



**DIRECTIONAL CONTROL VALVE
SERIES CV 110**



nimco
hydraulic systems



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The CV 110 open valve is a parallel circuit valve which is designed to operate with a fixed pump in open center hydraulic systems up to pressures of 320 bar (4600 psi) and flow rates of up to 50 l/min (13 USgpm).

The CV 110 on demand LS version is a valve which is designed to operate with a variable pump and in closed center systems up to a pressure of 320 bar (4600 psi) and flow rates of up to 50 l/min (13 USGpm).

The CV 110 valve series offers the OEM the selection of a number of spools for optimal spool control at any load as well as a wide range of spool controls for different applications.

Some of the CV 110's main advantages are :

- Available from 1 to 6 sections as a monoblock valve
- Main relief valve
- Load check valves for each section
- Open & closed center option
- Direct acting relief valve for quick response time
- Power Beyond capability
- Exceptionally low spool leakage, less than 0.12 in³ (2 cm³) /min at 46 cSt and 100 bar (1500 psi) and 40°C upon request
- Float, regenerative and specially tuned spools
- Full range of spool controls : joystick, pneumatic, hydraulic, electro-hydraulic proportional EHP and direct-acting solenoid (12VDC & 24VDC)

BSP and SAE threads are standard and the following threads can be supplied upon request :

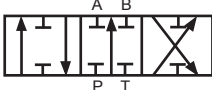
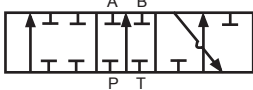

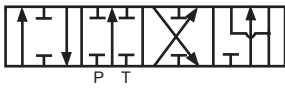



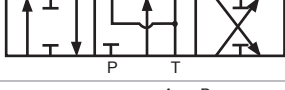


- Metric
- NPTF

Max pressure setting	bar	psi
Main relief valve	320	4600
Tank Line	10	145
Flow rates	l/min	USgpm
Max flow A/B	50	13
Temperature range	°C	°F
Standard seals	-40 to +80	-40 to +176
Spool leakage at	cm³/min	inch³/min
100 bar (1450 psi) and 46mm ² /s (cSt) 216 SSU viscosity A and B port	2	0.12
Filtration		
Contamination level equal to or better than	19/16 according to ISO 4406	NAS 1638-class 10
Viscosity	mm²/s (cSt)	SSU
Recommended operating viscosity range	10-400	47 - 1875
Start viscosity up to	1000	4687
Weight	kg	lbs
CV 111	3,2	7,1
CV 113	6,6	14,6
CV 114	8,3	18,3
CV 115	10,0	22,0
CV 116	11,7	25,7
Operating force required for spool movement	N	lbf
Spring centered	130	29
Detent in	230	52
Detent out	200	45
Number of work sections	1 to 6	

STANDARD THREADS

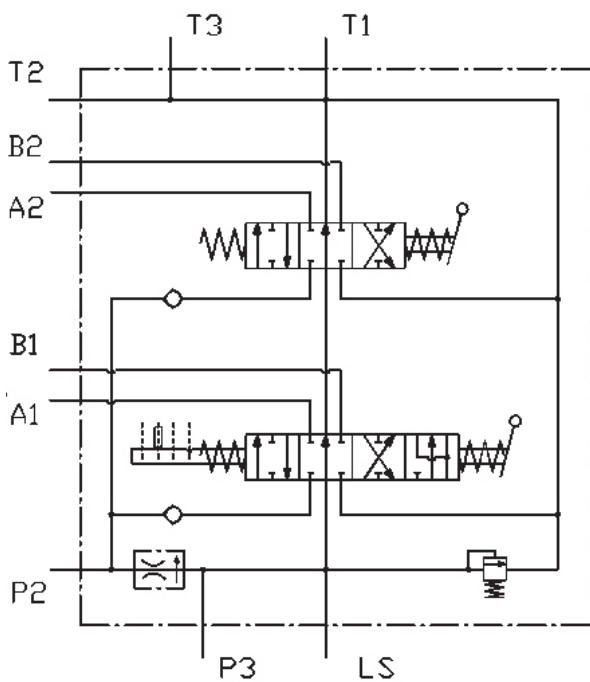
	Port sizes	BSP	UNF	Metric
Inlet	P1	G 3/8	3/4-16 (SAE 8)	M18x1.5
	P2	G 3/8	3/4-16 (SAE 8)	M18x1.5
	P3	G 3/8	3/4-16 (SAE 8)	M18x1.5
Cylinder ports	A-B	G 3/8	9/16-18 (SAE 6)	M16x1.5
Tank	T1	G 1/2	7/8-14 (SAE 10)	M22x1.5
	T1	G 3/8	3/4-16 (SAE 8)	M18x1.5
	T2	G 3/8	3/4-16 (SAE 8)	M18x1.5

SPOOL FOR OPEN CENTERED VALVES

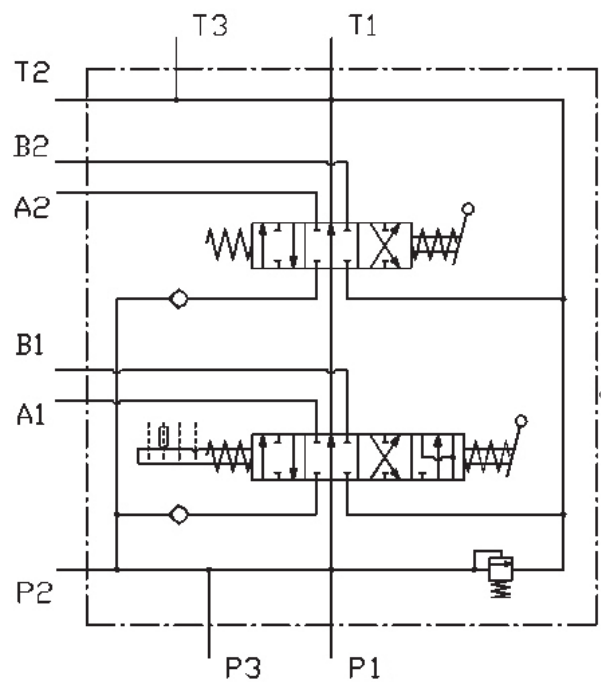
Part No.	Spool type	Type	Symbol	SP-No.
10709-3B	1S	DA with metering		SP-10709-3B
10573-3B	2SA	Single acting A port with metering		SP-10573-3B
10574-3B	2XA	Single acting A port		SP-10574-3B
10309-3B	3X	DA + float		SP-10309-3B
10308-3B	3S	DA + float with metering		SP-10308-3B
10307-3B	3R	DA + float with metering		SP-10307-3B
10575-3B	4X	Motor spool		SP-10575-3B
10576-3B	4S	Motor spool with metering		SP-10576-3B
10310-3B	8R	DA + regen with metering		SP-10310-3B
10311-3B	8S	DA + regen with metering		SP-10311-3B

SPOOLS FOR LOAD SENSING OPTION

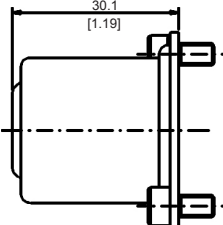
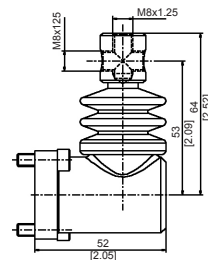
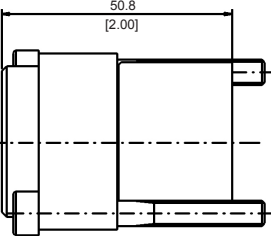
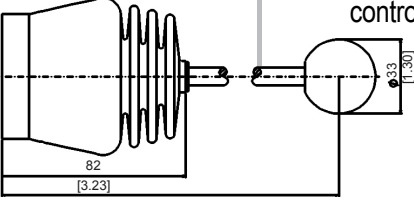
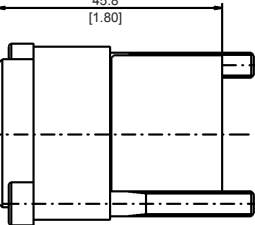
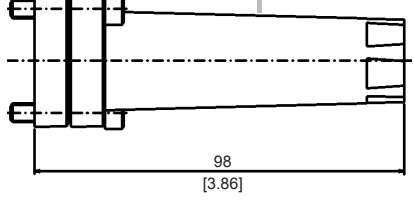
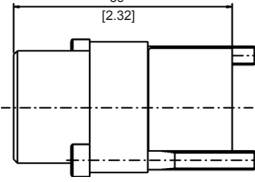
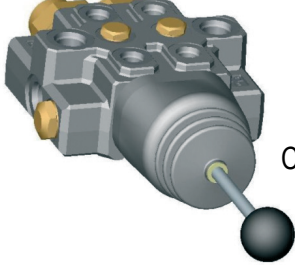
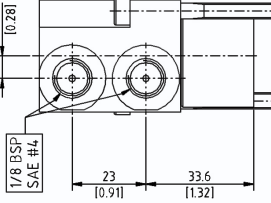
Part No.	Spool type	Type	Symbol	SP-No.
11590-3B	1SLS	DA with metering		SP-11590-3B
10577-3B	2RALS	Single acting with metering		SP-10577-3B
10578-3B	2SALS	Single acting with metering		SP-10578-3B
10548-3B	3RLS	DA + float with metering		SP-10548-3B
10549-3B	3SLS	DA + float with metering		SP-10549-3B
10551-3B	8SLS	DA + float with metering		SP-10551-3B
10550-3B	8RLS	DA + float with metering		SP-10550-3B

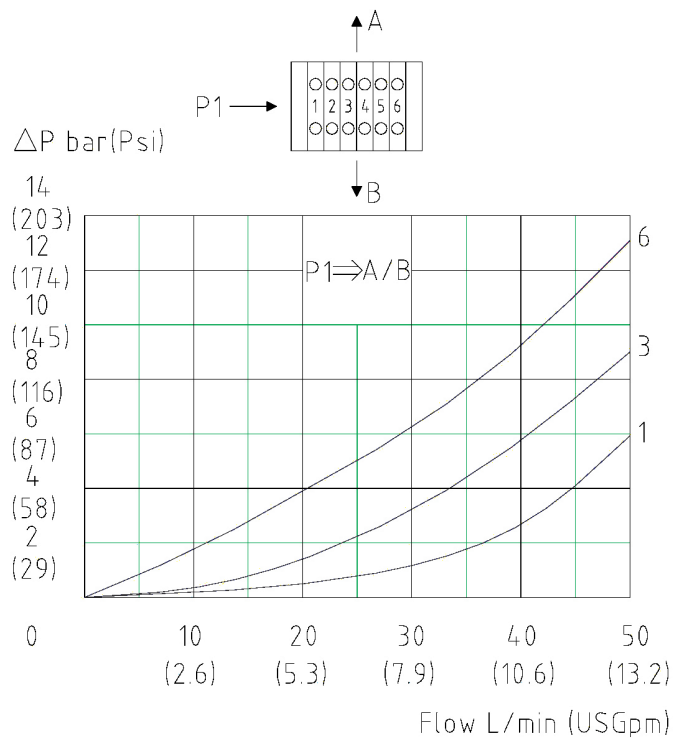
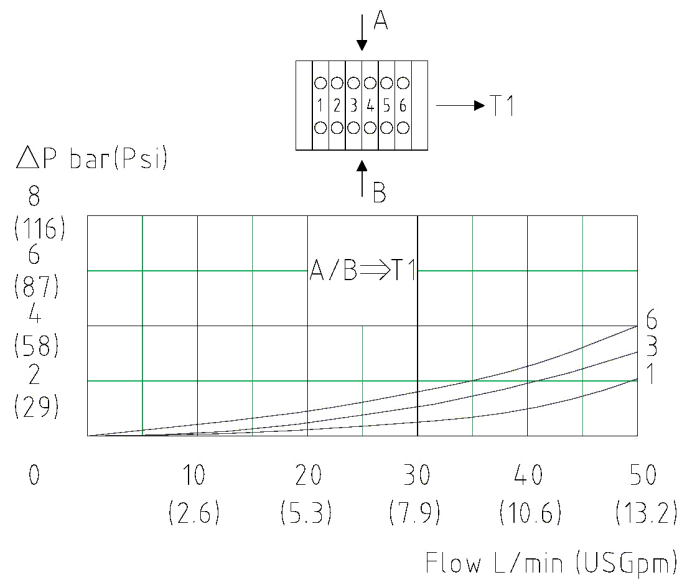
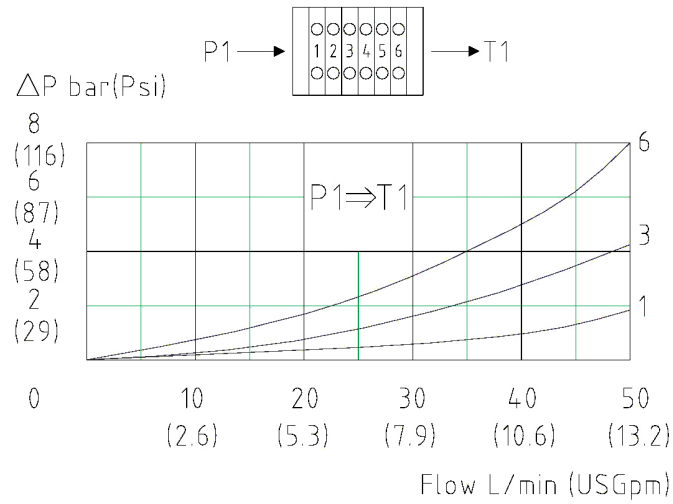


Closed Center LS

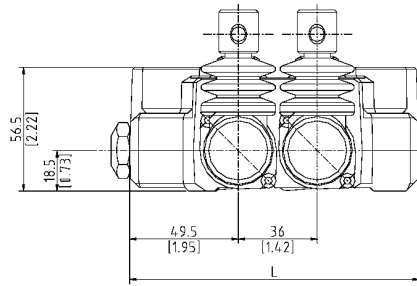


Open Center

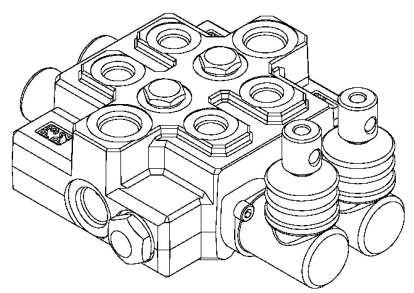
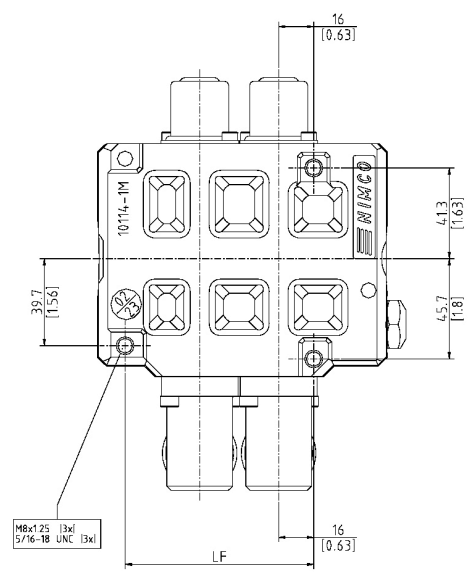
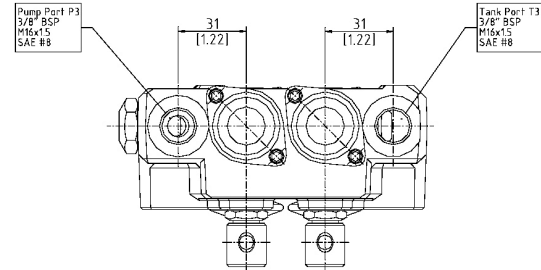
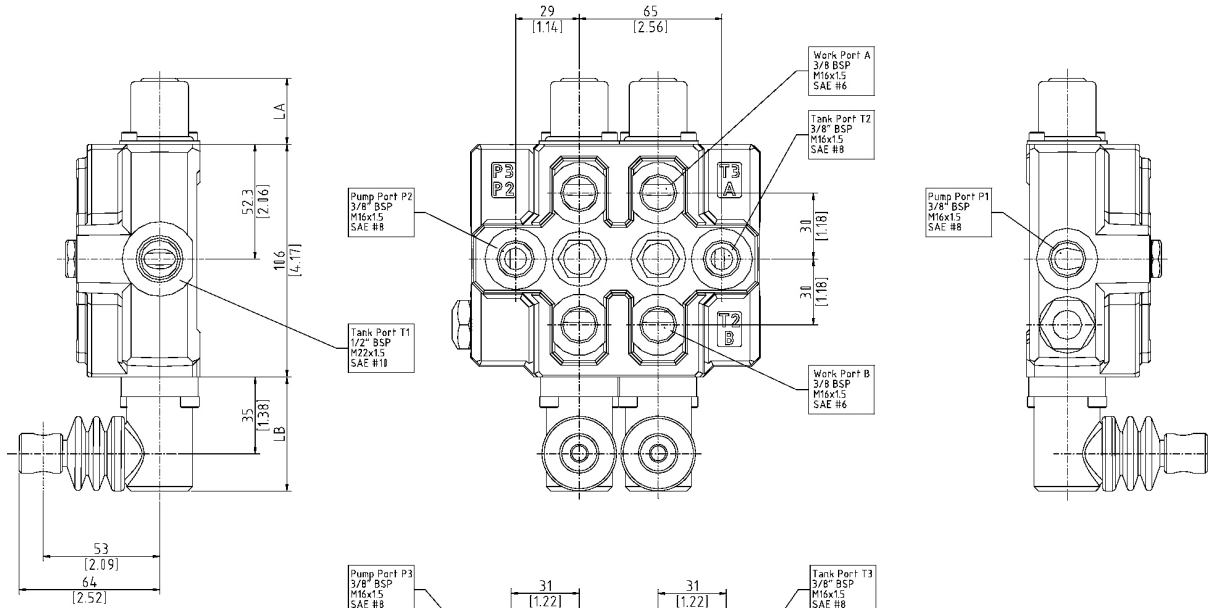
Code	Type	A-side	B-side	Type	Code
9	Spring centered.			Hand lever. Encased	S5
10	Detent in pos.1,2 and 3				
11	Spring centered. Detent in pos.4			Mechanical joystick for dual-spool control.	S6
12	Spring centered. Detent in pos. 3 and 4				
14	Spring centered. Detent in pos.3				
13	Spring centered. Detent in pos.2			Wire control	W
18	Spring centered. Pressure point in pos.5				
5	Spring centered. Detent in position 2 and 4		 <p>Cylinder ports facing up</p>		
P	Pneumatic on/off				
PP	Pneumatic proportional				
EP	Electropneumatic on/off. 12V/270mA alt. 24V/150mA. Hirschmann connector is standard. Other connectors are available on request.				



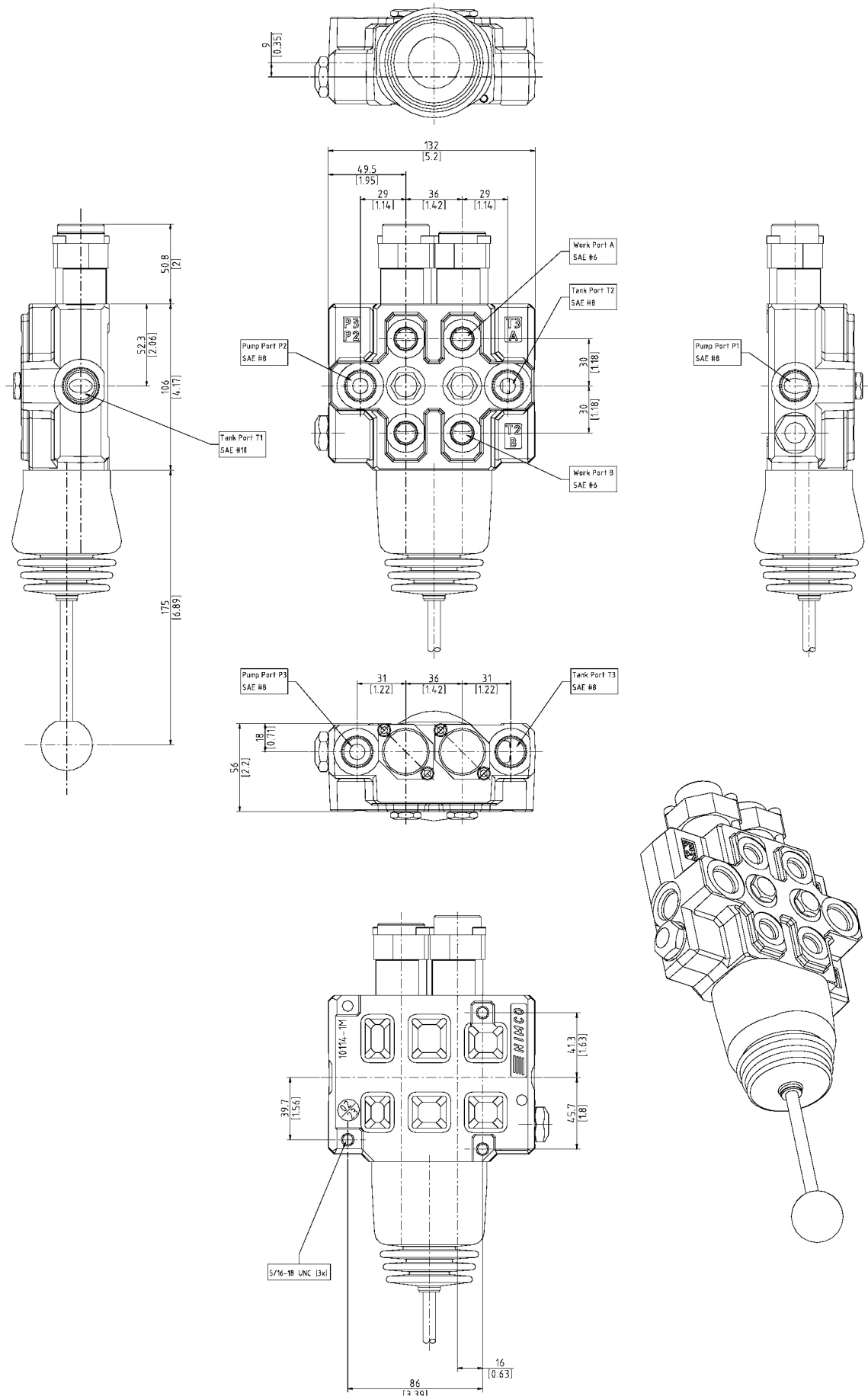
VALVE WITH ENCASED HAND LEVER (S5)



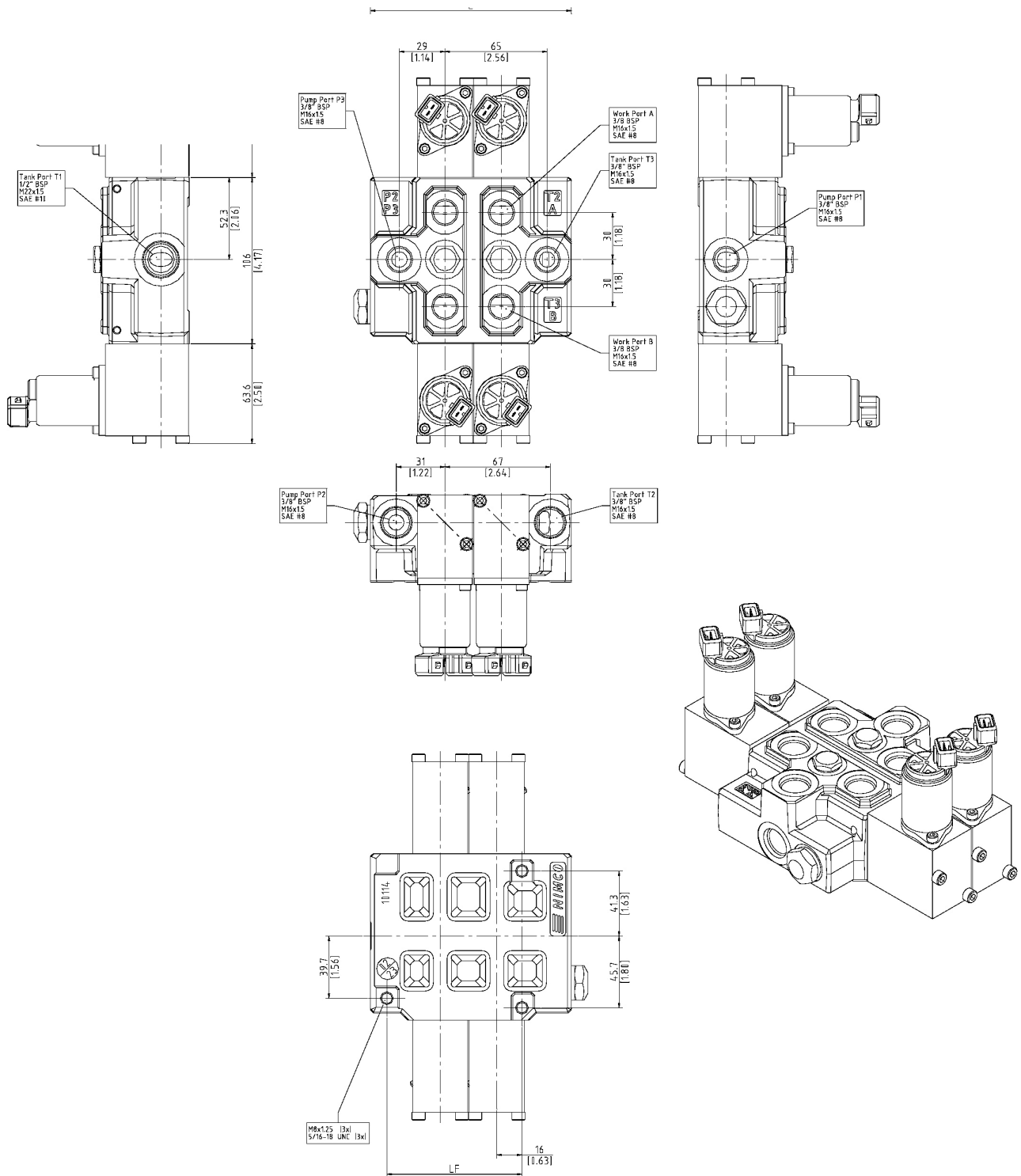
No of sect	L		LF	
	mm	inch	mm	inch
1	96	3.78	50	1.97
2	132	5.20	86	3.39
3	168	6.61	122	4.80
4	204	8.03	158	6.22
5	240	9.45	194	7.64



VALVE WITH MECHANICAL JOYSTICK (JS)

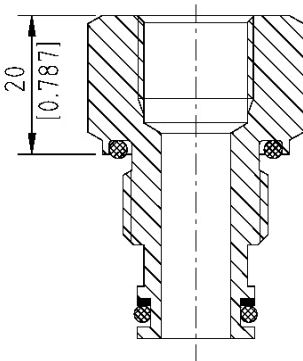


VALVE WITH ELECTRO-HYDRAULIC PROPORTIONAL SPOOL CONTROL

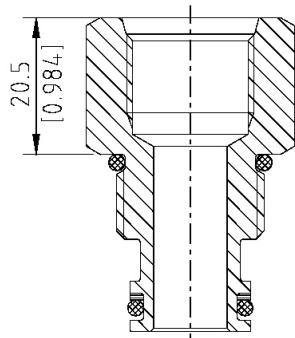


High pressure carry-over adapter, should be installed in the T1-port when two or more valves are used in the same circuit. T2 must then be connected to Tank

Part No.10534-4S



Part No.10536-4S



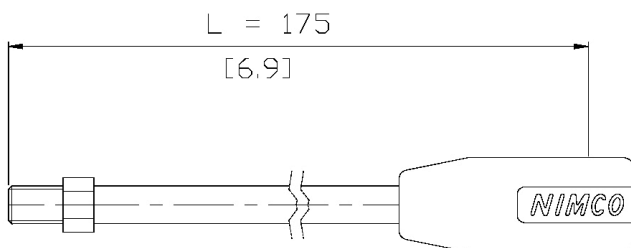
Tank port reduction adapter, can be installed in the T1-port when the thread size is to be reduced.

Type BSP 1/2" to BSP 3/8"
Part No.10348-4S

SAE # 10 to SAE # 8
Part No.10349-4S

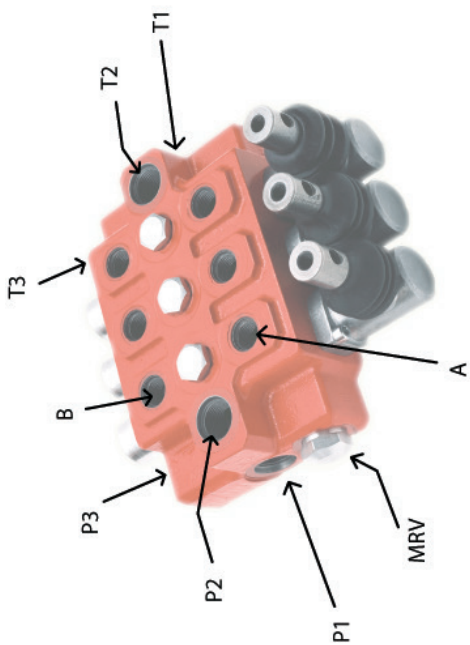
Lever

Standard Lever :

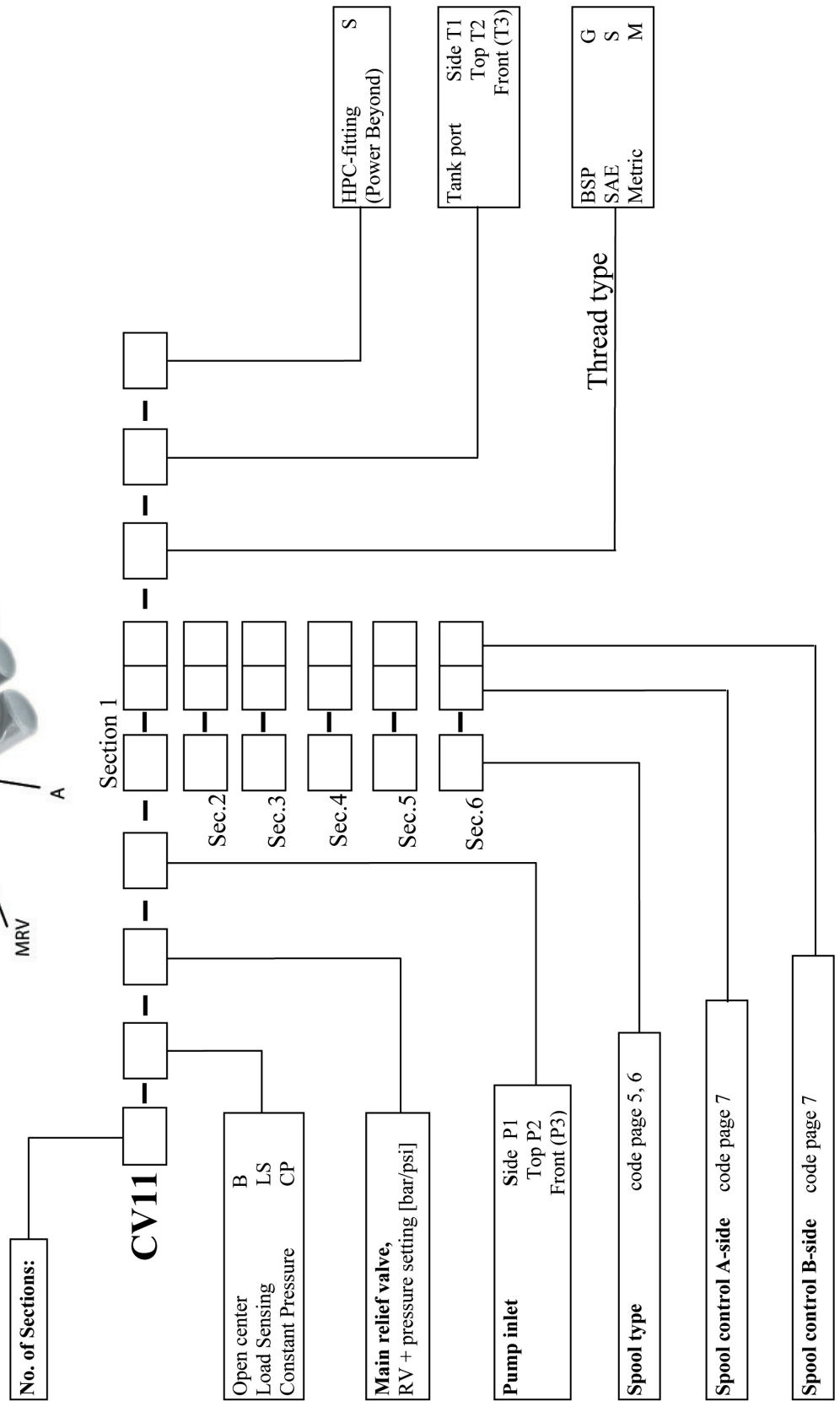


Part No. 10347-4S

Other lengths on request.



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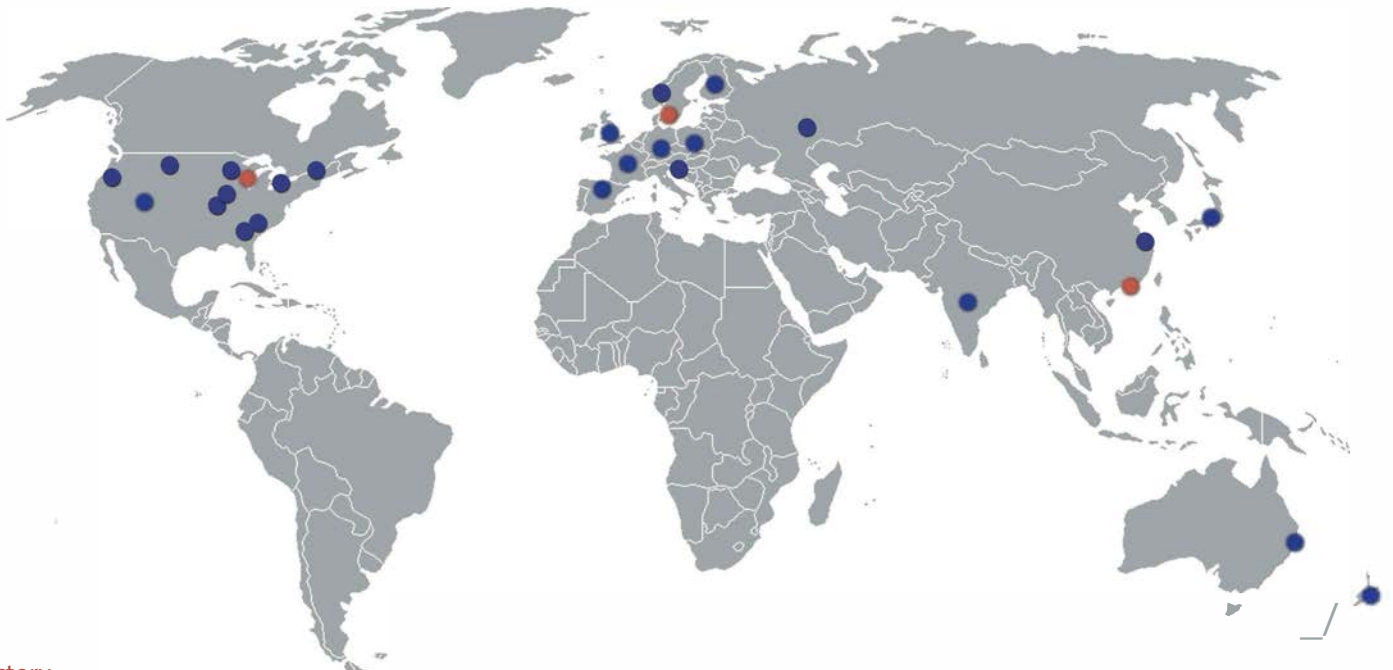
hydraulic systems

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