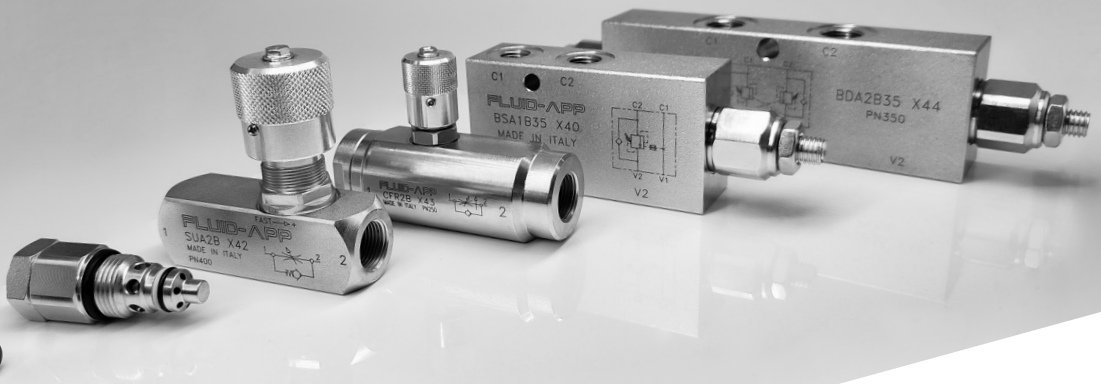




HF HYFIT
ENGINEERS



BSPP catalogue

JUNE 2023



version
CATALOGUE

2023
JUNE



Fluid-app is a new player in the hydraulic valves and components market.

New but experienced at the same time!

Its founders have been working for almost twenty years in the production of hydraulic components made in Italy to always offer the best in terms of quality, reliability and on-time delivery.

Years and years of consolidated technical and production experience at the service of the customer, also to study and customise products in synergy.

In its plant in Reggio Emilia, in the heart of the Italian hydraulics territory, Fluid-app designs and manufactures a wide range of hydraulic valves and components for many applications: from the agricultural to the earth-moving sector, from building to ecology, from transport to industrial vehicles.

**Fluid-App,
The value of experience!**

Please read these instructions carefully before installation. All operations must be carried out by specialised and competent personnel.
The user must periodically check the condition and correct functioning of the valves, the corrosion and the condition of the hydraulic installation.

Always respect the technical prescriptions of the valve.

OIL

Use only mineral oil (HL, HLP) according to DIN 51524. The use of other fluids may cause bad working of the valve.

VISCOSITY

The viscosity of the oil should be in the range of 15 mm²/s to 250mm²/s.
Recommended viscosity ISO VG 46 (for cartridge valves ISO VG 32).

CONTAMINATION AND FILTRATION

Excessive fluid contamination is the main cause of bad-working in hydraulic installations.
Max. contamination with filter ISO 4406:1999 - class 19/17/14

The use of filters is necessary to protect the system from bad-working, in order to avoid serious consequences for the hydraulic installation and people.
Fluid-app recommends a filtration of 15 microns for its valves.

OPERATING TEMPERATURES

Environment temperature: -25°C to +60°C
Oil temperature (with NBR seals): from -25°C to +75°C

POWER SUPPLY

The solenoid valve coils must be supplied with voltages between +/- 10% of the nominal voltage at a maximum environment temperature of 60°C.

SEALING

O-rings mounted on the valves are in NBR
The anti-extrusion rings used to protect the o-rings are made of PTFE or NBR.

TESTING CONDITIONS

All the tests shown in the catalogue were carried out with mineral oil ISO VG 46 at a temperature of 40°C and an absolute filtration degree of 15 microns.

MARKING CODE		
YEAR	LETTER ASSOCIATED WITH THE YEAR	MANUFACT. WEEK
2021	V	Number of the week. The first week of the year starts with the first Monday
2022	X	
2023	Y	
2024	Z	
2025	A	
2026	B	
2027	C	
2028	D	
2029	E	
2030	F	
2031	G	

Single counterbalance valves

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	BSA		160 [42,1]	350 [5075]	/	22
	BSAY		60 [15,9]		/	24
	BSC				/	26
	BSI				/	28
	BSL				/	30

Double counterbalance valves

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	BDA		160 [42,1]	350 [5075]	/	32
	BDAY		60 [15,9]		/	34
	BDC				/	36

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	BFA		60 [15,9]	350 [5075]	/	38
	BFC				/	40

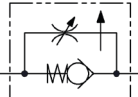

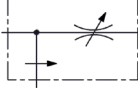

check valves

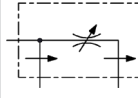

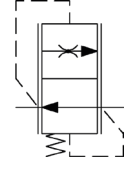




	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	UFC		350 [92,5]	400 [5800]	/	42
	UMC		50 [13,2]		500 [7250]	/
	VUC		120 [31,66]	350 [5075]	FC111 FC112 FC113 FC114	46
	VUD				FC115 FC116 FC117 FC118	48
	VUS				80 [21]	FC107 FC108 FC109 FC110

Flow control valves

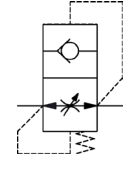


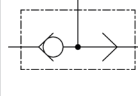
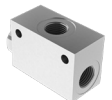
	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE	
	SUA		150 [39,6]	400 [5800]	/	66	
	SUD		50 [13,2]		/	68	
	SBA		150 [39,6]		/	70	
	SBD		50 [13,2]		/	72	
	VCU		70 [18,6]		350 [5075]	/	74
	VCB		/			76	

Flow control valves pressure compensated

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	CFR		45 [12,1]	250 [3625]	/	64
	RCT		240 [63,4]	210 [3050]	/	78

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	RCP		150 [39,6]	210 [3050]	/	80
	FIB		15 [3,96]	250 [3625]	FCI05	52
	FIT					54
	FIC				/	56
	F2B				18 [4,75]	FCI06

Hose burst and shuttle valves

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	VBA		180 [47,5]	350 [5075]	FCI00 FCI01 FCI02 FCI03 FCI04	60
	VBAT		80 [21,1]	320 [4641]	/	62
	VSS		45 [12]	350 [5075]	/	94

Flow dividers

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	VDF		40 [10,6]	210 [3050]	/	106

Relief valves

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	M20B		30 [8]	350 [5075]	/	100
	M40B		50 [13,2]		/	102
	M80B		80 [21,1]		/	104
	VSD		50 [13,2]		/	96
	VAA		50 [13,2]		/	98

Cetop valves

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	MC3		50 [13,2]	210 [3045]	/	108
	MC5		80 [21,1]		/	110

Pilot operated check valves

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	VBD		50 [13,2]	350 [5075]	/	82
	VBS				/	84
	VBDB		35 [9,2]		/	86
	VBST				/	88
	VPD		60 [15,83]		/	90
	VPF				/	92

Cartridge valves

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE	
	M20		30 [8]	350 [5075]	SAE8/2	114	
	M21					116	
	M30		50 [13,5]		FC003	118	
	M40				FC002	120	
	M42				SAE10/2	122	
		M80			80 [21,1]	FC005	124
		UC2			35 [9,2]	SAE8/2	126
	CU2		40 [10,6]	128			
	CB2			130			
	VM2		30 [7,92]	132			

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	PM2		2 cm ³ [0,12 in ³]	200 [2900]	SAE8/2	134
	DC2		12 [3,17]	250 [3625]		136
	DR2		18 [4,75]	350 [5075]		138
	VP2		30 [7,92]	350 [5075]		140
	VBC		50 [13,5]		FC004	142
	VDF3		40 [10,6]		SAE10/4	144

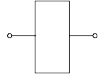



Solenoid valves

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	E2F28E		22 [5,8]	210 [3045]	SAE8/2	148
	E2S20C		40 [10,6]	350 [5075]		150
	E2S20E					
	E2S20A					
	E2L20C		30 [7,92]	300 [4350]		152
	E2L20E					
	E2L20A					
	E2S22C					
	E2S22E		40 [10,6]	350 [5076]		154
	E2S22A					

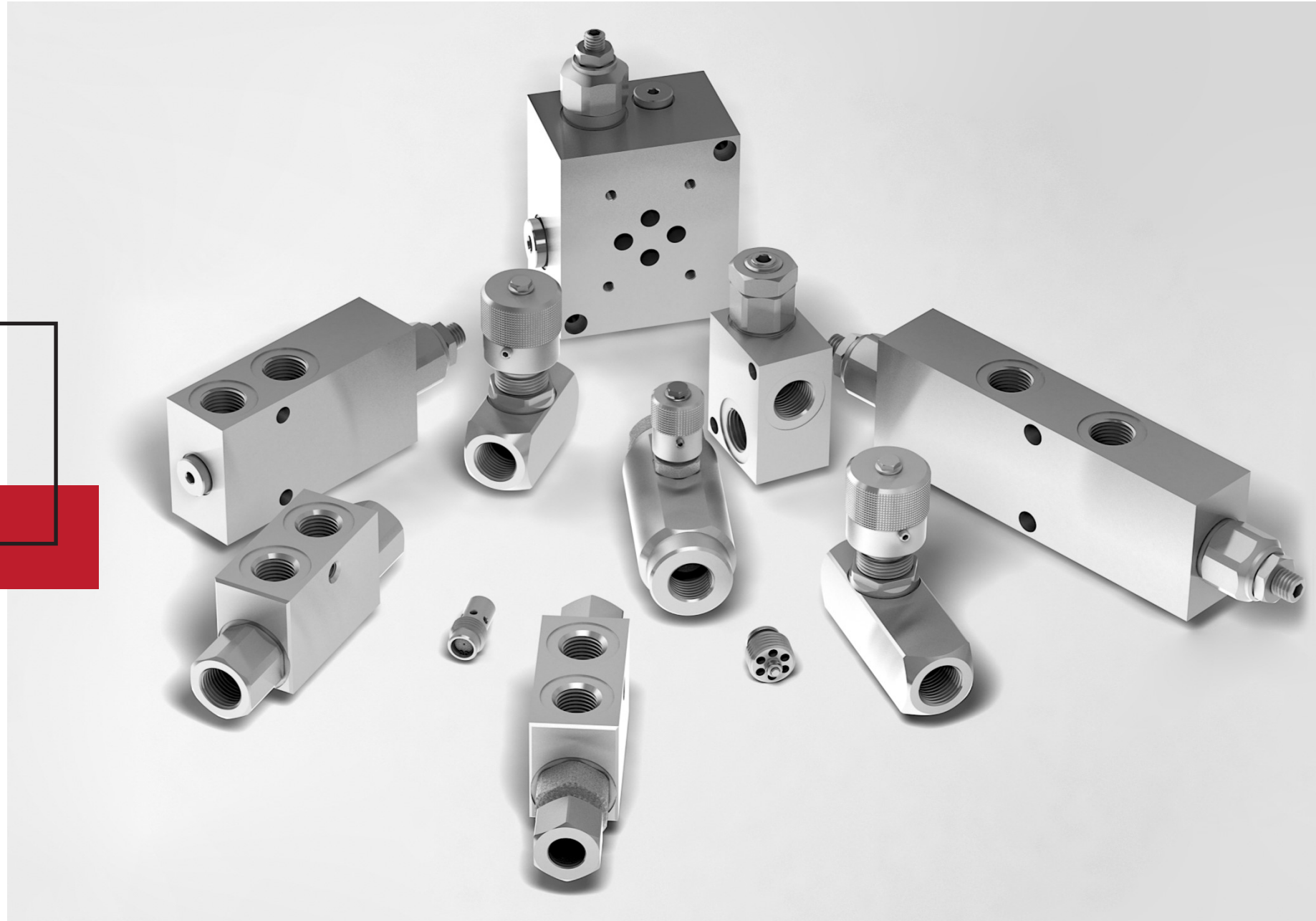
	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	E2S24C		40 [10,6]	350 [5076]	SAE8/2	156
	E2S24E					
	E2S24A					
	E2S26C					
	E2S26E					158
	E2S26A					
	E2S28C					160
	E2S28E					
	E2S28A					

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE					
	E6S30A		12 [3,2]	210 [3045]	SAE8/3	162					
	E6S30E										
	E6S31A										
	E6S31E										
	E3S20C							70 [18,7]	350 [5076]	SAE10/2	166
	E3S20E										
	E3S20A										
	E3S22C										
	E3S22E										
	E3S22A										
	E3S24C		70 [18,7]	350 [5076]	SAE10/2	172					
	E3S24E										
	E3S24A										
	E3S26C										
	E3S26E										
	E3S26A										
	E3S28C										
	E3S28E										
	E3S28A										
	E3S28A										
	E3S28A										

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	E3S24C		70 [18,7]	350 [5076]	SAE10/2	172
	E3S24E					
	E3S24A					
	E3S26C					
	E3S26E					
	E3S26A					
	E3S28C					
	E3S28E					
	E3S28A					
	E3S28A					
	E3S28A					

	TYPE	3D	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CAVITY	CATALOGUE PAGE
	C22		/	/	/	176
	CNS		/	/	/	178
	MANIFOLDS		/	/	/	180

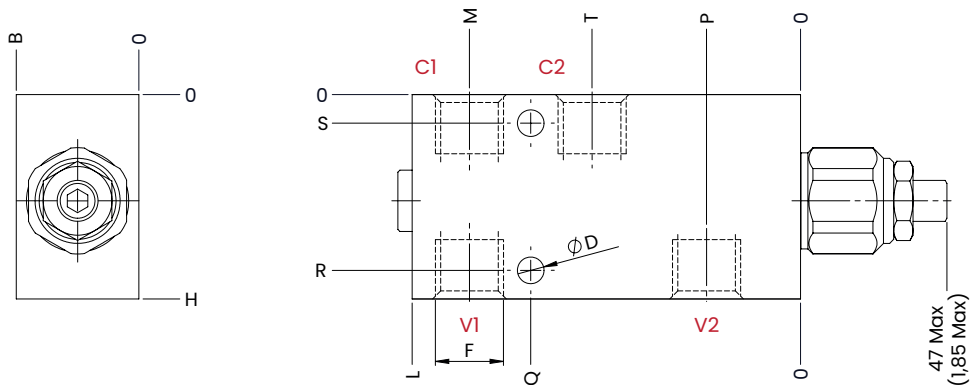
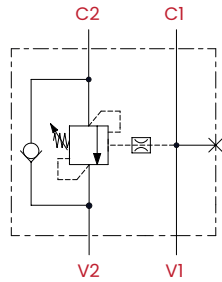
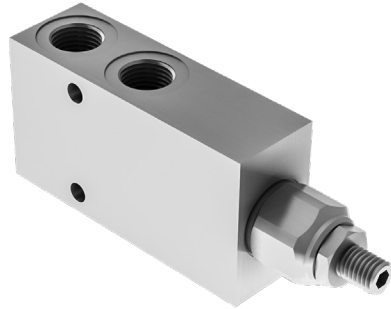
in-line
VALVES



SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER

BSA counterbalance valves (Gas thread) are used to keep a load locked, the built-in relief valve protects the system from overpressure in the cylinder by draining the oil.

HYDRAULIC CIRCUIT

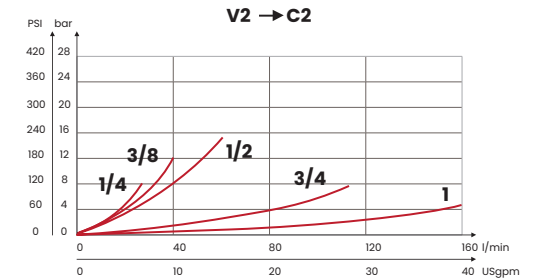
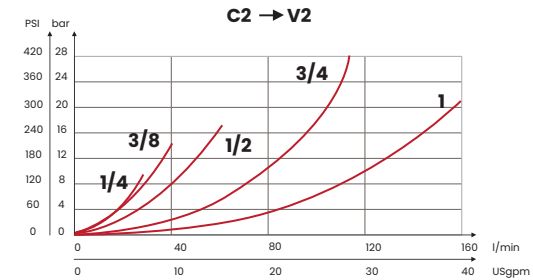


TECHNICAL CHARACTERISTICS

F	H	B	ØD	L	M	P	Q	R	S	T
1/4 BSPP	50 [1,97]	30 [1,18]	6,5 [0,26]	95 [3,74]	81 [3,19]	23 [0,91]	66 [2,60]	43 [1,70]	7 [0,28]	51 [2,01]
3/8 BSPP				100 [3,94]	84 [3,31]	21 [0,83]	67,5 [2,66]	50 [1,97]		
1/2 BSPP	60 [2,36]	40 [1,57]	10,5 [0,41]	140 [5,51]	120 [4,72]	26 [1,02]	96 [3,78]	60 [2,36]	10 [0,39]	71 [2,79]
3/4 BSPP	70 [2,75]			145 [5,71]	121 [4,76]		60 [2,36]	70 [2,75]		
1 BSPP	80 [3,15]	50 [1,97]								

Steel body (on request aluminium body)

PERFORMANCES



TAMPER PROOF CAP M10



CODE
62200021

ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	STANDARD SETTING bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	PILOT RATIO	WEIGHT kg [lb]	
FA1001	BSA1B21	1/4 BSPP	30 [7,9]	350 [5075]	210 [3045]	30/210 [435/3045]	80 [1160]	1:4,25	1,10 [2,42]	
FA1002	BSA1B35				350 [5075]	60/350 [870/5075]	135 [1960]			
FA1003	BSA2B21	3/8 BSPP	40 [10,6]		210 [3045]	30/210 [435/3045]	80 [1160]		On request 1:8,1	1,05 [2,31]
FA1004	BSA2B35				350 [5075]	60/350 [870/5075]	135 [1960]			
FA1005	BSA3B21	1/2 BSPP	60 [15,9]		210 [3045]	30/210 [435/3045]	80 [1160]	1:6,2	1,25 [2,76]	
FA1006	BSA3B35				350 [5075]	60/350 [870/5075]	135 [1960]			
FA1007	BSA4B21	3/4 BSPP	110 [4,33]		210 [3045]	30/210 [435/3045]	70 [966]		1:6,2	2,7 [6]
FA1008	BSA4B35				350 [5075]	60/350 [870/5075]	145 [2100]			
FA1009	BSA5B21	1 BSPP	160 [6,29]		210 [3045]	30/210 [435/3045]	70 [966]	1:6,2	4,7 [10,3]	
FA1010	BSA5B35				350 [5075]	60/350 [870/5075]	145 [2100]			

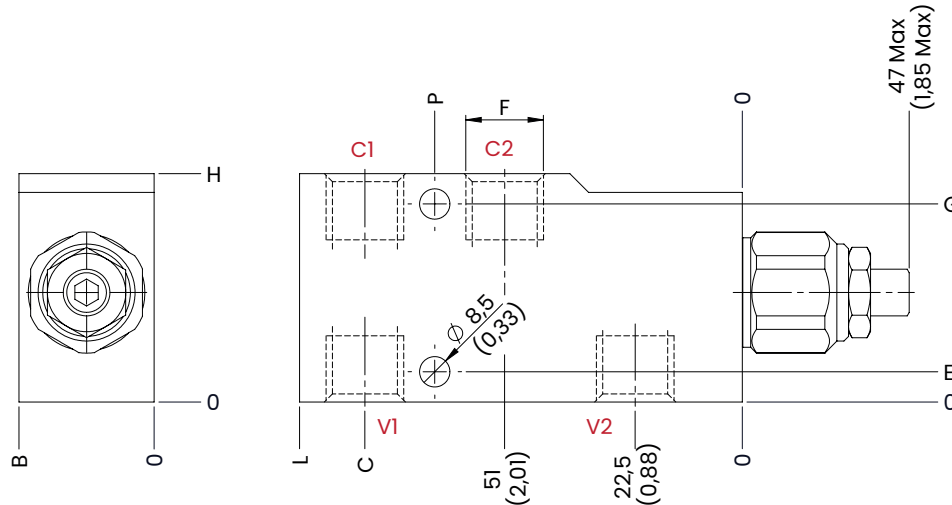
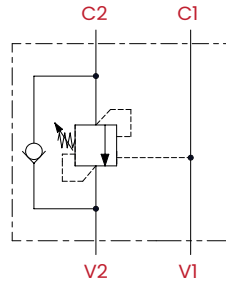
Standard setting 350 bar [5075 PSI] to 5 l/m [1,32 USgpm] Standard setting 210 bar [3045 PSI] to 5 l/m [1,32 USgpm]

UPDATE March 2023 (v.05)

SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER

BSAY counterbalance valves (Gas thread) are used to keep a load locked, the built-in relief valve protects the system from overpressure in the cylinder by draining the oil.

HYDRAULIC CIRCUIT

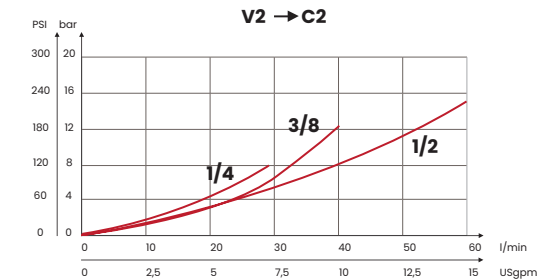
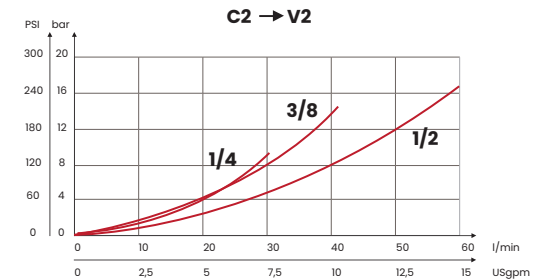


TECHNICAL CHARACTERISTICS

F	B	H	L	P	C	E	G
1/4 BSPP	25 [0,98]	50 [1,97]	95 [3,74]	66 [2,26]	81 [3,19]	5,5 [0,22]	44,5 [1,73]
3/8 BSPP							
1/2 BSPP	30 [1,18]	60 [2,36]	105 [4,13]	70 [2,76]	89 [3,19]	8,5 [0,33]	51,5 [2,03]

Steel body

PERFORMANCES



TAMPER PROOF CAP M10



CODE
62200021

ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	STANDARD SETTING bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	PILOT RATIO	WEIGHT kg [lb]
FA1013	BSA1B21YA	1/4 BSPP	30 [7,9]	350 [5075]	210 [3045]	30/210 [435/3045]	80 [1160]	1:4,25	1,05 [2,3]
FA1014	BSA1B35YA				350 [5075]	60/350 [870/5075]	135 [1960]		
FA1015	BSA2B21YA	3/8 BSPP	40 [10,6]		210 [3045]	30/210 [435/3045]	80 [1160]		1
FA1016	BSA2B35YA				350 [5075]	60/350 [870/5075]	135 [1960]		
FA1017	BSA3B21YA	1/2 BSPP	60 [15,9]		210 [3045]	30/210 [435/3045]	80 [1160]		1,2 [2,65]
FA1018	BSA3B35YA				350 [5075]	60/350 [870/5075]	135 [1960]		

Standard setting 350 bar [5075 PSI] to 5 l/m [1,32 USgpm] Standard setting 210 bar [3045 PSI] to 5 l/m [1,32 USgpm]

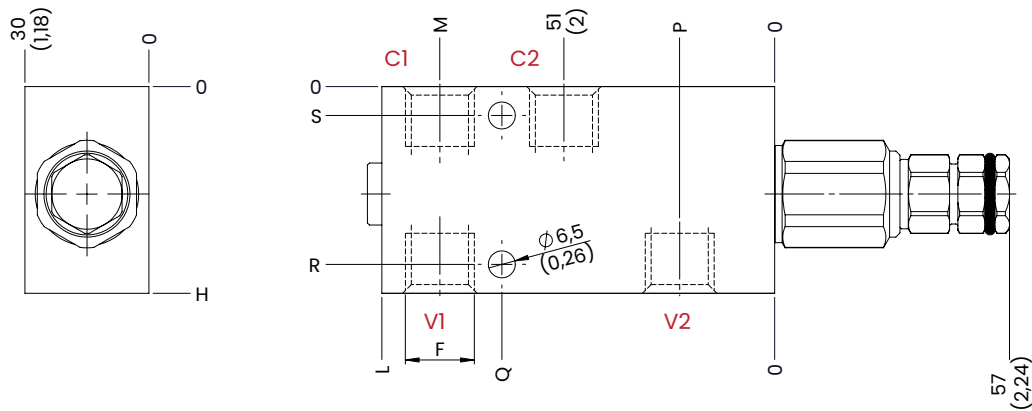
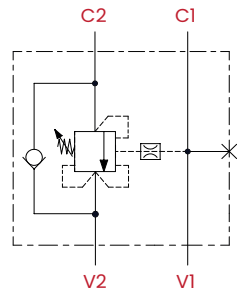
UPDATE: March 2023 (v.04)

SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER

BSC counterbalance valves (Gas thread) are used to keep a load locked, the built-in relief valve protects the system from overpressure in the cylinder by draining the oil.



HYDRAULIC CIRCUIT

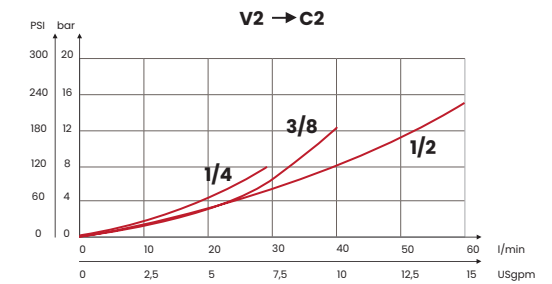
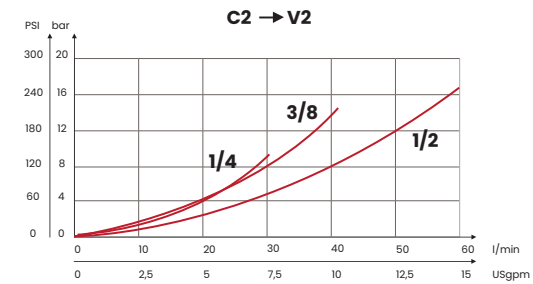


TECHNICAL CHARACTERISTICS

mm [Inches]

	F	H	L	M	P	Q	R	S
1/4 BSPP		50 [1,97]	95 [3,74]	81 [3,19]	23 [0,91]	66 [2,60]	43 [1,70]	7 [0,28]
3/8 BSPP								
1/2 BSPP	60 [2,36]		100 [3,94]	84 [3,31]	21 [0,83]	67,5 [2,66]	50 [1,97]	10 [0,39]
Steel body (on request aluminium body)								

PERFORMANCES



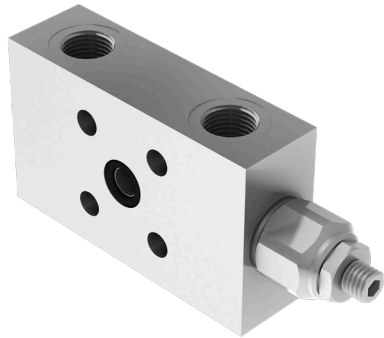
ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	STANDARD SETTING bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	PILOT RATIO	WEIGHT kg [lb]
FA1019	BSC1B21	1/4 BSPP	30 [7,9]	350 [5075]	210 [3045]	30/210 [435/3045]	80 [1160]	1:4,25 On request 1:8,1	1,15 [2,53]
FA1020	BSC1B35				350 [5075]	60/350 [870/5075]	135 [1960]		
FA1021	BSC2B21	3/8 BSPP	40 [10,6]		210 [3045]	30/210 [435/3045]	80 [1160]		
FA1022	BSC2B35				350 [5075]	60/350 [870/5075]	135 [1960]		
FA1023	BSC3B21	1/2 BSPP	60 [15,9]		210 [3045]	30/210 [435/3045]	80 [1160]		1,35 [3]
FA1024	BSC3B35				350 [5075]	60/350 [870/5075]	135 [1960]		
Standard setting 350 bar [5075 PSI] to 5 l/m [1,32 USgpm]					Standard setting 210 bar [3045 PSI] to 5 l/m [1,32 USgpm]				

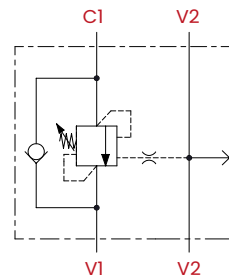
UPDATE: March 2023 (v.04)

SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER, SINGLE FLANGED VERSION

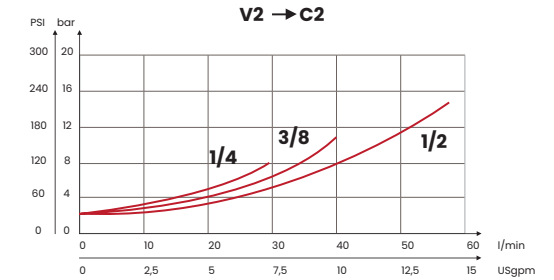
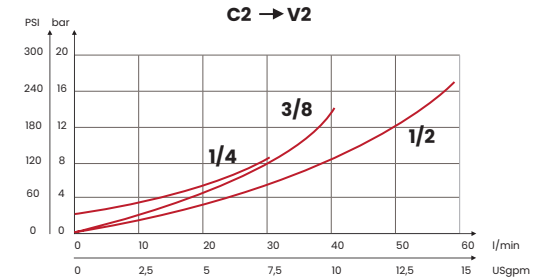
The BSI counterbalance valves (Gas thread) allow you to keep a load locked, the built-in relief valve protects the system from overpressure in the cylinder by sending the oil to drain.



HYDRAULIC CIRCUIT



PERFORMANCES



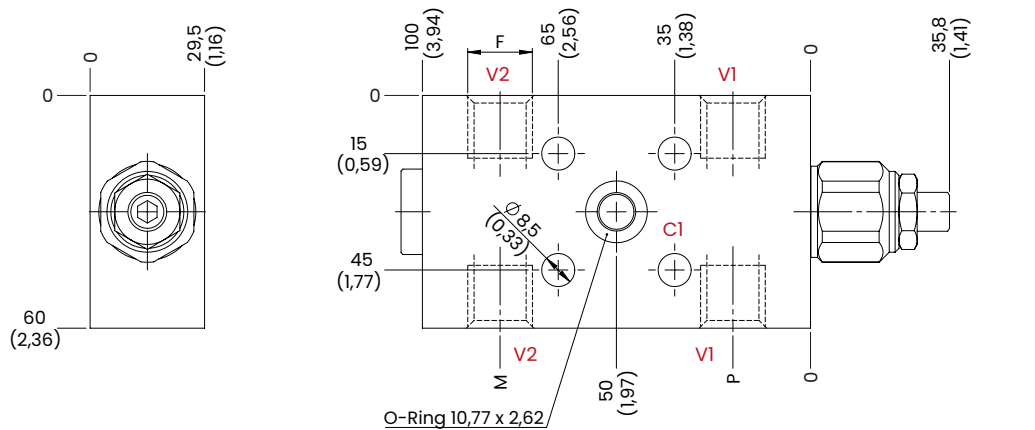
TAMPER PROOF CAP M10



CODE
62200021

ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	STANDARD SETTING bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	PILOT RATIO	WEIGHT kg [lb]
FA1027	BSI1B21	1/4 BSPP	30 [7,9]	350 [5075]	210 [3045]	30/210 [435/3045]	80 [1160]	1:4,25 On request 1:8,1	1,30 [2,9]
FA1028	BSI1B35				350 [5075]	60/350 [870/5075]	135 [1960]		
FA1029	BSI2B21	3/8 BSPP	40 [10,6]		210 [3045]	30/210 [435/3045]	80 [1160]		1,25 [0,75]
FA1030	BSI2B35				350 [5075]	60/350 [870/5075]	135 [1960]		
FA1031	BSI3B21	1/2 BSPP	60 [15,9]		210 [3045]	30/210 [435/3045]	80 [1160]		1,65 [3,63]
FA1032	BSI3B35				350 [5075]	60/350 [870/5075]	135 [1960]		
					Standard setting 350 bar [5075 PSI] to 5 l/m [1,32 USgpm]		Standard setting 210 bar [3045 PSI] to 5 l/m [1,32 USgpm]		



TECHNICAL CHARACTERISTICS

F	M	P
1/4 BSPP	80 [3,15]	20 [0,78]
3/8 BSPP		
1/2 BSPP	82,5 [3,25]	17,5 [0,69]
Steel body (on request aluminium body)		

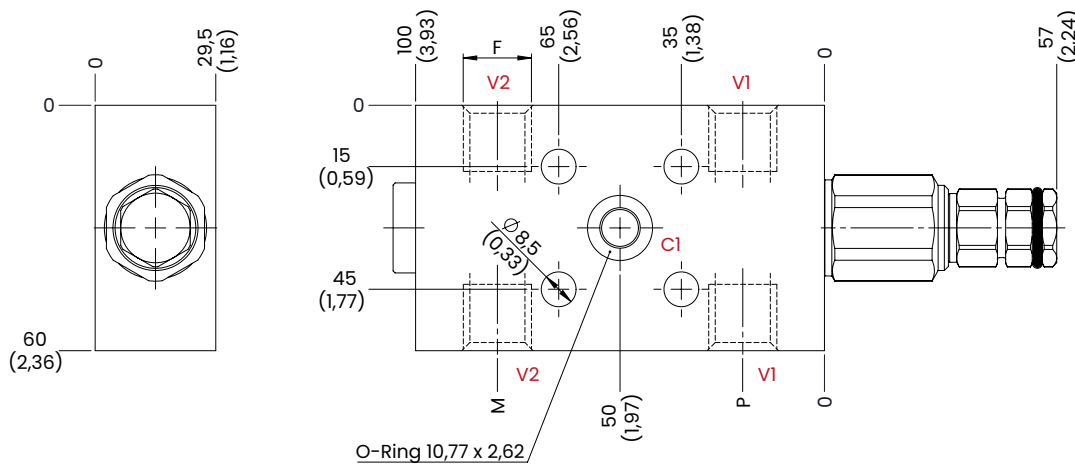
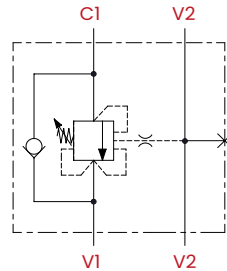
BSL COUNTERBALANCE BSPP

SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER, SINGLE FLANGED VERSION

The BSL counterbalance valves (Gas thread) allow you to keep a load locked, the built-in relief valve protects the system from overpressure in the cylinder by sending the oil to drain.



HYDRAULIC CIRCUIT

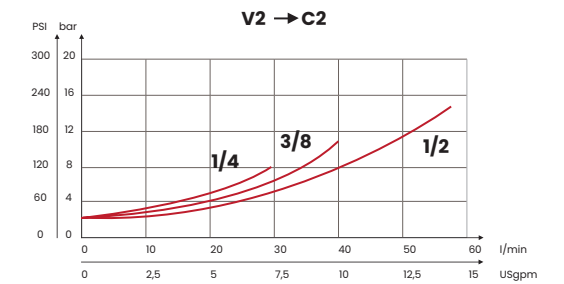
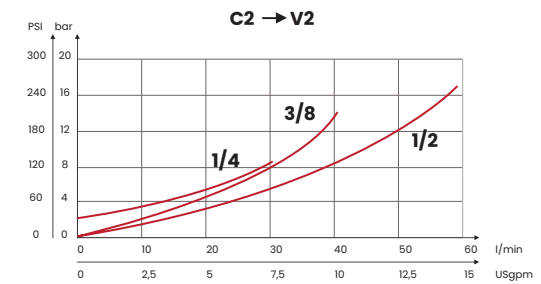


TECHNICAL CHARACTERISTICS

mm [Inches]

F	M	P
1/4 BSPP	80 [3,15]	20 [0,78]
3/8 BSPP		
1/2 BSPP	82,5 [3,25]	17,5 [0,69]
Steel body (on request aluminium body)		

PERFORMANCES

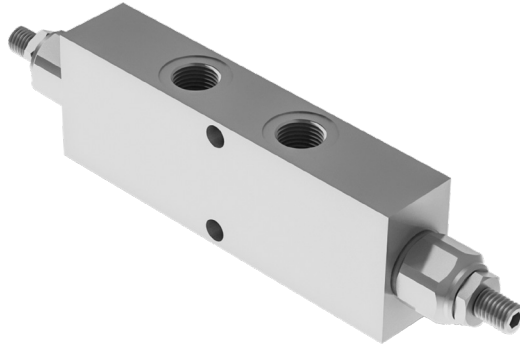


ORDERING CODE

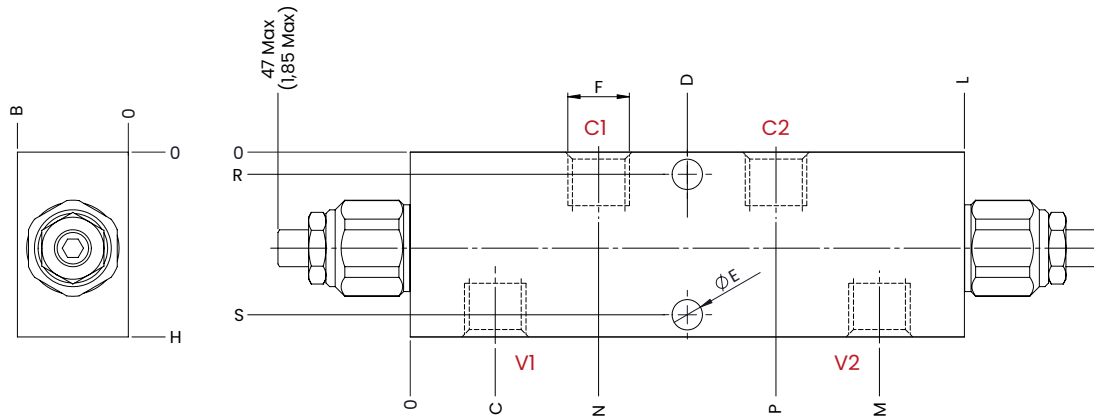
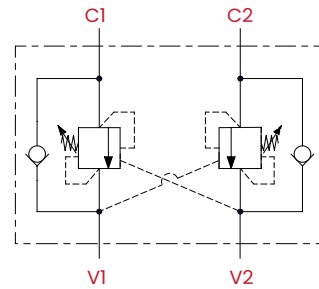
CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	STANDARD SETTING bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	PILOT RATIO	WEIGHT kg [lb]		
FA1033	BSL1B21	1/4 BSPP	30 [7,9]	350 [5075]	210 [3045]	30/210 [435/3045]	80 [1160]	1:4,25 On request 1:8,1	1,36 [3]		
FA1034	BSL1B35				350 [5075]	60/350 [870/5075]	135 [1960]				
FA1035	BSL2B21	3/8 BSPP	40 [10,6]		210 [3045]	30/210 [435/3045]	80 [1160]		1,30 [2,86]		
FA1036	BSL2B35				350 [5075]	60/350 [870/5075]	135 [1960]				
FA1037	BSL3B21	1/2 BSPP	60 [15,9]		210 [3045]	30/210 [435/3045]	80 [1160]		1,70 [3,74]		
FA1038	BSL3B35				350 [5075]	60/350 [870/5075]	135 [1960]				
Standard setting 350 bar [5075 PSI] to 5 l/m [1,32 USgpm]					Standard setting 210 bar [3045 PSI] to 5 l/m [1,32 USgpm]						

DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER

BDA counterbalance valves (Gas thread) are used to keep a load locked, the built-in relief valve protects the system from overpressure in the cylinder by draining the oil.



HYDRAULIC CIRCUIT

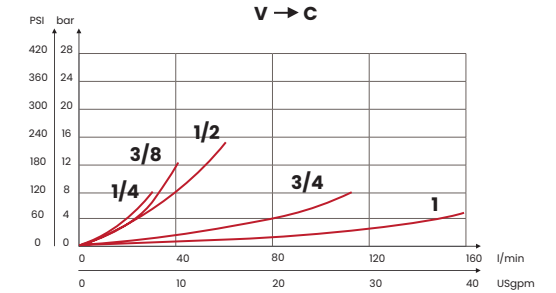
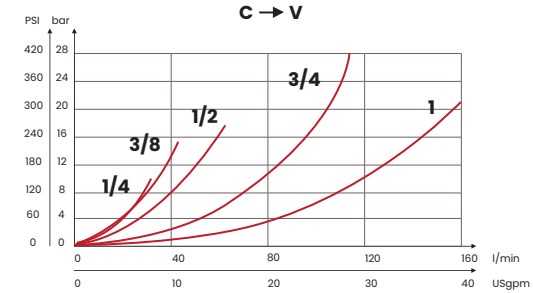


TECHNICAL CHARACTERISTICS

F	H	B	C	D	ØE	L	M	N	P	R	S
1/4 BSPP	50 [1,97]	30 [1,18]	23 [0,91]	75 [2,95]	8,2 [0,32]	150 [5,90]	127 [5]	51 [2,01]	99 [3,9]	6 [0,24]	44 [1,75]
3/8 BSPP			21 [0,83]							8,5 [0,33]	51,5 [2,03]
1/2 BSPP	60 [2,36]	40 [1,57]	26 [1,02]	105 [4,13]	10,5 [0,41]	210 [8,27]	184 [7,24]	71 [2,78]	139 [5,47]	8,5 [0,33]	51,5 [2,03]
3/4 BSPP	70 [2,75]									9 [0,35]	61 [2,4]
1 BSPP	80 [3,15]	50 [1,97]	26 [1,02]	105 [4,13]	10,5 [0,41]	210 [8,27]	184 [7,24]	71 [2,78]	139 [5,47]	10 [0,39]	70 [2,75]

Steel body (on request aluminium body)

PERFORMANCES



TAMPER PROOF CAP M10



CODE
62200021

ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [usgpm]	STANDARD SETTING bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	PILOT RATIO	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA2001	BDA1B21	1/4 BSPP	30 [7,9]	210 [3045]	30/210 [435/3045]	80 [1160]	1:4,25 On request 1:8,1	350 [5075]	1,80 [4]
FA2002	BDA1B35			350 [5075]	60/350 [870/5075]	135 [1960]			
FA2003	BDA2B21	3/8 BSPP	40 [10,6]	210 [3045]	30/210 [435/3045]	80 [1160]			4,30 [9,46]
FA2004	BDA2B35			350 [5075]	60/350 [870/5075]	135 [1960]			
FA2005	BDA3B21	1/2 BSPP	60 [15,9]	210 [3045]	30/210 [435/3045]	80 [1160]			6,8 [15]
FA2006	BDA3B35			350 [5075]	60/350 [870/5075]	135 [1960]			
FA2007	BDA4B21	3/4 BSPP	110 [28,9]	210 [3045]	30/210 [435/3045]	70 [966]		1:6,2	
FA2008	BDA4B35			350 [5075]	60/350 [870/5075]	145 [2100]			
FA2009	BDA5B21	1 BSPP	160 [42,1]	210 [3045]	30/210 [435/3045]	70 [966]			
FA2010	BDA5B35			350 [5075]	60/350 [870/5075]	145 [2100]			

Standard setting 350 bar [5075 PSI] to 5 l/m [1,32 USgpm] Standard setting 210 bar [3045 PSI] to 5 l/m [1,32 USgpm]

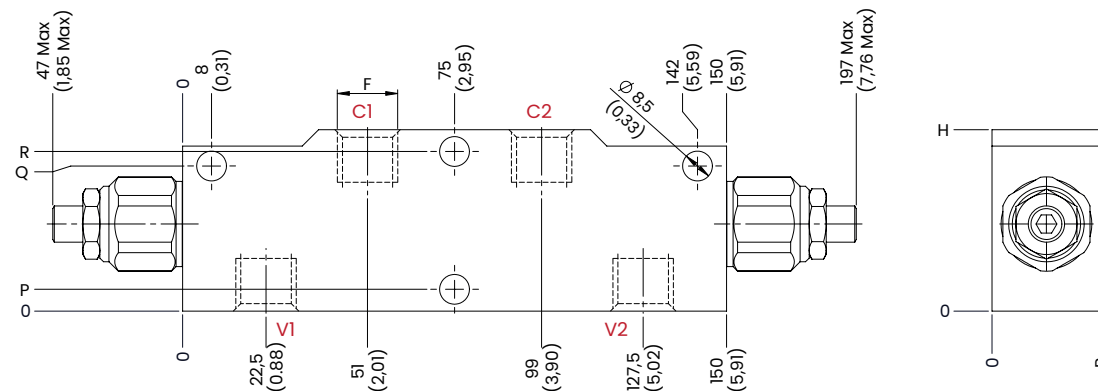
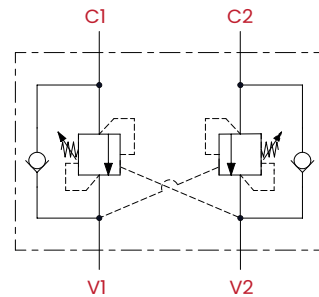
UPDATE: March 2023 (v.06)

BDAY COUNTERBALANCE BSPP

DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER

BDAY counterbalance valves (Gas thread) are used to keep a load locked, the built-in relief valve protects the system from overpressure in the cylinder by draining the oil.

HYDRAULIC CIRCUIT

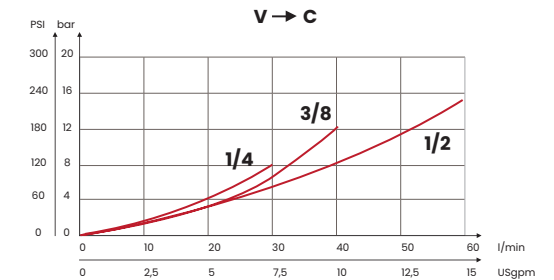
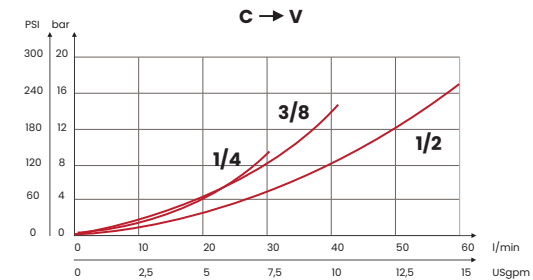


TECHNICAL CHARACTERISTICS

F	B	H	P	Q	R
1/4 BSPP	25 [0,98]	50 [1,97]	5,5 [0,22]	40,5 [1,59]	44,5 [1,75]
3/8 BSPP					
1/2 BSPP	30 [1,18]	60 [2,36]	8,5 [0,33]	46,5 [1,83]	51,5 [1,03]

Steel body

PERFORMANCES



TAMPER PROOF CAP M10



CODE
62200021

ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	STANDARD SETTING bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	PILOT RATIO	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA2011	BDA1B21YA	1/4 BSPP	30 [7,9]	210 [3045]	30/210 [435/3045]	80 [1160]	1:4,25	350 [5075]	1,8 [4]
FA2012	BDA1B35YA			350 [5075]	60/350 [870/5075]	135 [1960]			
FA2013	BDA2B21YA	3/8 BSPP	40 [10,6]	210 [3045]	30/210 [435/3045]	80 [1160]			2 [4,4]
FA2014	BDA2B35YA			350 [5075]	60/350 [870/5075]	135 [1960]			
FA2015	BDA3B21YA	1/2 BSPP	60 [15,9]	210 [3045]	30/210 [435/3045]	80 [1160]			
FA2016	BDA3B35YA			350 [5075]	60/350 [870/5075]	135 [1960]			

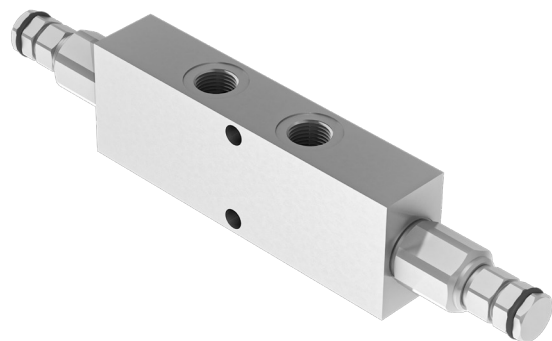
Standard setting 350 bar [5075 PSI] to 5 l/m [1,32 USgpm] Standard setting 210 bar [3045 PSI] to 5 l/m [1,32 USgpm]

UPDATE: March 2023 (v.04)

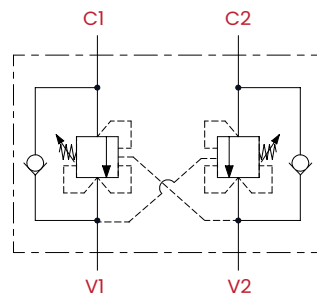
BDC COUNTERBALANCE BSPP

DOUBLE COUNTERBALANCE VALVES FOR CLOSED CENTER

BDC counterbalance valves (Gas thread) are used to keep a load locked, the built-in relief valve protects the system from overpressure in the cylinder by draining the oil.



HYDRAULIC CIRCUIT



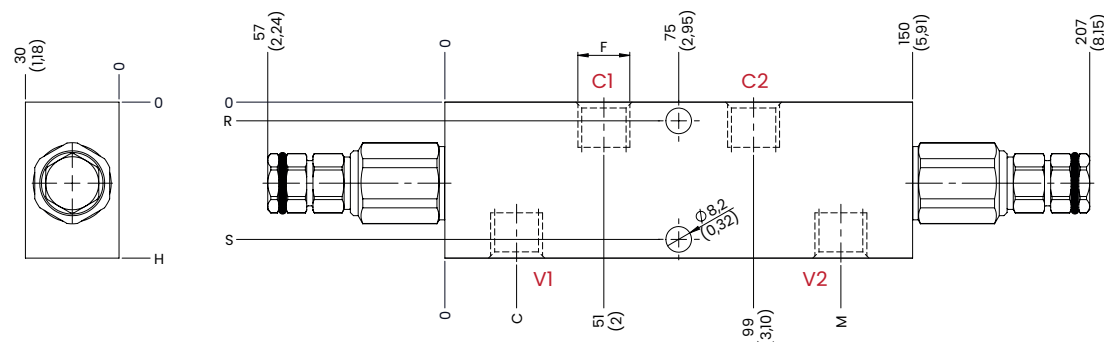
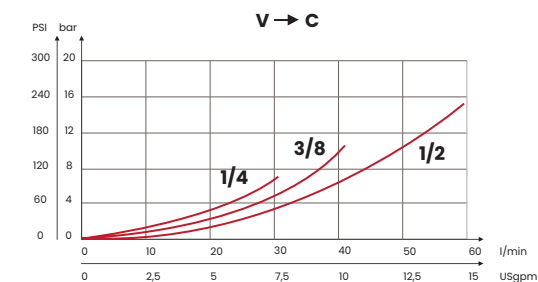
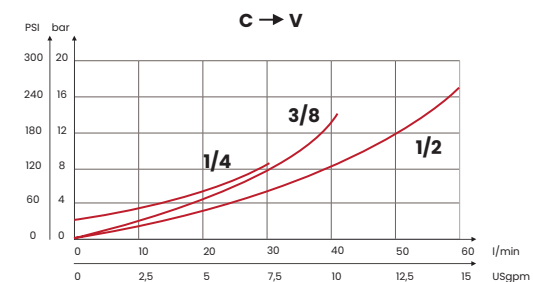
TECHNICAL CHARACTERISTICS

mm [Inches]

F	H	R	S	C	M
1/4 BSPP	50 [1,97]	6 [0,24]	44 [1,73]	23 [0,91]	127 [5]
3/8 BSPP					
1/2 BSPP	60 [2,36]	8,5 [0,33]	51,5 [2,03]	21 [0,83]	129 [5,08]

Steel body (on request aluminium body)

PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	STANDARD SETTING bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	PILOT RATIO	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]				
FA2017	BDC1B21	1/4 BSPP	30 [7,9]	210 [3045]	30/210 [435/3045]	80 [1160]	1:4,25 On request 1:8,1	350 [5075]	1,9 [4,2]				
FA2018	BDC1B35			350 [5075]	60/350 [870/5075]	135 [1960]							
FA2019	BDC2B21	3/8 BSPP	40 [10,6]	210 [3045]	30/210 [435/3045]	80 [1160]			1:4,25 On request 1:8,1	350 [5075]	1,83 [4]		
FA2020	BDC2B35			350 [5075]	60/350 [870/5075]	135 [1960]							
FA2021	BDC3B21	1/2 BSPP	60 [15,9]	210 [3045]	30/210 [435/3045]	80 [1160]					1:4,25 On request 1:8,1	350 [5075]	2,10 [4,6]
FA2022	BDC3B35			350 [5075]	60/350 [870/5075]	135 [1960]							

Standard setting 350 bar [5075 PSI] to 5 l/m [1,32 USgpm] Standard setting 210 bar [3045 PSI] to 5 l/m [1,32 USgpm]

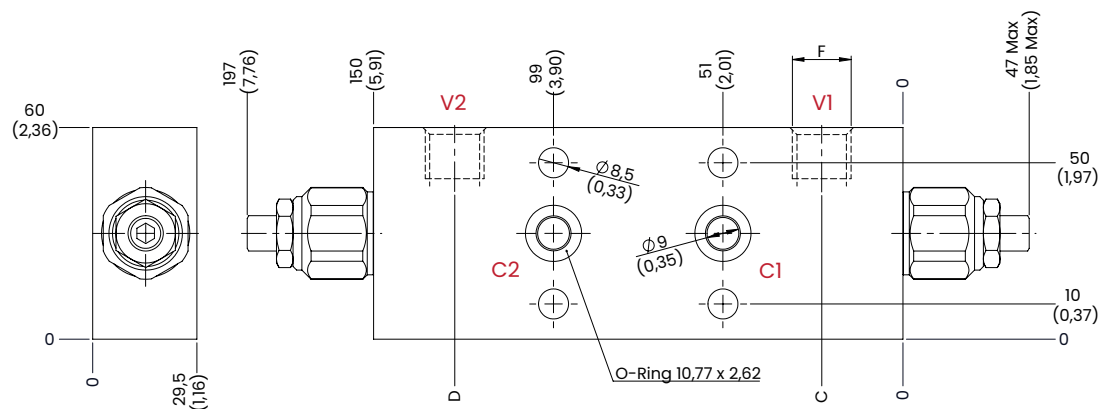
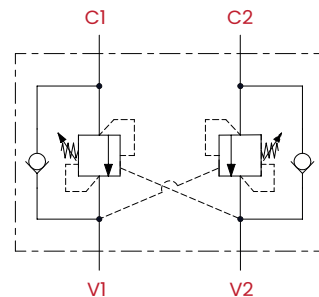
UPDATE: March 2023 (v.04)

DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER, FLANGED VERSION

BFA counterbalance valves (Gas thread) are used to keep a load locked, the built-in relief valve protects the system from overpressure in the cylinder by draining the oil.



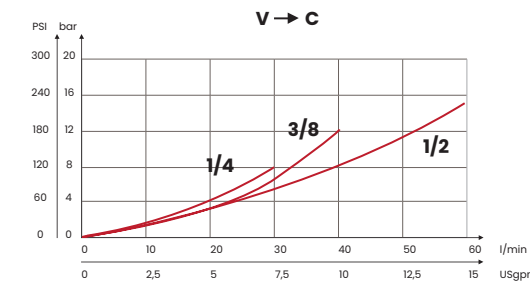
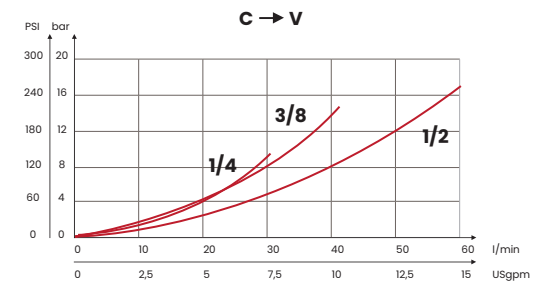
HYDRAULIC CIRCUIT



TECHNICAL CHARACTERISTICS

F	C	D
1/4 BSPP	23 [0,91]	127 [5]
3/8 BSPP		
1/2 BSPP	21 [0,83]	129 [5,07]
Steel body (on request aluminium body)		

PERFORMANCES



TAMPER PROOF CAP M10



CODE
62200021

ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	STANDARD SETTING bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	PILOT RATIO	WEIGHT kg [lb]
FA2023	BFA1B21	1/4 BSPP	30 [7,9]	350 [5075]	210 [3045]	30/210 [435/3045]	80 [1160]	1:4,25 On request 1:8,1	2,05 [4,52]
FA2024	BFA1B35				350 [5075]	60/350 [870/5075]	135 [1960]		
FA2025	BFA2B21	3/8 BSPP	40 [10,6]		210 [3045]	30/210 [435/3045]	80 [1160]		2 [4,41]
FA2026	BFA2B35				350 [5075]	60/350 [870/5075]	135 [1960]		
FA2027	BFA3B21	1/2 BSPP	60 [15,9]		210 [3045]	30/210 [435/3045]	80 [1160]		
FA2028	BFA3B35				350 [5075]	60/350 [870/5075]	135 [1960]		
					Standard setting 350 bar [5075 PSI] to 5 l/m [1,32 USgpm]		Standard setting 210 bar [3045 PSI] to 5 l/m [1,32 USgpm]		

UPDATE: March 2023 (v.05)

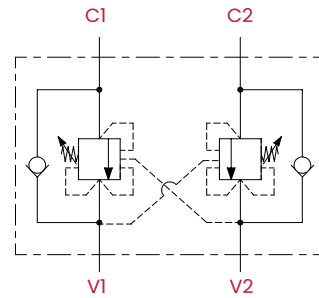
BFC COUNTERBALANCE BSPP

DOUBLE COUNTERBALANCE VALVES FOR CLOSED CENTER, FLANGED VERSION

BFC counterbalance valves (Gas thread) are used to keep a load locked, the built-in relief valve protects the system from overpressure in the cylinder by draining the oil.



HYDRAULIC CIRCUIT

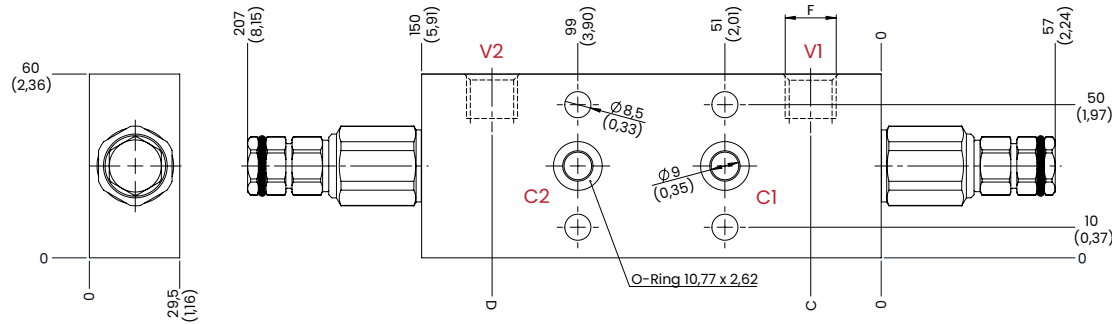
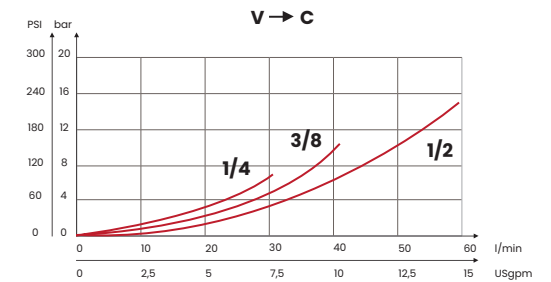
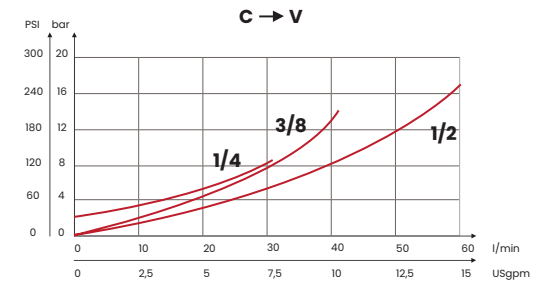


TECHNICAL CHARACTERISTICS

mm [Inches]

F	C	D
1/4 BSPP	23 [0,91]	127 [5]
3/8 BSPP		
1/2 BSPP	21 [0,83]	129 [5,07]
Steel body (on request aluminium body)		

PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	STANDARD SETTING bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	PILOT RATIO	WEIGHT kg [lb]
FA2029	BFC1B21	1/4 BSPP	30 [7,9]	350 [5075]	210 [3045]	30/210 [435/3045]	80 [1160]	1:4,25 On request 1:8,1	2,15 [4,74]
FA2030	BFC1B35				350 [5075]	60/350 [870/5075]	135 [1960]		
FA2031	BFC2B21	3/8 BSPP	40 [10,6]		210 [3045]	30/210 [435/3045]	80 [1160]		2,1 [4,63]
FA2032	BFC2B35				350 [5075]	60/350 [870/5075]	135 [1960]		
FA2033	BFC3B21	1/2 BSPP	60 [15,9]		210 [3045]	30/210 [435/3045]	80 [1160]		2,05 [4,52]
FA2034	BFC3B35				350 [5075]	60/350 [870/5075]	135 [1960]		

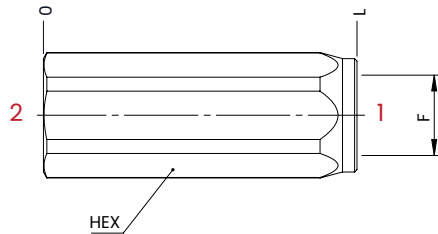
Standard setting 350 bar [5075 PSI] to 5 l/m [1,32 USgpm]

Standard setting 210 bar [3045 PSI] to 5 l/m [1,32 USgpm]

CHECK VALVES

The UFC (Gas thread) check valves allow the full flow of oil in one direction and stop the flow in the opposite direction. The applications where these valves can be used are many, agricultural machinery or industrial installations.

HYDRAULIC CIRCUIT



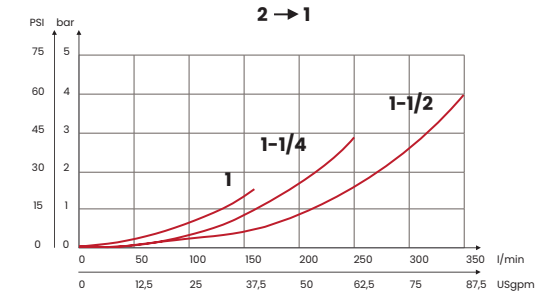
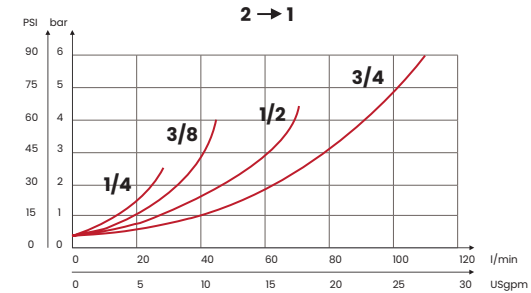
TECHNICAL CHARACTERISTICS

F	L	HEX
1/4 BSPP	55 [2,17]	19
3/8 BSPP	65 [2,56]	24
1/2 BSPP	75 [2,95]	27
3/4 BSPP	86,5 [3,41]	35
1 BSPP	110 [4,33]	41
1-1/4 BSPP	123 [4,84]	55
1-1/2 BSPP	138 [5,43]	60
Steel body		

On request (only for poppet type)
• Calibration hole

mm [Inches]

PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CRACKING PRESSURE bar [PSI]	WEIGHT kg [lb]
FA3001	UFC1B05	1/4 BSPP	30 [7,92]	400 [5800]	Poppet type 0,5 Standard [7,3] On request 3 [43,5] 6 [87]	0,10 [0,22]
FA3004	UFC2B05	3/8 BSPP	45 [12]			0,18 [0,40]
FA3007	UFC3B05	1/2 BSPP	70 [18,5]			0,23 [0,50]
FA3010	UFC4B05	3/4 BSPP	110 [28,9]			0,45 [1]
FA3013	UFC5B05	1 BSPP	160 [42,1]	350 [5075]	Ball type 0,5 [7,3]	0,73 [1,6]
FA3016	UFC6B05	1-1/4 BSPP	250 [66]			1,5 [3,3]
FA3019	UFC7B05	1-1/2 BSPP	350 [92,5]			1,85 [4,07]
FA3022	UFS1B05	1/4 BSPP	30 [7,92]	400 [5800]	Ball type 0,5 [7,3]	0,10 [0,22]
FA3023	UFS2B05	3/8 BSPP	45 [12]			0,18 [0,40]
FA3024	UFS3B05	1/2 BSPP	70 [18,5]			0,23 [0,50]

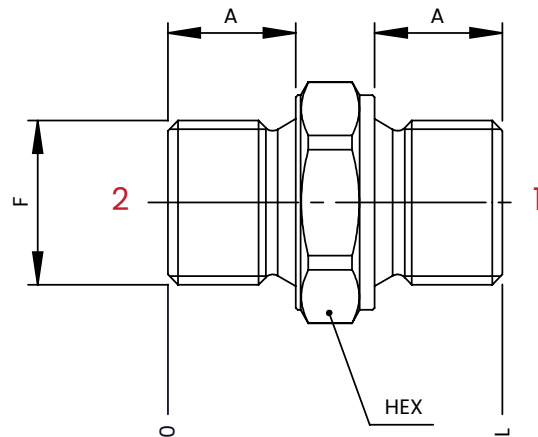
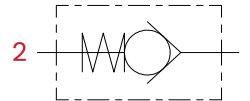
UPDATE: June 2023 (v.07)

UMC CHECK VALVES BSPP

CHECK VALVES

The UMC (Gas thread) check valves allow the full flow of oil in one direction and stop the flow in the opposite direction. The applications where these valves can be used are many, agricultural machinery or industrial installations.

HYDRAULIC CIRCUIT



mm [Inches]

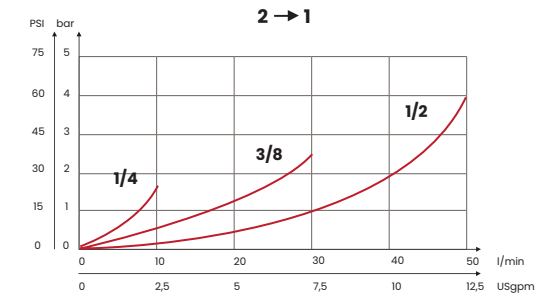
TECHNICAL CHARACTERISTICS

mm [Inches]

F	L	A	HEX
1/4 BSPP	29 [1,14]	11 [0,43]	19
3/8 BSPP	34 [1,34]	13 [0,51]	22
1/2 BSPP	44 [1,73]	14 [0,55]	27

On request (only for poppet type)
• Calibration hole

PERFORMANCES



ORDERING CODE

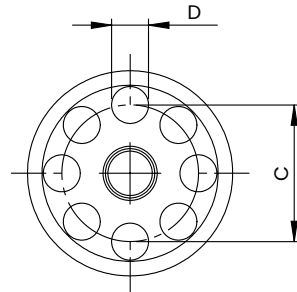
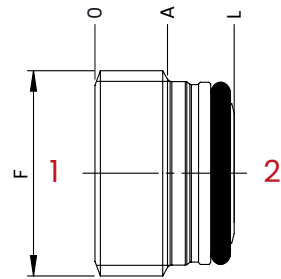
CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	MAX TIGHTENING TORQUE FOR HOSE Nm [lbt ft]	CRACKING PRESSURE bar [PSI]	WEIGHT kg [lb]
FA3025	UMC1B05	1/4 BSPP	10 [2,64]	500 [7250]	30 [22,2]	20 [14,75]	Poppet type	0,03 [0,07]
FA3026	UMC2B05	3/8 BSPP	30 [7,92]		45 [33,2]	35 [25,8]	0,5 Standard [7,3]	0,05 [0,1]
FA3029	UMC3B05	1/2 BSPP	50 [13,2]		60 [44,3]	50 [36,8]	On request 3 [43,5] 6 [87]	0,11 [0,24]
FA3032	UMS1B05	1/4 BSPP	10 [2,64]	500 [7250]	30 [22,2]	20 [14,75]	Ball type 0,5 [7,3]	0,03 [0,07]
FA3033	UMS2B05	3/8 BSPP	30 [7,92]		45 [33,2]	35 [25,8]		0,18 [0,40]
FA3034	UMS3B05	1/2 BSPP	50 [13,2]		60 [44,3]	50 [36,8]		0,23 [0,50]

UPDATE: June 2023 (v.08)

CHECK VALVES POPPET TYPE

The VUC check valve allow the free flow through in a direction while the flow is blocked in the opposite one. It is suitable for integrated circuits mounted on hydraulic blocks. The unidirectional check valve is useful where the design requires small size valve. The external seal is ensured by an o-ring.

HYDRAULIC CIRCUIT

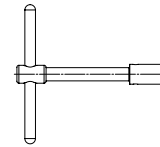


TECHNICAL CHARACTERISTICS

mm [Inches]

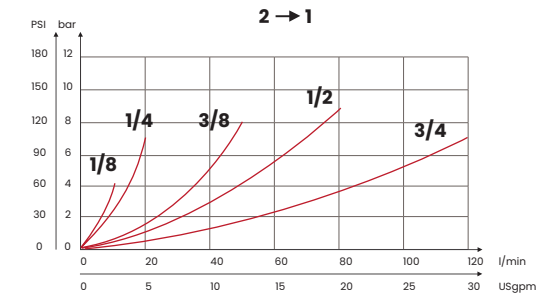
F	L	A	C	D
1/8 BSPP	7,5 [0,29]	3,5 [0,13]	5,6 [0,22]	1,6 [0,06]
1/4 BSPP	8,5 [0,33]	4,4 [0,17]	8,4 [0,33]	2,2 [0,08]
3/8 BSPP	11,3 [0,44]	6 [0,23]	11,1 [0,43]	3 [0,12]
1/2 BSPP	12,7 [0,5]	6,5 [0,25]	13,5 [0,53]	3,8 [0,15]
3/4 BSPP	14,8 [0,58]	7,6 [0,3]	16,5 [0,65]	5 [0,19]

TOOL



CODE	TYPE
CHI08	VUC0B
CHI09	VUC1B
CHI010	VUC2B
CHI011	VUC3B
CHI012	VUC4B

PERFORMANCES



ORDERING CODE

CODE	TYPE	CAVITY CODE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	CRACKING PRESSURE bar [PSI]	WEIGHT kg [lb]
FA3035	VUC0B	FC119	1/8 BSPP	10 [2,65]	350 [5075]	6 [4,4]	0,5 [7,3]	0,002 [0,004]
FA3036	VUC1B	FC111	1/4 BSPP	20 [5,3]		15 [11]		0,005 [0,011]
FA3037	VUC2B	FC112	3/8 BSPP	50 [13,19]		30 [22]		0,01 [0,024]
FA3038	VUC3B	FC113	1/2 BSPP	80 [21,11]		50 [37]		0,019 [0,042]
FA3039	VUC4B	FC114	3/4 BSPP	120 [31,66]				0,040 [0,088]

See cavity paragraph p.193

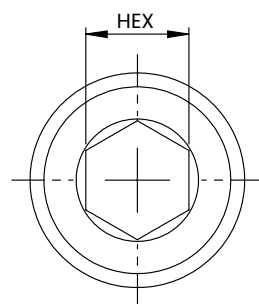
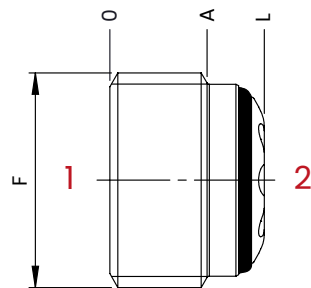
UPDATE: June 2023 (v.03)

VUD CHECK VALVES BSPP

CHECK VALVES POPPET TYPE

The VUD check valve allow the free flow through in a direction while the flow is blocked in the opposite one. It is suitable for integrated circuits mounted on hydraulic blocks. The unidirectional check valve is useful where the design requires small size valve. The external seal is ensured by an o-ring.

HYDRAULIC CIRCUIT



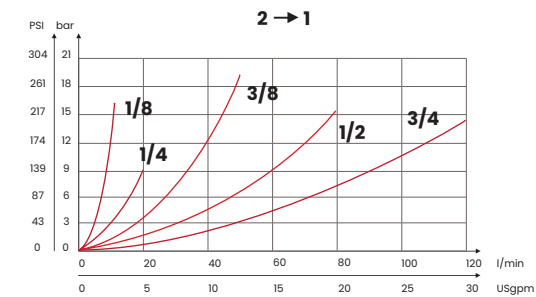
mm [Inches]

TECHNICAL CHARACTERISTICS

mm [Inches]

F	L	A	HEX
1/8 BSPP	8 [0,31]	3,9 [0,15]	4
1/4 BSPP	10,2 [0,4]	5,5 [0,21]	6
3/8 BSPP	11,7 [0,46]	7,5 [0,29]	8
1/2 BSPP	13,5 [0,53]	7,9 [0,31]	10
3/4 BSPP	17,5 [0,45]	11,5 [0,45]	

PERFORMANCES



ORDERING CODE

CODE	TYPE	CAVITY	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	CRACKING PRESSURE bar [PSI]	WEIGHT kg [lb]
FA3040	VUD0B	FC120	1/8 BSPP	10 [2,65]	350 [5075]	9 [6,6]	0,5 [7,3]	0,003 [0,007]
FA3041	VUD1B	FC107	1/4 BSPP	20 [5,3]		15 [11]		0,007 [0,015]
FA3042	VUD2B	FC108	3/8 BSPP	50 [13,19]		25 [18,4]		0,015 [0,033]
FA3043	VUD3B	FC109	1/2 BSPP	80 [21,1]		40 [29,5]		0,023 [0,05]
FA3044	VUD4B	FC110	3/4 BSPP	120 [31,66]		50 [37]		0,050 [0,1]

See cavity paragraph p.193

UPDATE: June 2023 (v.04)

VUS CHECK VALVES BSPP

CHECK VALVES BALL TYPE

The VUS check valve allow the free flow through in a direction while the flow is blocked in the opposite one. It is suitable for integrated circuits mounted on hydraulic blocks. The check valve is useful where the design requires small size valve. The external seal is ensured by an o-ring.



HYDRAULIC CIRCUIT

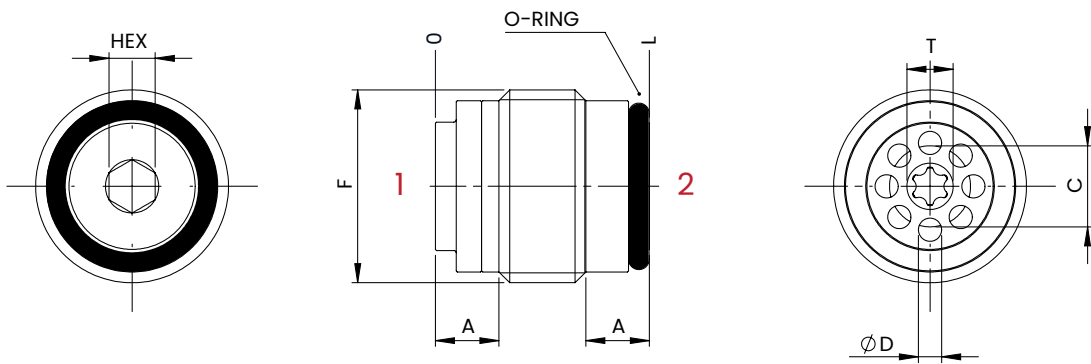
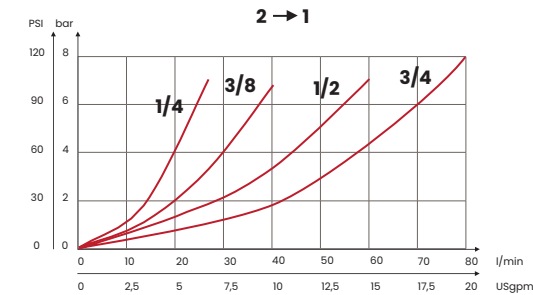


TECHNICAL CHARACTERISTICS

mm [Inches]

F	L	A	C	D	HEX	T	O-RING
1/4 BSPP	17 [0,67]	5,5 [0,22]	6 [0,24]	1,3 [0,05]	3	Torx T15	9 x 1
3/8 BSPP	18,5 [0,73]		7,5 [0,30]	2 [0,08]	4	Torx T15	10,82 x 1,78
1/2 BSPP	22,5 [0,88]	7 [0,28]	10 [0,39]	2,5 [0,1]	6	HEX 5	14 x 1,78
3/4 BSPP	28 [1,20]	8 [0,31]	14 [0,55]	3 [0,12]	8	HEX 8	18,72 x 2,62

PERFORMANCES



It's possible to install the valve in both directions

mm [Inches]

ORDERING CODE

CODE	TYPE	CAVITY	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	CRACKING PRESSURE bar [PSI]	WEIGHT kg [lb]
FA3045	VUS1B	FC107	1/4 BSPP	20 [5,3]	350 [5075]	4 [3]	0,5 [7,3]	0,01 [0,022]
FA3046	VUS2B	FC108	3/8 BSPP	30 [7,9]		6 [4,4]		0,018 [0,040]
FA3047	VUS3B	FC109	1/2 BSPP	50 [13,2]		10 [7,4]		0,033 [0,073]
FA3048	VUS4B	FC110	3/4 BSPP	80 [21]		20 [14,8]		0,082 [0,18]

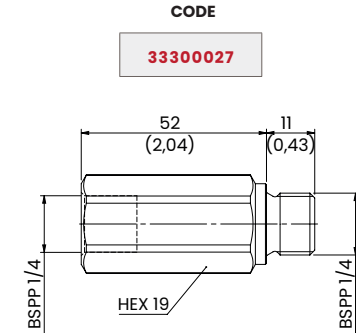
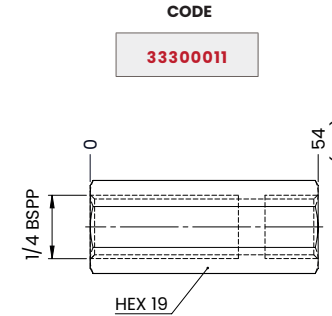
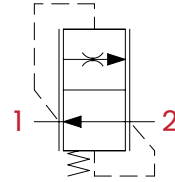
See cavity paragraph p.193

F1B FLOW CONTROL 1/4 BSPP

1/4 BSPP FLOW CONTROL VALVES - PRESSURE COMPENSATED

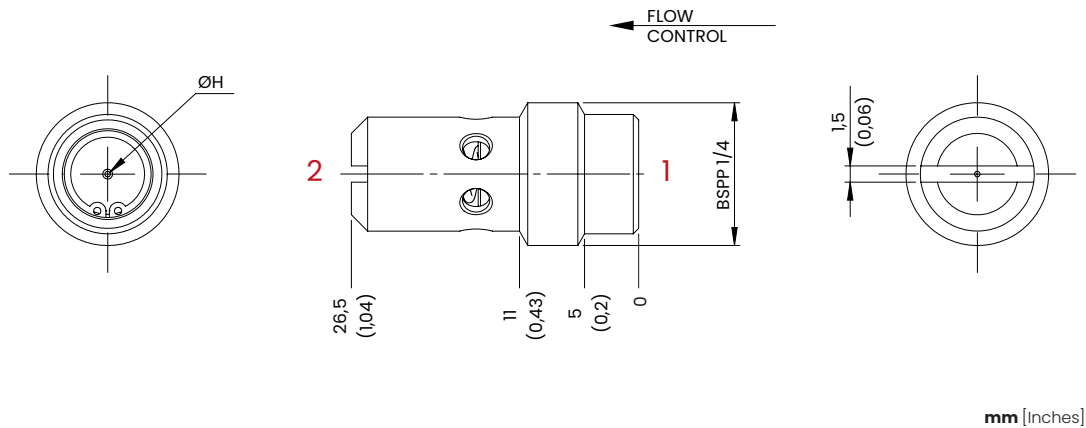
The fixed compensated flow control valve F1B (1/4 G) is used to keep the descent speed of a load constant, regardless of the operating pressure and the value of the load. Typical use is related to tail lifts and hydraulic platforms.

HYDRAULIC CIRCUIT



ORDERING CODE

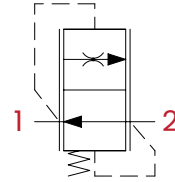
CODE	TYPE	CAVITY	CONTROLLED FLOW AT 100 bar ± 10% l/min [USgpm]	Ø H mm [Inches]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA4001	F1B01	FC105 1/4 BSPP See cavity paragraph p.192	1 [0,26]	1 [0,04]	250 [3625]	4 [3]	0,014 [0,031]
FA4002	F1B02		2 [0,53]	1,2 [0,05]			
FA4003	F1B03		3 [0,79]	1,5 [0,06]			
FA4004	F1B04		4 [1,06]	1,7 [0,07]			
FA4005	F1B05		5 [1,32]	1,9 [0,07]			
FA4006	F1B06		6 [1,58]	2,1 [0,08]			
FA4007	F1B07		7 [1,85]	2,3 [0,09]			
FA4008	F1B08		8 [2,11]	2,4 [0,09]			
FA4009	F1B09		9 [2,38]	2,7 [0,11]			
FA4010	F1B10		10 [2,64]	2,8 [0,11]			
FA4011	F1B11		11 [2,90]	3,1 [0,12]			
FA4012	F1B12		12 [3,17]	3,3 [0,13]			
FA4013	F1B15		15 [3,96]	5 [0,20]			



1/4 BSPP FLOW CONTROL VALVES - PRESSURE COMPENSATED - DOUBLE CUT

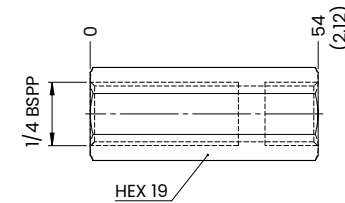
The fixed compensated flow control valve FIT (1/4 G) is used to keep the descent speed of a load constant, regardless of the operating pressure and the value of the load. Typical use is related to tail lifts and hydraulic platforms.

HYDRAULIC CIRCUIT



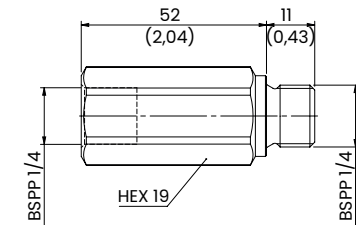
CODE

33300011

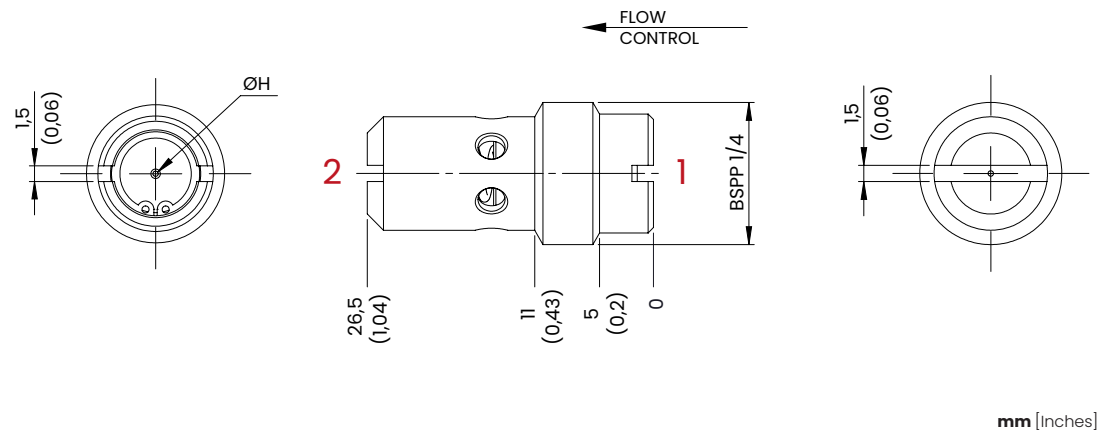


CODE

33300027



ORDERING CODE



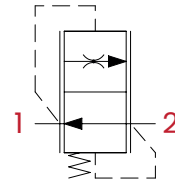
CODE	TYPE	CAVITY	CONTROLLED FLOW AT 100 bar ± 10% l/min [USgpm]	Ø H mm [Inches]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA4067	FIT01	FC105 1/4 BSPP See cavity paragraph p.192	1 [0,26]	1 [0,04]	250 [3625]	4 [3]	0,014 [0,031]
FA4068	FIT02		2 [0,53]	1,2 [0,05]			
FA4069	FIT03		3 [0,79]	1,5 [0,06]			
FA4070	FIT04		4 [1,06]	1,7 [0,07]			
FA4071	FIT05		5 [1,32]	1,9 [0,07]			
FA4072	FIT06		6 [1,58]	2,1 [0,08]			
FA4073	FIT07		7 [1,85]	2,3 [0,09]			
FA4074	FIT08		8 [2,11]	2,4 [0,09]			
FA4075	FIT09		9 [2,38]	2,7 [0,11]			
FA4076	FIT10		10 [2,64]	2,8 [0,11]			
FA4077	FIT11		11 [2,90]	3,1 [0,12]			
FA4078	FIT12		12 [3,17]	3,3 [0,13]			
FA4079	FIT15		15 [3,96]	5 [0,20]			

UPDATE: March 2023 (v.01)

D. 12.7 FLOW CONTROL VALVES-PRESSURE COMPENSATED

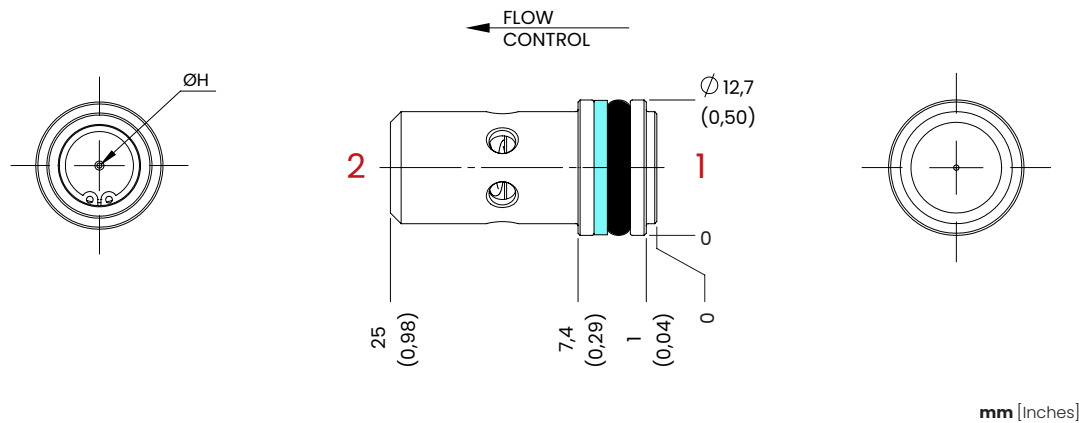
The fixed compensated flow control valve FIC (d. 12.7) is used to keep the descent speed of a load constant, regardless of the operating pressure and the value of the load.

HYDRAULIC CIRCUIT



ORDERING CODE

CODE	TYPE	CONTROLLED FLOW AT 100 bar ± 10% l/min [USgpm]	Ø H mm [Inches]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA4080	FIC01	1 [0,26]	1 [0,04]	250 [3625]	0,014 [0,031]
FA4081	FIC02	2 [0,53]	1,2 [0,05]		
FA4082	FIC03	3 [0,79]	1,5 [0,06]		
FA4083	FIC04	4 [1,06]	1,7 [0,07]		
FA4084	FIC05	5 [1,32]	1,9 [0,07]		
FA4085	FIC06	6 [1,58]	2,1 [0,08]		
FA4086	FIC07	7 [1,85]	2,3 [0,09]		
FA4087	FIC08	8 [2,11]	2,4 [0,09]		
FA4088	FIC09	9 [2,38]	2,7 [0,11]		
FA4089	FIC10	10 [2,64]	2,8 [0,11]		
FA4090	FIC11	11 [2,90]	3,1 [0,12]		
FA4091	FIC12	12 [3,17]	3,3 [0,13]		
FA4092	FIC15	15 [3,96]	5 [0,20]		

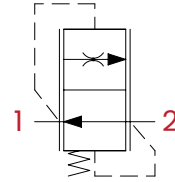


F2B FLOW CONTROL 3/8 BSPP

3/8 BSPP FLOW CONTROL VALVES - PRESSURE COMPENSATED

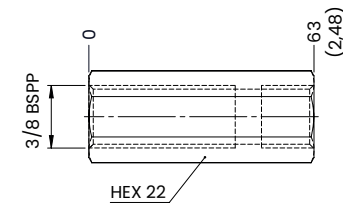
The fixed compensated flow control valve F2B (3/8 G) is used to keep the descent speed of a load constant, regardless of the operating pressure and the value of the load. Typical use is related to tail lifts and hydraulic platforms.

HYDRAULIC CIRCUIT



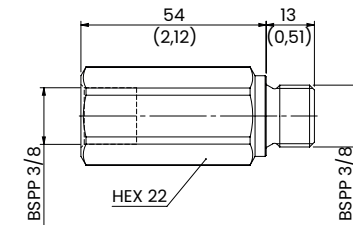
CODE

33300028

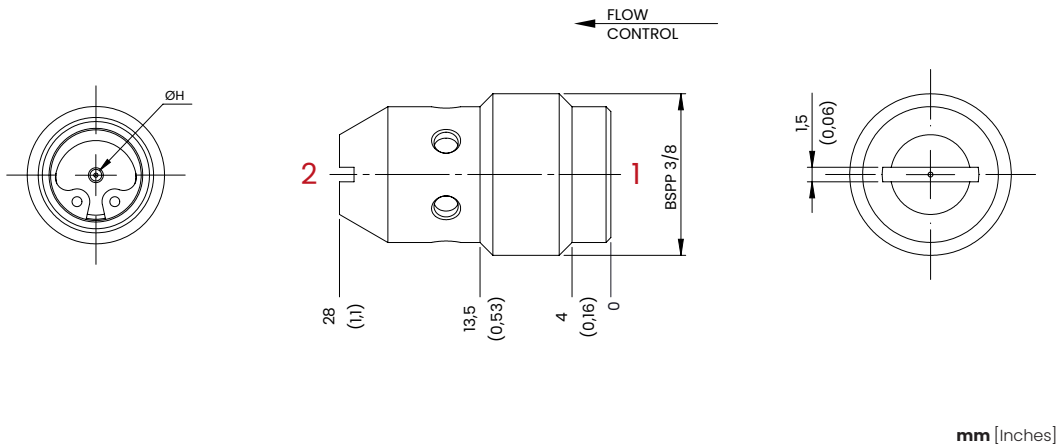


CODE

33300029



ORDERING CODE



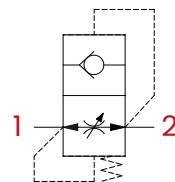
CODE	TYPE	CAVITY	CONTROLLED FLOW AT 100 bar ± 10% l/min [USgpm]	Ø H mm [Inches]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA4014	F2B01	FC106 1/4 BSPP See cavity paragraph p.192	1 [0,26]	0,6 [0,02]	250 [3625]	5 [4]	0,024 [0,053]
FA4015	F2B02		2 [0,53]	1,4 [0,06]			
FA4016	F2B03		3 [0,79]	1,7 [0,07]			
FA4017	F2B04		4 [1,06]	2,1 [0,08]			
FA4018	F2B05		5 [1,32]	2,3 [0,09]			
FA4019	F2B06		6 [1,58]	2,6 [0,10]			
FA4020	F2B07		7 [1,89]	2,8 [0,11]			
FA4021	F2B08		8 [2,11]	3,1 [0,12]			
FA4022	F2B09		9 [2,38]	3,3 [0,13]			
FA4023	F2B10		10 [2,64]	3,5 [0,14]			
FA4024	F2B11		11 [2,90]	3,7 [0,15]			
FA4025	F2B12		12 [3,17]	4 [0,16]			
FA4026	F2B16		16 [4,22]	5,2 [0,2]			
FA4027	F2B18	18 [4,75]	5,8 [0,23]				

UPDATE: March 2023 (v.04)

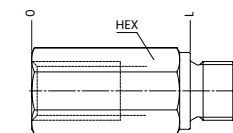
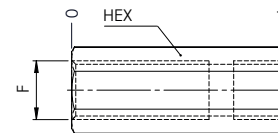
HOSE BURST VALVES

The VBA hose burst are mounted directly on the cylinder to avoid an uncontrolled descent of the load in the event of a hose break.

HYDRAULIC CIRCUIT



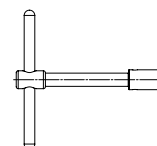
HOUSING



CODE	F ports	L	HEX
33300026	1/4 BSPP	61 [2,40]	19 [0,75]
33300028	3/8 BSPP	63 [2,48]	22 [0,87]

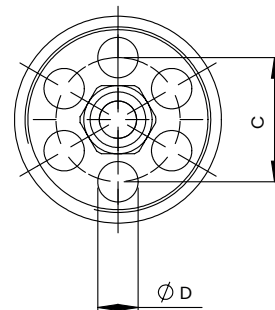
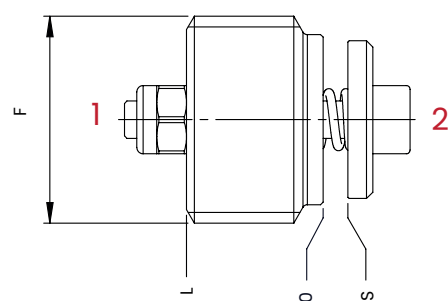
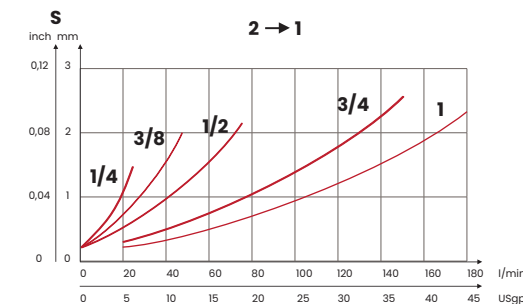
CODE	F ports	L	HEX
33300018	1/4 BSPP	39 [1,53]	19 [0,75]
33300019	3/8 BSPP	45 [1,77]	22 [0,87]
33300021	1/2 BSPP	52 [2,04]	27 [1,06]

TOOL



CODE	TYPE	WEIGHT kg [lbt]
CHI01	VBA1B	0,12 [0,27]
CHI02	VBA2B	0,13 [0,29]
CHI03	VBA3B	0,15 [0,33]
CHI04	VBA4B	0,20 [0,44]

PERFORMANCES



TECHNICAL CHARACTERISTICS

F	C	D	L
1/4 BSPP	8 [0,31]	2,5 [0,10]	8,2 [0,32]
3/8 BSPP	10 [0,39]	3,25 [0,13]	11 [0,43]
1/2 BSPP	11,5 [0,45]	4 [0,16]	13 [0,51]
3/4 BSPP	14,5 [0,57]	5,2 [0,20]	18 [0,70]
1 BSPP	19 [0,75]	7 [0,28]	20 [0,79]

mm [Inches]

ORDERING CODE

CODE	TYPE	CAVITY	F ports	MAX FLOW l/min [usgpm]	MAX PRESSURE bar [psi]	VALVE TIGHTENING TORQUE Nm [lbt ft]	NUT TIGHTENING TORQUE FOR ADJUSTMENT Nm [lbt ft]	WEIGHT kg [lb]
FA6001	VBA1B	FC100	1/4 BSPP	25 [6,6]	350 [5075]	4 [3]	1 [0,7]	0,008 [0,017]
FA6002	VBA2B	FC101	3/8 BSPP	50 [13,2]		6 [4,5]		0,014 [0,030]
FA6003	VBA3B	FC102	1/2 BSPP	80 [21,1]		10 [7,5]	2 [1,5]	0,025 [0,055]
FA6004	VBA4B	FC103	3/4 BSPP	150 [39,6]		15 [11]		0,05 [0,11]
FA6005	VBA5B	FC104	1 BSPP	180 [47,5]		20 [15]		0,10 [0,22]

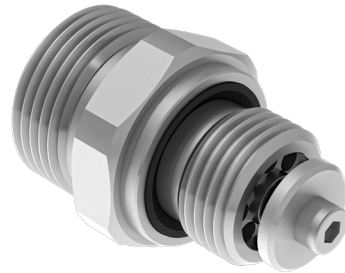
S setting on request - hole on the plate on request

[See cavity paragraph p.192](#)

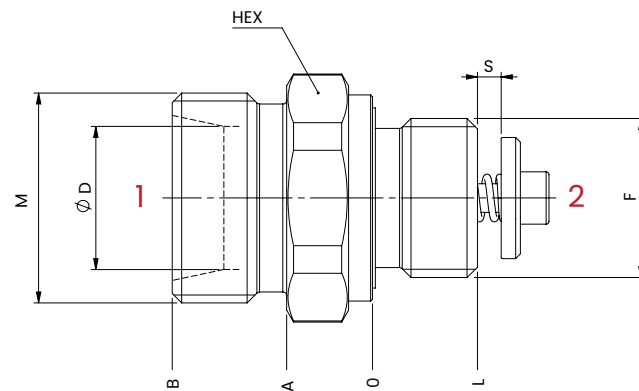
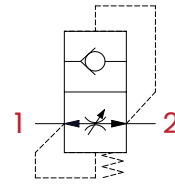
VBAT HOSE BURST BSPP

HOSE BURST VALVES

The VBAT hose burst are mounted directly on the cylinder to avoid an uncontrolled descent of the load in the event of a hose break.



HYDRAULIC CIRCUIT



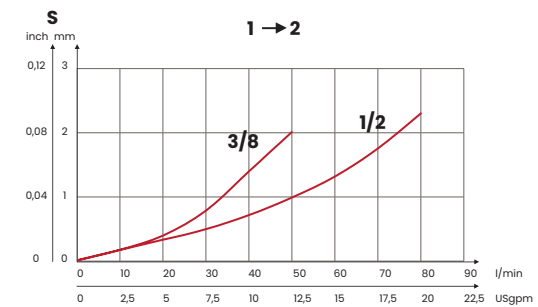
mm [Inches]

TECHNICAL CHARACTERISTICS

mm [Inches]

F	M	D	L	HEX	A	B
3/8 BSPP	M16 x 1,5	10 [0,39]	11 [0,43]	22	9 [0,35]	20 [0,78]
	M18 x 1,5	12 [0,47]		24		21 [0,82]
1/2 BSPP	M22x 1,5	15 [0,59]	13 [0,51]	27	9,5 [0,37]	21,5 [0,84]

PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	TORQUE OF TIGHTENING Nm [lbt ft]	TORQUE OF TIGHTENING TUBE Nm [lbt ft]	TORQUE OF ADJUSTMENT SCREW TIGHTENING Nm [lbt ft]	WEIGHT kg [lb]
FA6006	VBA2BT10	3/8 BSPP	50 [13,2]	320 [4641]	30 [22]	20 [15]	1 [0,7]	0,044 [0,097]
FA6007	VBA2BT12					40 [30]		
FA6008	VBA2BT15					60 [45]		
FA6009	VBA3BT15	1/2 BSPP	80 [21,1]	50 [37]	50 [37]	2 [1,5]	0,077 [0,17]	

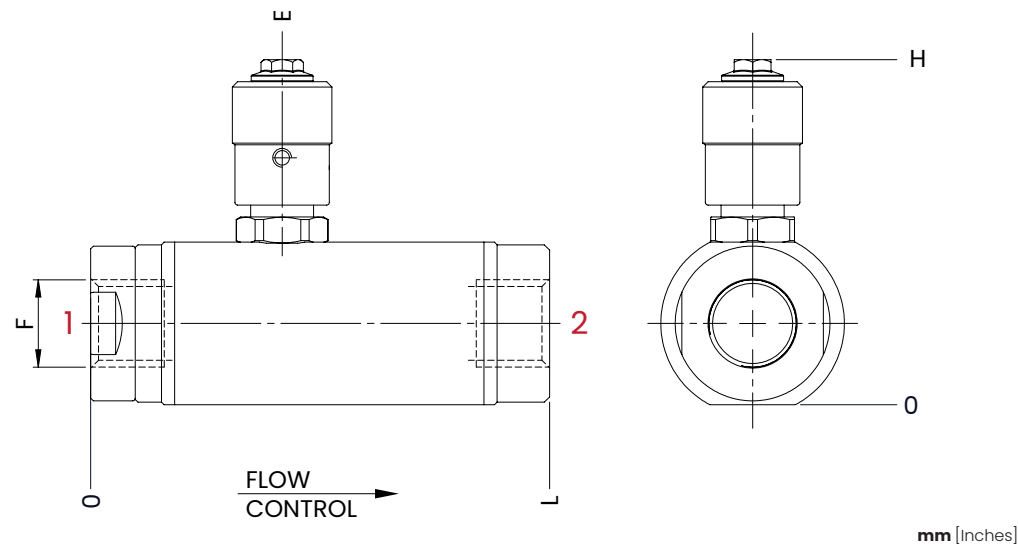
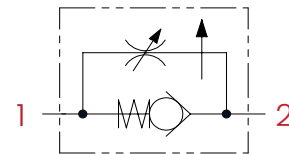
S setting on request - hole on the plate on request

FLOW CONTROL VALVES-PRESSURE COMPENSATED

Compensated flow control valve, allows the free passage of oil in one direction and regulates the flow in the opposite direction. The internal compensation system keeps the actuator speed constant, regardless of the load, and guarantees high adjustment sensitivity.



HYDRAULIC CIRCUIT

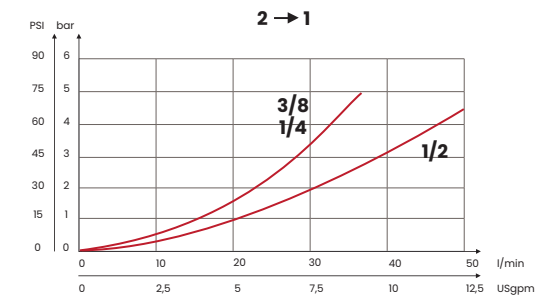
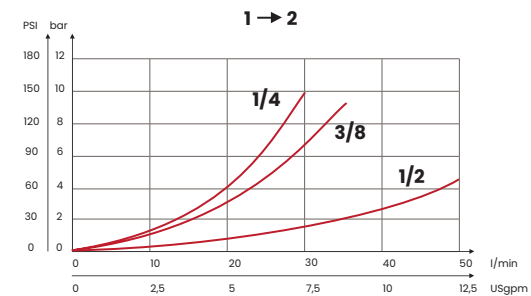


TECHNICAL CHARACTERISTICS

mm [Inches]

F	L	H	E
1/4 BSPP	87,5 [3,44]	66 [2,60]	36,5 [1,44]
3/8 BSPP			
1/2 BSPP	109 [4,31]	73 [2,87]	46 [1,81]
Steel body			

PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA4028	CFR1B	1/4 BSPP	25 [6,6]	250 [3625]	0,5 [1,10]
FA4029	CFR2B	3/8 BSPP	30 [7,9]		0,8 [1,76]
FA4030	CFR2B	1/2 BSPP	45 [12]		

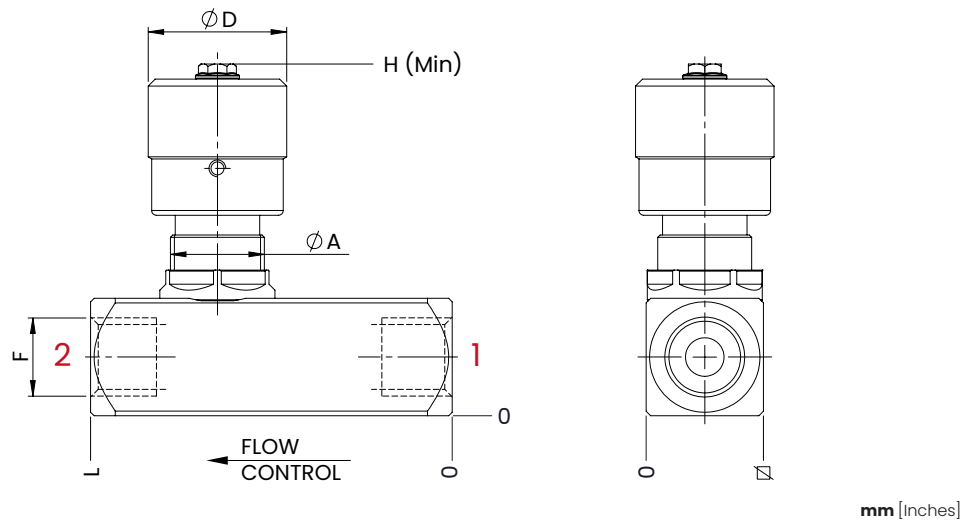
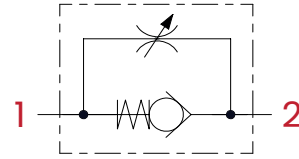
UPDATE: March 2023 (v.05)

UNIDIRECTIONAL FLOW CONTROL VALVES

The unidirectional flow control valves SUA (Gas thread) allow the free passage of the oil in one direction and regulate it in the opposite direction.



HYDRAULIC CIRCUIT



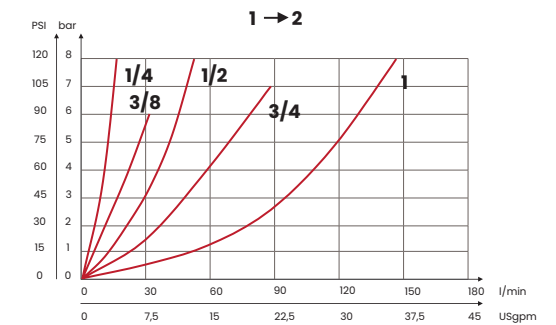
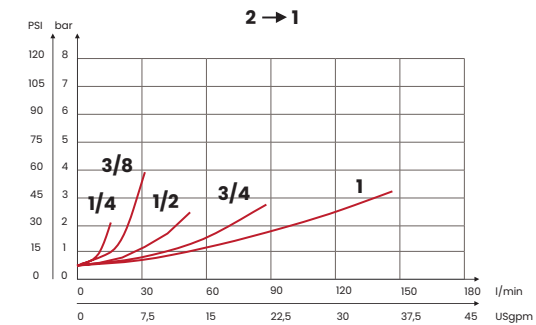
TECHNICAL CHARACTERISTICS

mm [Inches]

F	L	H	∅	∅D	A
1/4 BSPP	66 [2,60]	76 [2,99]	25 [0,98]	30 [1,18]	M20 x 1
3/8 BSPP	77 [3,03]				
1/2 BSPP	86 [3,38]	81 [3,19]	30 [1,18]		
3/4 BSPP	112,5 [4,43]	110 [4,33]	40 [1,57]	38 [1,5]	M35 x 1,5
1 BSPP	141 [5,55]	114 [4,49]	45 [1,77]		

Steel body

PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA4031	SUA1B	1/4 BSPP	15 [4]	400 [5800]	0,4 [0,88]
FA4032	SUA2B	3/8 BSPP	30 [7,9]		0,6 [1,32]
FA4033	SUA3B	1/2 BSPP	50 [13,2]		1,45 [3,2]
FA4034	SUA4B	3/4 BSPP	90 [23,8]		2 [4,4]
FA4035	SUA5B	1 BSPP	150 [39,6]		

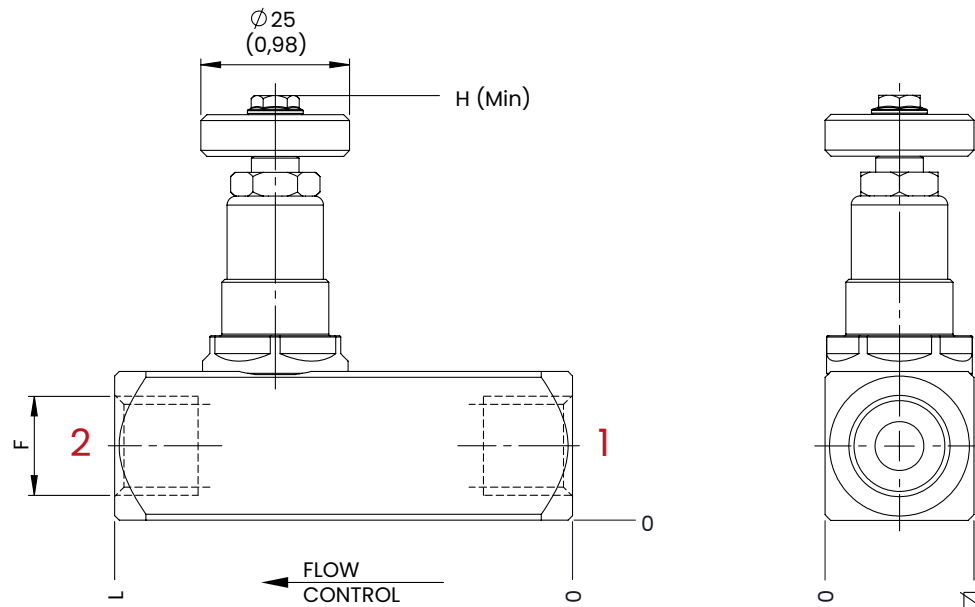
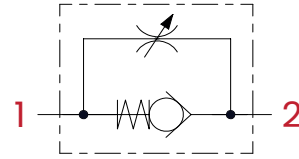
UPDATE: March 2023 (v.04)

UNIDIRECTIONAL FLOW CONTROL VALVES

The unidirectional flow control valves SUD (Gas thread) allow the free passage of the oil in one direction and regulate it in the opposite direction.



HYDRAULIC CIRCUIT

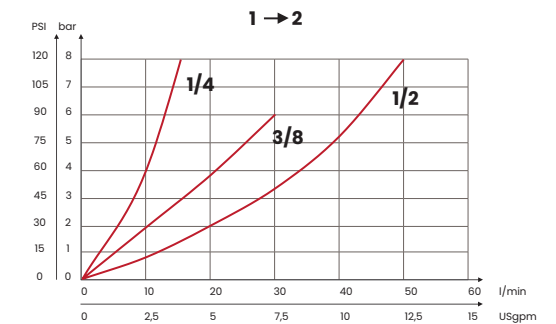
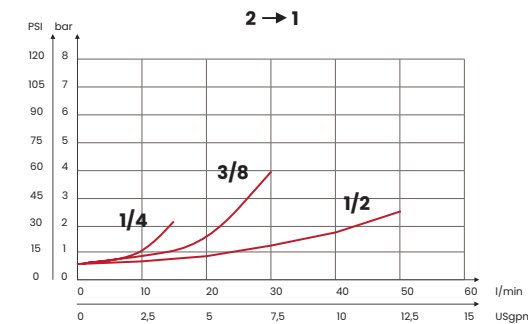


TECHNICAL CHARACTERISTICS

mm [Inches]

F	L	H	∅
1/4 BSPP	66 [2,60]	74 [2,91]	25 [0,98]
3/8 BSPP	77 [3,03]		
1/2 BSPP	86 [3,39]	79 [3,11]	30 [1,18]
Steel body			

PERFORMANCES



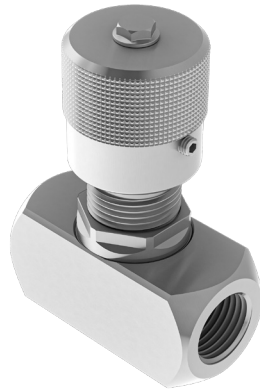
ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA4036	SUD1B	1/4 BSPP	15 [4]	400 [5800]	0,37 [0,82]
FA4037	SUD2B	3/8 BSPP	30 [7,9]		0,55 [1,21]
FA4038	SUD3B	1/2 BSPP	50 [13,2]		

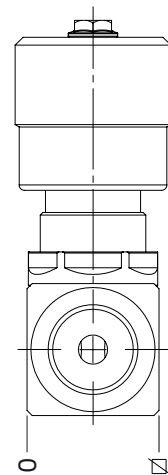
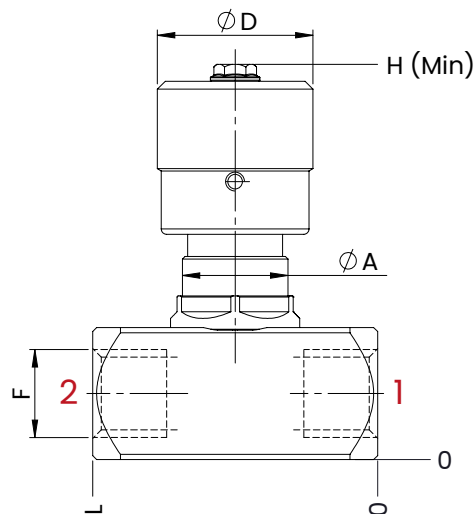
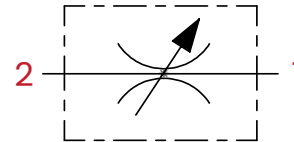
UPDATE: March 2023 (v.04)

BIDIRECTIONAL FLOW CONTROL VALVES

The bidirectional flow control valves SBA (Gas thread) regulate the speed of an actuator in both directions.



HYDRAULIC CIRCUIT



mm [Inches]

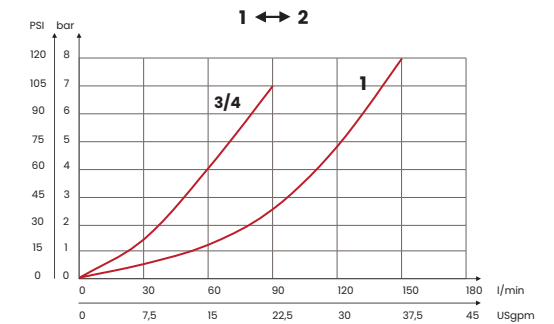
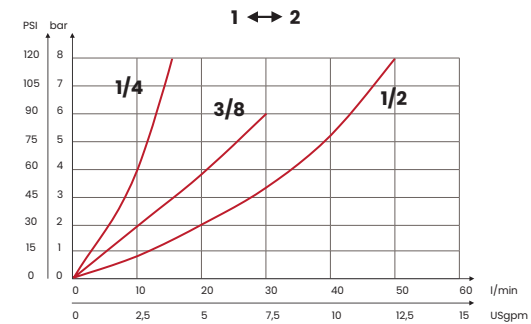
TECHNICAL CHARACTERISTICS

mm [Inches]

F	L	H	∅	∅D	A
1/4 BSPP	54 [2,13]	76 [2,99]	25 [0,98]	30 [1,18]	M20 x 1
3/8 BSPP					
1/2 BSPP	58 [2,28]	81 [3,19]	30 [1,18]	38 [1,5]	M35 x 1,5
3/4 BSPP	81 [3,19]	110 [4,33]	40 [1,57]		
1 BSPP	102 [4,01]	114 [4,49]	45 [1,77]		

Steel body

PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA4039	SBA1B	1/4 BSPP	15 [4]	400 [5800]	0,3 [0,66]
FA4040	SBA2B	3/8 BSPP	30 [7,9]		0,31 [0,68]
FA4041	SBA3B	1/2 BSPP	50 [13,2]		0,5 [1,1]
FA4042	SBA4B	3/4 BSPP	90 [23,8]		1,1 [2,43]
FA4043	SBA5B	1 BSPP	150 [39,6]		1,5 [3,3]

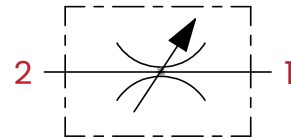
UPDATE: March 2023 (v.05)

BIDIRECTIONAL FLOW CONTROL VALVES

The bidirectional flow control valves SBD (Gas thread) regulate the speed of an actuator in both directions.



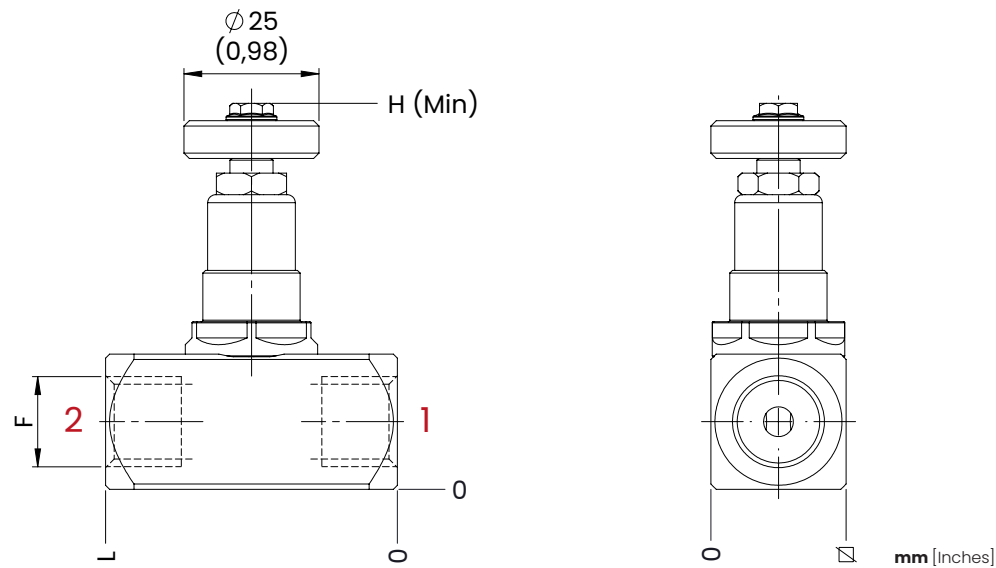
HYDRAULIC CIRCUIT



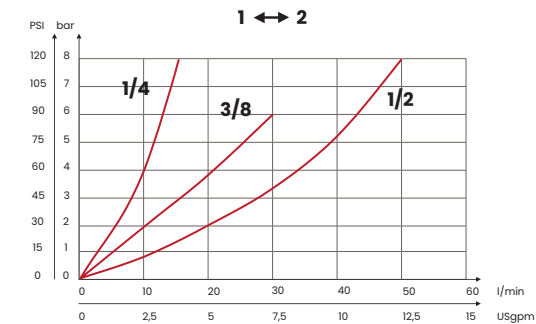
TECHNICAL CHARACTERISTICS

mm [Inches]

F	L	H	∅
1/4 BSPP	54 [2,13]	74 [2,91]	25 [0,98]
3/8 BSPP			
1/2 BSPP	58 [2,28]	79 [3,11]	30 [1,18]
Steel body			



PERFORMANCES



ORDERING CODE

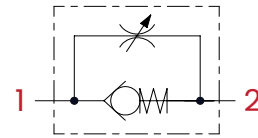
CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA4044	SBD1B	1/4 BSPP	15 [4]	400 [5800]	0,30 [0,66]
FA4045	SBD2B	3/8 BSPP	30 [7,9]		0,28 [0,6]
FA4046	SBD3B	1/2 BSPP	50 [13,2]		0,45 [1]

UPDATE: March 2023 (v.04)

UNIDIRECTIONAL FLOW CONTROL VALVES

The unidirectional flow control valves VCU (Gas thread) allow the free passage of the oil in one direction and regulate it in the opposite direction.

HYDRAULIC CIRCUIT

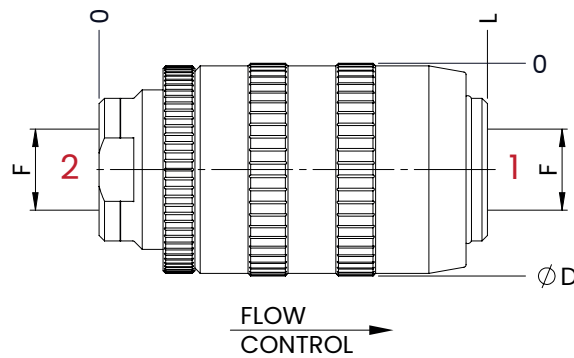


TECHNICAL CHARACTERISTICS

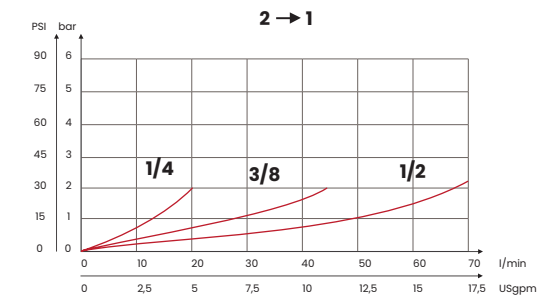
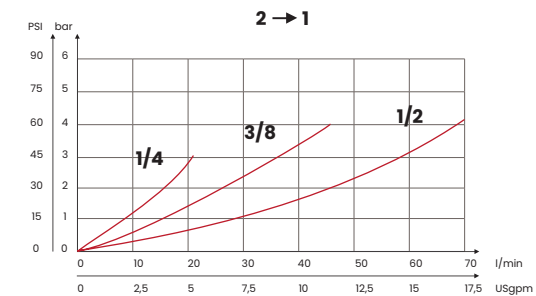
mm [Inches]

F	ØD	L
1/4 BSPP	34 [1,34]	62 [2,44]
3/8 BSPP	40 [1,57]	73 [2,87]
1/2 BSPP	45 [1,77]	83 [3,27]
Steel body		

PERFORMANCES



mm [Inches]



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA4047	VCU1B	1/4 BSPP	20 [5,3]	350 [5075]	0,31 [0,68]
FA4048	VCU2B	3/8 BSPP	45 [12]		0,50 [1,1]
FA4049	VCU3B	1/2 BSPP	70 [18,6]		0,70 [1,54]

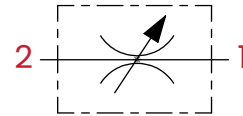
UPDATE: March 2023 (v.05)

BIDIRECTIONAL FLOW CONTROL VALVES

The bidirectional flow control valves VCB (Gas thread) regulate the speed of an actuator in both directions



HYDRAULIC CIRCUIT

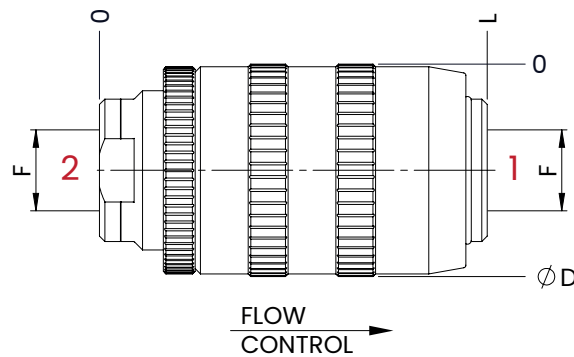
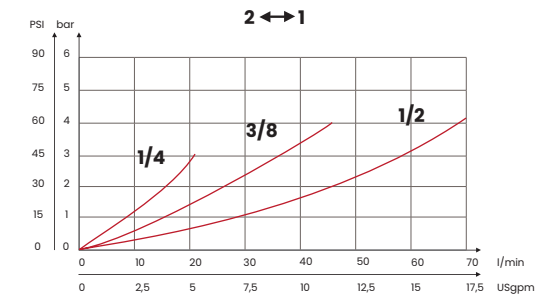


TECHNICAL CHARACTERISTICS

mm [Inches]

F	ØD	L
1/4 BSPP	34 [1,34]	62 [2,44]
3/8 BSPP	40 [1,57]	73 [2,87]
1/2 BSPP	45 [1,77]	83 [3,27]
Steel body		

PERFORMANCES



mm [Inches]

ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA4050	VCB1B	1/4 BSPP	20 [5,3]	350 [5075]	0,30 [0,66]
FA4051	VCB2B	3/8 BSPP	45 [12]		0,48 [1,06]
FA4052	VCB3B	1/2 BSPP	70 [18,6]		0,67 [1,47]

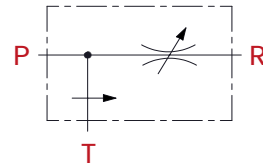
UPDATE: March 2023 (v.05)

3 WAYS FLOW CONTROL VALVES, PRESSURE COMPENSATED WITH EXCEEDING FLOW TO TANK

The 3-way flow control valves allow the regulation and constant maintenance of the flow regardless of the load, by means of an internal compensation system, in the RCT version the excess flow goes to the drain.



HYDRAULIC CIRCUIT

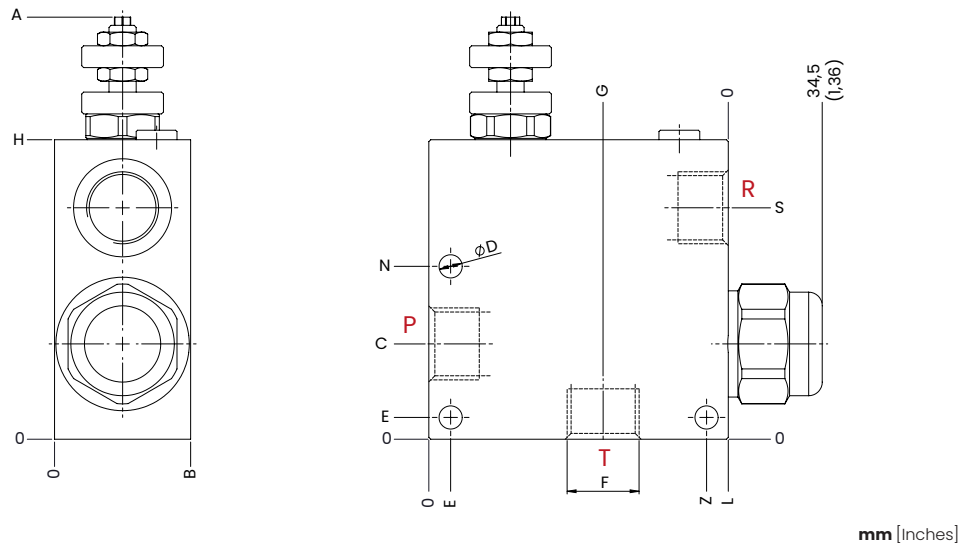
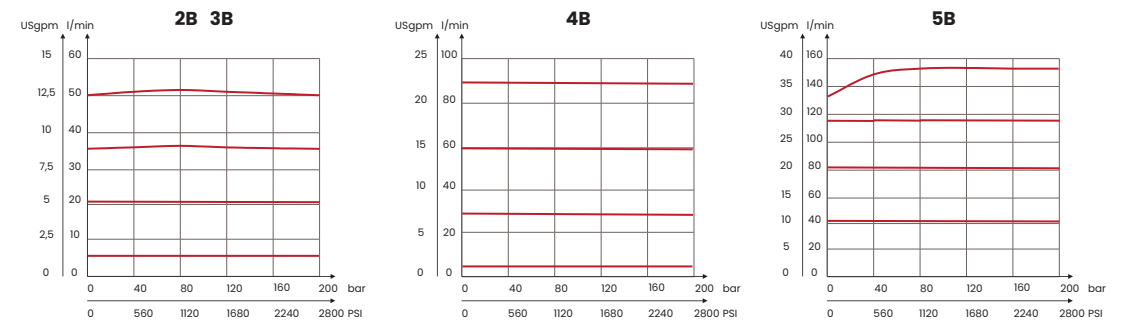


TECHNICAL CHARACTERISTICS

mm [Inches]

F	B	H	L	ØD	N	C	E	S	G	Z	A
3/8 BSPP	40 [1,57]	90 [3,54]	90 [3,54]	6,5 [0,26]	54 [2,13]	31 [1,22]	6 [0,24]	73 [2,87]	40 [1,57]	70 [2,76]	134 [5,28]
1/2 BSPP											
3/4 BSPP	50 [1,97]	110 [4,33]	110 [4,33]	8,5 [0,33]	63,5 [2,50]	35 [1,38]	8 [0,31]	85 [3,35]	44 [1,73]	96 [3,78]	155 [6,10]
1 BSPP					/	46 [1,81]	10 [0,39]	86 [3,39]	45 [1,77]	98 [3,86]	
Aluminium body											

PERFORMANCES



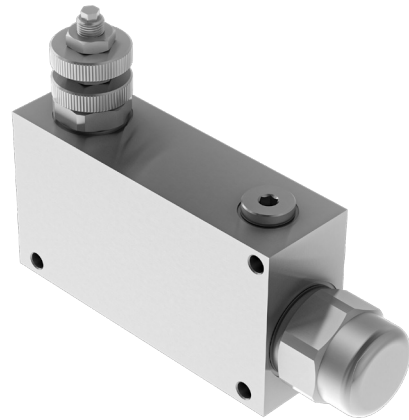
ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA4053	RCT2B	3/8 BSPP	50 [13,3] with 30 [7,9] in R	210 [3050]	1,15 [2,54]
FA4054	RCT3B	1/2 BSPP	90 [23,8] with 50 [13,3] in R		1,1 [2,43]
FA4055	RCT4B	3/4 BSPP	150 [39,6] with 90 [23,8] in R		1,9 [4,19]
FA4056	RCT5B	1 BSPP	240 [63,4] with 150 [63,4] in R		2 [4,41]

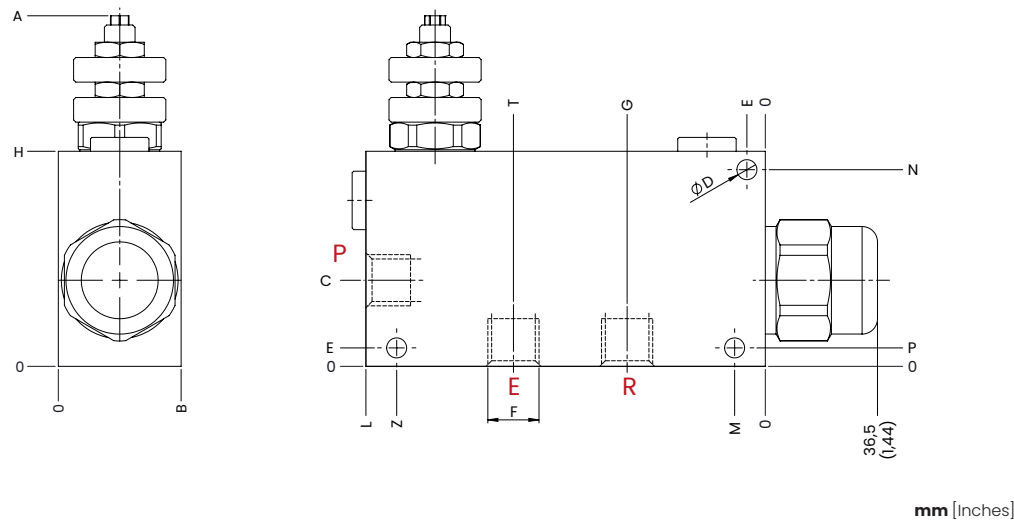
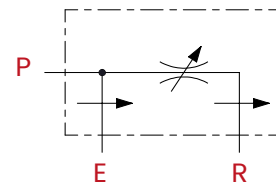
UPDATE: March 2023 (v.05)

3 WAYS FLOW CONTROL VALVES, PRESSURE COMPENSATED WITH EXCEEDING FLOW TO PRESSURE

The 3-way flow control valves allow the regulation and constant maintenance of the flow regardless of the load, by means of an internal compensation system, in the RCP version the excess flow it is under pressure available for a second use.



HYDRAULIC CIRCUIT

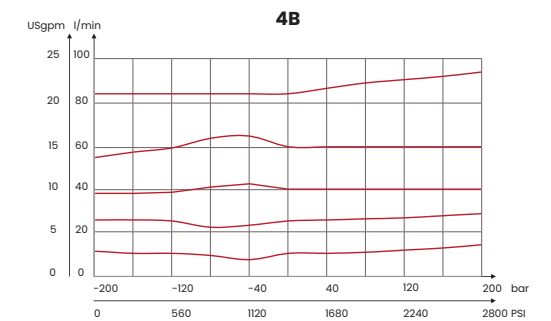
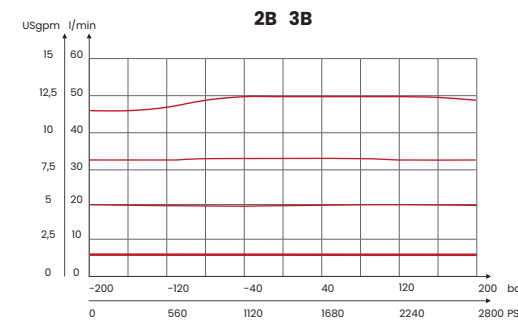


TECHNICAL CHARACTERISTICS

mm [Inches]

F	B	H	L	ØD	N	C	E	T	G	Z	A	M
3/8 BSPP	40 [1,57]	70 [2,76]	130 [5,11]	6,5 [0,26]	64 [2,52]	28 [1,10]	6 [0,24]	82 [3,23]	45 [1,77]	120 [4,72]	114 [4,49]	10 [0,39]
1/2 BSPP												
3/4 BSPP	50 [1,97]	90 [3,54]	155 [6,10]	9,5 [0,37]	80 [3,15]	35 [1,38]	10 [0,39]	98 [3,86]	54 [2,13]	145 [5,71]	135 [5,32]	/
Aluminium body												

PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA4057	RCP2B	3/8 BSPP	50 [13,3] with 30 [7,9] in R	210 [3050]	1,3 [2,87]
FA4058	RCP3B	1/2 BSPP	90 [23,8] with 50 [13,3] in R		1,25 [2,76]
FA4059	RCP4B	3/4 BSPP	150 [39,6] with 90 [23,8] in R		2,5 [5,51]

UPDATE: March 2023 (v.05)

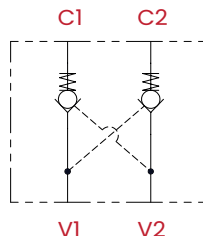
VBD CHECK VALVES BSPP

DOUBLE ACTING PILOT CHECK VALVES

VBD pilot check valves are used to lock a double acting actuator in place in both directions, ensuring the load is locked



HYDRAULIC CIRCUIT



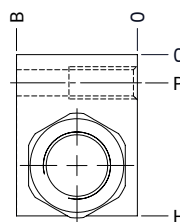
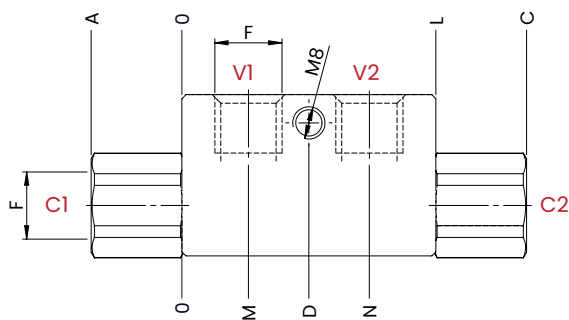
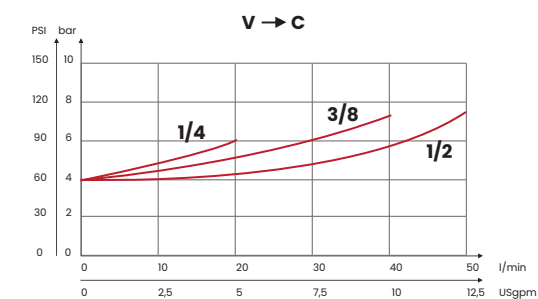
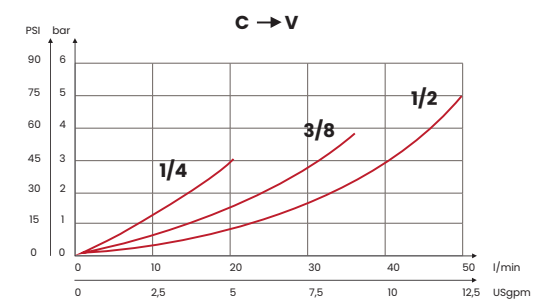
TECHNICAL CHARACTERISTICS

mm [Inches]

F	B	H	L	M	N	P	A	C	D
1/4 BSPP	30 [1,18]	40 [1,57]	63 [2,5]	16,5 [0,65]	46,5 [1,83]	7 [0,28]	22,5 [0,65]	85,5 [3,4]	31,5 [0,24]
3/8 BSPP									
1/2 BSPP	35 [1,38]	50 [2,0]	82 [3,23]	23 [0,90]	59 [2,32]	15 [0,59]	31,5 [1,24]	113,5 [4,5]	41 [1,61]

Steel body

PERFORMANCES



mm [Inches]

ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	PILOT RATIO	CRACKING PRESSURE bar [PSI]	WEIGHT kg [lb]
FA5001	VBD1B	1/4 BSPP	20 [5,3]	350 [5075]	1:5,5	4,5 [65]	0,65 [1,43]
FA5002	VBD2B	3/8 BSPP	35 [9,2]				0,6 [1,32]
FA5003	VBD3B	1/2 BSPP	50 [13,2]		1:5		1,1 [2,43]

Available with spring 3 bar, 6 bar

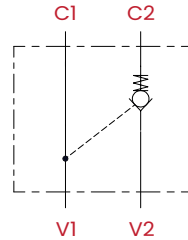
UPDATE: March 2023 (v.05)

SINGLE ACTING PILOT CHECK VALVES

The VBS pilot check valves are used to lock a single acting actuator in position, ensuring that the load is locked.



HYDRAULIC CIRCUIT

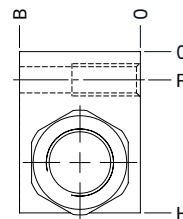
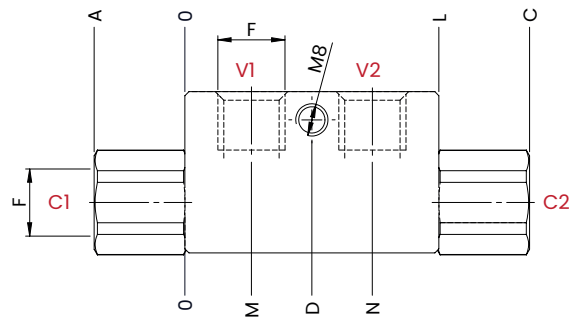


TECHNICAL CHARACTERISTICS

mm [Inches]

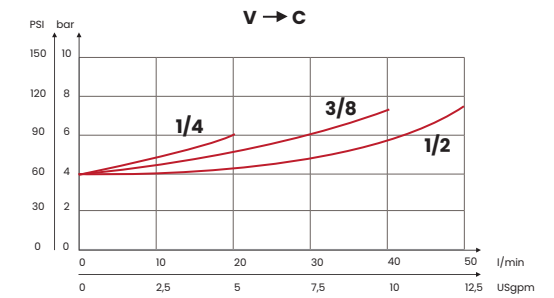
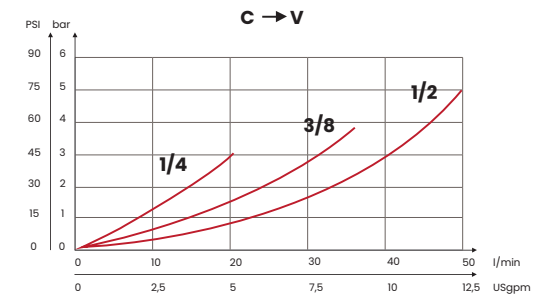
F	B	H	L	M	N	P	A	C	D
1/4 BSPP	30 [1,18]	40 [1,57]	63 [2,5]	16,5 [0,65]	46,5 [1,83]	7 [0,28]	22,5 [0,65]	85,5 [3,4]	31,5 [0,24]
3/8 BSPP									
1/2 BSPP	35 [1,38]	50 [2,0]	82 [3,23]	23 [0,90]	59 [2,32]	15 [0,59]	31,5 [1,24]	113,5 [4,5]	41 [1,61]

Steel body



mm [Inches]

PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	PILOT RATIO	CRACKING PRESSURE bar [PSI]	WEIGHT kg [lb]
FA5004	VBS1B	1/4 BSPP	20 [5,3]	350 [5075]	1:5,5	4,5 [65]	0,61 [1,34]
FA5005	VBS12	3/8 BSPP	35 [9,2]				0,58 [1,28]
FA5006	VBS13	1/2 BSPP	50 [13,2]		1:5		1,04 [2,29]

Available with spring 3 bar, 6 bar

UPDATE: March 2023 (v.06)

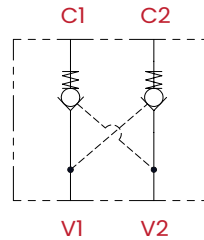
VBDT CHECK VALVES BSPP

DIN2353 DOUBLE ACTING PILOT CHECK VALVES

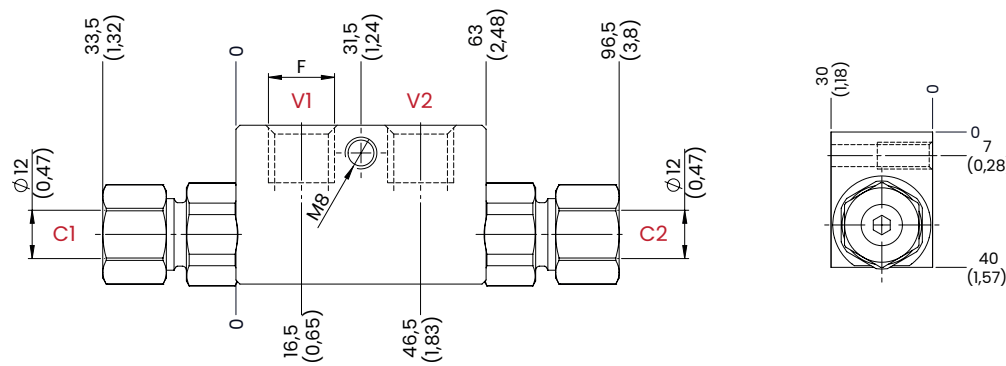
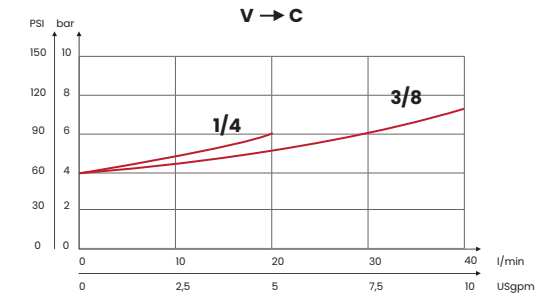
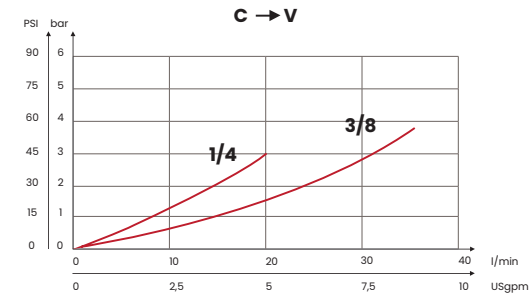
VBDT pilot check valves are used to lock a double acting actuator in position, ensuring that the load is locked. This version was made for valve mounting with rigid tube.



HYDRAULIC CIRCUIT



PERFORMANCES



mm [Inches]

ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	PILOT RATIO	CRACKING PRESSURE bar [PSI]	WEIGHT kg [lb]
FA5007	VBD1BT	1/4 BSPP	20 [5,3]	350 [5075]	1:5,5	4,5 [65]	0,67 [1,47]
FA5008	VBD2BT	3/8 BSPP	35 [9,2]				

Available with spring 3 bar, 6 bar

Steel body

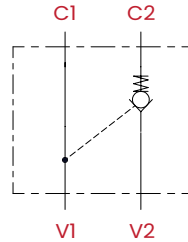
VBST CHECK VALVES BSPP

DIN2353 SINGLE ACTING PILOT CHECK VALVES

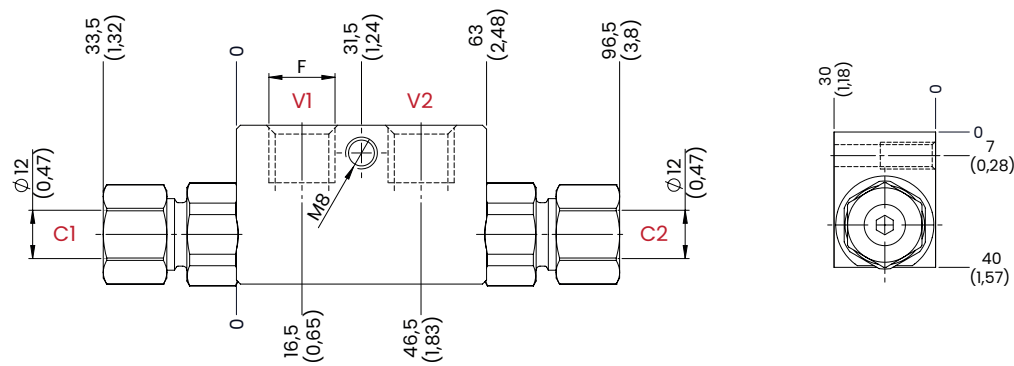
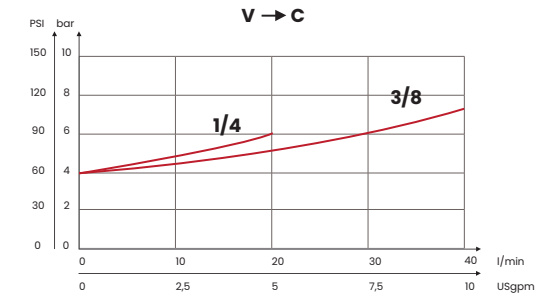
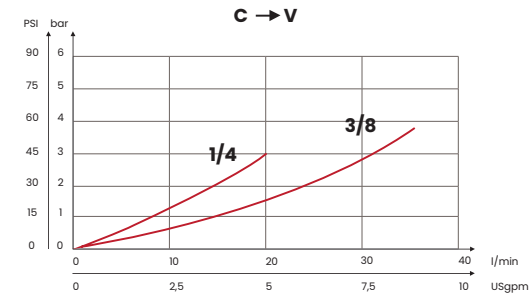
VBST pilot check valves are used to lock a single acting actuator in position, ensuring that the load is locked. This version was made for valve mounting with rigid tube.



HYDRAULIC CIRCUIT



PERFORMANCES



mm [Inches]

ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	PILOT RATIO	CRACKING PRESSURE bar [PSI]	WEIGHT kg [lb]
FA5009	VBS1BT	1/4 BSPP	20 [5,3]	350 [5075]	1:5,5	4,5 [65]	0,62 [1,37]
FA5010	VBS2BT	3/8 BSPP	35 [9,2]				0,59 [1,3]

Steel body

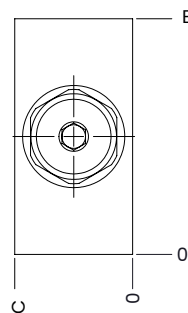
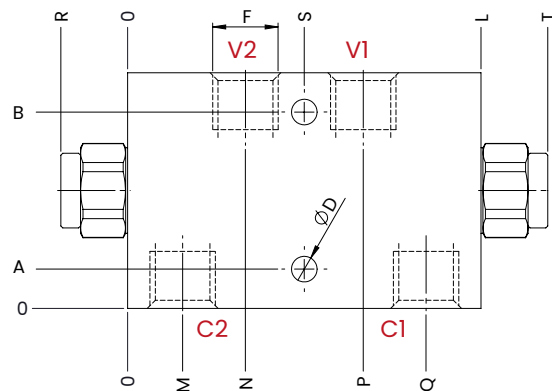
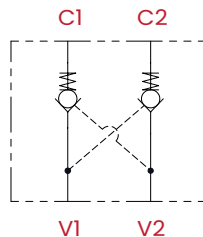
VPD CHECK VALVES BSPP

DOUBLE ACTING PILOT CHECK VALVES

VPD pilot check valves are used to lock a double acting actuator in place in both directions, ensuring the load is locked.



HYDRAULIC CIRCUIT



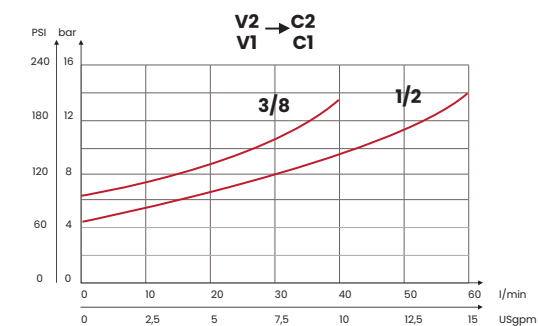
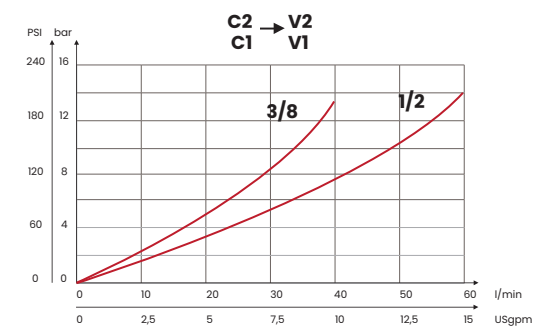
mm [Inches]

TECHNICAL CHARACTERISTICS

mm [Inches]

F	A	B	C	E	L	M	N	P	ØD	Q	R	S	T
3/8 BSPP	10	50	30	60	90	14	30	60	6,5	76	17	45	107
	[0,39]	[1,97]	[1,18]	[2,36]	[3,54]	[0,55]	[1,18]	[2,36]	[0,25]	[3]	[0,67]	[1,77]	[4,21]
1/2 BSPP					110	20	37	73	8,5	90	22	55	132
					[4,33]	[0,78]	[1,45]	[2,87]	[0,33]	[3,54]	[0,86]	[2,16]	[5,19]
Steel body													

PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	PILOT RATIO	CRACKING PRESSURE bar [PSI]	WEIGHT kg [lb]
FA5011	VPD2B	3/8 BSPP	35 [9,2]	350 [5075]	1:7	4,5 [65]	1,2 [2,64]
FA5013	VPD3B	1/2 BSPP	60 [15,83]		1:4		1,45 [3,20]

UPDATE: March 2023 (v.06)

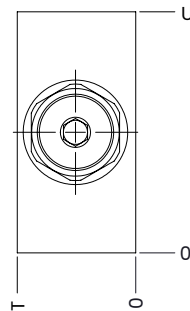
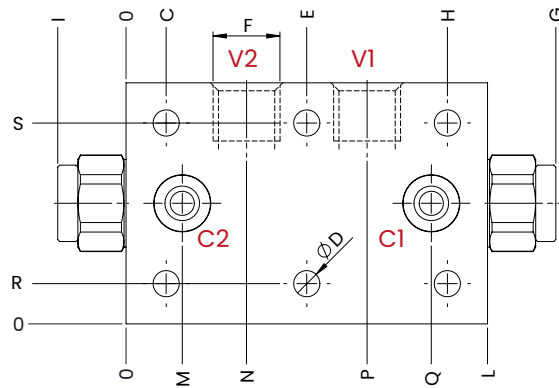
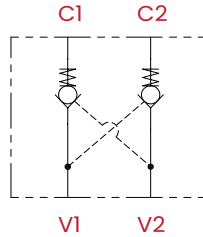
VPF CHECK VALVES BSPP

DOUBLE ACTING PILOT CHECK VALVES, FLANGED VERSION

VPF pilot check valves are used to lock a double acting actuator in place in both directions, ensuring the load is locked.



HYDRAULIC CIRCUIT



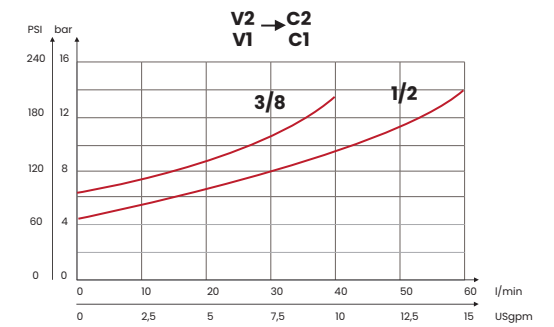
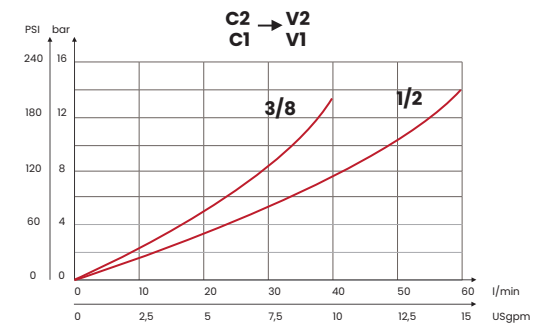
mm [Inches]

TECHNICAL CHARACTERISTICS

mm [Inches]

F	C	ØD	E	G	H	I	L	M	N	P	Q	R	S	T	U
3/8 BSPP	10 [0,39]	6,5 [0,25]	45 [1,77]	107 [4,21]	80 [3,15]	17 [0,67]	90 [3,54]	14 [0,55]	30 [1,18]	60 [2,36]	76 [2,99]	10 [0,39]	50 [1,97]	29,5 [1,16]	60 [2,36]
1/2 BSPP	15 [0,59]	8,5 [0,33]	55 [2,16]	132 [5,19]	95 [3,74]	22 [0,86]	110 [4,33]	20 [0,78]	37 [1,45]	73 [2,87]	90 [3,54]				
Steel body															

PERFORMANCES



ORDERING CODE

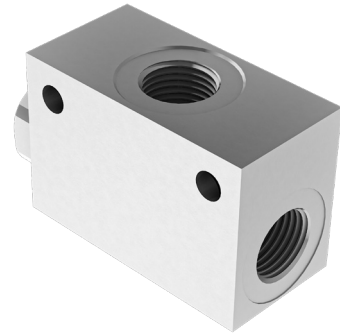
CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	PILOT RATIO	CRACKING PRESSURE bar [PSI]	WEIGHT kg [lb]
FA5012	VPF2B	3/8 BSPP	35 [9,2]	350 [5075]	1:7	4,5 [65]	1,2 [2,64]
FA5014	VPF3B	1/2 BSPP	60 [15,83]		1:4		1,45 [3,20]

UPDATE: March 2023 (v.02)

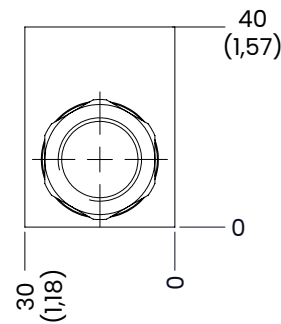
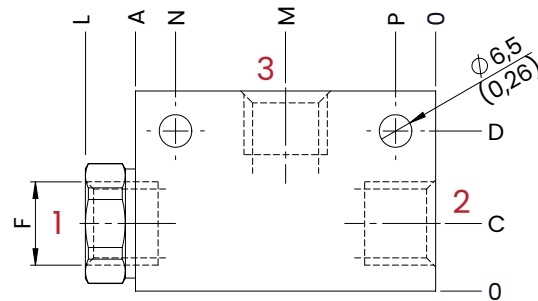
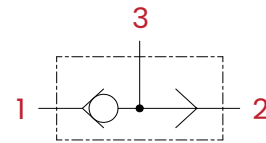
VSS SHUTTLE VALVES BSPP

SHUTTLE VALVES

VSS shuttle valves are used when two pressure lines converge in the valve at the same time (the lower pressure line locks).



HYDRAULIC CIRCUIT



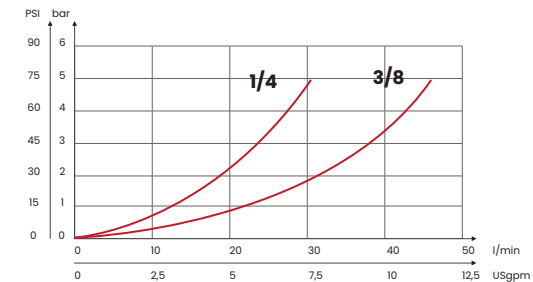
mm [Inches]

TECHNICAL CHARACTERISTICS

mm [Inches]

F	L	A	C	D	P	M	N
1/4 BSPP	57 [2,24]	52 [2,04]	12 [0,47]	29,5 [1,16]	9 [0,35]	24,5 [0,96]	43 [1,69]
3/8 BSPP	70 [2,76]	60 [2,36]	13,5 [0,53]	32 [1,26]	8 [0,31]	30 [1,18]	52 [2,05]
Steel body							

PERFORMANCES



ORDERING CODE

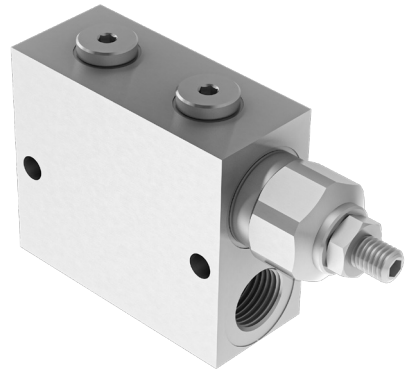
CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA6010	VSS1B	1/4 BSPP	30 [7,9]	350 [5075]	0,29 [0,65]
FA6011	VSS2B	3/8 BSPP	45 [12]		0,37 [0,81]

UPDATE: March 2023 (v.05)

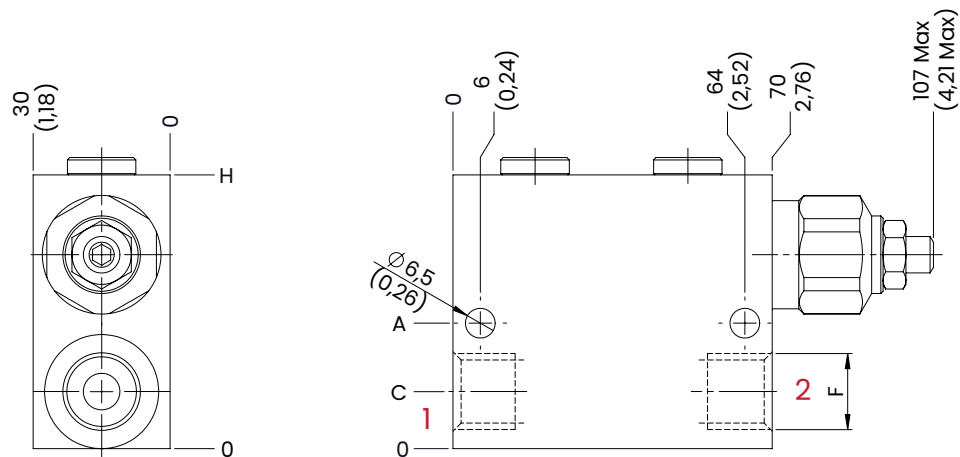
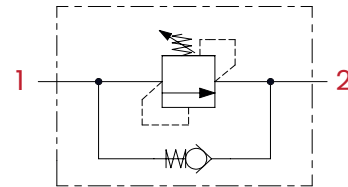
VSD SEQUENCE BSPP

SEQUENCE VALVES

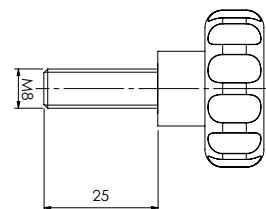
VSD sequence valves are used with two cylinders; the end of the work of the first one coincides with the beginning of the second one, at a given setting pressure.



HYDRAULIC CIRCUIT



HANDKNOB CODE
62200012



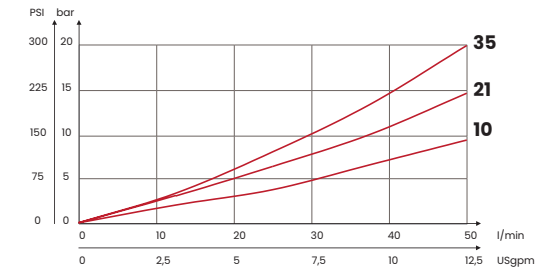
mm [Inches]

TECHNICAL CHARACTERISTICS

mm [Inches]

F	H	C	A
3/8 BSPP	60 [2,36]	13 [0,51]	33 [1,3]
1/2 BSPP	70 [2,76]	17 [0,67]	35 [1,38]
Steel body			

PERFORMANCES



ORDERING CODE

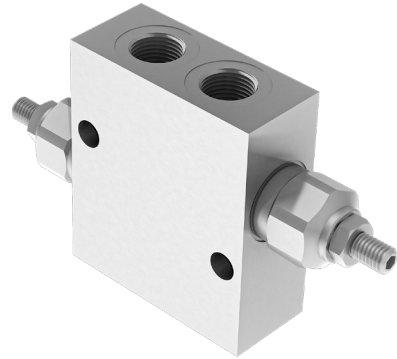
CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	WEIGHT kg [lb]
FA6012	VSD2BC10	3/8 BSPP	40 [10,6]	350 [5075]	10/70 [145/1015]	16,5 [239]	0,9 [1,98]
FA6013	VSD2BC21				20/210 [290/3045]	33 [479]	
FA6014	VSD2BC35				70/350 [1015/5075]	70 [1015]	
FA6015	VSD3BC10	1/2 BSPP	50 [13,2]		10/70 [145/1015]	16,5 [239]	1 [2,21]
FA6016	VSD3BC21				20/210 [290/3045]	33 [479]	
FA6017	VSD3BC35				70/350 [1015/5075]	70 [1015]	
Available with handknob							

UPDATE: March 2023 (v.05)

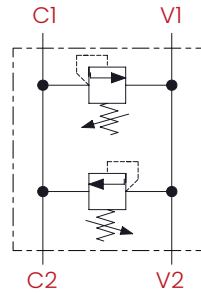
VAA DOUBLE CROSS BSPP

DOUBLE CROSS RELIEF VALVES 50 L

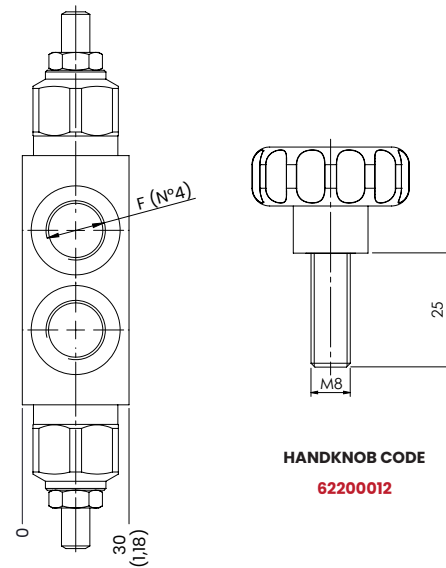
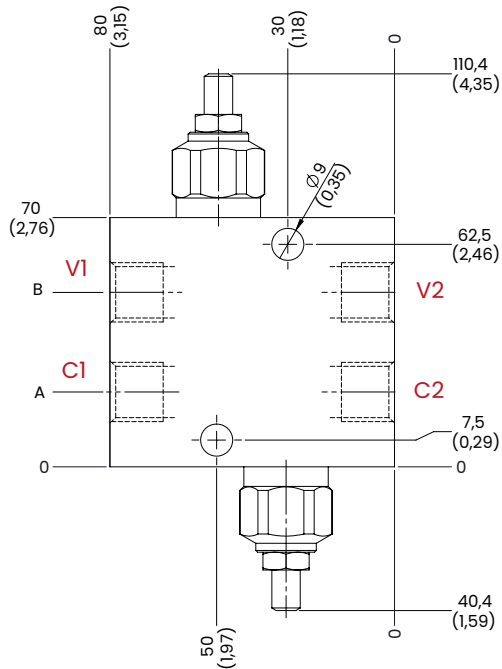
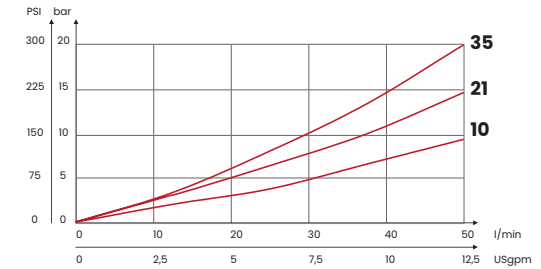
VAA valves with steel manifold and two pressure relief valves, they control the pressure on both connection lines.



HYDRAULIC CIRCUIT



PERFORMANCES



HANDKNOB CODE
62200012

mm [Inches]

ORDERING CODE

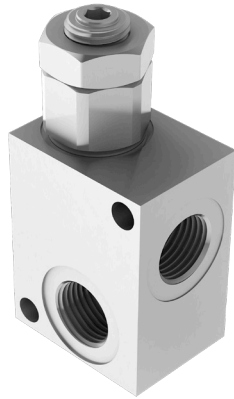
CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	A	B	WEIGHT kg [lb]
FA6039	VAA2BC10	3/8 BSPP	40 [10,6]	350 [5075]	10/70 [145/1015]	12 [174]	21 [0,82]	49 [1,93]	1,22 [2,68]
FA6040	VAA2BC21				20/210 [290/3045]	33 [479]			
FA6041	VAA2BC35				70/350 [1015/5075]	70 [1015]			
FA6042	VAA3BC10	1/2 BSPP	50 [13,2]		10/70 [145/1015]	12 [174]	18,5 [0,73]	51,5 [2,03]	
FA6043	VAA3BC21				20/210 [290/3045]	33 [479]			
FA6044	VAA3BC35				70/350 [1015/5075]	70 [1015]			

Steel body

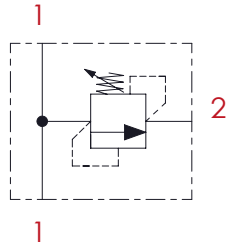
M20B RELIEF VALVES - 30 l/min BSPP

RELIEF VALVES 30 l/min

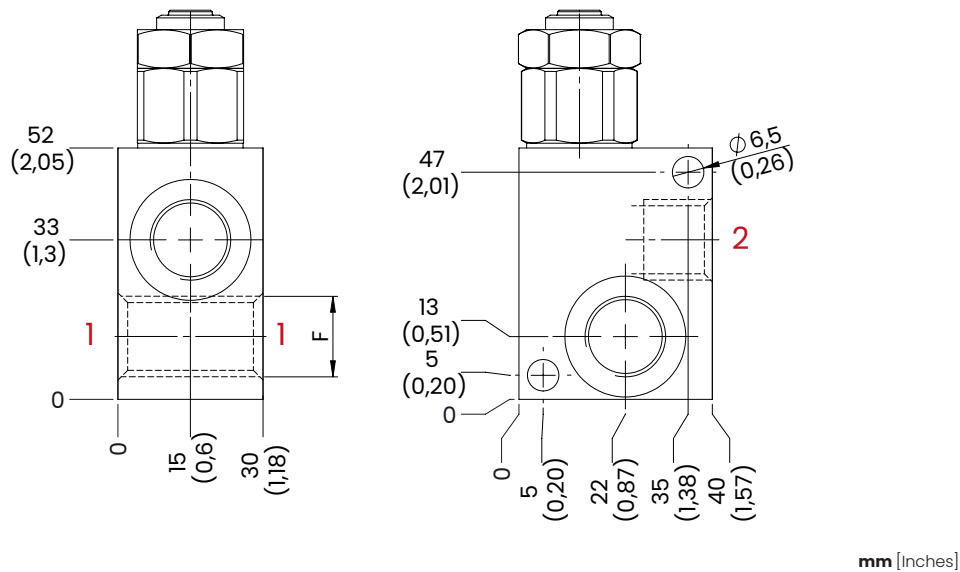
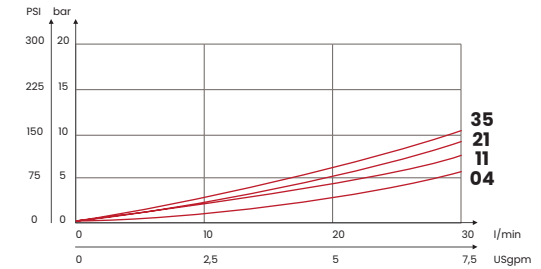
The purpose of the M20B pressure relief valve is to protect the hydraulic system from malfunctions or failures caused by excessively high pressures in the circuit.



HYDRAULIC CIRCUIT



PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	WEIGHT kg [lb]
FA6018	M201BC04	1/4 BSPP	20 [5,3]	350 [5075]	10/40 [145/580]	20 [290]	0,47 [1,03]
FA6019	M201BC11				20/110 [290/1595]	40 [580]	
FA6020	M201BC21				30/210 [435/3045]	70 [1015]	
FA6021	M201BC35				40/350 [580/5075]	130 [1885]	
FA6022	M202BC04	3/8 BSPP	30 [8]		10/40 [145/580]	20 [290]	
FA6023	M202BC11				20/110 [290/1595]	40 [580]	
FA6024	M202BC21				30/210 [435/3045]	70 [1015]	
FA6025	M202BC35				40/350 [580/5075]	130 [1885]	

Steel body

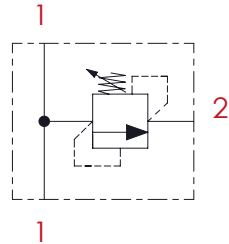
M40B RELIEF VALVES - 50 l/min BSPP

RELIEF VALVES 50 l/min

The purpose of the M40B pressure relief valve is to protect the hydraulic system from malfunctions or failures caused by excessively high pressures in the circuit.



HYDRAULIC CIRCUIT

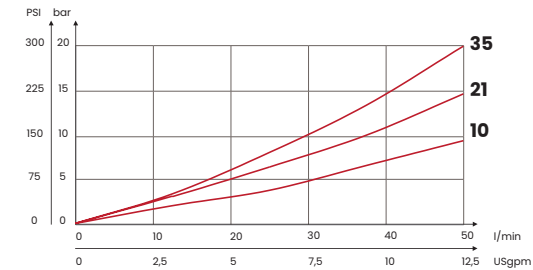


TECHNICAL CHARACTERISTICS

mm [Inches]

F	L	M	N	P	H
3/8 BSPP	40 [1,57]	27 [1,06]	43 [1,69]	14 [0,55]	59 [2,32]
1/2 BSPP	45 [1,77]	29,5 [1,16]	44 [1,73]	15 [0,59]	60 [2,36]
Steel body					

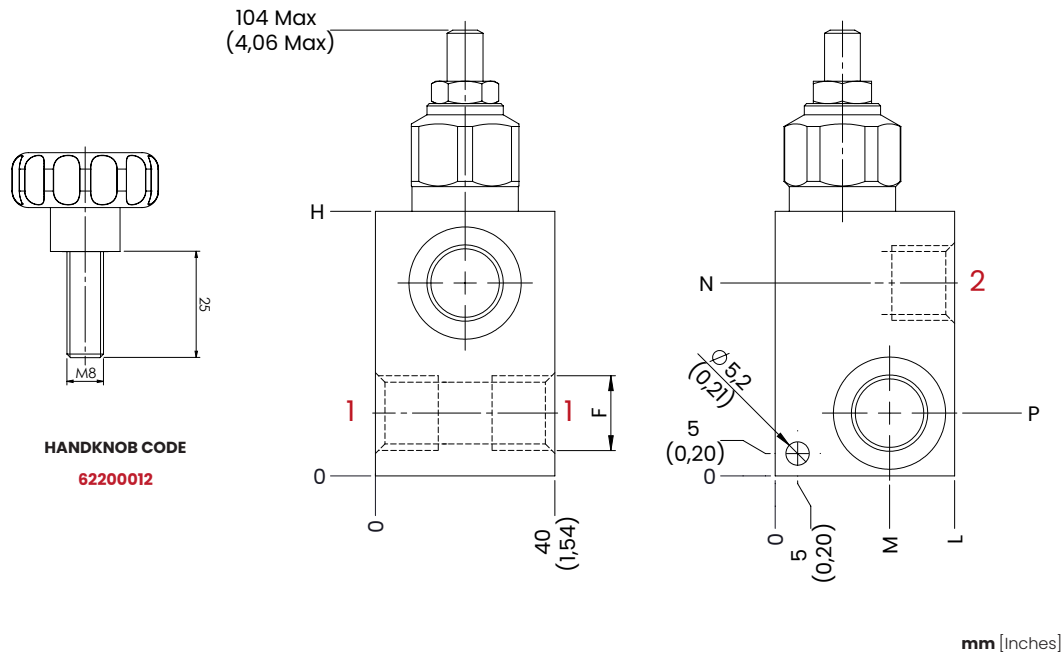
PERFORMANCES



ORDERING CODE

CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	WEIGHT kg [lb]	
FA6026	M402BC10	3/8 BSPP	40 [10,6]	350 [5075]	10/70 [145/1015]	16,5 [239]	0,6 [1,32]	
FA6027	M402BC21				20/210 [290/3045]	33 [479]		
FA6028	M402BC35				70/350 [1015/5075]	70 [1015]		
FA6029	M403BC10	1/2 BSPP	50 [13,2]		10/70 [145/1015]	16,5 [239]		0,7 [1,54]
FA6030	M403BC21				20/210 [290/3045]	33 [479]		
FA6031	M403BC35				70/350 [1015/5075]	70 [1015]		

Available with handknob



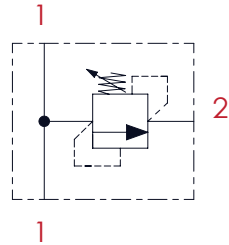
M80B RELIEF VALVES - 80 l/min BSPP

RELIEF VALVES 80 l/min

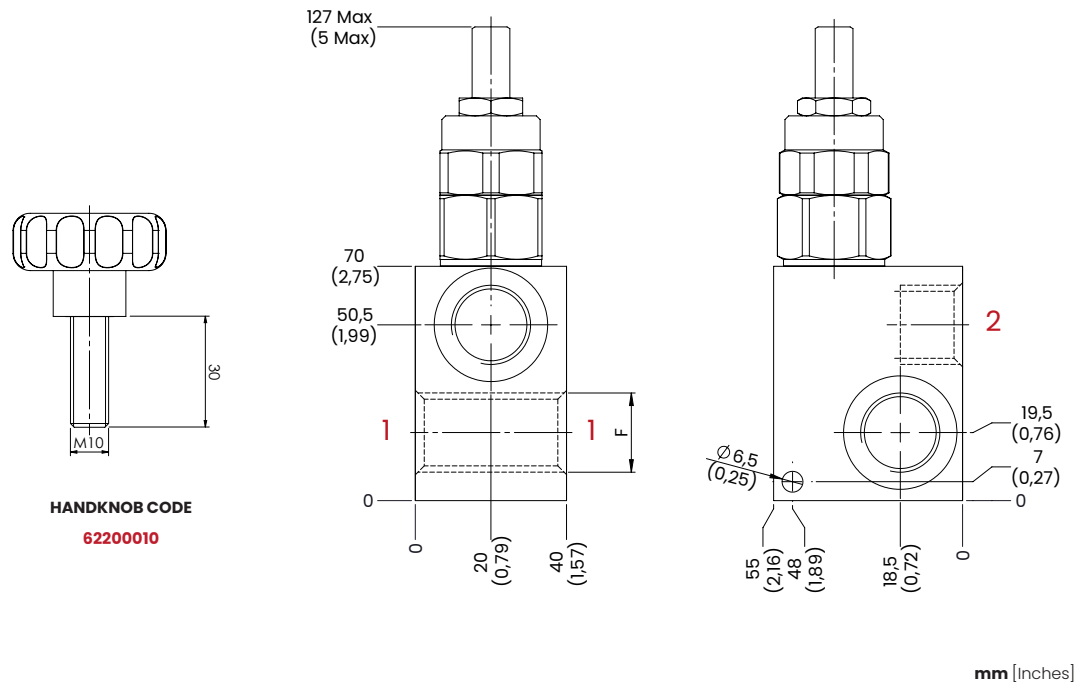
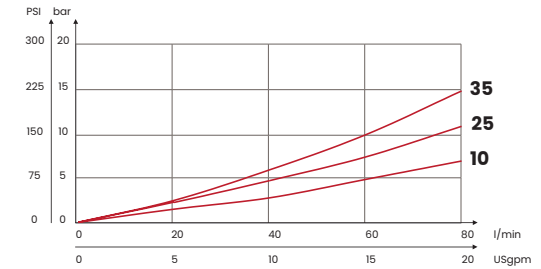
The purpose of the M80 pressure relief valve is to protect the hydraulic system from malfunctions or failures caused by excessively high pressures in the circuit.



HYDRAULIC CIRCUIT



PERFORMANCES



ORDERING CODE

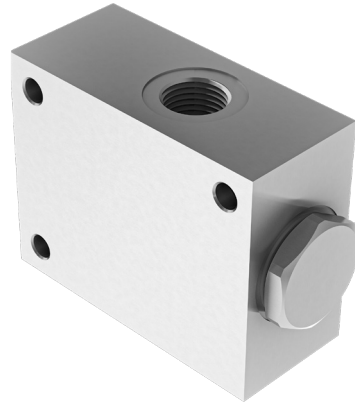
CODE	TYPE	F ports	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	WEIGHT kg [lb]
FA6032	M804BC10	3/8 BSPP	80 [21,1]	350 [5075]	10/100 [145/1450]	16,5 [239]	1 [2,2]
FA6033	M804BC25				20/250 [290/3625]	33 [479]	
FA6034	M804BC35				50/350 [725/5075]	70 [1015]	

Steel body

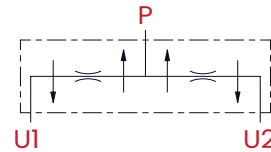
VDF DIVIDER BSPP

FLOW DIVIDERS

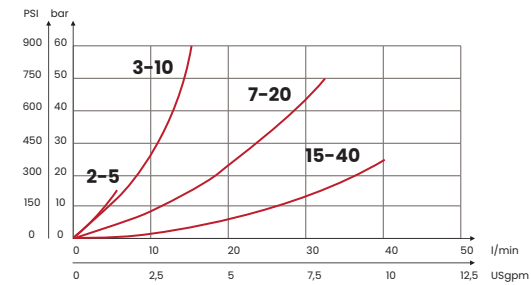
Flow dividers/unifiers allow the inlet flow to be divided into two equal parts, while in the opposite direction they unify it.



HYDRAULIC CIRCUIT

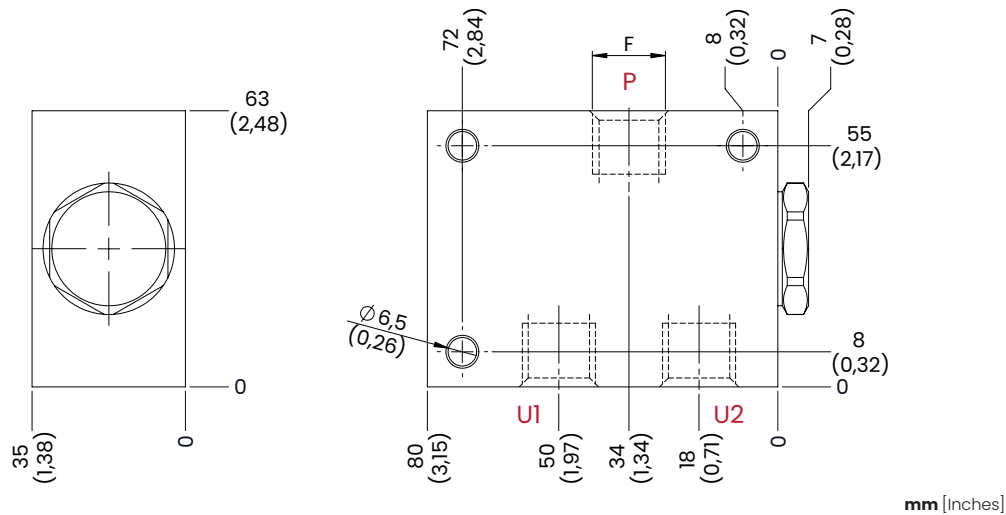


PERFORMANCES



Specifications

Maximum division error: ±10% of the oil flow in U1 or U2 and 120 bar [1750 PSI] pressure difference between U1 and U2. (Division rate 50%±50%)



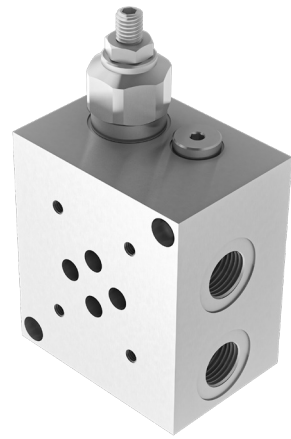
ORDERING CODE

CODE	TYPE	P ports	U1/U2 ports	INLET FLOW RANGE l/min [USgpm]	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA4060	VDF2B2B1	3/8 BSPP	3/8 BSPP	2-5 [0,5-1,3]	40 [10,6]	210 [3050]	0,5 [1,1]
FA4061	VDF2B2B2			3-10 [0,8-2,6]			
FA4062	VDF2B2B3			7-20 [1,8-5,2]			
FA4063	VDF2B2B4			15-40 [3,9-10,4]			
FA4064	VDF3B2B4	1/2 BSPP	1/2 BSPP	7-20 [1,8-5,2]	40 [10,6]	210 [3050]	0,5 [1,1]
FA4065	VDF3B3B3			15-40 [3,9-10,4]			
FA4066	VDF3B3B4			15-40 [3,9-10,4]			

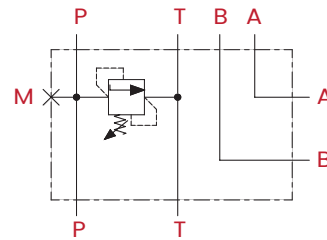
Aluminium body

CETOP 3 SINGLE MANIFOLDS

The MC3 bases allow the assembly of a single CETOP 3 solenoid valve, they are supplied with a relief valve.



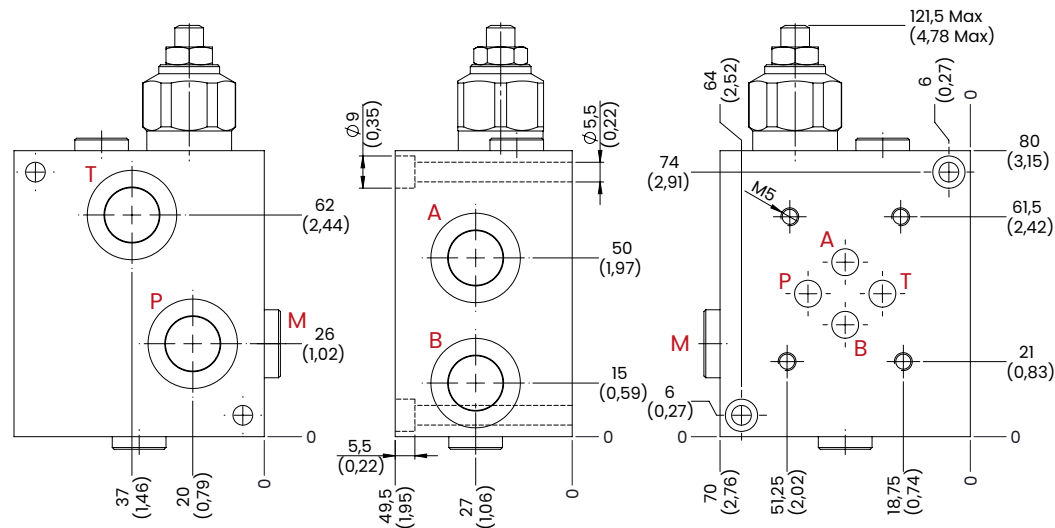
HYDRAULIC CIRCUIT



TECHNICAL CHARACTERISTICS

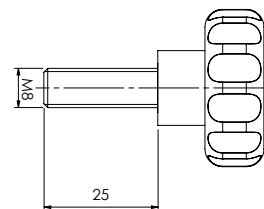
mm [Inches]

A-B-P-T ports	M ports
3/8 BSPP	1/4 BSPP
Aluminium body	



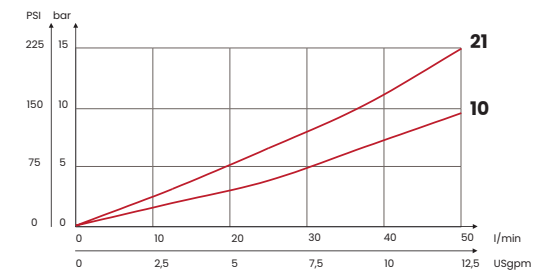
HANDKNOB CODE

62200012



mm [Inches]

PERFORMANCES



ORDERING CODE

CODE	TYPE	RAGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	WEIGHT kg [lb]
FA6035	MC3C10	10/70 [145/1015]	16,5 [239]	50 [13,3]	210 [3045]	0,8 [1,76]
FA6036	MC3C21	20/210 [290/3045]	33 [479]			

UPDATE: March 2023 (v.05)

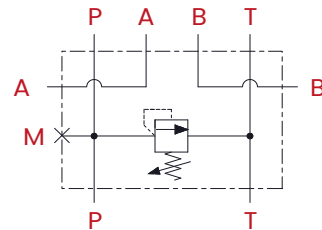
MC5 CETOP 5

CETOP 5 SINGLE MANIFOLDS

The MC5 bases allow the assembly of a single CETOP 5 solenoid valve, they are supplied with a relief valve.



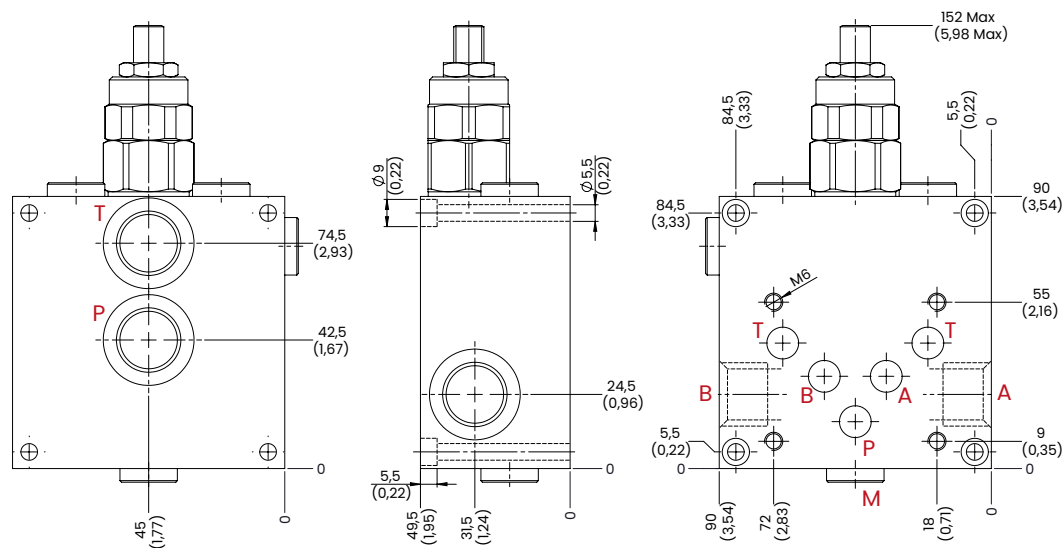
HYDRAULIC CIRCUIT



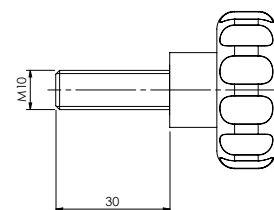
TECHNICAL CHARACTERISTICS

mm [Inches]

A-B-P-T ports	M ports
1/2 BSPP	1/4 BSPP
Aluminium body	

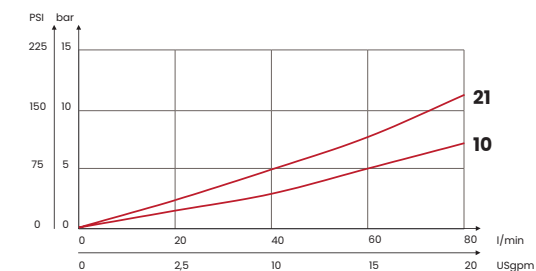


HANDKNOB CODE
62200010



mm [Inches]

PERFORMANCES

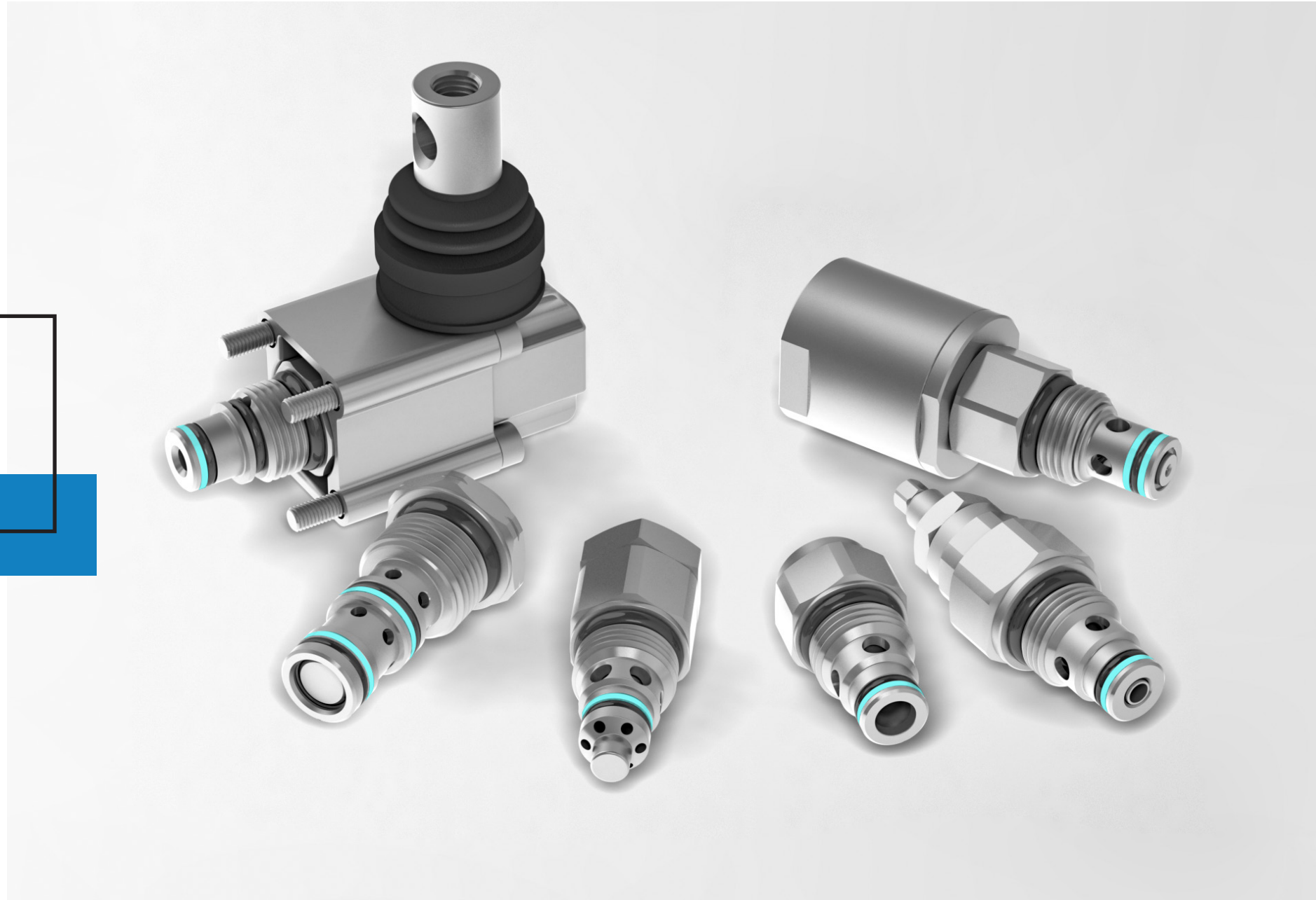


ORDERING CODE

CODE	TYPE	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RANGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	WEIGHT kg [lb]
FA6037	MC5C10	80 [21,1]	210 [3045]	10/100 [145/1450]	25 [362]	1,20 [2,64]
FA6038	MC5C21			20/210 [290/3045]	40 [580]	

UPDATE: March 2023 (v.04)

cartridge VALVES



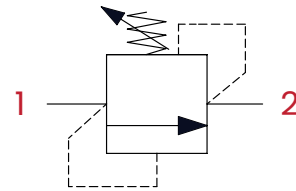
M20 SAE8/2 - 30 l/min - 350 bar

DIRECT ACTING RELIEF VALVES NON-GUIDED VERSION

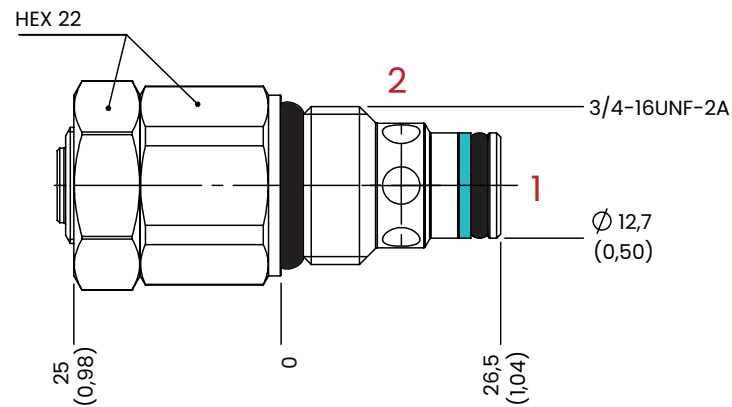
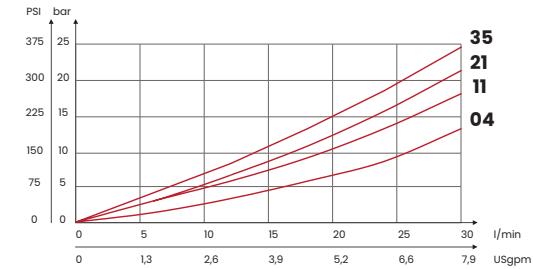
The unidirectional flow control valves VCU (Gas thread) allow the free passage of the oil in one direction and regulate it in the opposite direction.



HYDRAULIC CIRCUIT



PERFORMANCES



mm [Inches]

ORDERING CODE

CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RAGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA7001	M20C04	SAE8/2 3/4-16UNF-2B See cavity paragraph p.184	30 [8]	350 [5075]	10/40 [145/580]	20 [290]	30 [22]	0,11 [0,24]
FA7002	M20C11				20/110 [290/1959]	40 [580]		
FA7003	M20C21				30/210 [435/3045]	70 [1015]		
FA7004	M20C35				40/350 [580/5075]	130 [1885]		

UPDATE: March 2023 (v.05)

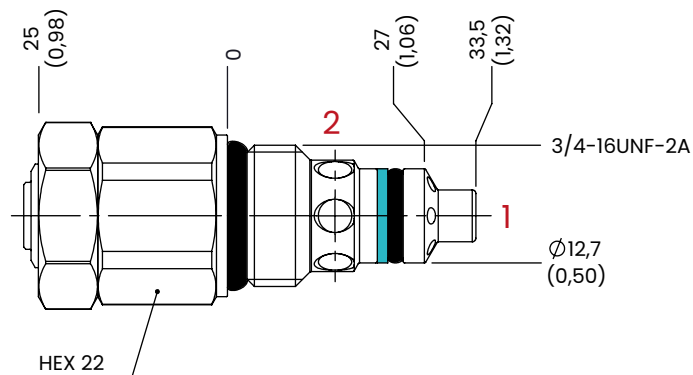
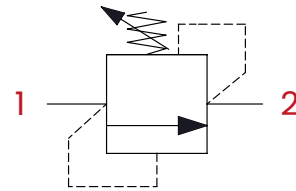
M21 SAE8/2 - 30 l/min - 350 bar

DIRECT ACTING RELIEF VALVES GUIDED VERSION

The purpose of the M21 relief valves is to protect the hydraulic system from malfunctions or failures caused by excessive pressure in the circuit.

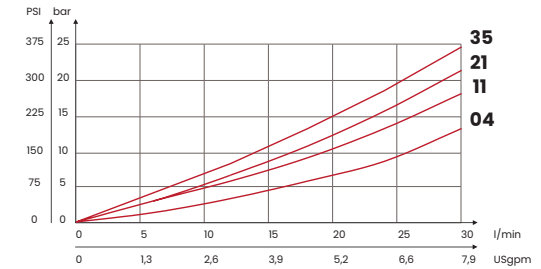
Guided version, with mechanical stop under pressure.

HYDRAULIC CIRCUIT



mm [Inches]

PERFORMANCES



ORDERING CODE

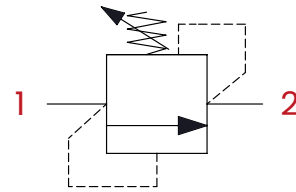
CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RAGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA7005	M21C04	SAE8/2 3/4-16UNF- 2B See cavity paragraph p. 184	30 [8]	350 [5075]	10/40 [145/580]	20 [290]	30 [22]	0,11 [0,24]
FA7006	M21C11				20/110 [290/1959]	40 [580]		
FA7007	M21C21				30/210 [435/3045]	70 [1015]		
FA7008	M21C35				40/350 [580/5075]	130 [1885]		

M30 M20 X1,5 - 50 l/min - 350 bar

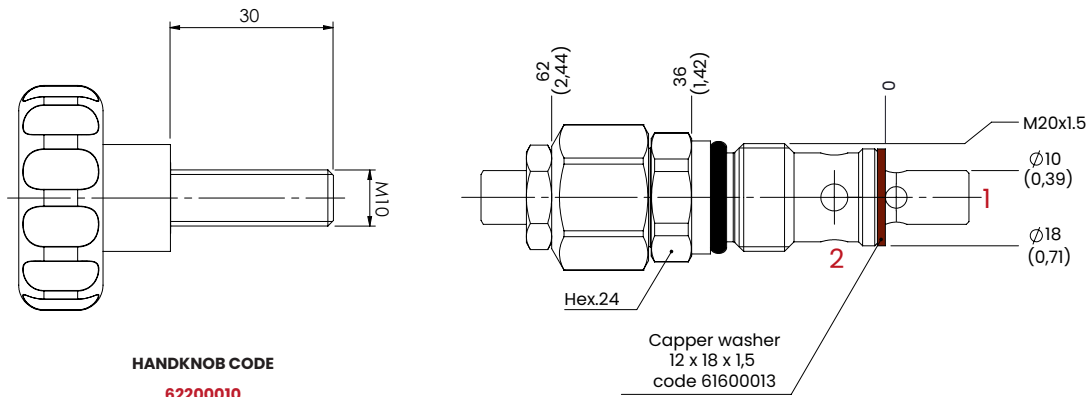
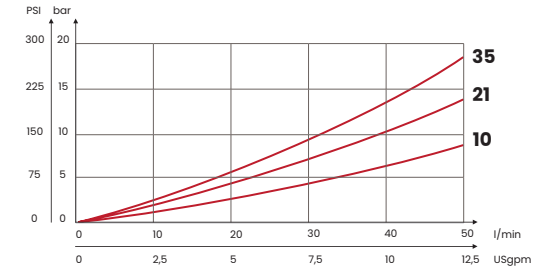
DIRECT ACTING RELIEF VALVES GUIDED VERSION

The purpose of the M30 pressure relief valves is to protect the hydraulic system from malfunctions or failures caused by excessively high pressures in the circuit.

HYDRAULIC CIRCUIT



PERFORMANCES



HANDKNOB CODE
62200010

mm [Inches]

ORDERING CODE

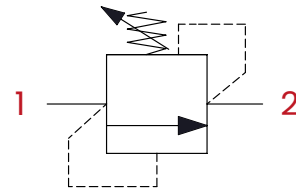
CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RAGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	M20X1,5 TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA7041	M30C10	FC002 M20X1,5 See cavity paragraph p.188	50 [13,3]	350 [5075]	10/70 [145/1015]	16,5 [239]	30 [22]	0,16 [0,35]
FA7042	M30C21				20/210 [290/2045]	33 [479]		
FA7043	M30C35				70/350 [1015/5075]	70 [1015]		

M40 M20 X1,5 - 50 l/min - 350 bar

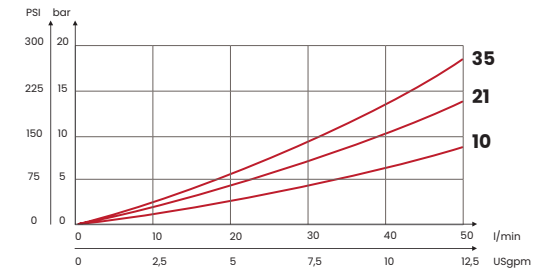
DIRECT ACTING RELIEF VALVES GUIDED VERSION

The purpose of the M40 pressure relief valves is to protect the hydraulic system from malfunctions or failures caused by excessively high pressures in the circuit.

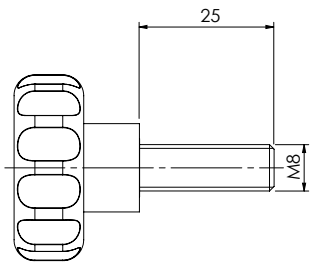
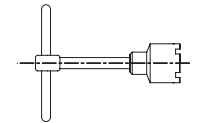
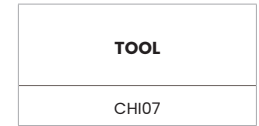
HYDRAULIC CIRCUIT



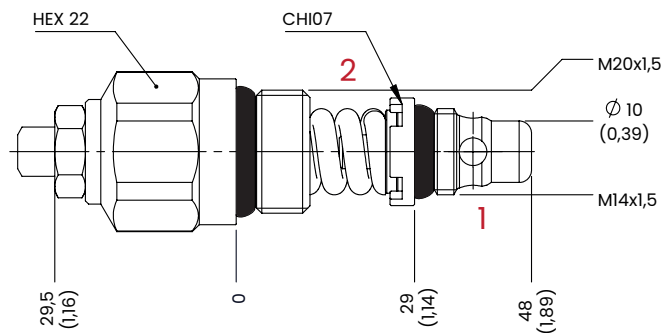
PERFORMANCES



OPTIONAL TOOL



HANDKNOB CODE
62200012



mm [inches]

ORDERING CODE

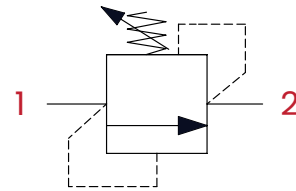
CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RAGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	M14X1,5 TIGHTENING TORQUE Nm [lbt ft]	M20X1,5 TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA7009	M40C10	FC003 M20X1,5	50 [13,3]	350 [5075]	10/70 [145/1015]	16,5 [239]	10 [7]	40 [30]	0,13 [0,29]
FA7010	M40C21	See cavity paragraph p.189			20/210 [290/2045]	33 [479]			
FA7011	M40C35				70/350 [1015/5075]	70 [1015]			

M42 SAE 10/2 - 50 l/min - 350 bar

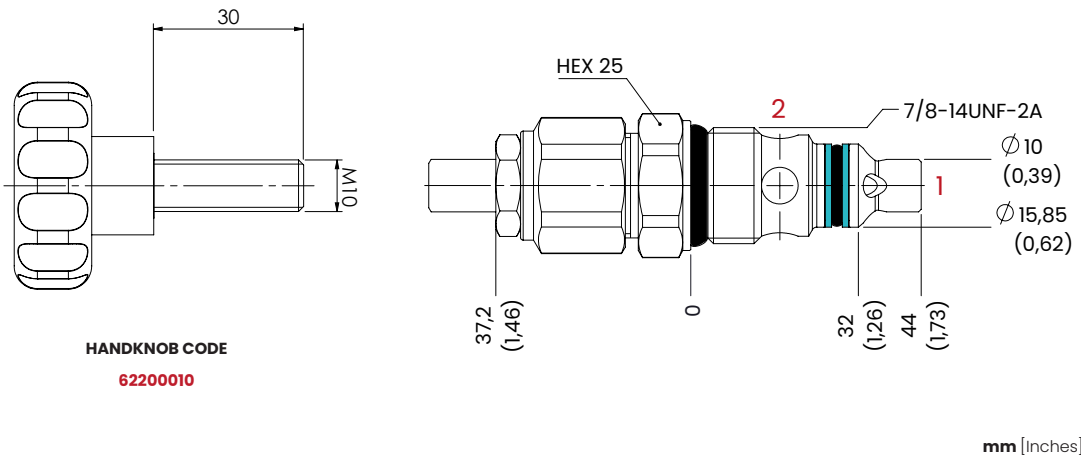
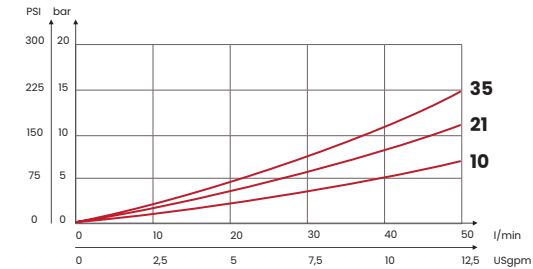
DIRECT ACTING RELIEF VALVES GUIDED VERSION

The purpose of the M42 pressure relief valves is to protect the hydraulic system from malfunctions or failures caused by excessively high pressures in the circuit.

HYDRAULIC CIRCUIT



PERFORMANCES



ORDERING CODE

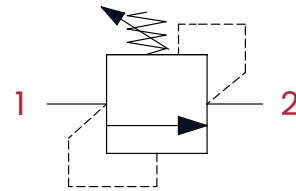
CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RAGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA7012	M42C10	SAE10/2 7/8-14UN- F-2B See cavity paragraph p.184	50 [13,5]	350 [5075]	10/70 [145/1015]	16,5 [239]	40 [30]	0,18 [0,37]
FA7013	M42C21				20/210 [290/2045]	33 [479]		
FA7014	M42C35				70/350 [1015/5075]	70 [1015]		

M80 M24 X 1,5 - 80 l/min - 350 bar

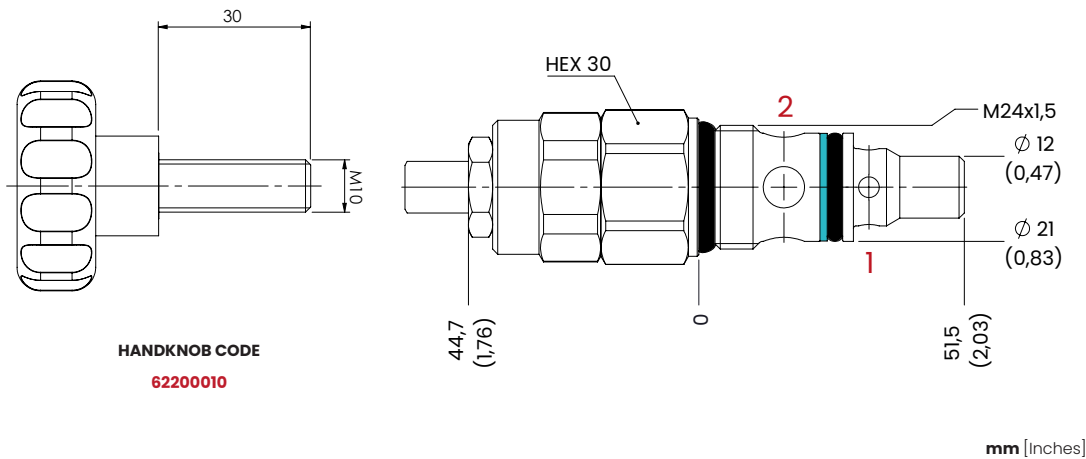
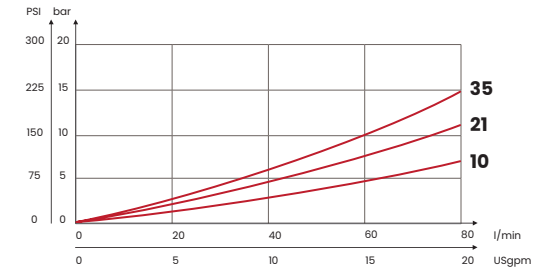
DIRECT ACTING RELIEF VALVES GUIDED VERSION

The purpose of the M80 pressure relief valves is to protect the hydraulic system from malfunctions or failures caused by excessively high pressures in the circuit.

HYDRAULIC CIRCUIT



PERFORMANCES



ORDERING CODE

CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	RAGE SPRING bar [PSI]	INCREASE TO TURN bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA7015	M80C10	FC005 M24X1,5 See cavity paragraph p.191	80 [21,1]	350 [5075]	10/100 [145/1450]	25 [362]	60 [44]	0,25 [0,55]
FA7016	M80C25				20/250 [290/3625]	40 [580]		
FA7017	M80C35				50/350 [725/5075]	90 [1305]		

UC2 SAE8/2 - 35 l/min - 350 bar

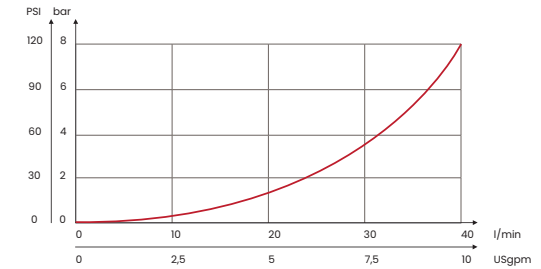
CHECK VALVES POPPET TYPE

The UC2 cartridge check valve allows free oil flow in one direction and blocks it in the opposite direction.

HYDRAULIC CIRCUIT

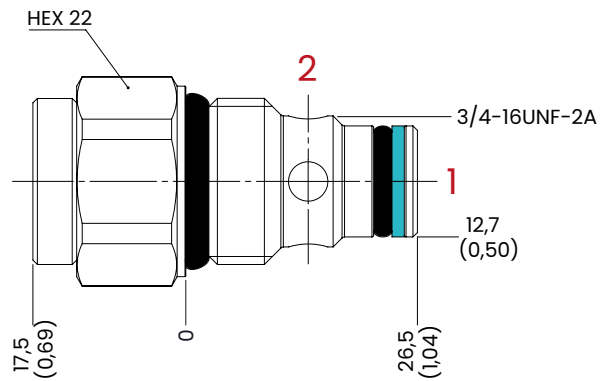


PERFORMANCES



ORDERING CODE

CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	SPRING bar [PSI]	TIGHTENING TORQUE Nm [lbf ft]	WEIGHT kg [lb]
FA7018	UC205	SAE8/2 3/4-16UNF-2B See cavity paragraph p.184	35 [9,2]	350 [5075]	0,5 [7,3]	30 [22]	0,08 [0,17]
FA7019	UC230				3 [43,5]		
FA7020	UC245				4,5 [65]		
FA7021	UC260				6 [87]		
FA7044	US205	SAE8/2 3/4-16UNF-2B Ball type	35 [9,2]	350 [5075]	0,5 [7,3]	30 [22]	0,08 [0,17]



mm [Inches]

CU2 SAE 8/2 - 40 l/min - 350 bar

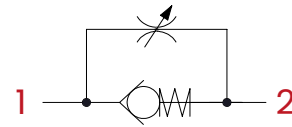
UNIDIRECTIONAL FLOW CONTROL VALVES

The one-way flow control valves allow regulation in one direction and free passage in the opposite direction.

CU2C



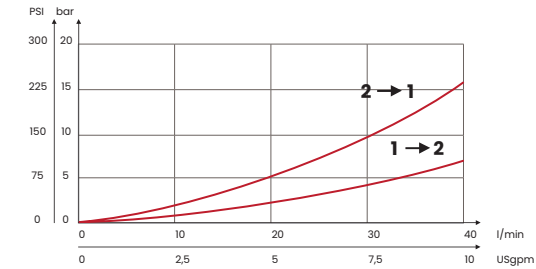
HYDRAULIC CIRCUIT



CU2V

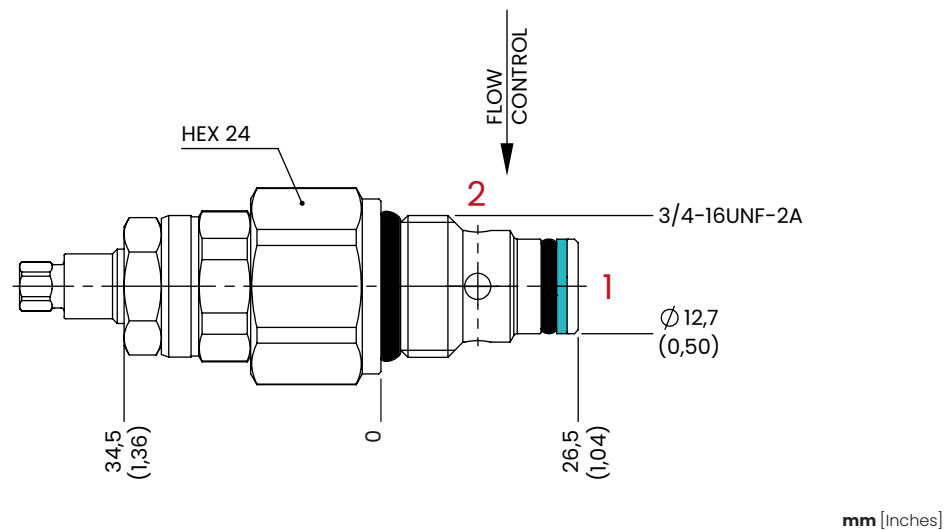


PERFORMANCES



ORDERING CODE

CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbf ft]	WEIGHT kg [lb]
FA7022	CU2C	SAE8/2 3/4-16UNF-2B	40 [10,6]	350 [5075]	30 [22]	0,13 [0,30]
FA7023	CU2V	See cavity paragraph p.184				



CB2 SAE8/2 - 40 l/min - 350 bar

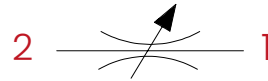
BIDIRECTIONAL FLOW CONTROL VALVES

Bidirectional flow control valves, allow flow regulation in both directions.

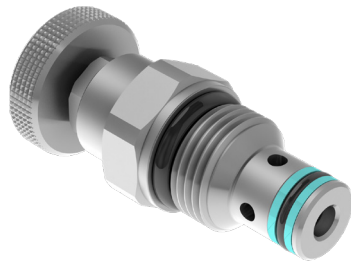
CB2C



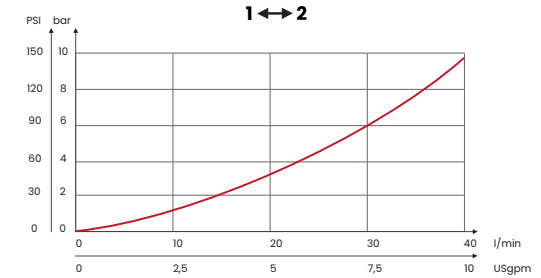
HYDRAULIC CIRCUIT



CB2V

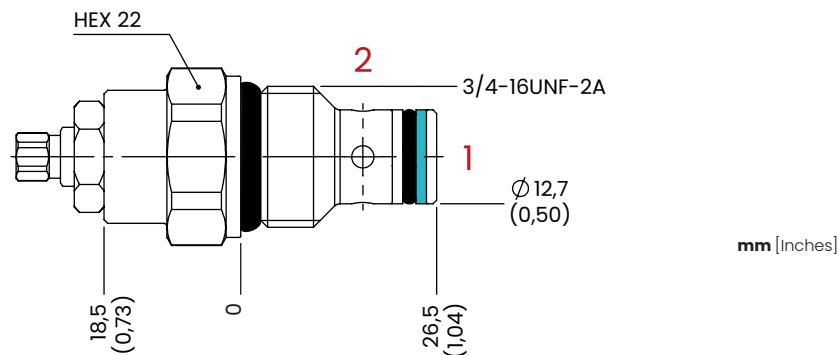


PERFORMANCES



ORDERING CODE

CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA7024	CB2C	SAE8/2 3/4-16UNF-2B	40 [10,6]	350 [5075]	30 [22]	0,1 [0,22]
FA7025	CB2V	See cavity paragraph p.184				0,12 [0,26]

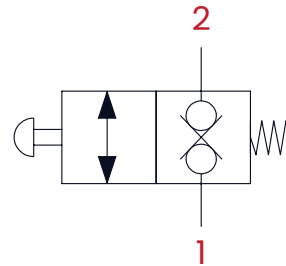
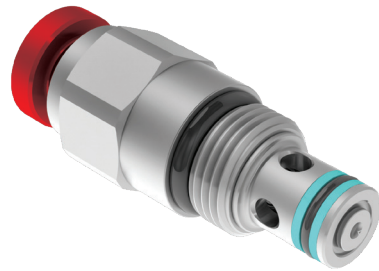


VM2 SAE 8/2 - 30 l/min - 350 bar

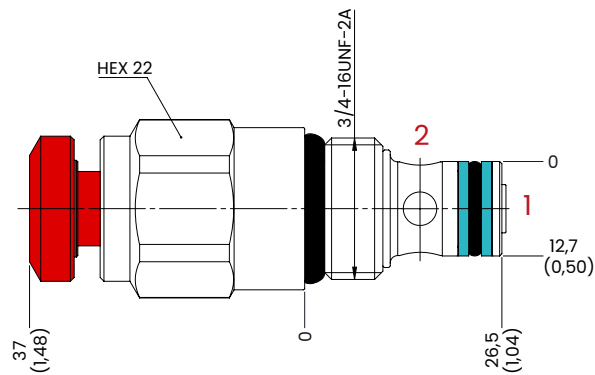
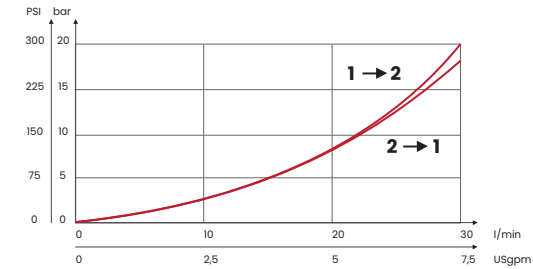
EMERGENCY VALVES

The bidirectional valves, with direct action VM2 normally closed 2 ways 2 positions, allow manual intervention, the opening is obtained by manually pushing the rear button, removing the hand automatically the valve closes.

HYDRAULIC CIRCUIT



PERFORMANCES



mm [Inches]

ORDERING CODE

CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA7026	VM2	SAE8/2 3/4-16UNF-2B See cavity paragraph p.184	30 [7,9]	350 [5075]	30 [22]	0,12 [0,26]

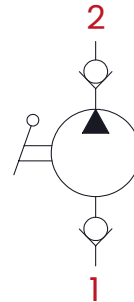
PM2 SAE 8/2 - 2 cm³ - 200 bar

HAND PUMPS

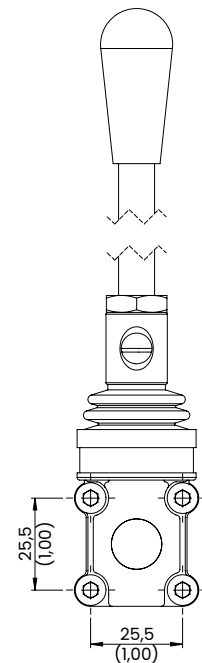
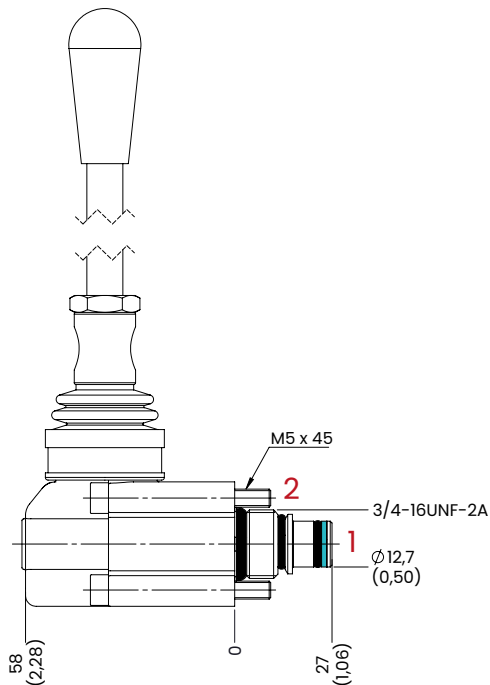
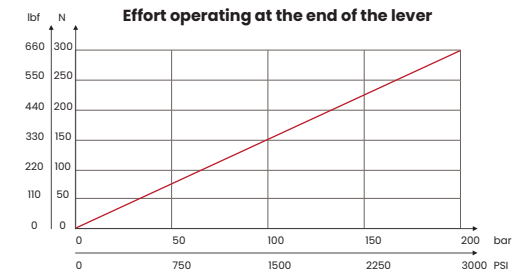
PM2 hand pumps are made in SAE8/2 cavities, often mounted as emergency on mini power packs or mounted on integrated blocks.



HYDRAULIC CIRCUIT



PERFORMANCES



mm [Inches]

ORDERING CODE

CODE	TYPE	CAVITY	MAX PRESSURE bar [PSI]	DISPLACEMENT cm ³ [in ³]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA7027	PM2	SAE8/2 3/4-16UNF-2B See cavity paragraph p.184	200 [2900]	2 [0,12]	30 [22]	0,46 [1,01]

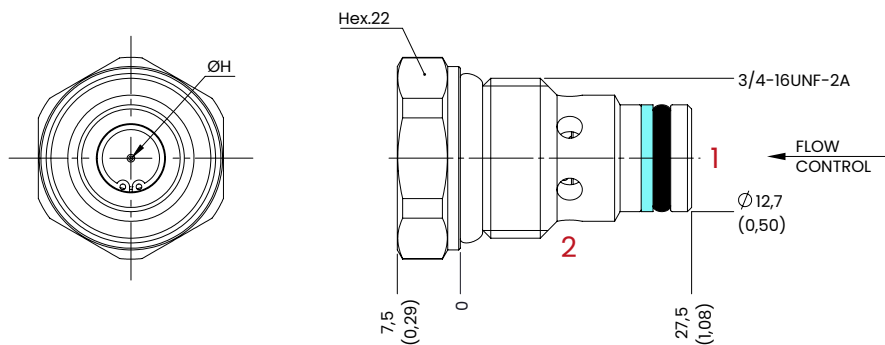
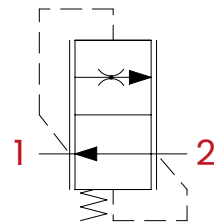
UPDATE: March 2023 (v.03)

DC2 SAE 8/2 - 12 l/min - 250 bar

FIXED FLOW CONTROL VALVES - PRESSURE COMPENSATED

The DC2 compensated fixed flow control valves are used to keep the descent speed of a load constant, regardless of the operating pressure and the value of the load.

HYDRAULIC CIRCUIT



mm [inches]

ORDERING CODE

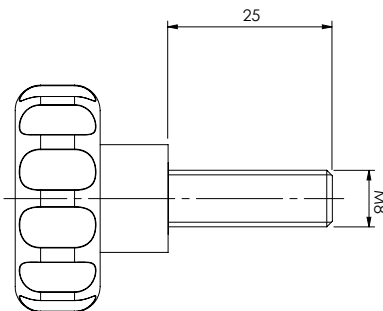
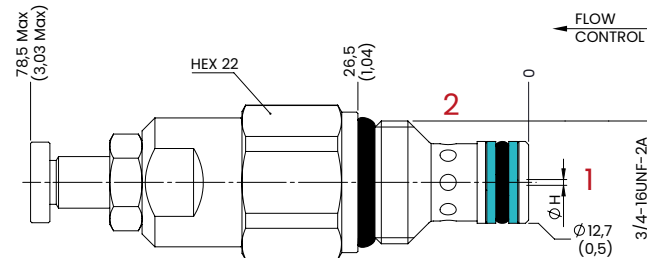
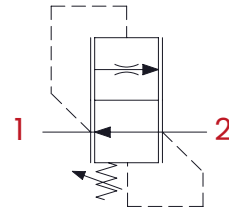
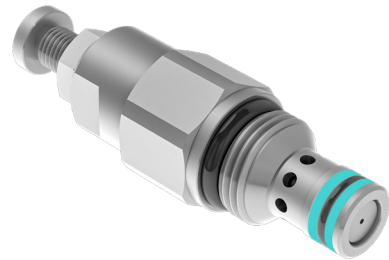
CODE	TYPE	CAVITY	CONTROLLED FLOW AT 100 bar ± 10% l/min [USgpm]	Ø H mm [inches]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt.ft]	WEIGHT kg [lb]
FA7046	DC201	SAE 8/2 3/4-16UNF-2B See cavity paragraph p.184	1 [0,26]	1 [0,04]	250 [3625]	30 [22]	0,06 [0,13]
FA7047	DC202		2 [0,53]	1,2 [0,05]			
FA7048	DC203		3 [0,79]	1,5 [0,06]			
FA7049	DC204		4 [1,06]	1,7 [0,07]			
FA7050	DC205		5 [1,32]	1,9 [0,07]			
FA7051	DC206		6 [1,58]	2,1 [0,08]			
FA7052	DC207		7 [1,85]	2,3 [0,09]			
FA7053	DC208		8 [2,1]	2,4 [0,09]			
FA7054	DC209		9 [2,38]	2,7 [0,11]			
FA7055	DC210		10 [2,64]	2,8 [0,11]			
FA7056	DC211		11 [2,90]	3,1 [0,12]			
FA7057	DC212		12 [3,17]	3,3 [0,13]			

DR2 SAE 8/2 - 18 l/min - 350 bar

ADJUSTABLE FLOW CONTROL VALVES - PRESSURE COMPENSATED

Adjustable compensated flow control valve, used to keep the speed constant, regardless of the working pressure.

HYDRAULIC CIRCUIT



HANDKNOB CODE

62200012

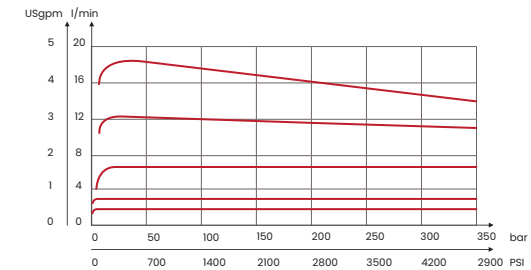
NUT CODE

63300025

M8

mm [inches]

PERFORMANCES



ORDERING CODE

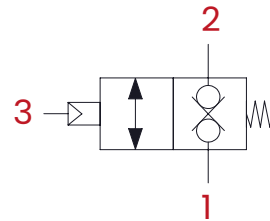
CODE	TYPE	CAVITY	MAX FLOW CONTROLLED FLOW AT 100 bar ± 10% l/min [USgpm]	Ø H mm [inches]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA7028	DR2C1	SAE8/2 3/4-16UN- F-2B See cavity paragraph p.184	0,6-2,2 [0,16-0,58]	0,9 [0,03]	350 [5075]	30 [22]	0,12 [0,26]
FA7029	DR2C2		0,8-3 [0,21-0,79]	1 [0,04]			
FA7030	DR2C3		1,3-5,1 [0,34-1,35]	1,3 [0,05]			
FA7031	DR2C4		1,9-6,8 [0,5-1,8]	1,5 [0,06]			
FA7032	DR2C5		2,6-9,1 [0,69-2,4]	1,7 [0,07]			
FA7033	DR2C6		4-14,4 [1,06-3,08]	2,2 [0,09]			
FA7034	DR2C7		7,2-18 [1,9-4,75]	2,8 [0,11]			

VP2 SAE 8/2 - 30 l/min - 350 bar

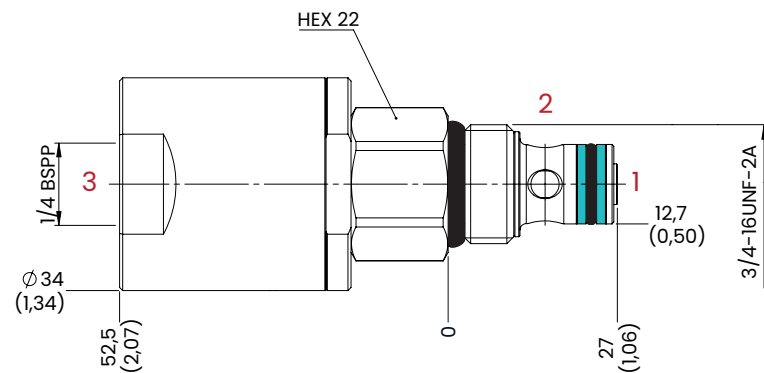
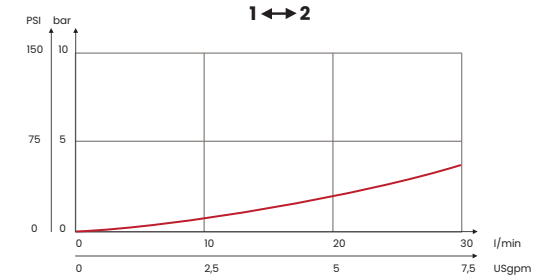
PNEUMATIC OPERATED VALVES

2-way/2-position pneumatic control valve, made in SAE8/2 cavity with pilot pressure 4/15 bar.

HYDRAULIC CIRCUIT



PERFORMANCES



mm [Inches]

ORDERING CODE

CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	PILOT PRESSURE bar [PSI]	WEIGHT kg [lb]
FA7035	VP2	SAE8/2 3/4-16UN- F-2B See cavity paragraph p.184	30 [7,9]	350 [5075]	30 [22]	4/15 [58/218]	0,16 [0,35]

VBC M22 X, 1,5 - 50 l/min - 350 bar

SINGLE ACTING PILOT CHECK VALVES

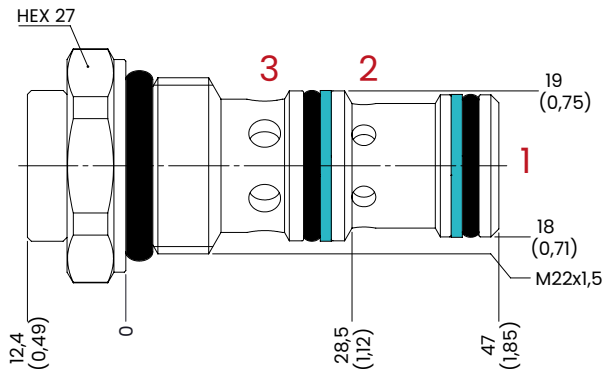
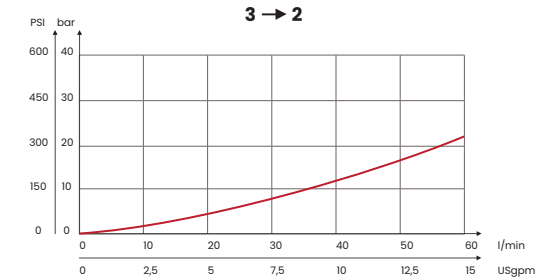
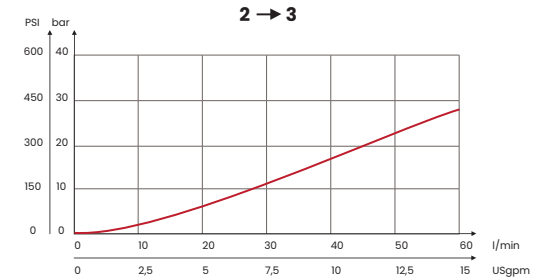
VBC check valves are used to lock a single acting actuator in position, ensuring the blocking of the load.



HYDRAULIC CIRCUIT



PERFORMANCES



ORDERING CODE

CODE	TYPE	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CRACKING PRESSURE STANDARD bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	PILOT RATIO	WEIGHT kg [lb]
FA7036	VBC2250	FC004 M22X1,5 See cavity paragraph p.190	50 [13,3]	350 [5075]	5 [72]	40 [30]	1:2,5	0,12 [0,26]

mm [Inches]

UPDATE: March 2023 (v.03)

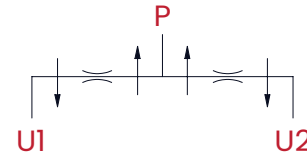
VDF3 SAE10/4 - 40 l/min - 350 bar

FLOW DIVIDERS

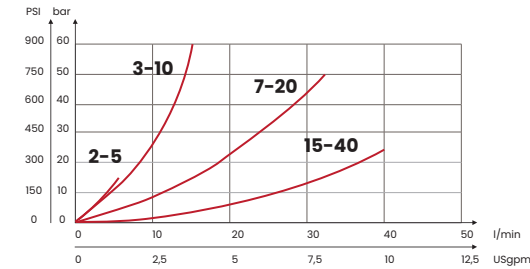
The flow divider/combiner valves guarantee the division of the flow into two equal parts or the reunification in the opposite direction.



HYDRAULIC CIRCUIT

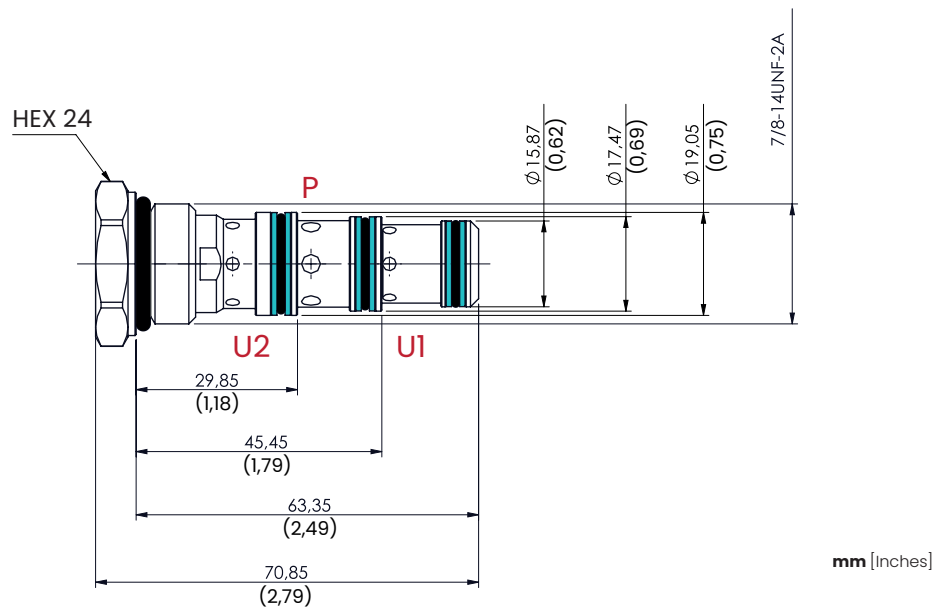


PERFORMANCES



Specifications

Maximum division error: ±10% of the oil flow in U1 or U2 and 120 bar [1750 PSI] pressure difference between U1 and U2. (Division rate 50%-50%)



ORDERING CODE

CODE	TYPE	CAVITY	INLET FLOW RANGE l/min [USgpm]	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	TIGHTENING TORQUE Nm [lbt ft]	WEIGHT kg [lb]
FA7037	VDF3S1	SAE10/4 7/8-14UNF-2B See cavity paragraph p.186	2-5 [0,5-1,3]	40 [10,6]	350 [5075]	35 [26]	0,12 [0,26]
FA7038	VDF3S2		3-10 [0,8-2,6]				
FA7039	VDF3S3		7-20 [1,8-5,2]				
FA7040	VDF3S4		15-40 [3,9-10,4]				

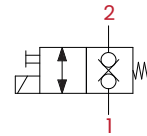
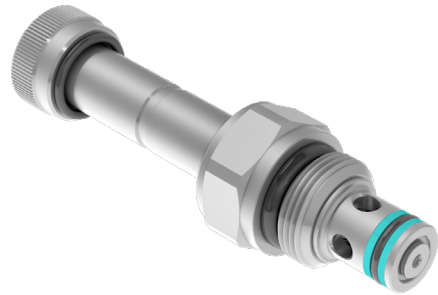
solenoid VALVES



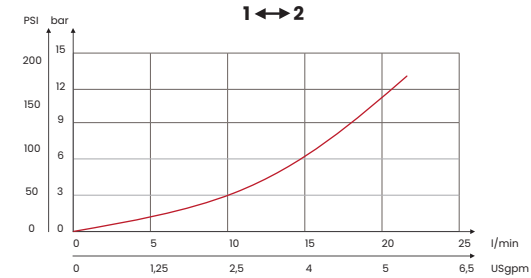
E2F28 SAE8/2 - 22 l/min - 210 bar

SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET DIRECT OPERATED

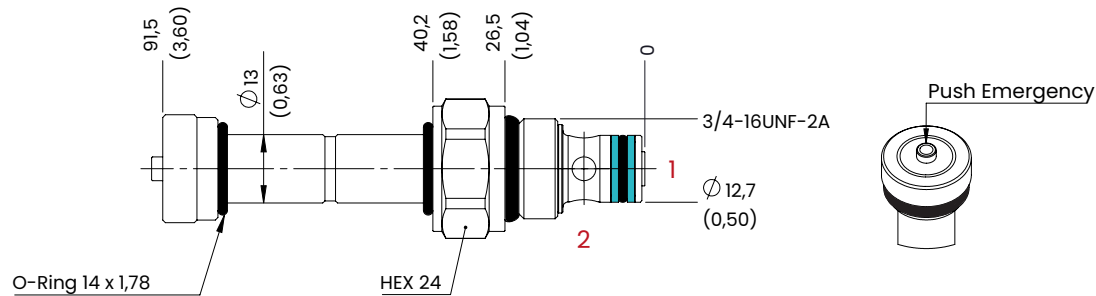
HYDRAULIC CIRCUIT



PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.



mm [Inches]

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

ORDERING CODE

CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8001	E2F28E	Normally closed + emergency	SAE8/2 3/4-16UN- F-2B See cavity paragraph p.184	22 [5,8]	210 [3045]	30 [22]	2 [1,5]	0,12 [0,26]

Optional, coils C22 and connectors CNS

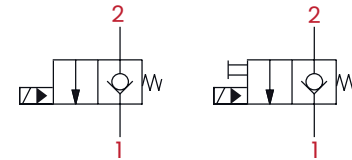
UPDATE: March 2023 (v.04)

E2S20 SAE8/2 - 40 l/min - 350 bar

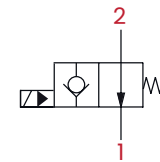
SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET PILOT OPERATED



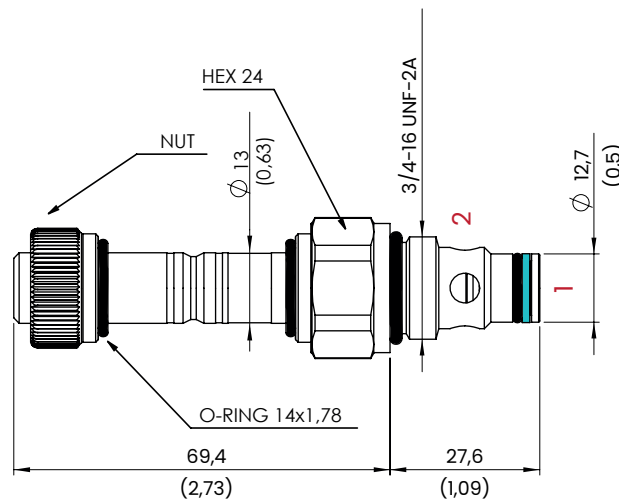
HYDRAULIC CIRCUIT



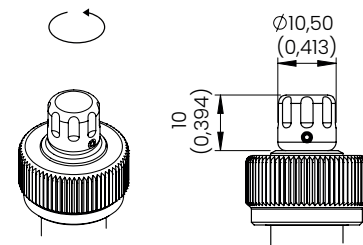
E2S20C Normally closed
E2S20E Normally closed



E2S20A Normally closed

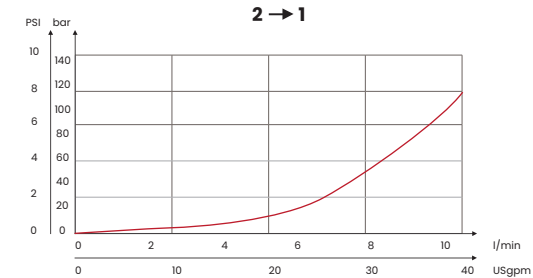


Emergency



mm [Inches]

PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22
*For temperature or special conditions contact our sales department					

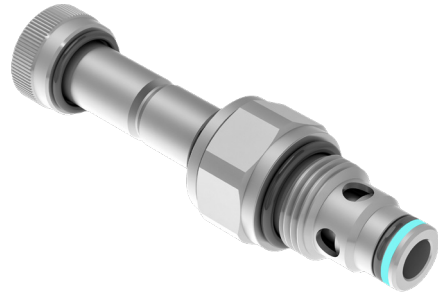
ORDERING CODE

CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8002	E2S20C	Normally closed	SAE8/2 3/4-16UN- F-2B See cavity paragraph p.184	40 [10,6]	350 [5076]	30 [22]	2 [1,5]	0,16 [0,36]
FA8003	E2S20E	Normally closed + emergency						
FA8004	E2S20A	Normally open						
Optional, coils C22 and connectors CNS								

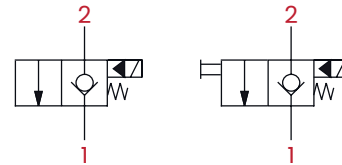
UPDATE: March 2023 (v.05)

E2L20 SAE8/2 - 30 l/min - 300 bar

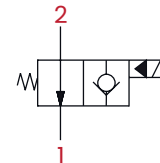
SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET PILOT OPERATED



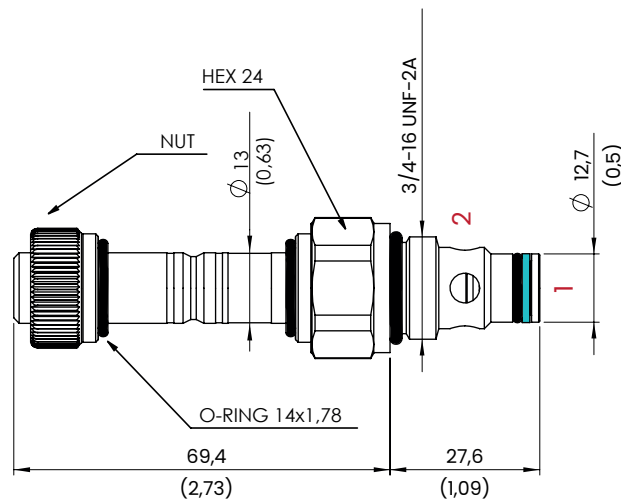
HYDRAULIC CIRCUIT



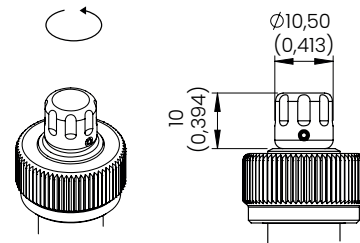
E2L20C Normally closed
E2L20E Normally closed



E2L20A Normally closed

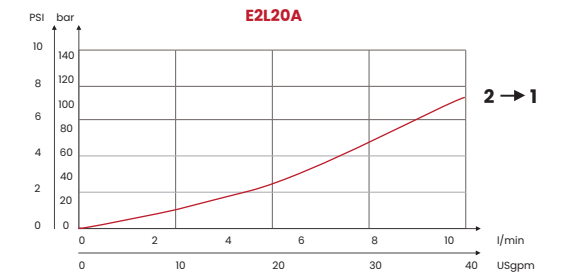
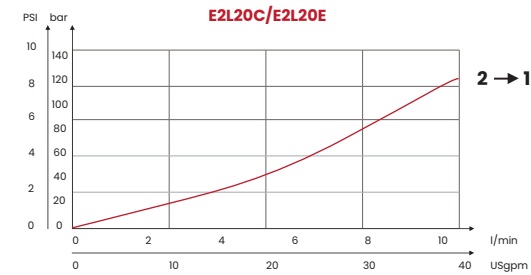


Emergency



mm [Inches]

PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

ORDERING CODE

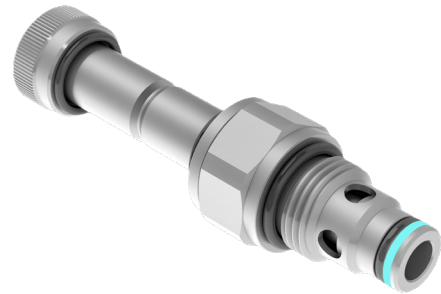
CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8005	E2L20C	Normally closed	SAE8/2 3/4-16UN- F-2B See cavity paragraph p.184	30 [7,9]	300 [4350]	30 [22]	2 [1,5]	0,12 [0,27]
FA8006	E2L20E	Normally closed + emergency						
FA8007	E2L20A	Normally open						

Optional, coils C22 and connectors CNS

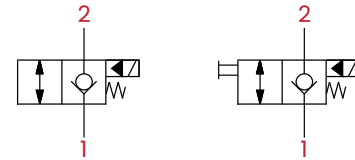
UPDATE: March 2023 (v.03)

E2S22 SAE8/2 - 40 l/min - 300 bar

SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET PILOT OPERATED

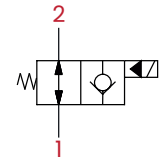


HYDRAULIC CIRCUIT

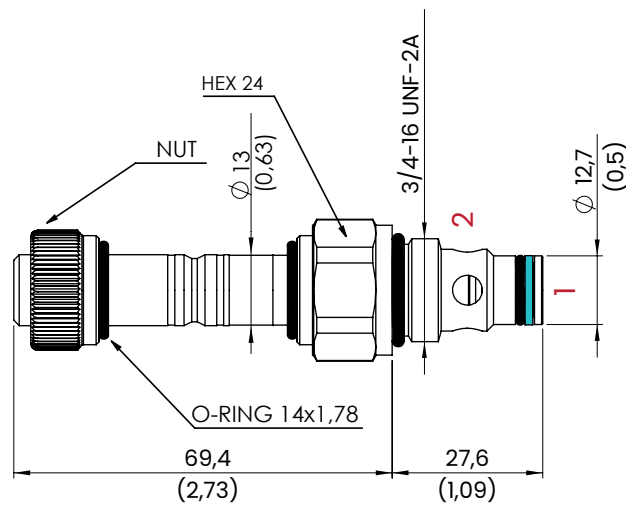


E2S22C
Normally closed

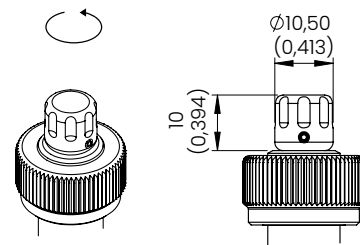
E2S22E
Normally closed



E2S22A
Normally closed

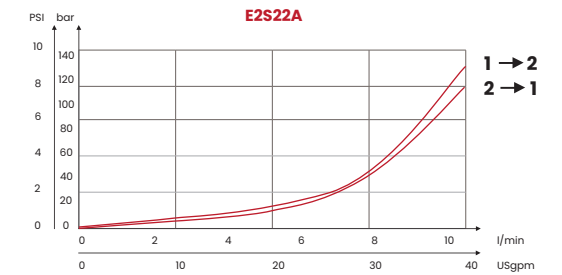
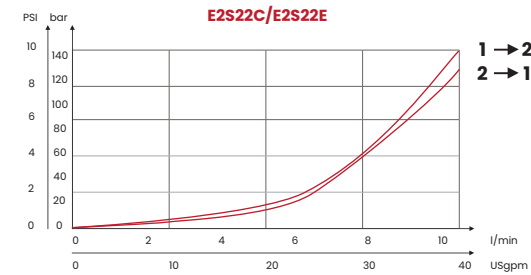


Emergency



mm [Inches]

PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

ORDERING CODE

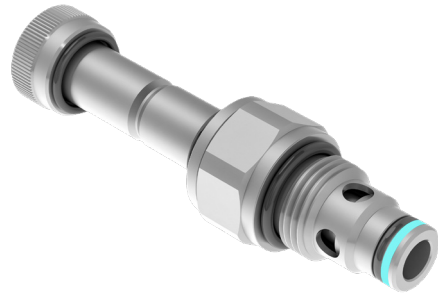
CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8009	E2S22C	Normally closed	SAE8/2 3/4-16UN- F-2B See cavity paragraph p.184	40 [10,6]	350 [5076]	30 [22]	2 [1,5]	0,16 [0,36]
FA8009	E2S22E	Normally closed + emergency						
FA8010	E2S22A	Normally open						

Optional, coils C22 and connectors CNS

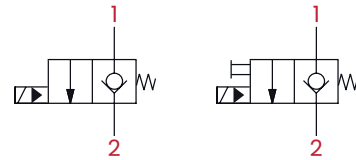
UPDATE: March 2023 (v.03)

E2S24 SAE8/2 - 40 l/min - 350 bar

SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET PILOT OPERATED

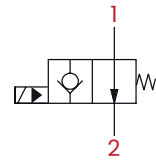


HYDRAULIC CIRCUIT

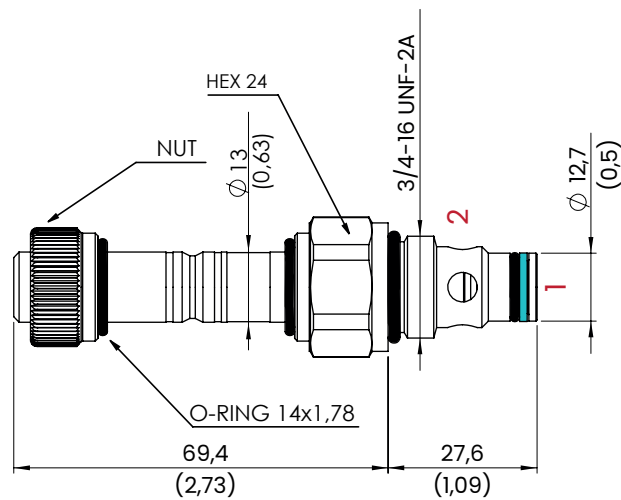


E2S24C
Normally closed

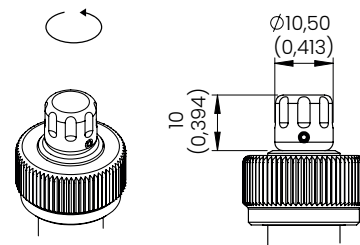
E2S24E
Normally closed



E2S24A
Normally closed

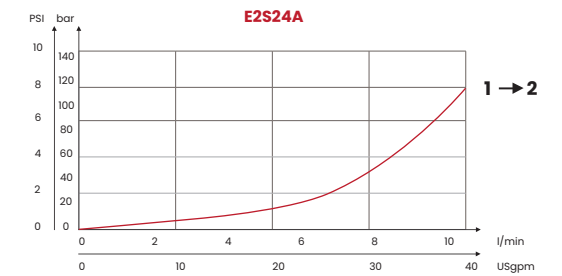
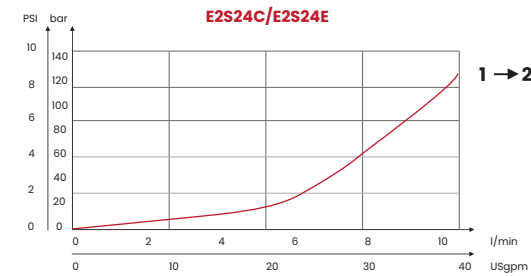


Emergency



mm [Inches]

PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

ELECTRIC

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

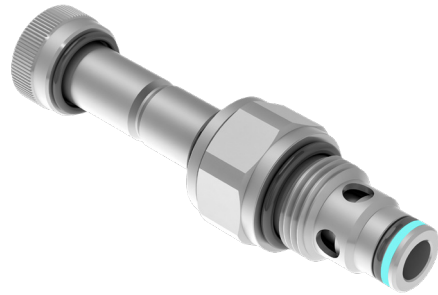
ORDERING CODE

CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8001	E2S24C	Normally closed	SAE8/2 3/4-16UN- F-2B See cavity paragraph p.184	40 [10,6]	350 [5076]	30 [22]	2 [1,5]	0,16 [0,36]
FA8012	E2S24E	Normally closed + emergency						
FA8013	E2S24A	Normally open						

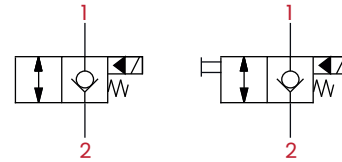
Optional, coils C22 and connectors CNS

E2S26 SAE8/2 - 40 l/min - 350 bar

SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET PILOT OPERATED



HYDRAULIC CIRCUIT

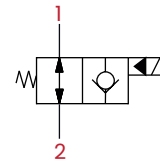


E2S26C

Normally closed

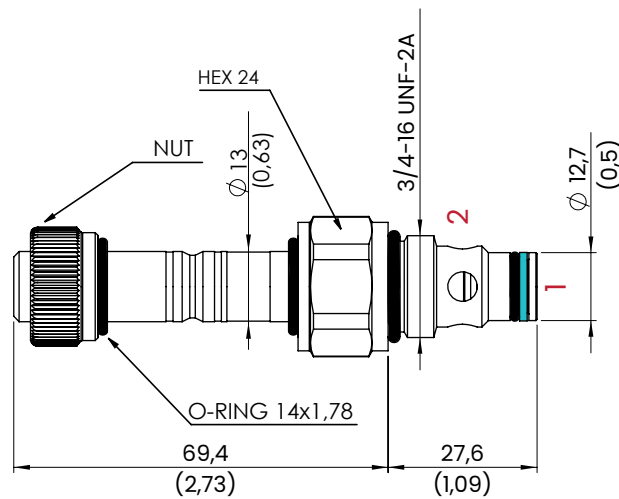
E2S26E

Normally closed

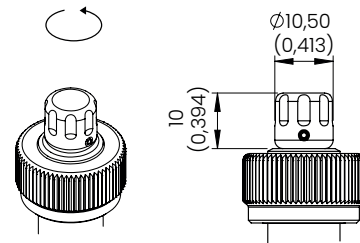


E2S26A

Normally closed

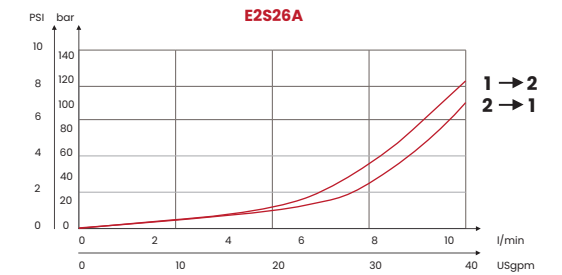
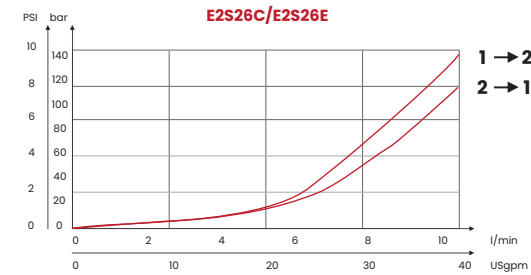


Emergency



mm [Inches]

PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

ORDERING CODE

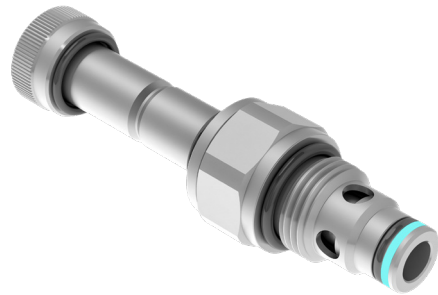
CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA80014	E2S26C	Normally closed	SAE8/2 3/4-16UN- F-2B See cavity paragraph p.184	40 [10,6]	350 [5076]	30 [22]	2 [1,5]	0,16 [0,36]
FA80015	E2S26E	Normally closed + emergency						
FA80016	E2S26A	Normally open						

Optional, coils C22 and connectors CNS

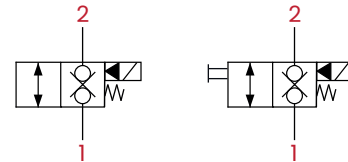
UPDATE: March 2023 (v.03)

E2S28 SAE8/2 - 40 l/min - 350 bar

SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET DIRECT OPERATED



HYDRAULIC CIRCUIT

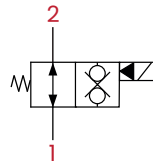


E2S28C

Normally closed

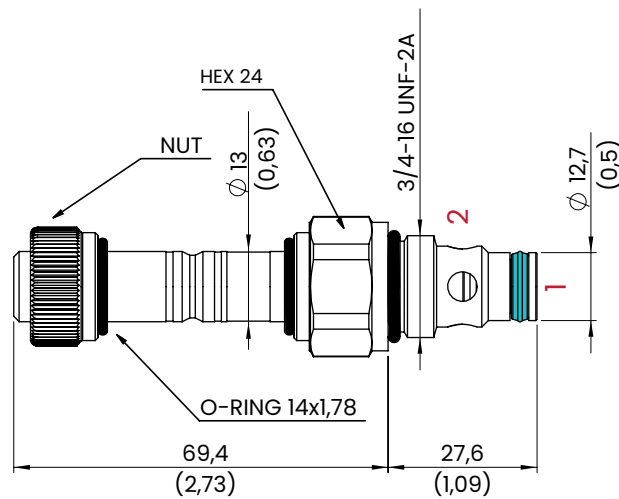
E2S28E

Normally closed

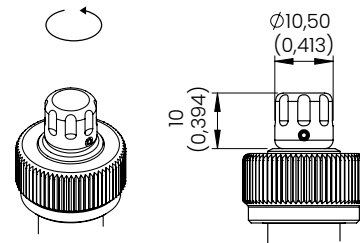


E2S28A

Normally open

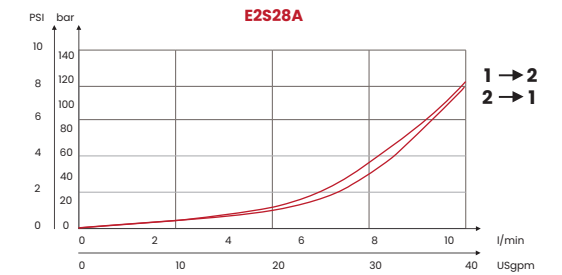
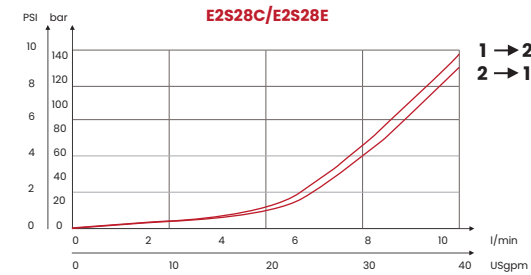


Emergency



mm [Inches]

PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

ORDERING CODE

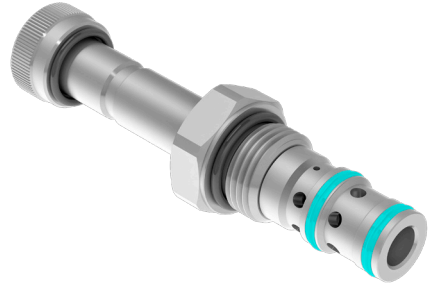
CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8017	E2S28C	Normally closed	SAE8/2 3/4-16UN- F-2B See cavity paragraph p.184	40 [10,6]	350 [5076]	30 [22]	2 [1,5]	0,16 [0,36]
FA8018	E2S28E	Normally closed + emergency						
FA8019	E2S28A	Normally open						

Optional, coils C22 and connectors CNS

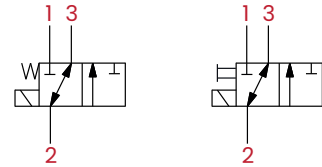
UPDATE: March 2023 (v.03)

E6S30 SAE8/3 - 12 l/min - 210 bar

SOLENOID VALVE 3 WAYS 2 POSITIONS, DIRECT ACTING POOL TYPE



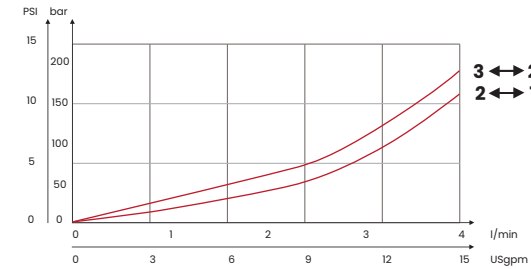
HYDRAULIC CIRCUIT



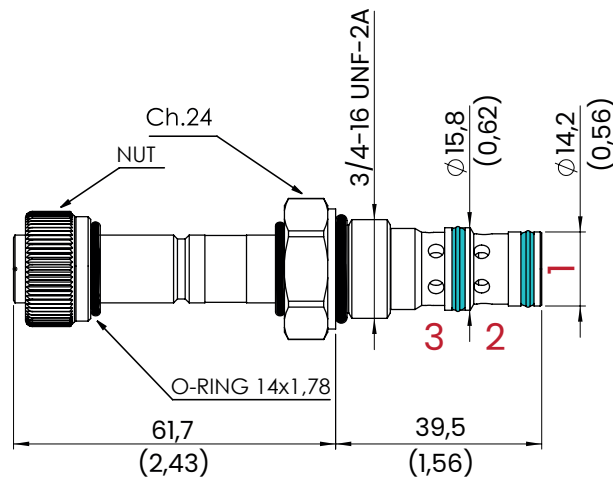
E6S30A
Standard

E6S30E
With emergency

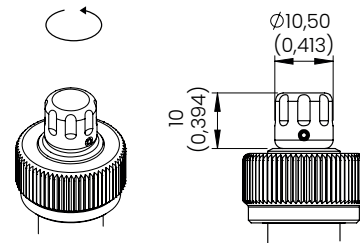
PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.



Emergency



mm [Inches]

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

ORDERING CODE

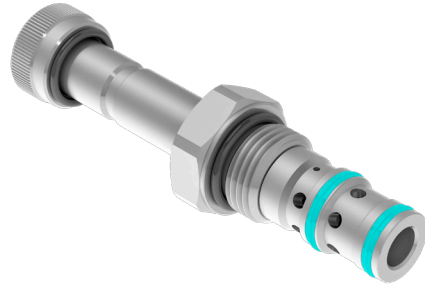
CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [usgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8020	E6S30A	Standard	SAE8/3 3/4-16UN- F-2B	12 [3,2]	210 [3045]	30 [22]	2 [1,5]	0,15 [0,33]
FA8021	E6S30E	With emergency	See cavity paragraph p.185					

Optional, coils C22 and connectors CNS

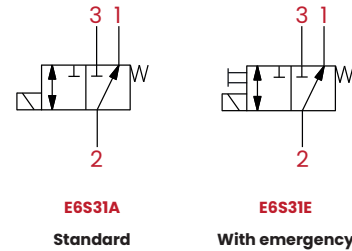
UPDATE: March 2023 (v.05)

E6S31 SAE8/3 - 12 l/min - 210 bar

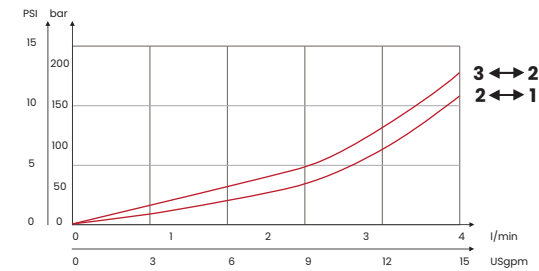
SOLENOID VALVE 3 WAYS 2 POSITIONS, DIRECT ACTING POOL TYPE



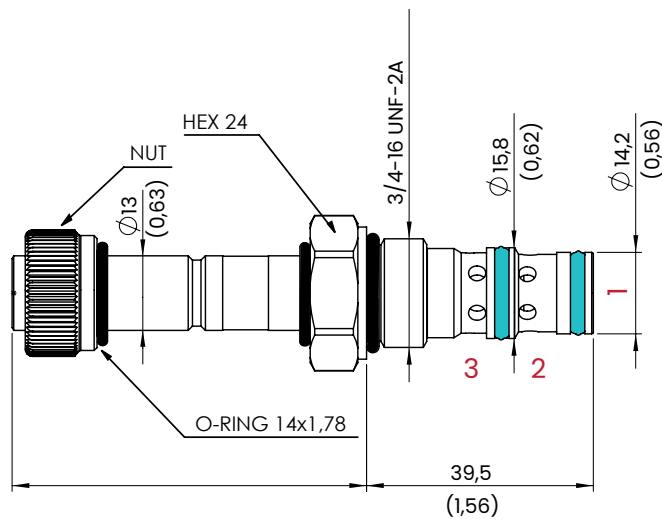
HYDRAULIC CIRCUIT



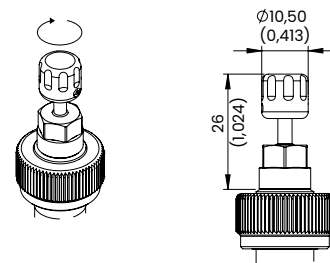
PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.



Emergency



Rotating the knob clockwise the valve switches position.

mm [Inches]

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

ORDERING CODE

CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8022	E6S31A	Standard	SAE8/3 3/4-16UN- F-2B See cavity paragraph p.185	12 [3,2]	210 [3045]	30 [22]	2 [1,5]	0,15 [0,33]
FA8023	E6S31E	With emergency						

Optional, coils C22 and connectors CNS

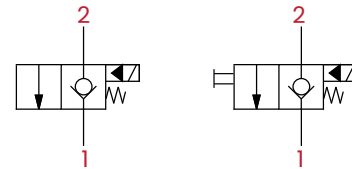
UPDATE: March 2023 (v.05)

E3S20 SAE10/2 - 70 l/min - 350 bar

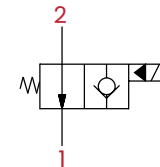
SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET PILOT OPERATED



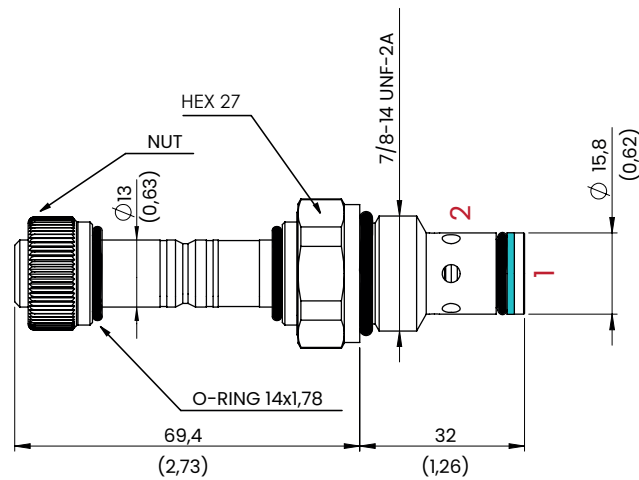
HYDRAULIC CIRCUIT



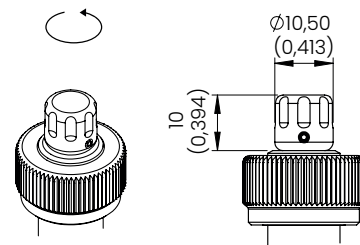
E3S20C Normally closed
E3S20E Normally closed



E3S20A Normally closed

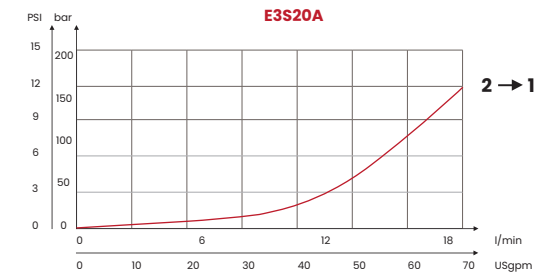
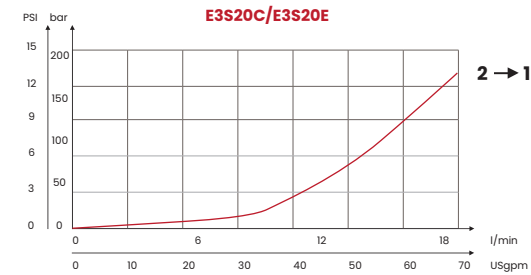


Emergency



mm [Inches]

PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

ORDERING CODE

CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8024	E3S20C	Normally closed	SAE10/2 7/8-14UN- F-2B See cavity paragraph p.184	70 [18,7]	350 [5076]	40 [29,5]	2 [1,5]	0,19 [0,42]
FA8025	E3S20E	Normally closed + emergency						
FA8026	E3S20A	Normally open						

Optional, coils C22 and connectors CNS

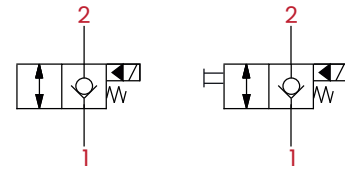
UPDATE: March 2023 (v.03)

E3S22 SAE10/2 - 70 l/min - 350 bar

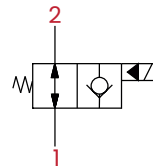
SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET PILOT OPERATED



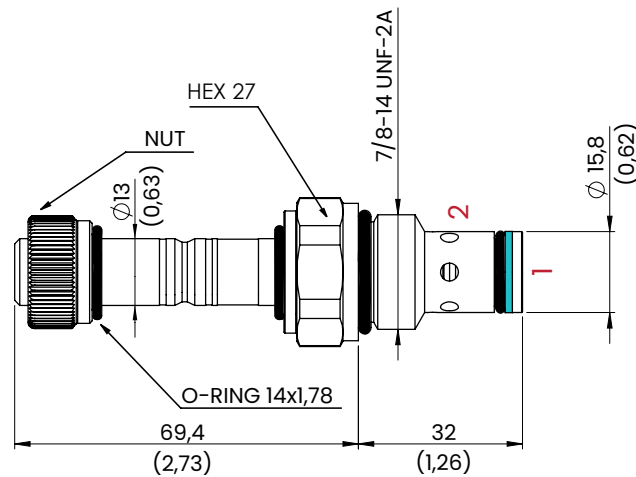
HYDRAULIC CIRCUIT



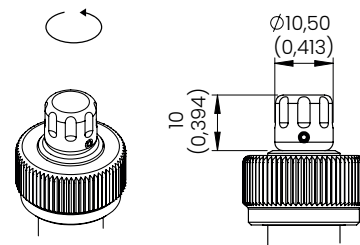
E3S22C Normally closed
E3S22E Normally closed



E3S22A Normally open

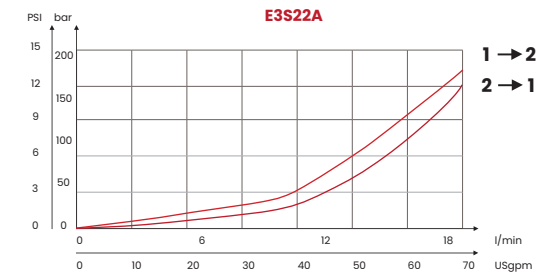
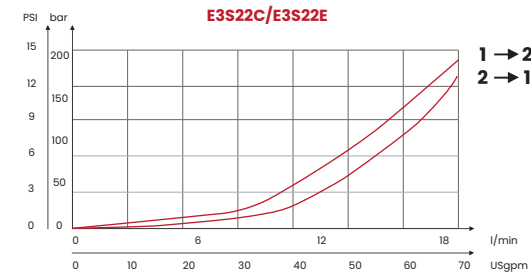


Emergency



mm [Inches]

PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

ORDERING CODE

CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8027	E3S22C	Normally closed	SAE10/2 7/8-14UN- F-2B See cavity paragraph p.184	70 [18,7]	350 [5076]	40 [29,5]	2 [1,5]	0,19 [0,42]
FA8028	E3S22E	Normally closed + emergency						
FA8029	E3S22A	Normally open						

Optional, coils C22 and connectors CNS

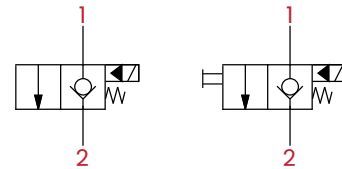
UPDATE: March 2023 (v.03)

E3S24 SAE10/2 - 70 l/min - 350 bar

SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET PILOT OPERATED

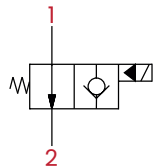


HYDRAULIC CIRCUIT



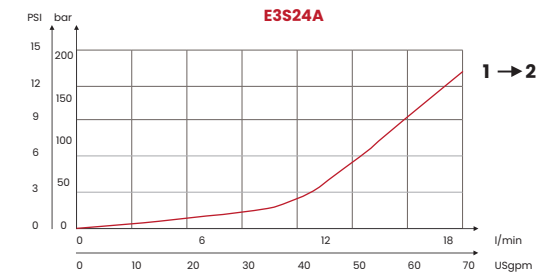
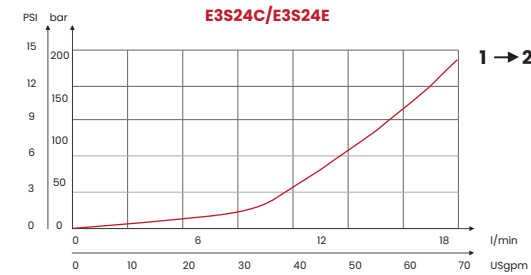
E3S24C
Normally closed

E3S24E
Normally closed



E3S24A
Normally closed

PERFORMANCES

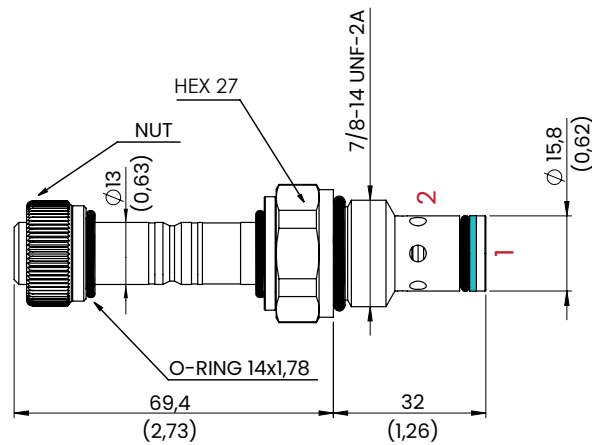


Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

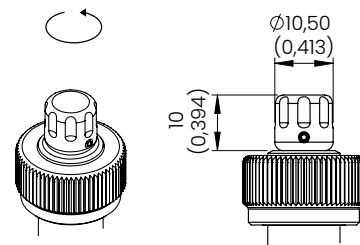
ELECTRIC

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department



Emergency



mm [Inches]

ORDERING CODE

CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8030	E3S24C	Normally closed	SAE10/2 7/8-14UN- F-2B See cavity paragraph p.184	70 [18,7]	350 [5076]	40 [29,5]	2 [1,5]	0,19 [0,42]
FA8031	E3S24E	Normally closed + emergency						
FA8032	E3S24A	Normally open						

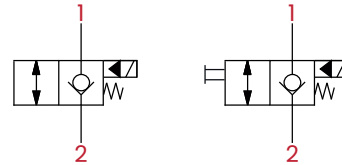
Optional, coils C22 and connectors CNS

E3S26 SAE10/2 - 70 l/min - 350 bar

SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET PILOT OPERATED



HYDRAULIC CIRCUIT

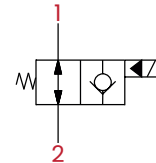


E3S26C

Normally closed

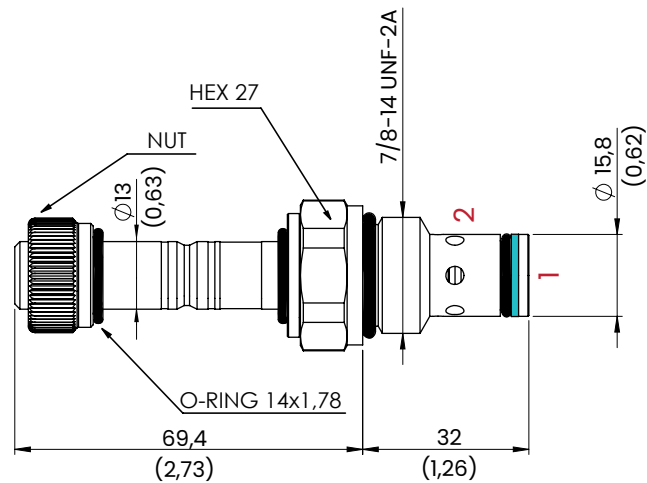
E3S26E

Normally closed

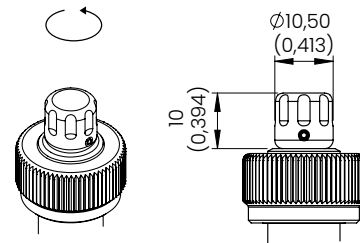


E3S26A

Normally open

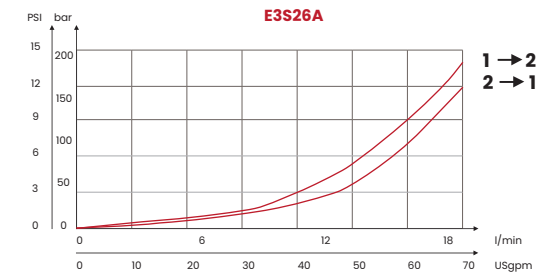
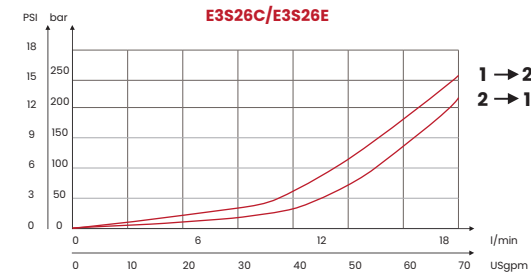


Emergency



mm [Inches]

PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

ORDERING CODE

CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8033	E3S26C	Normally closed	SAE10/2 7/8-14UN- F-2B See cavity paragraph p.184	70 [18,7]	350 [5076]	40 [29,5]	2 [1,5]	0,19 [0,42]
FA8034	E3S26E	Normally closed + emergency						
FA8035	E3S26A	Normally open						

Optional, coils C22 and connectors CNS

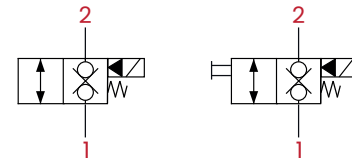
UPDATE: March 2023 (v.03)

E3S28 SAE10/2 - 70 l/min - 350 bar

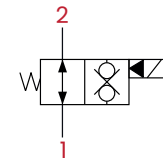
SOLENOID VALVE 2 WAYS 2 POSITIONS, POPPET PILOT OPERATED



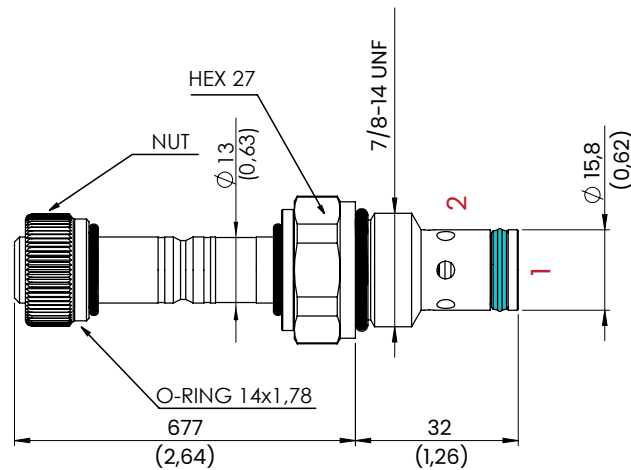
HYDRAULIC CIRCUIT



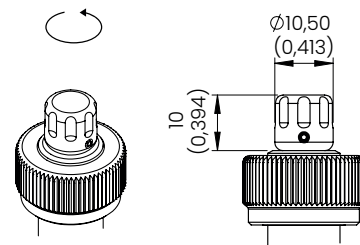
E3S28C Normally closed
E3S28E Normally closed



E3S28A Normally closed

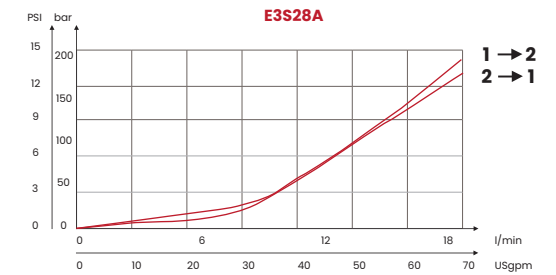
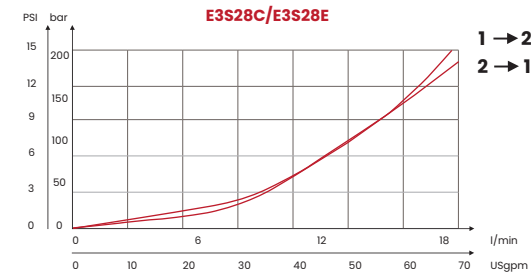


Emergency



mm [Inches]

PERFORMANCES



Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

ELECTRIC

mm [Inches]

TYPE VOLTAGE	INSULATION INDEX	NOMINAL VOLTAGE	POWER AT 20C°	POWER AT 20C°	COIL CODE
DC	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°	C22

*For temperature or special conditions contact our sales department

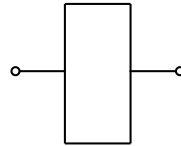
ORDERING CODE

CODE	TYPE	VERSIONS	CAVITY	MAX FLOW l/min [USgpm]	MAX PRESSURE bar [PSI]	CH 24 TIGHTENING TORQUE Nm [lbt ft]	TIGHTENING TORQUE NUT Nm [lbt ft]	WEIGHT kg [lb]
FA8036	E3S28C	Normally closed	SAE10/2 7/8-14UN- F-2B See cavity paragraph p.184	70 [18,7]	350 [5076]	40 [29,5]	2 [1,5]	0,19 [0,42]
FA8037	E3S28E	Normally closed + emergency						
FA8038	E3S28A	Normally open						

Optional, coils C22 and connectors CNS

UPDATE: March 2023 (v.04)

HYDRAULIC CIRCUIT

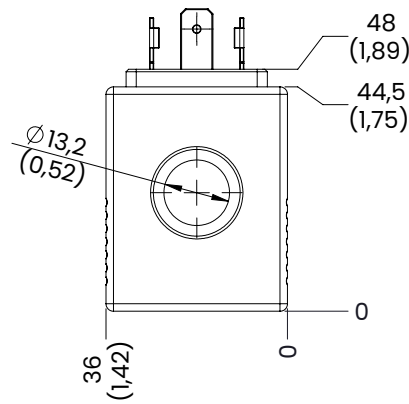
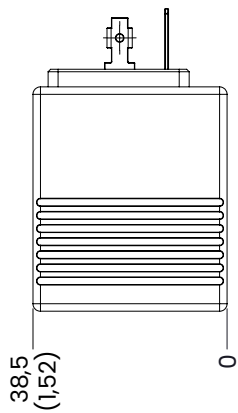


ELECTRIC

mm [Inches]

Protection class with std.connector DIN	INSULATION INDEX	Wire insulation class	NOMINAL VOLTAGE	POWER AT 20C°	ED*
IP 65	H	H	+/- 10%	22W	100% with temperature -20 C° + 40 C°

*For temperature or special conditions contact our sales department



mm [Inches]

ORDERING CODE

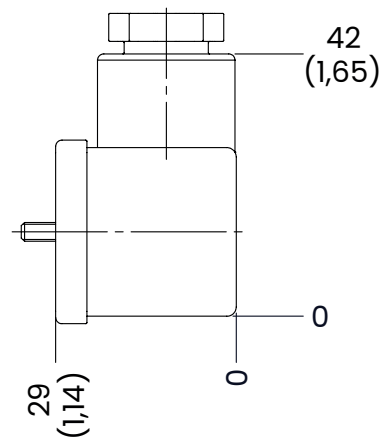
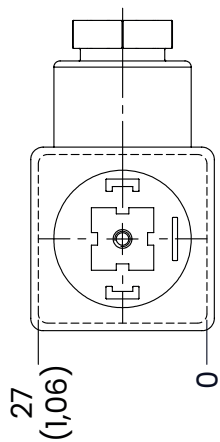
CODE	TYPE	VOLTAGE	RESISTANCE	MATCHING CONNECTOR	ABSORBED POWER	TIGHTENING TORQUE Nm lbt ft	WEIGHT kg lbt
C2212	C2212	12Vdc	6,5 Ω	CNS [DIN 43650]	22 W	2 [1,5]	0,21 [0,46]
C2224	C2224	24Vdc	26,5 Ω				



ORDERING CODE

CODE	TYPE	NOMINAL CURRENT	MAX OPERATING CURRENT	CONTACT RESISTANCE	MAX CONDUCTORS CROSS-SECTION	CONTACT HOLDER	CAND SIZE OPTIONS
CNS	CNS	10 A	16 A	≤ 4m Ohm	1,5 mm ²	PA (+G)	PgII

CABLE DIAMETER	PROTECTION CLASS	ISULATION CLASS	SEALING MATERIAL	OPERATING TEMPERATURE	WEIGHT kg lb
6-8 mm	IP 65 EN 60529	VDE 0110-1/89	NBR	-40° +90°	0,020 [0,044]

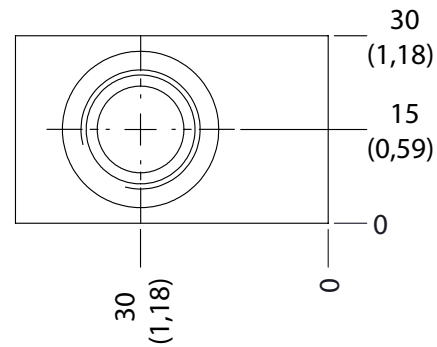
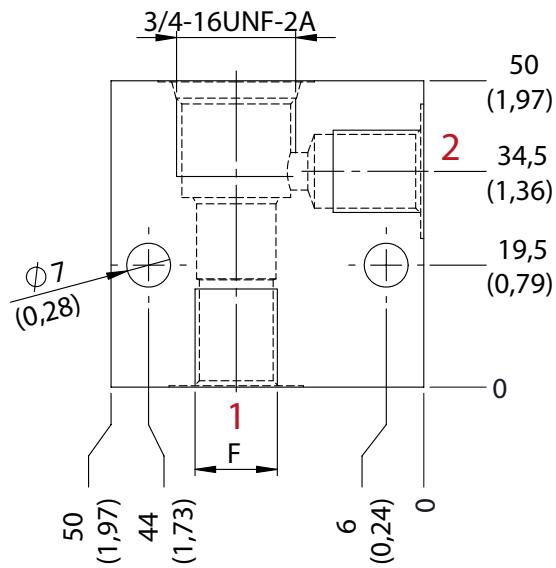


mm [Inches]

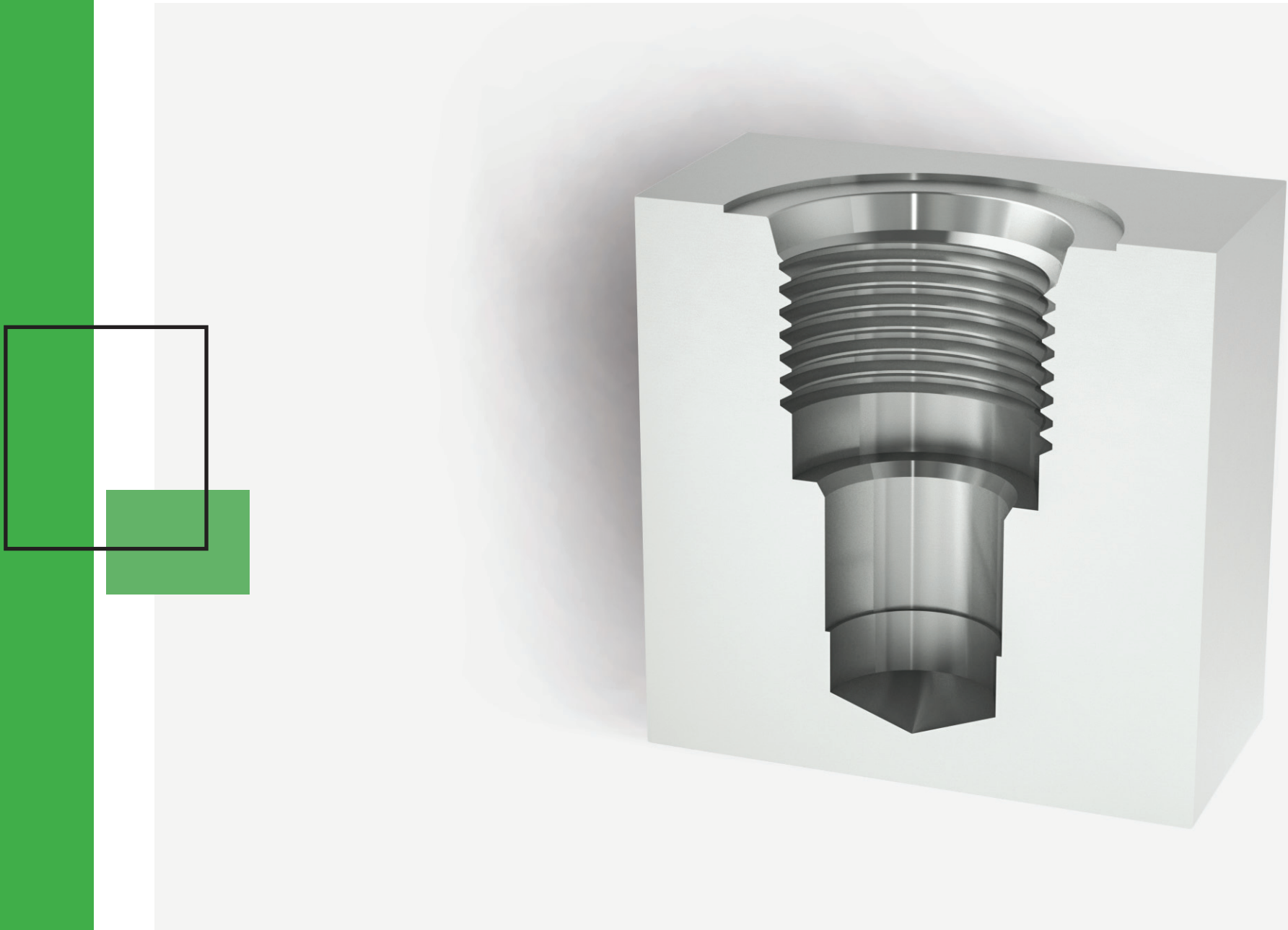


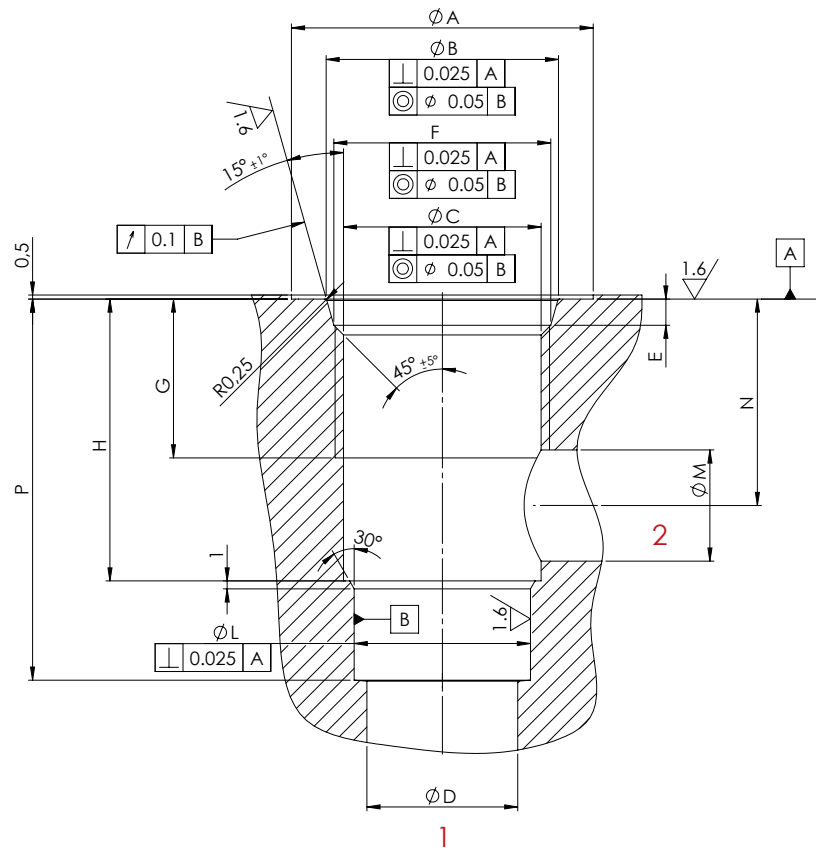
ORDERING CODE

CODE	F	CAVITY	MAX WORKING PRESSURE bar PSI	WEIGHT kg lb
31100042	1/4 BSPP	SAE8/2 3/4-16UNF-2B	350 [5076]	0,48 [1,06]
31100043	3/8 BSPP	See cavity paragraph p.184		0,45 [1,99]
Steel body				



mm [Inches]



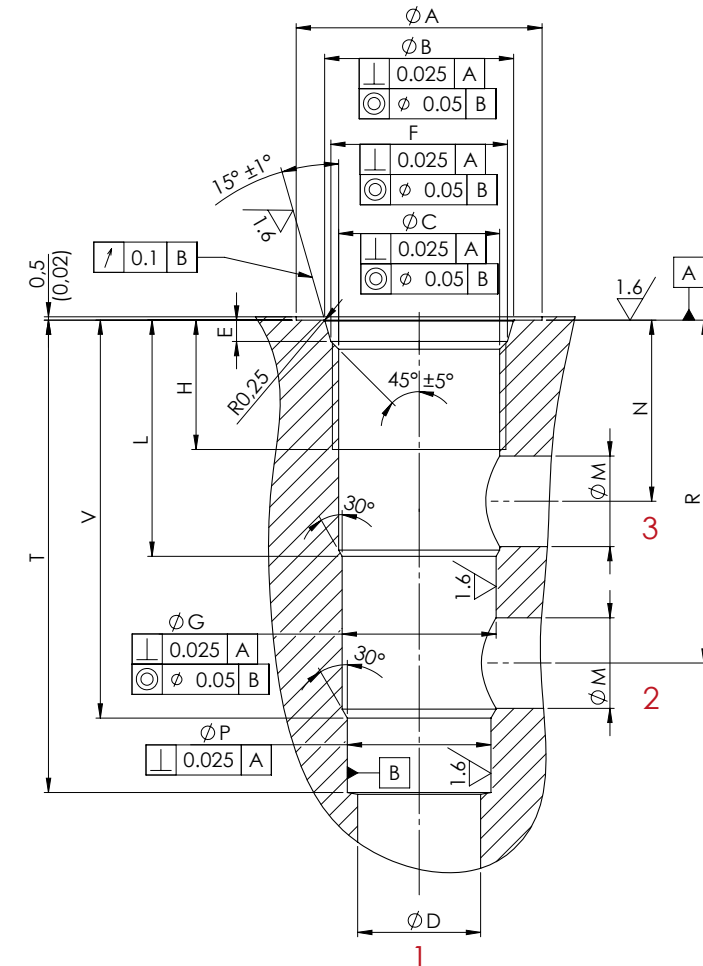


TECHNICAL CHARACTERISTICS

mm [Inches]

CAVITY CODE	F ports	Ø A +0,5 0	Ø B ±0,05	Ø C ±0,05	Ø D MAX	E +0,3 0	G	H +0,1 0	L +0,05 0	Ø M	N	P +0,5 0
SAE08/2	3/4-16UNF-2B	27 [1,06]	20,66 [0,81]	17,42 [0,69]	12 [0,47]	2,5 [0,1]	13 [0,51]	18,2 [0,72]	12,7 [0,5]	8 [0,31]	14 [0,55]	29,5 [1,16]
SAE10/2	7/8-14UNF-2B	30 [1,18]	24 [0,94]	20,62 [0,81]	15 [0,59]	2,8 [0,11]	16 [0,63]	24 [0,94]	15,9 [0,6]	11 [0,43]	18 [0,71]	33,5 [1,32]
SAE12/2	1-1/16-12UN-2B	38 [1,50]	29,23 [1,15]	24,73 [0,97]	19 [0,75]	3,5 [0,14]	20 [0,79]	35 [1,38]	22,2 [0,87]	18 [0,71]	24,5 [0,96]	47 [1,85]

UPDATE: March 2023 (v.05)

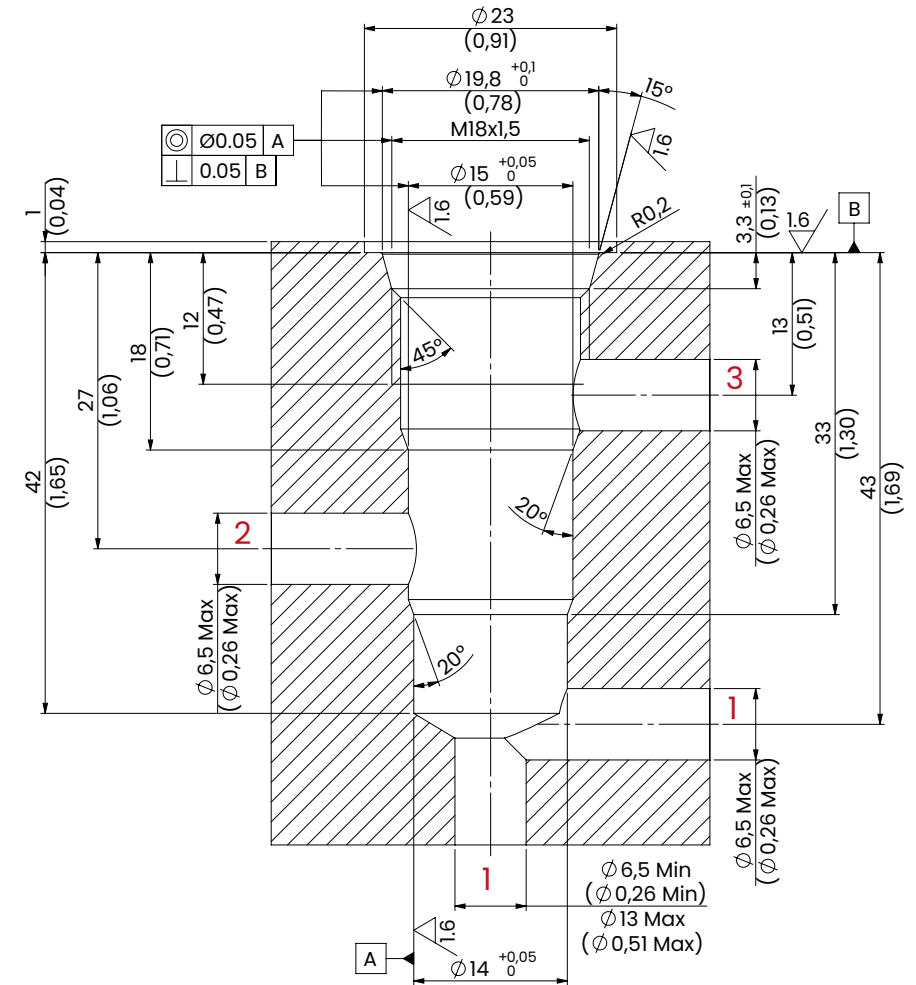
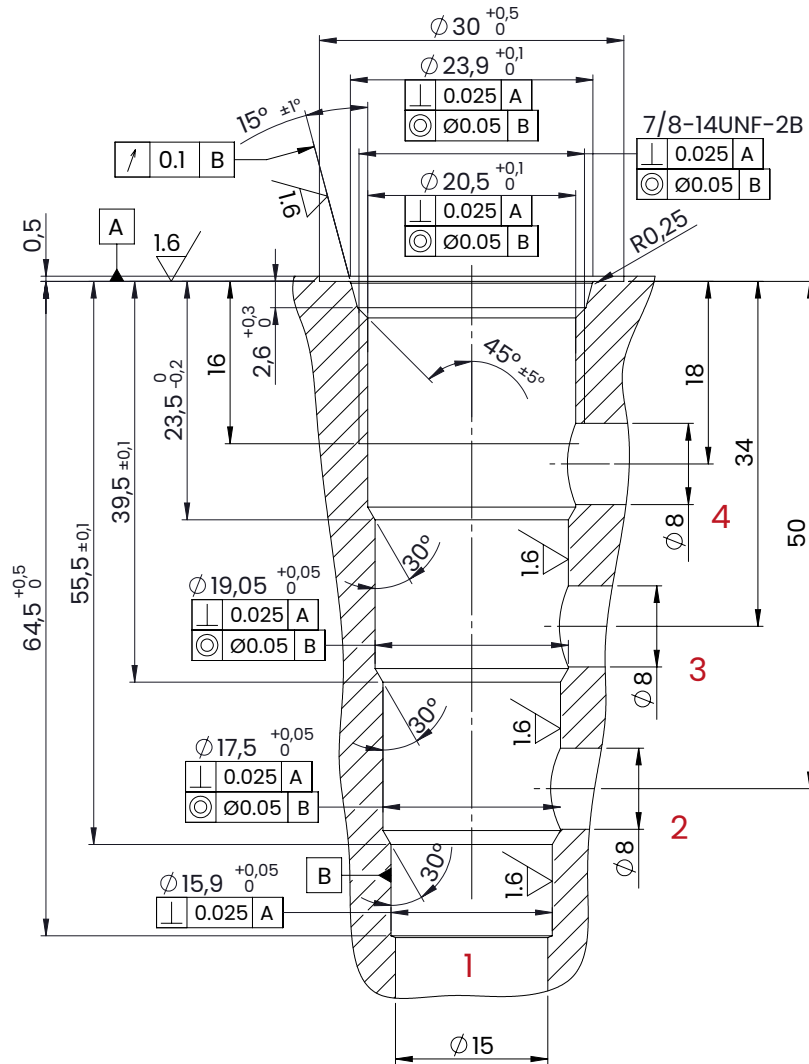


TECHNICAL CHARACTERISTICS

mm [Inches]

CAVITY CODE	F ports	Ø A +0,5 0	Ø B ±0,05	Ø C ±0,05	Ø D MAX	E +0,3 0	Ø G +0,05 0	H	L	Ø M	N	Ø P +0,05 0	R	T	V
SAE08/3	3/4-16UNF-2B	27 [1,06]	20,66 [0,81]	17,42 [0,69]	12,5 [0,49]	2,5 [0,1]	15,9 [0,63]	12,5 [0,49]	19,1 [0,75]	5,5 [0,22]	14,3 [0,56]	14,3 [0,56]	28,6 [1,13]	43,3 [1,7]	33,3 [1,31]
SAE10/3	7/8-14UNF-2B	30 [1,18]	24 [0,94]	20,62 [0,81]	14 [0,55]	2,8 [0,11]	17,5 [0,69]	16 [0,63]	23,1 [0,91]	6,5 [0,26]	18,3 [0,72]	15,9 [0,63]	34 [1,34]	47,6 [1,87]	39,6 [1,56]
SAE12/3	1-1/16-12UN-2B	38 [1,50]	29,23 [1,15]	24,73 [0,97]	19 [0,75]	3,5 [0,14]	23,8 [0,94]	19 [0,75]	36,6 [1,44]	16 [0,63]	24,5 [0,96]	22,2 [0,87]	53 [2,09]	75,4 [2,97]	63,5 [2,5]

UPDATE: August 2022 (v.03)

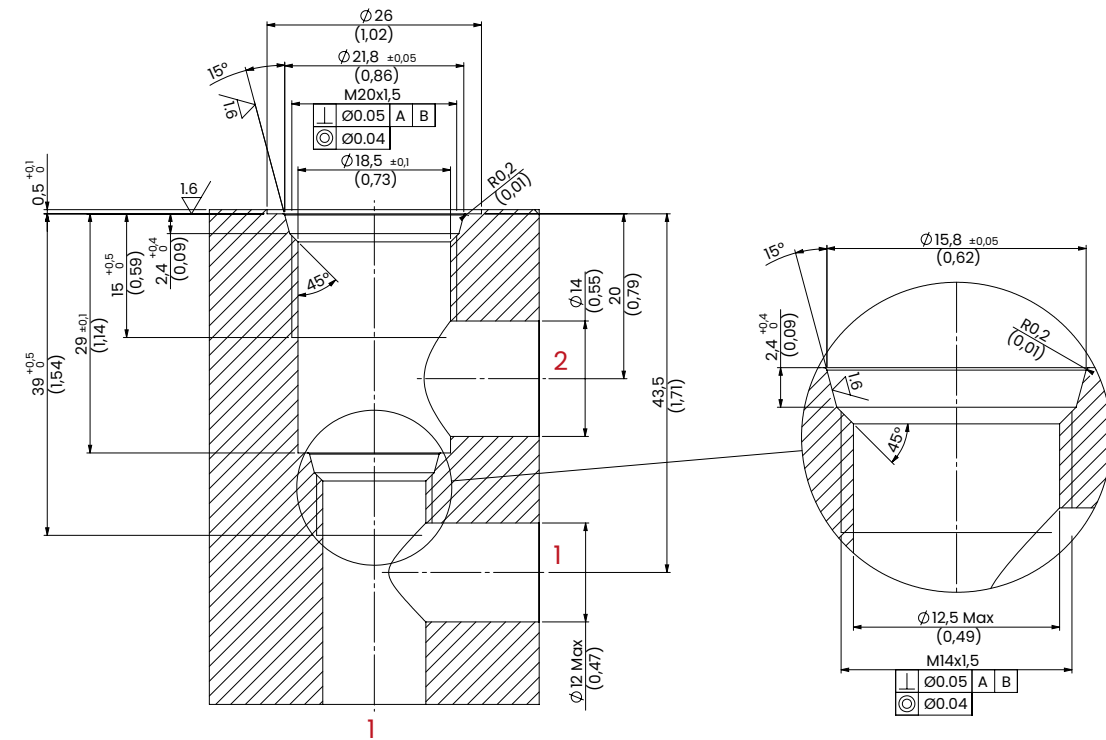
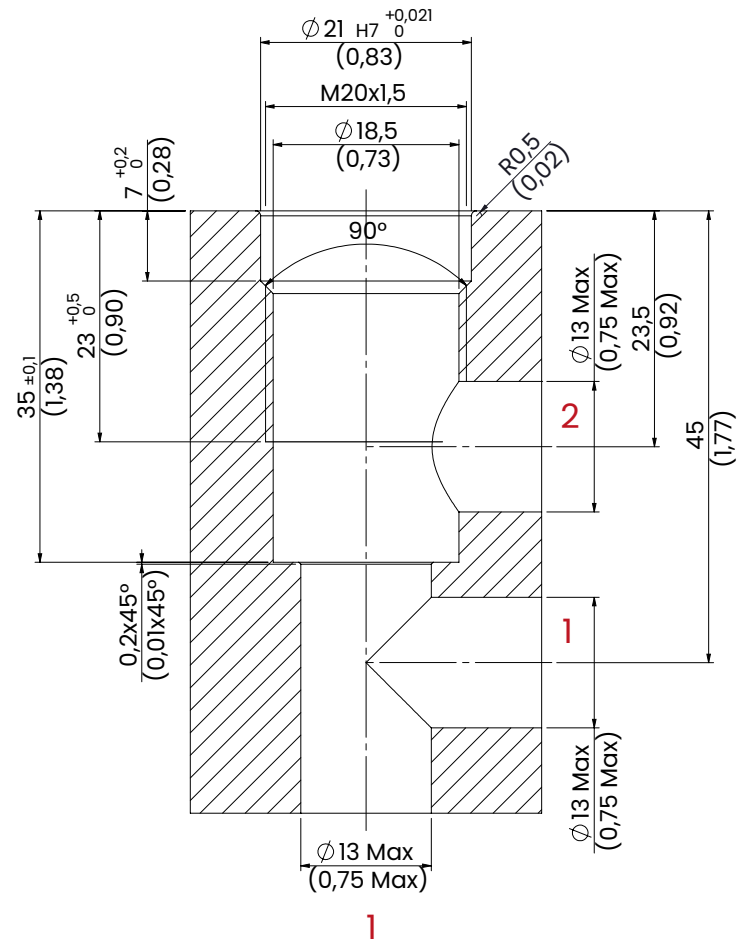


mm [Inches]

mm [Inches]

UPDATE: March 2023 (v.03)

UPDATE: February 2023 (v.03)

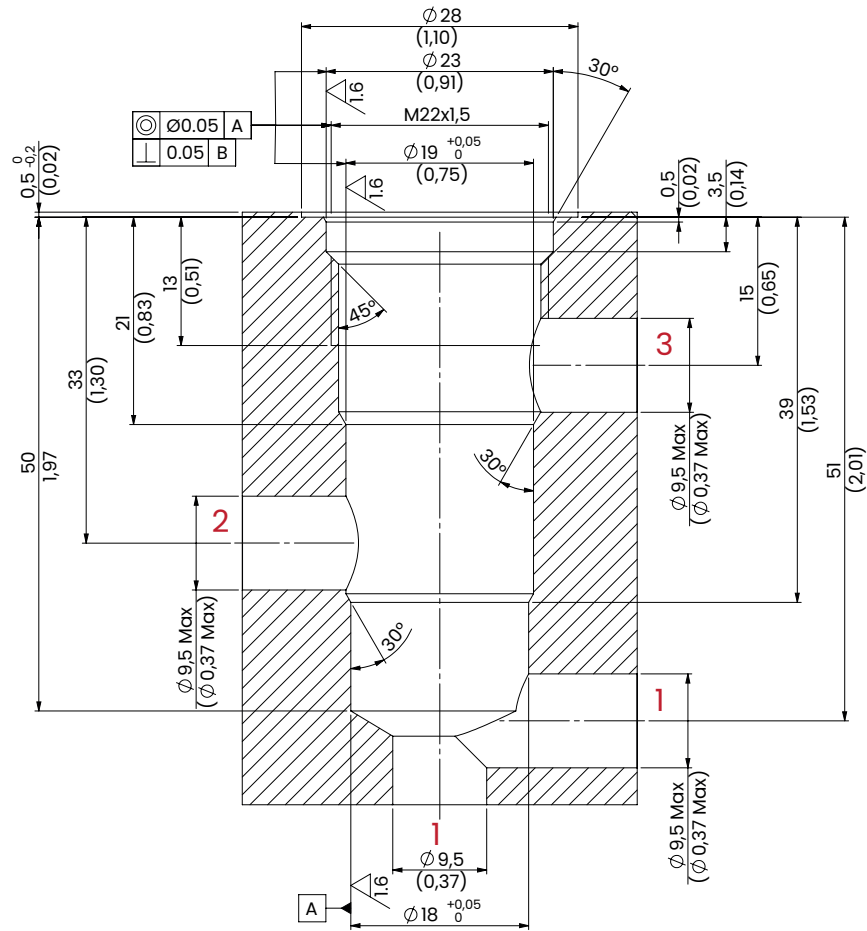


mm [Inches]

mm [Inches]

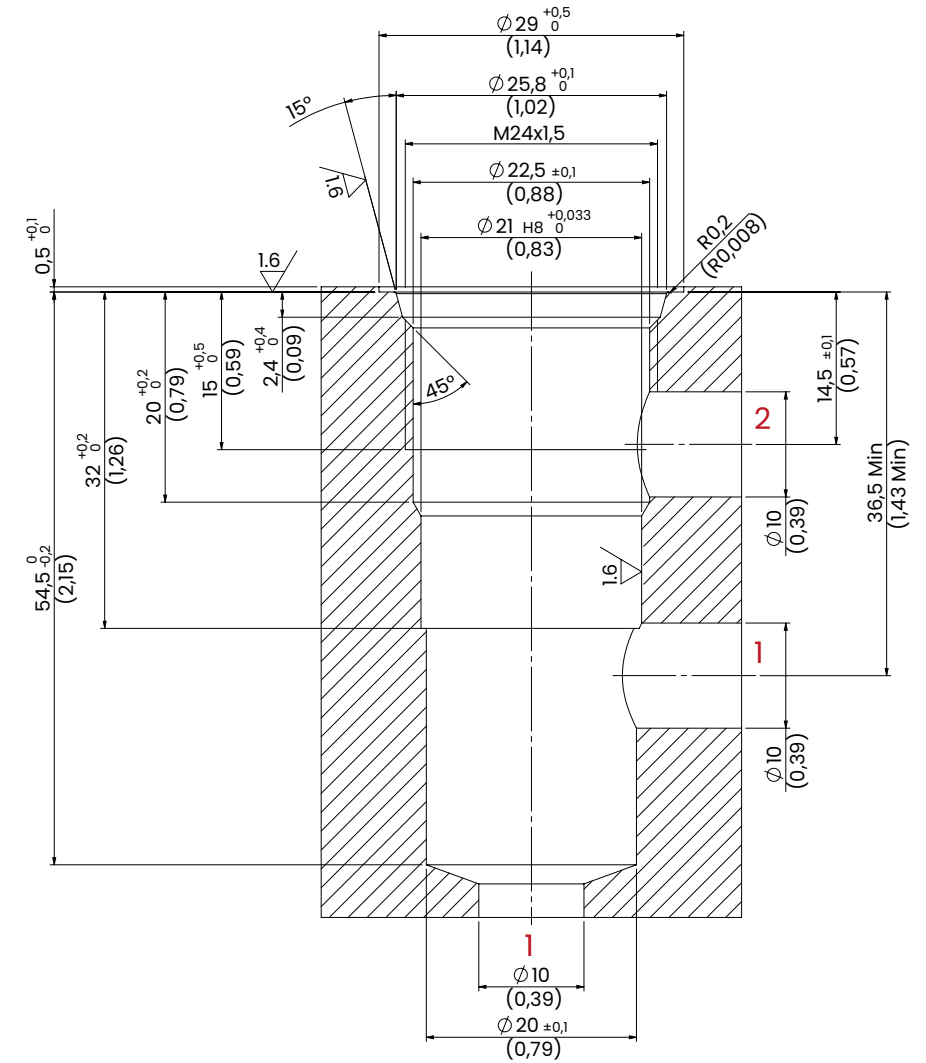
UPDATE: February 2023 (v.01)

UPDATE: February 2023 (v.03)



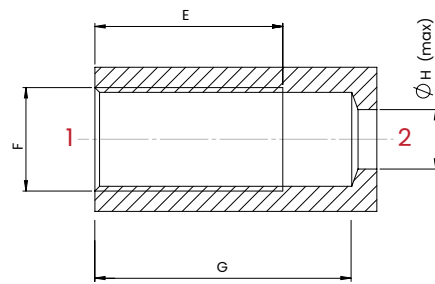
mm [Inches]

UPDATE: September 2022 (v.04)



mm [Inches]

UPDATE: September 2022 (v.04)



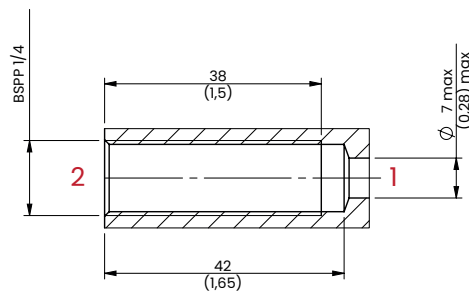
TECHNICAL CHARACTERISTICS

mm [Inches]

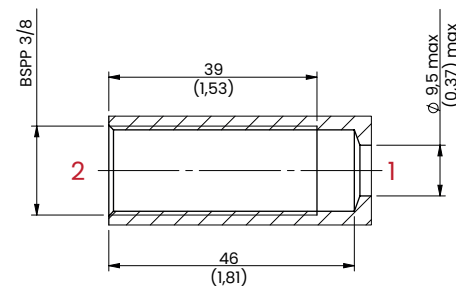
CAVITY CODE	VALVE CODE	TYPE	F ports	E	G	H
FC100	FA6001	VBA1B	1/4 BSPP	25 [0,98]	35 [1,38]	7 [0,28]
FC101	FA6002	VBA2B	3/8 BSPP	30 [1,18]	41 [1,61]	9,5 [0,37]
FC102	FA6003	VBA3B	1/2 BSPP	33 [1,30]	46 [1,81]	12 [0,47]
FC103	FA6004	VBA4B	3/4 BSPP	42 [1,65]	55 [2,17]	16 [0,63]
FC104	FA6005	VBA5B	1 BSPP	48 [1,89]	63 [2,48]	22 [0,86]

F1B

F2B



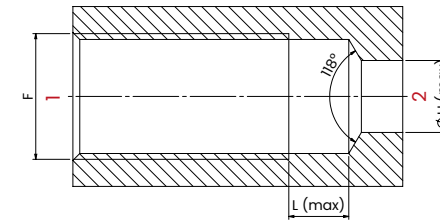
FC105



FC106

mm [Inches]

UPDATE: October 2022 (v.01)



TECHNICAL CHARACTERISTICS

mm [Inches]

VUS

CAVITY CODE	VALVE CODE	TYPE	F ports	L (max)	H
FC107	FA3045	VUS1B	1/4 BSPP	3 [0,12]	7 [0,27]
FC108	FA3046	VUS2B	3/8 BSPP		9 [0,35]
FC109	FA3047	VUS3B	1/2 BSPP		12 [0,47]
FC110	FA3048	VUS4B	3/4 BSPP	4 [0,16]	16 [0,63]

VUC

CAVITY CODE	VALVE CODE	TYPE	F ports	L (max)	H
FC119	FA3035	VUC0B	1/8 BSPP	3 [0,12]	5 [0,19]
FC111	FA3036	VUC1B	1/4 BSPP		7 [0,27]
FC112	FA3037	VUC2B	3/8 BSPP		9 [0,35]
FC113	FA3038	VUC3B	1/2 BSPP		12 [0,47]
FC114	FA3039	VUC4B	3/4 BSPP		18 [0,70]


VUD

CAVITY CODE	VALVE CODE	TYPE	F ports	L (max)	H
FC120	FA3040	VUD0B	1/8 BSPP	3 [0,12]	5 [0,19]
FC107	FA3041	VUD1B	1/4 BSPP		7 [0,27]
FC108	FA3042	VUD2B	3/8 BSPP		9 [0,35]
FC109	FA3043	VUD3B	1/2 BSPP		12 [0,47]
FC110	FA3044	VUD4B	3/4 BSPP		18 [0,70]

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