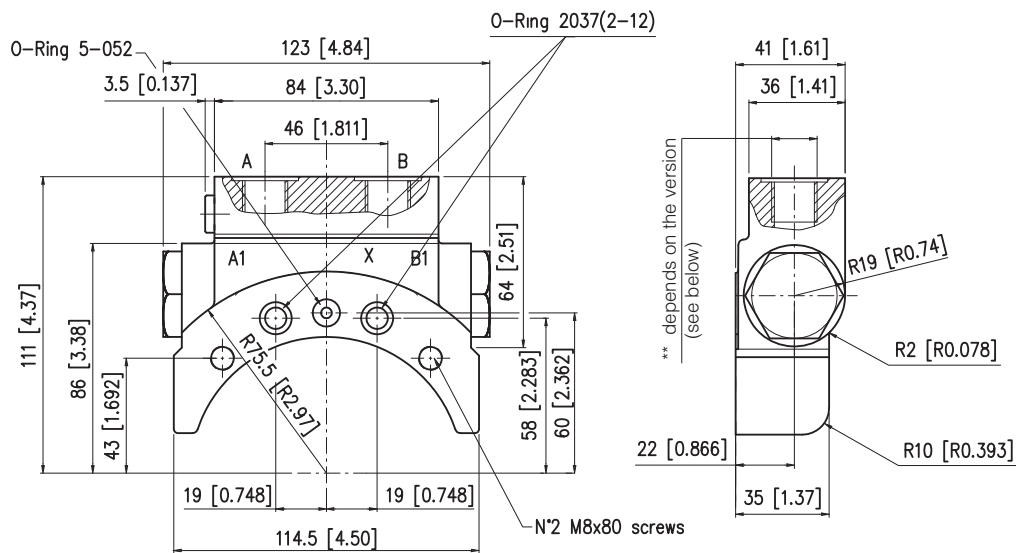
VCT 11

VCT11 is a standard motion control valve flangeable to **BRZV** orbital motors.

It is used to control the rotation of the motor and of the connected gearbox.

It is available in the standard version (VCT11 SF) or with brake disengagement port (VCT11 AF)

Spool opening min pressure: 11 bar
Full spool opening pressure: 15 bar

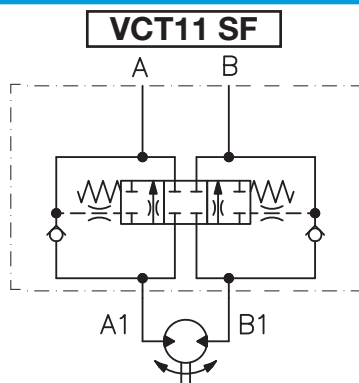


**** METRIC VERSION** 3/8 G (BSPP) thread depth 15 mm [0.59 in]

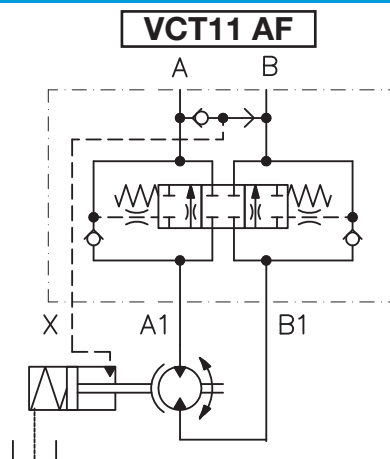
SAE VERSION 3/4-16 UNF thread depth 15 mm [0.59 in]

Weight 1.8 kg
[3.97 lb]

Valve without disengagement brake port



Valve with disengagement brake port



How to select the best pilot ratio for overcentre valves

High pilot ratios ensure small energy losses during load lowering (or any time the motor is driven by load), while low pilot ratios ensure a better control of variable intensity loads, but with a higher energy loss during lowering.

For brake motors we recommend low pilot ratios: they ensure a higher brake disengagement pressure when the motor is driven by the load, in order to have the brake completely disengaged during load lowering.

The minimum pilot pressure must be higher (even during load lowering) than the full disengagement pressure, to avoid interferences between brake and valve.

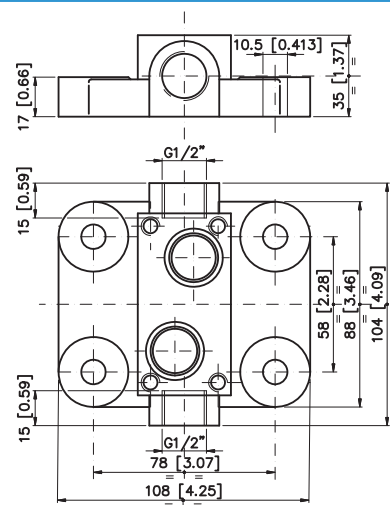
The overcentre and slewing control valves (VCR1 - VCD) have to be set at pressure values 30% higher (at least) than the nominal pressure induced by the load and must be used with open centre directional valves.

Manifold (base block)

BFL 1

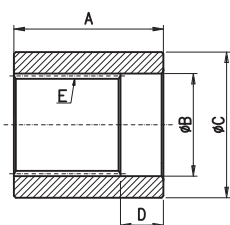
Base Block for AR, BR, BG motors with BFL1 configuration

Code: 109.0100.9000



Bushings

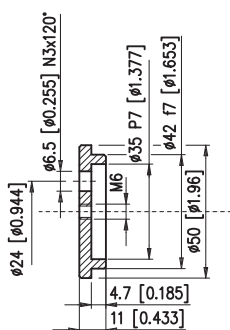
SERIES BS - BSD



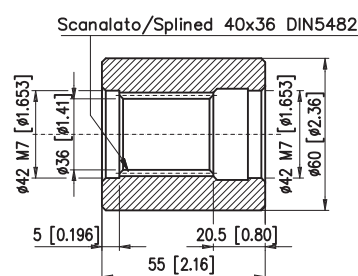
Type	Dimensions						COD.
		A	B	C	D	E	
BS 16/P	mm [in]	27 [1.06]	-	24 [0.94]	-	17x14 DIN 5482	320.0070.0000
BS 25/P	mm [in]	43 [1.69]	25,3 [0.99]	40 [1.57]	9 [0.354]	25X22 DIN 5482	320.0130.0000
BSD 25/P	mm [in]	37 [1.45]	25,7 [1.01]	40 [1.57]	9 [0.354]	SAE 1"6 B	320.0210.0000
BS 32/P	mm [in]	48 [1.88]	32 [1.25]	50 [1.96]	10 [0.393]	ANSI B92.1a 1976	320.0090.0000

Bushings

SERIES BS - FBS



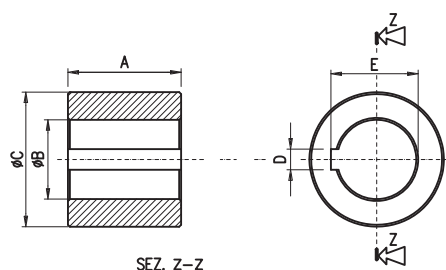
FBS 12 Code: 319.0050.0000



BS 12 Code: 320.0150.0000

Bushings

SERIES BC



Type	Dimensions						COD.
		A	B	C	D	E	
BC 25/P	mm [in]	43 [1.69]	25 [0.98]	40 [1.57]	8 [0.314]	28.3 [1.11]	320.0110.0000
BC 25.4/P	mm [in]	43 [1.69]	25.4 [1.00]	40 [1.57]	6.35 [0.25]	28.3 [1.11]	320.0050.0000
BC 32/P	mm [in]	50.5 [1.98]	32 [1.25]	50 [1.96]	10 [0.393]	35.3 [1.38]	320.0280.0000

