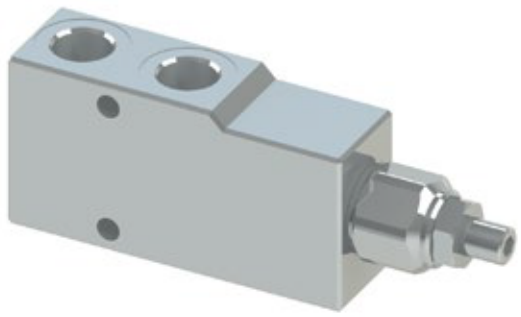
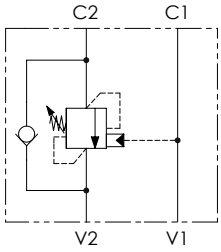
Hydrastore
Hydraulic Systems & Components

VBCL *Single counterbalance valves for open center*



Hydraulic circuit

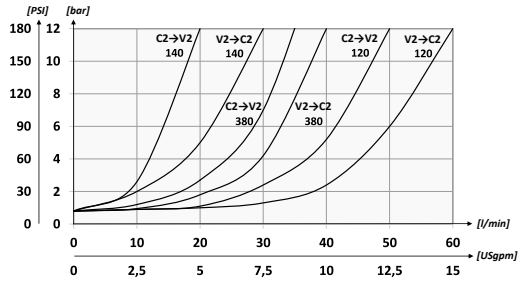


Ordering code

01	02	03	04	05
VBCL				

01	*Single counterbalance valves for open center*				**VBCL**
02	*Size*	BSPP 1/4			**140**
		BSPP 3/8			**380**
		BSPP 1/2			**120**
03	*Spring* **30/210 bar** *(435/3045 PSI)*	Rp 1:4.25	*Press. increase* **78 bar/al giro** *(1131 PSI/turn)*	*(Std. setting)* **Q=5 l/min 200 bar** *(2900 PSI)*	**1**
		Rp 1:8.75	*Press. increase* **160 bar/al giro** *(2320 PSI/turn)*		
	Spring **60/350 bar** *(870/5075 PSI)*	Rp 1:4.25	*Press. increase* **135 bar/al giro** *(1958 PSI/turn)*	*(Std. setting)* **Q=5 l/min 350 bar** *(5075 PSI)*	**2**
		Rp 1:8.75	*Press. increase* **160 bar/al giro** *(2320 PSI/turn)*		
04	*Material*	*Steel body + zinc-plated*			**S**
		Steel body + zinc-nickel			**K**
05	*Pilot ratio*	1:4.25 Standard			**/**
		1:8.75			**8**

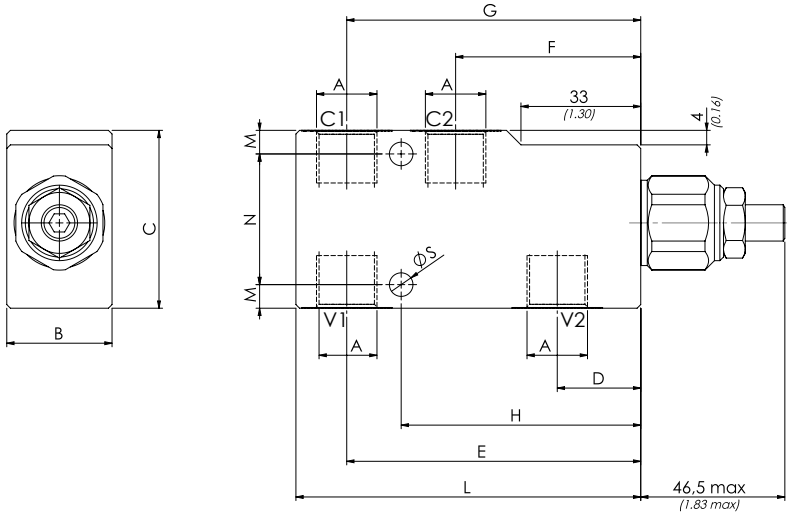
Performances



Technical data

Mineral oil	**ISO 6743/4** *(DIN 51524)*	
Oil viscosity	**15-250 mm²/s** *(15 to 250 cSt)*	
Max contamination index with filter	**ISO 4406:1999 Classe 19/17/14**	
Oil temperature	**-20°C +80°C**	*-4°F +176°F*
Ambient temperature	**-20°C +50°C**	*-4°F +122°F*

It is necessary a filter use to protect the valve (advised filtration 15 µm)



Technical characteristics

Type	A	*Max flow* l/min-*USgpm*	*Max pressure* bar/*PSI*	B	C	D	E	F	G	H	L	M	N	S	*Approx weight* kg/*lb*
VBCL140	**BSPP 1/4**	**30** *(7.9)*	**350** *(5075)*	**29** *(1.14)*	**49** *(1.93)*	**23** *(0.91)*	**58** *(2.28)*	**51** *(2,01)*	**81** *(3.19)*	**66** *(2.60)*	**95** *(3.74)*	**6,5** *(0.26)*	**36** *(1.42)*	**6,5** *(0.26)*	**0,98** *(2.16)*
VBCL380	**BSPP 3/8**	**40** *(10.6)*													**0,92** *(2.02)*
VBCL120	**BSPP 1/2**	**60** *(15.9)*			**59** *(2.32)*	**21** *(0.83)*	**63** *(2.48)*		**84** *(3.31)*	**67,5** *(2.66)*	**100** *(3.94)*	**9,5** *(0.37)*	**40** *(1.57)*		**1,09** *(2.40)*