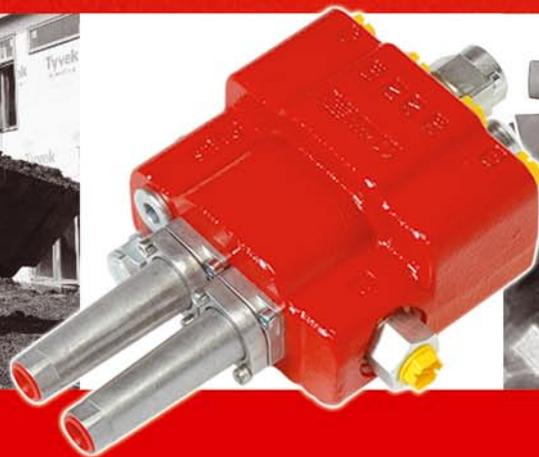




DIRECTIONAL CONTROL VALVE SERIES CV 152





Page 3	General Information
Page 4	Technical data
Page 5	Performance Curves
Page 6	Main Relief Valve
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Page 10-12	CV 152 with Joystick
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Page 14	Spool Control A-Side
Page 15	Spool Control B-Side
Page 16	CV 152 with Quick-coupling



The CV 152 is a two spool mono block valve specially designed for small and mid size loader applications. It is designed for both open center and load sensing hydraulic systems. The open center version can also be converted to a constant pressure system.

The valve can also be serial connected to another valve by using a high pressure carry over adaptor (Power Beyond Sleeve).

The CV 152 can be equipped with standard hand levers, cable controls, or a mechanical joystick fitted directly onto the valve.

The valve can be ordered with cylinder port threads up to G ½" or SAE 10 and Pump and Tank ports up to G ½" and SAE 10 and 12.

This loader valve is designed for a maximum working pressure of 320 bar (4600 psi), with a recommended flow of 5-70 l/min (1.3-18 US gpm).

The CV 152 is designed to offer its user optimized characteristics in regards to load control, safety and minimum internal leakage.

This valve includes the following as standard features:

- Load Check Valves on each Spool.
- Exceptionally Low Workport Leakage (less than 2.0 cc/min, 0.12 in³/min at 46 cSt)
- Direct-acting Main Relief Valve for fast response.
- Double Acting Spools.
- Internal O-rings to withstand full system back-pressure.

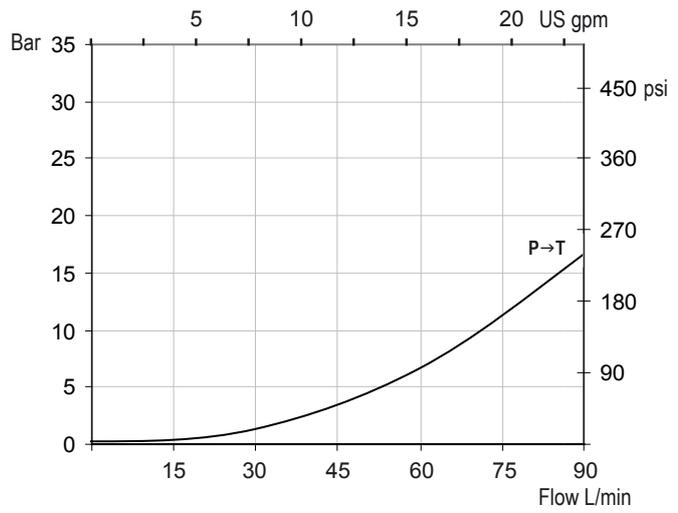
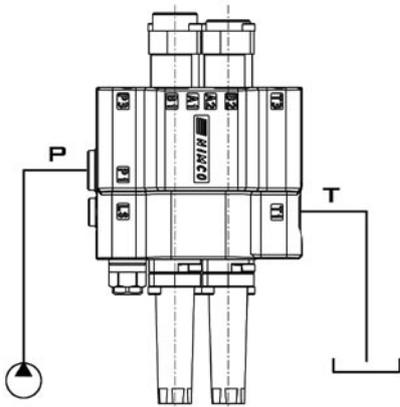
The CV 152 valve can be ordered with the following optimal features:

- Power Beyond Adaptor.
- Double Acting Spool with 4th position Float for the lowering circuit.
- Double Acting Spool with 5th position Regen Function for increased bucket speed.
- Heavy Duty Direct Acting Joystick which activates both float and regen functions simultaneously.
- Cable Control with accompanying Remote Control Joystick Unit and Cables.
- Quick Disconnect Coupling System QDC-152.

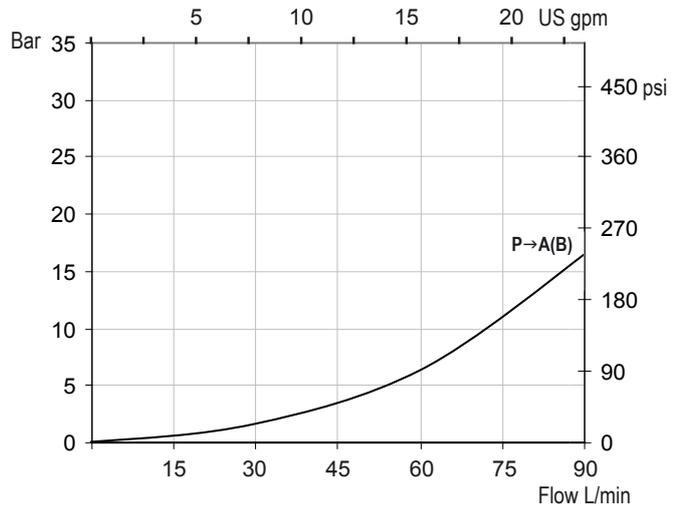
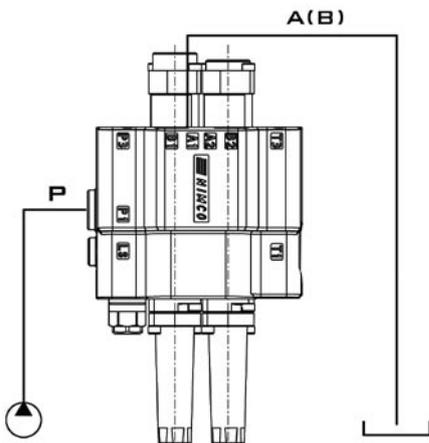
Max Pressure Setting	bar	psi
Main Relief Valve	320	4600
Max Back Pressure on the Tank Port	10	145
Flow rates	l/min	US gpm
Max Flow A/B	70	18
Temperature Range	° C	°F
Fluid Mineral Oil		
Standard seals NBR BUNA-N seals	-40 to +80	-40 to +176
FPM VITON seals	-40 to +100	-40 to 212
Internal Leakage A(B) to T	cm³/min	inch³/min
100 bar (1450 psi) and 46 mm ² /s (cSt)	2.0	0.12
Filtration		
Contamination level equal to or better than	19/16 according to ISO 4406	NAS 1638-class 10
Viscosity	mm²/s	cSt
Recommended operating Viscosity range	10-400	47 - 1875
Number of work sections	2	2

PERFORMANCE CURVES

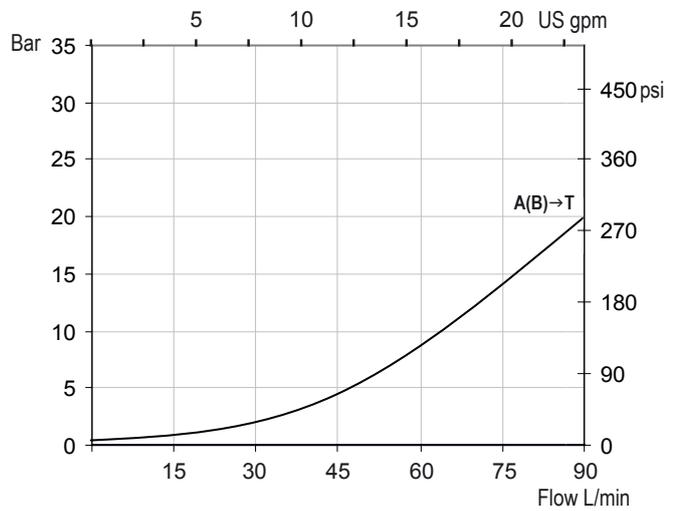
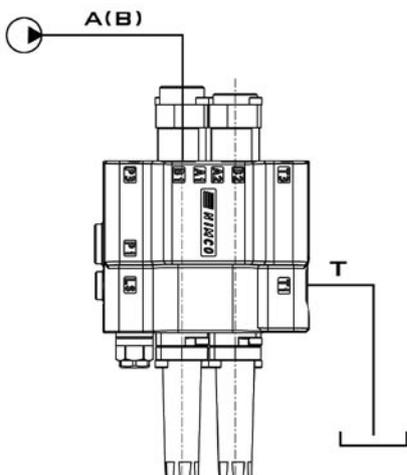
PRESSURE DROP P→T



PRESSURE DROP P→A(B)



PRESSURE DROP A(B)→T



MAIN RELIEF VALVE

ADJUSTABLE

FIXED AND SEALED

MRVXXX - A

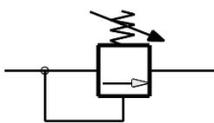
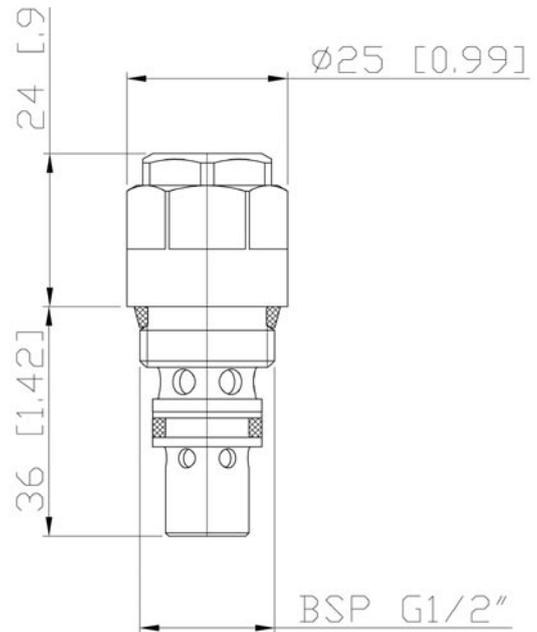
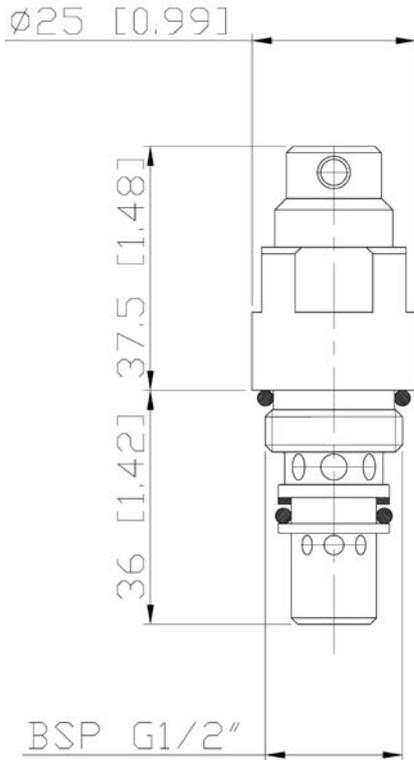
Pressure setting (bar) Adjustable

ORDERING CODE

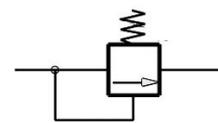
MRVXXX - F

Pressure setting (bar) Fixed

ORDERING CODE



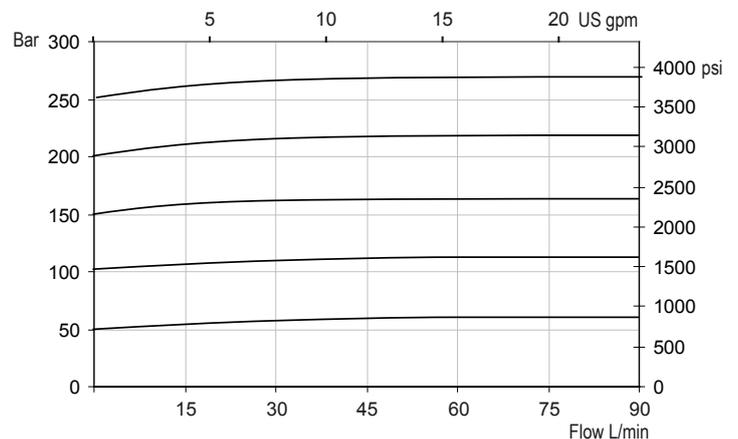
Part No. 11506-3S



Part No. 5501-4S

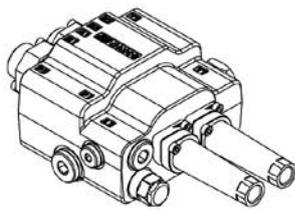
TECHNICAL DATA

Max. flow L/min.	80
Max. pressure bar	350
Weight kg	0,1
Temperature range	-40 to +95° C
Viscosity	10 - 1000 cSt
Filtration	ISO 19/15 50 μ m abs.

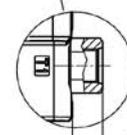
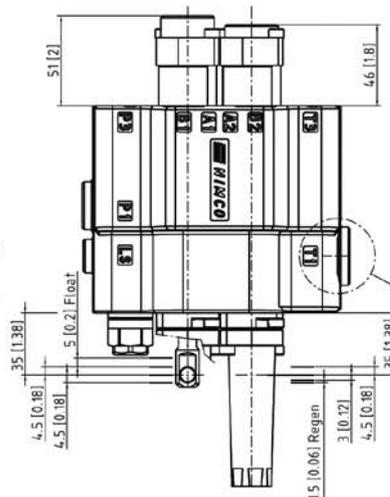
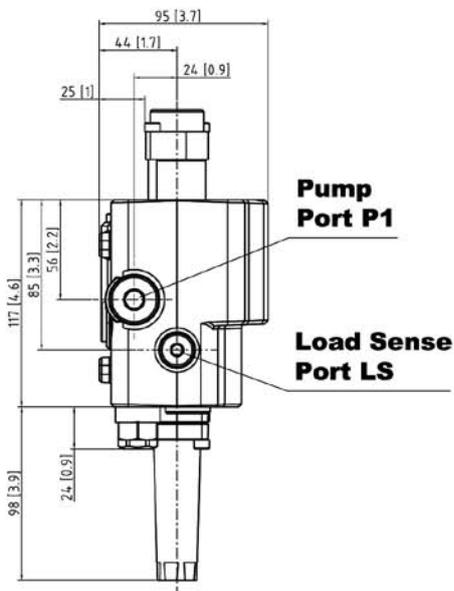
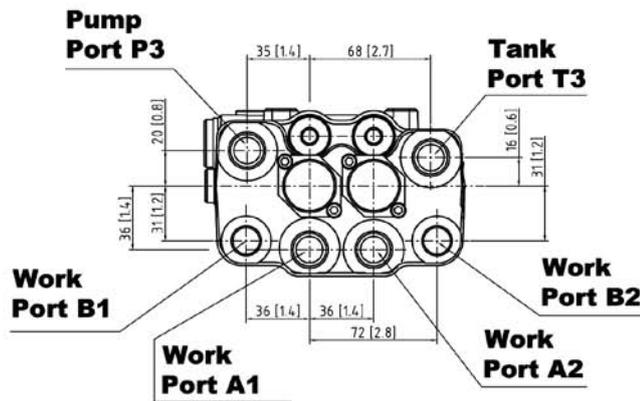


CV 152 WITH CABLE CONTROL

US VIEW SETTING

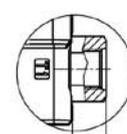


Isometric view



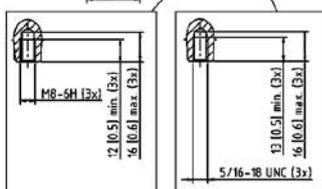
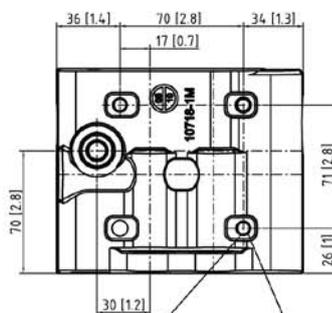
SAE 8
Part No. 10536-4S

**POWER BEYOND,
HIGH PRESSURE
CARRY OVER**



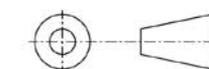
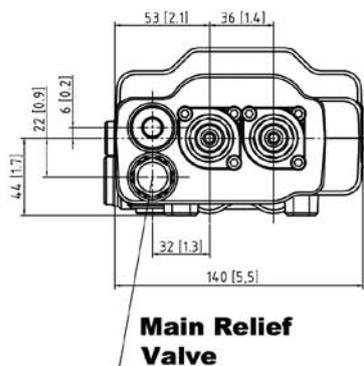
SAE 10
Part No. 11323-4S

Mounting Holes



For machined housing with BSP threads

For machined housing with SAE threads

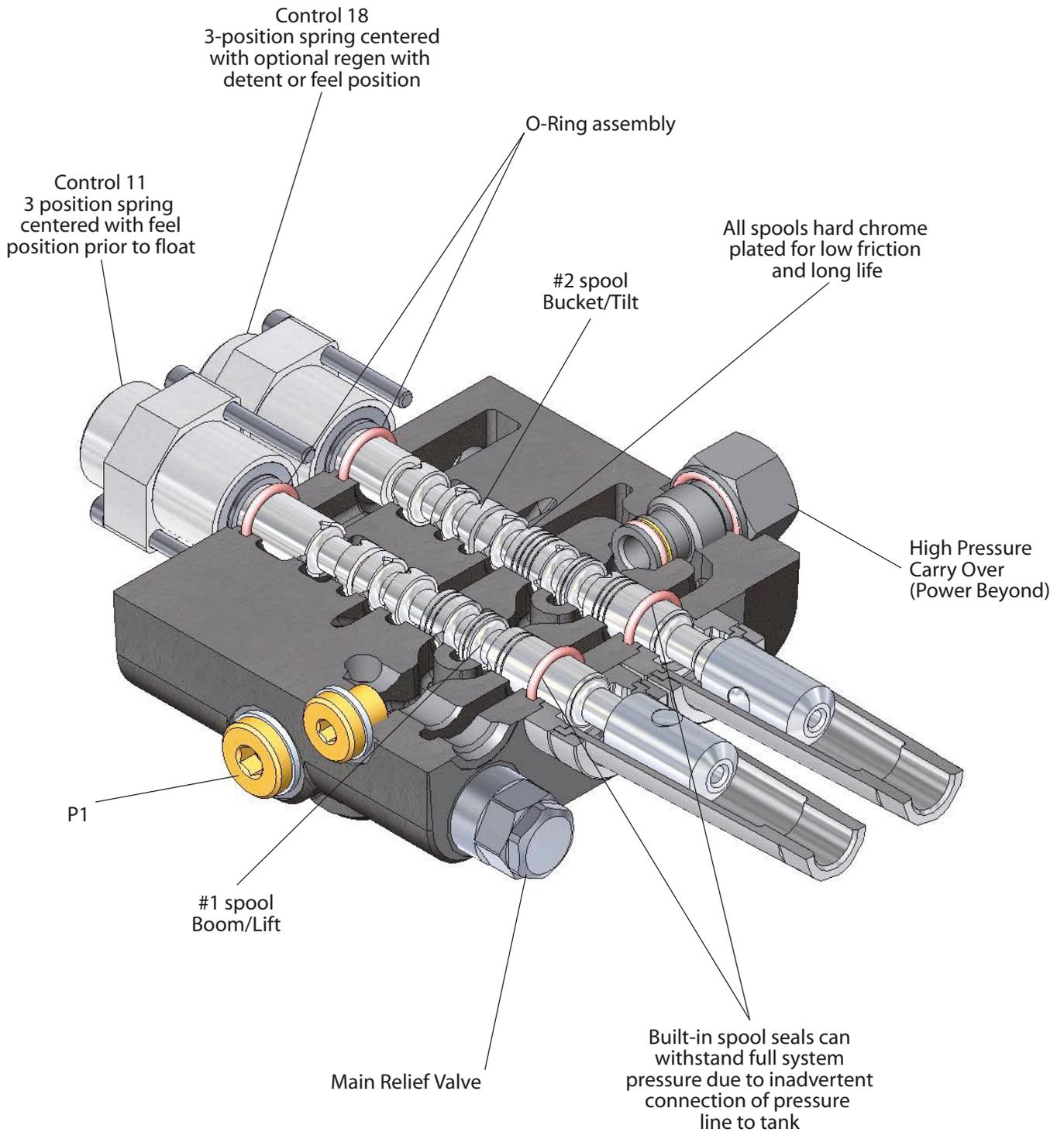


US view setting

Standard threads

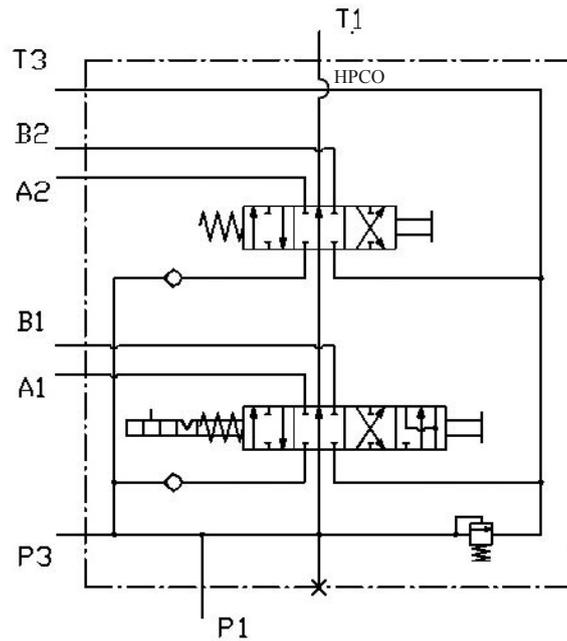
BSP (ISO 228/1), SAE (ISO 11926-1)

- Inlet ports P1, P3: G 3/8", G 1/2", SAE 8, SAE 10
- Work ports A and B: G 3/8", G 1/2", SAE 8, SAE 10
- Outlet port T3: G 3/8", G 1/2", SAE 8, SAE 10
- Outlet port T1: G 1/2", G 3/4", SAE 10, SAE 12
- HPCO in T1 port: G 3/8", G 1/2", SAE 8, SAE 10



CV 152 WITH CABLE CONTROL

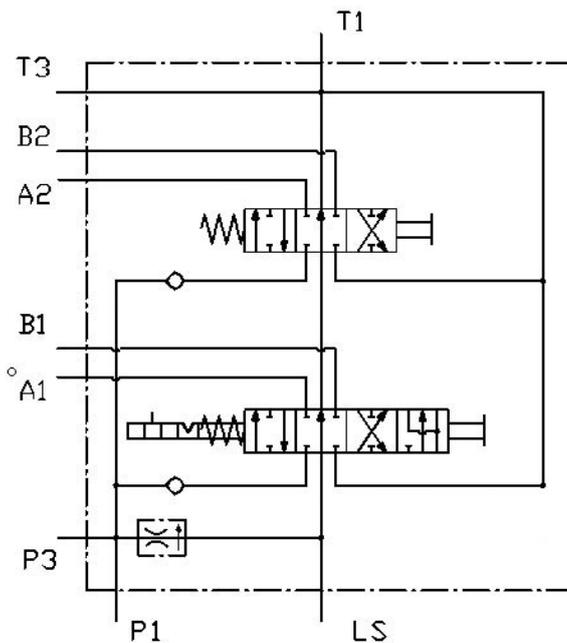
CV152B-RV150-P3-3T.11.3W- 3T.9.3W-S-T3-G



OPEN CENTER

CV 152LS WITH CABLE CONTROL

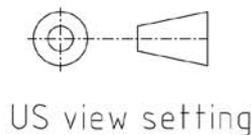
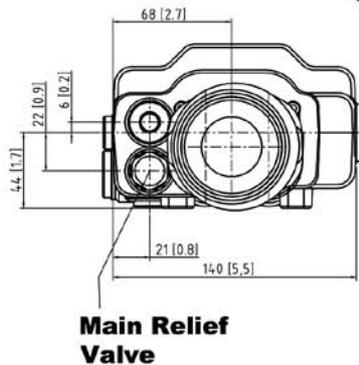
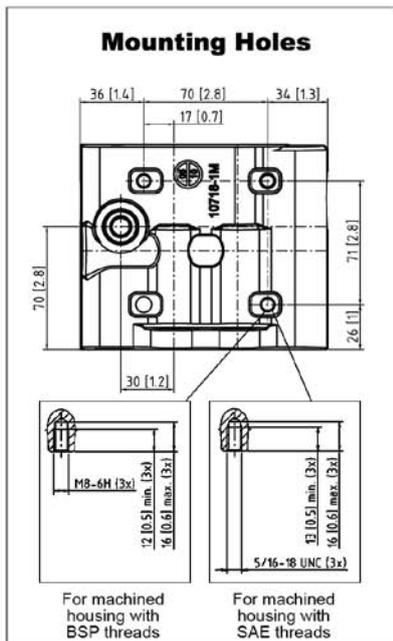
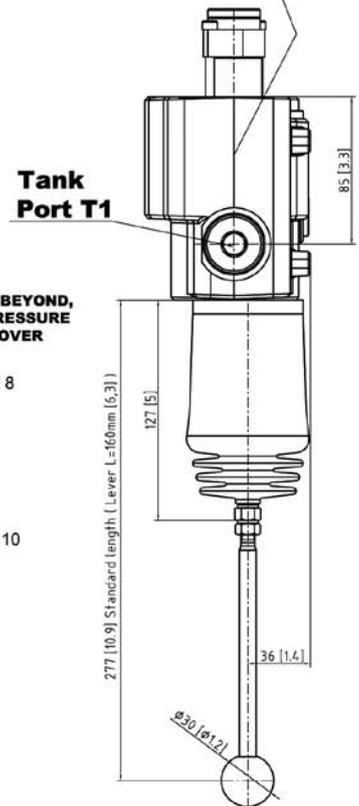
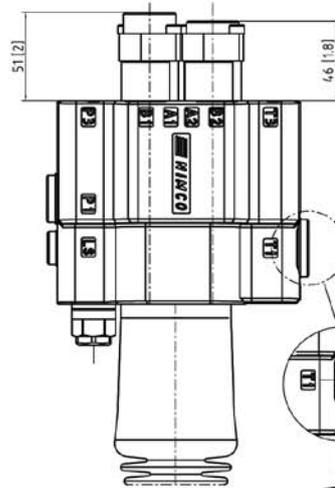
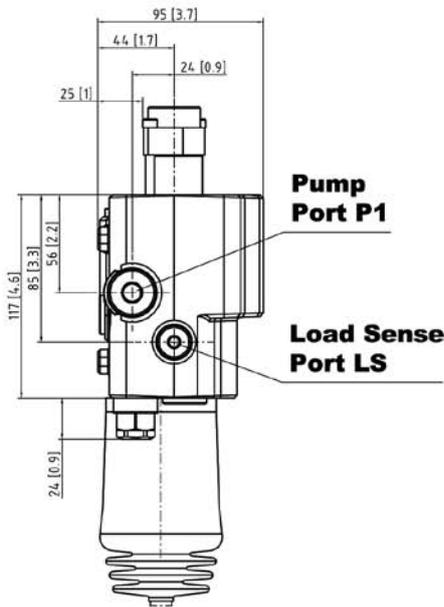
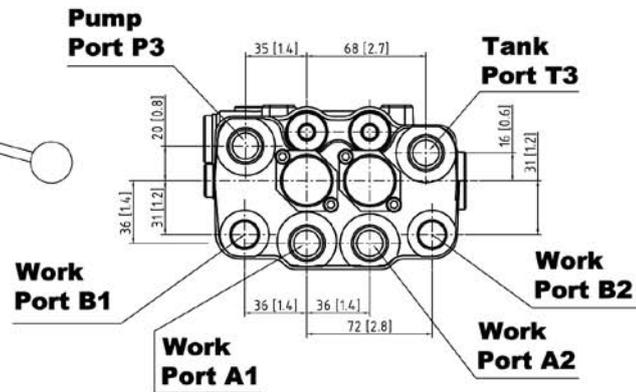
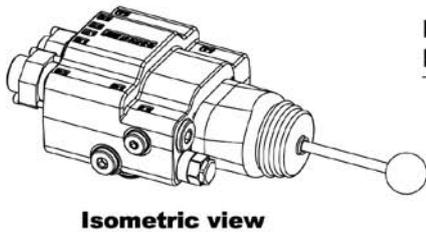
CV152LS-P3-3TLS.11.3W-3TLS.9.3W-T3-G



CLOSED CENTER

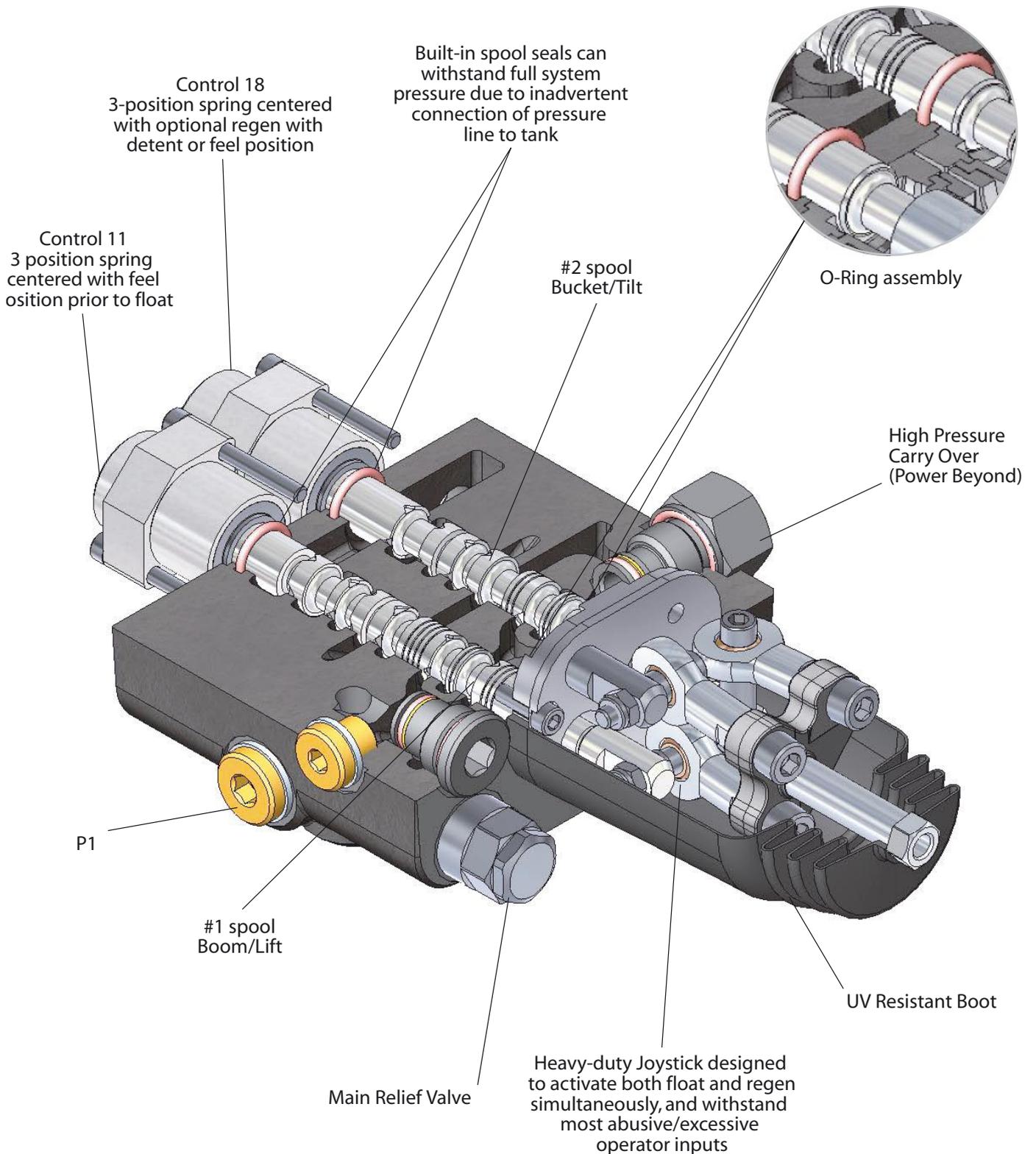
CV152 WITH JOYSTICK

US VIEW SETTING



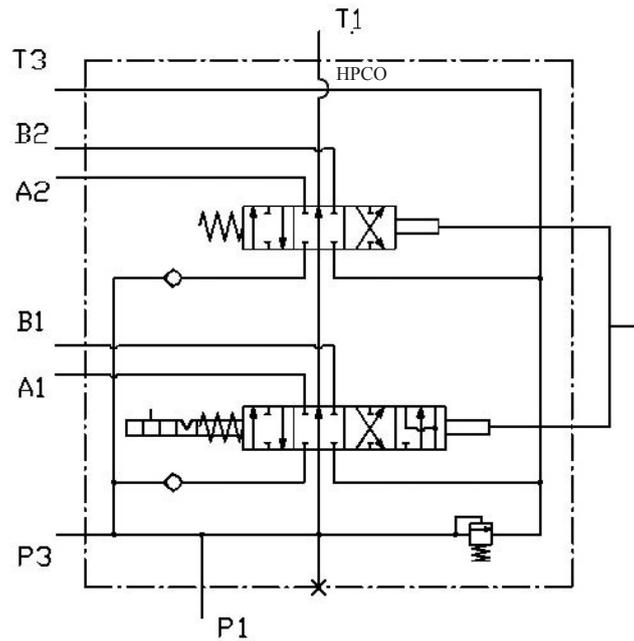
Standard threads
 BSP (ISO 228/1), SAE (ISO 11926-1)

Inlet ports P1, P3:	G 3/8", G 1/2", SAE 8, SAE 10
Work ports A and B:	G 3/8", G 1/2", SAE 8, SAE 10
Outlet port T3:	G 3/8", G 1/2", SAE 8, SAE 10
Outlet port T1:	G 1/2", G 3/4", SAE 10, SAE 12
HPCO in T1 port:	G 3/8", G 1/2", SAE 8, SAE 10



CV 152 WITH JOYSTICK

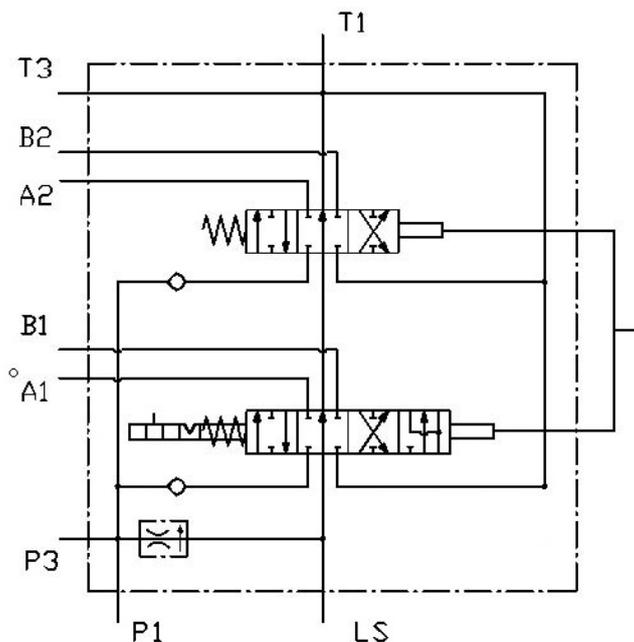
CV152B-RV150-P3-3T.11.S6-3T.9.S6-S-T3-G



OPEN CENTER

CV 152LS WITH JOYSTICK

CV152LS-P3-3TLS.11.S6-3TLS.9.S6-T3-G



CLOSED CENTER

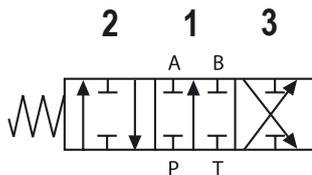
SPOOL OPTIONS

SPOOL FOR OPEN CENTERED VALVE

GENERAL SPOOL FUNCTION POSITIONS



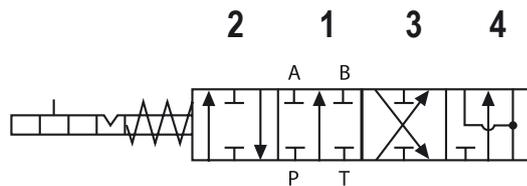
DOUBLE ACTING



When spool 3T is used in combination with spool control 9 then the allowed travel of the spool is limited to 3 positions and the spool operates as a standard double acting function.

Order code: 3T

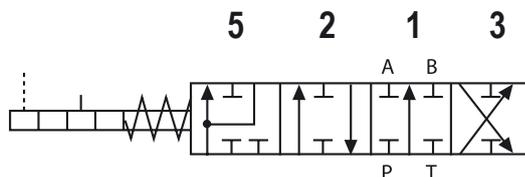
DOUBLE ACTING WITH 4TH POSITION FLOAT (DETENT)



When spool 3T is used in combination with spool control 11 (spring centered and 4th position Float) then the spool travels from position 1 to position 3 and also into 4th position Float which is detented.

Order code: 3T

DOUBLE ACTING WITH REGEN FUNCTION (PRESSURE POINT)

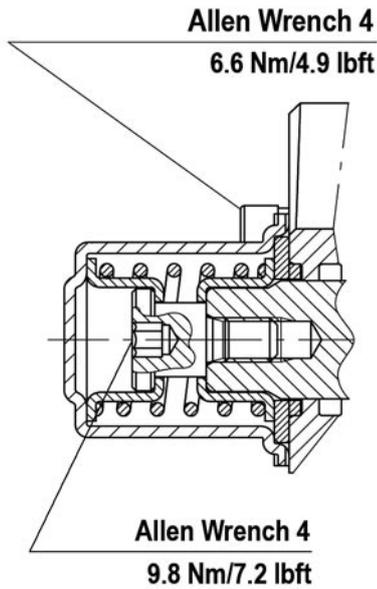


Spool 8T has an integrated regen function and can be used in combination with control 18 which has a feel position prior to spool position 5 indicating that the regen position has been reached.

Order code: 8T

SPOOL CONTROLS A-SIDE

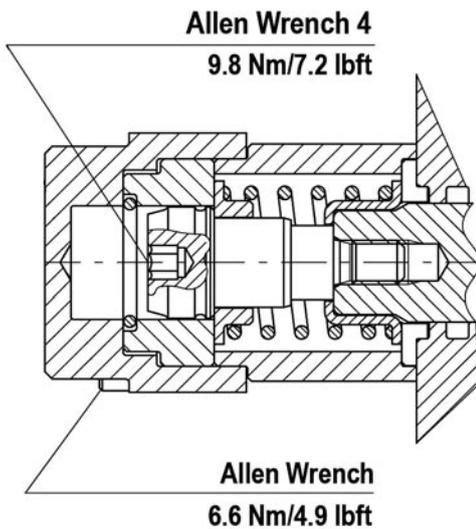
SPOOL CONTROL 9, SPRING CENTERED



Part No. 10724-4S

Order code: 9

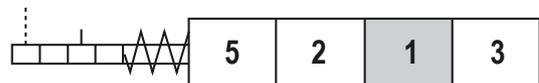
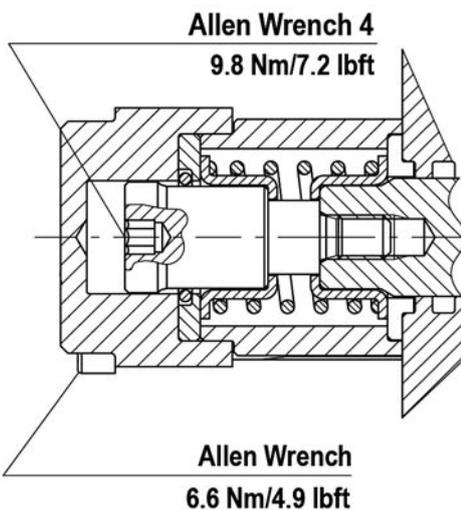
SPOOL CONTROL 11, SPRING CENTERED AND DETENT IN POSITION 4



Part No. 10725-4S

Order code: 11

SPOOL CONTROL 18, SPRING CENTERED AND PRESSURE POINT IN POSITION 5

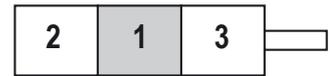
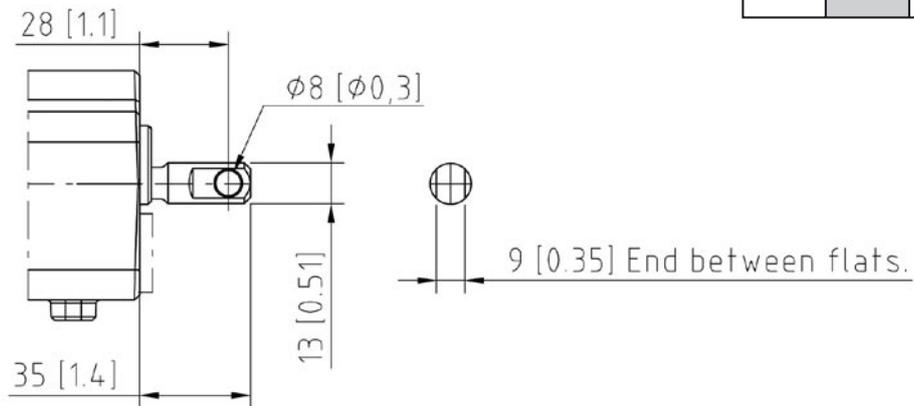


Part No. 10726-4S

Order code: 18

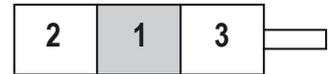
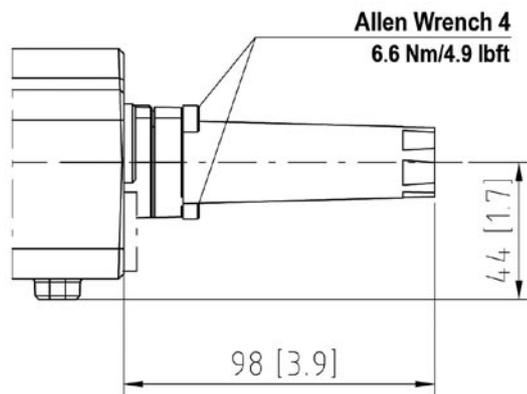
SPOOL CONTROLS B-SIDE

OPEN END SPOOL



Order code:

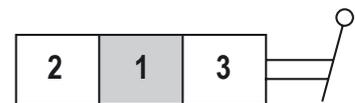
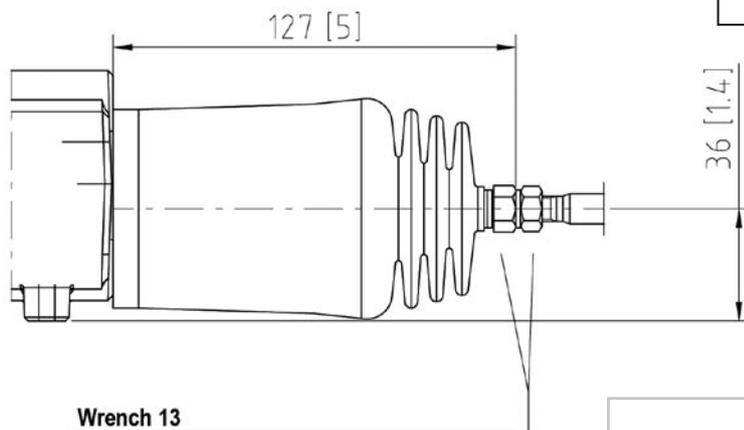
CABLE CONTROL



Part No. 10733-4S

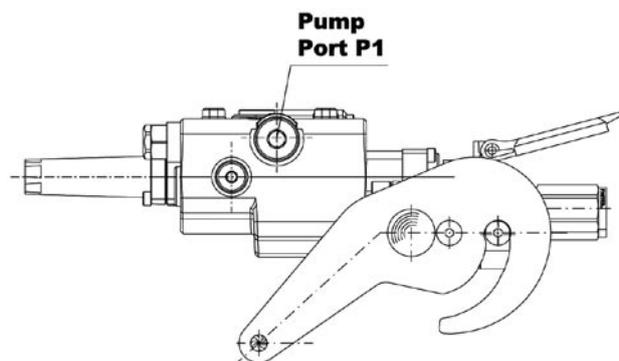
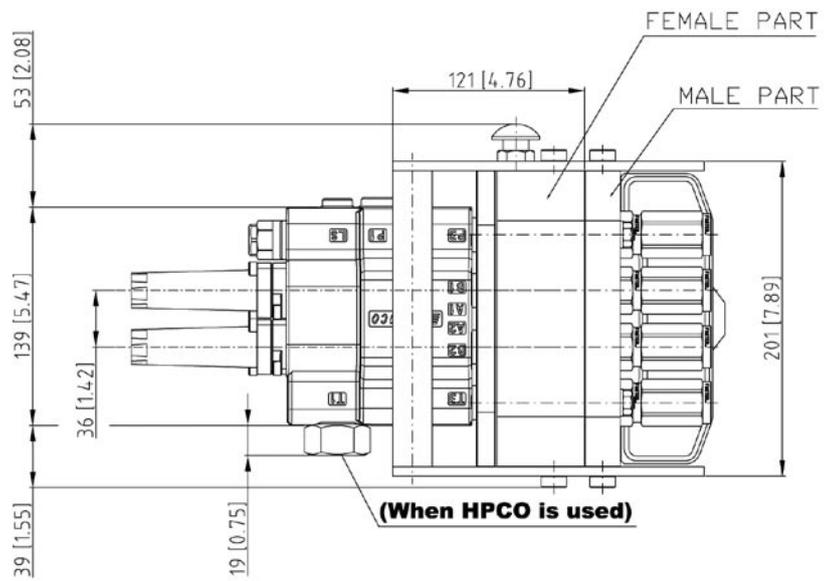
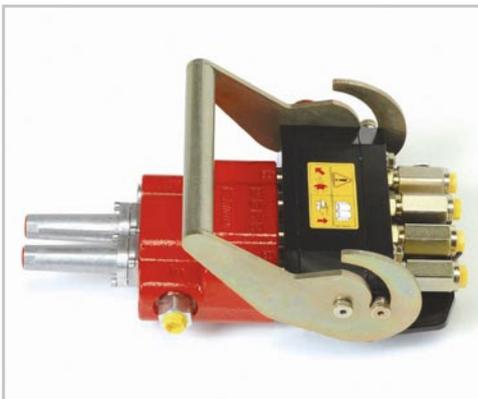
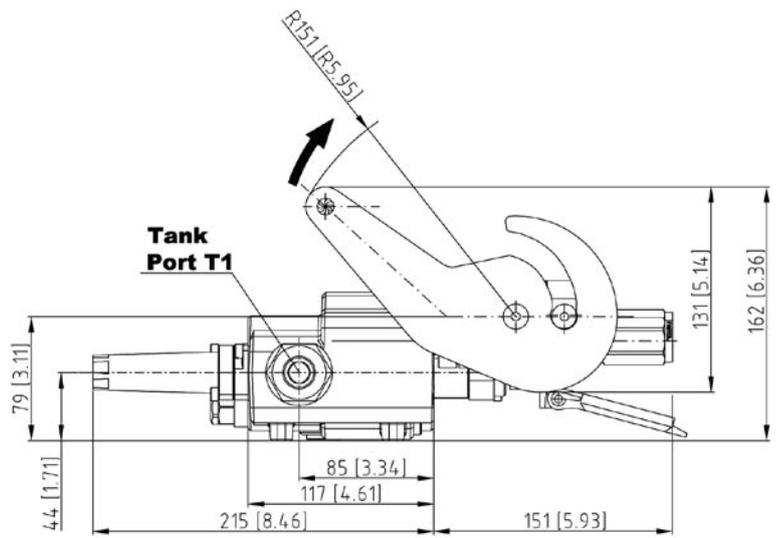
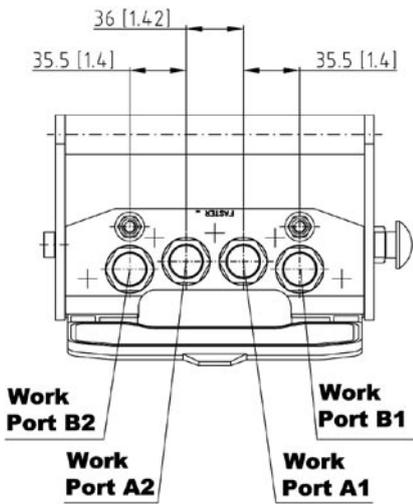
Order code: W

JOYSTICK, LEFT HAND AND RIGHT HAND VERSIONS

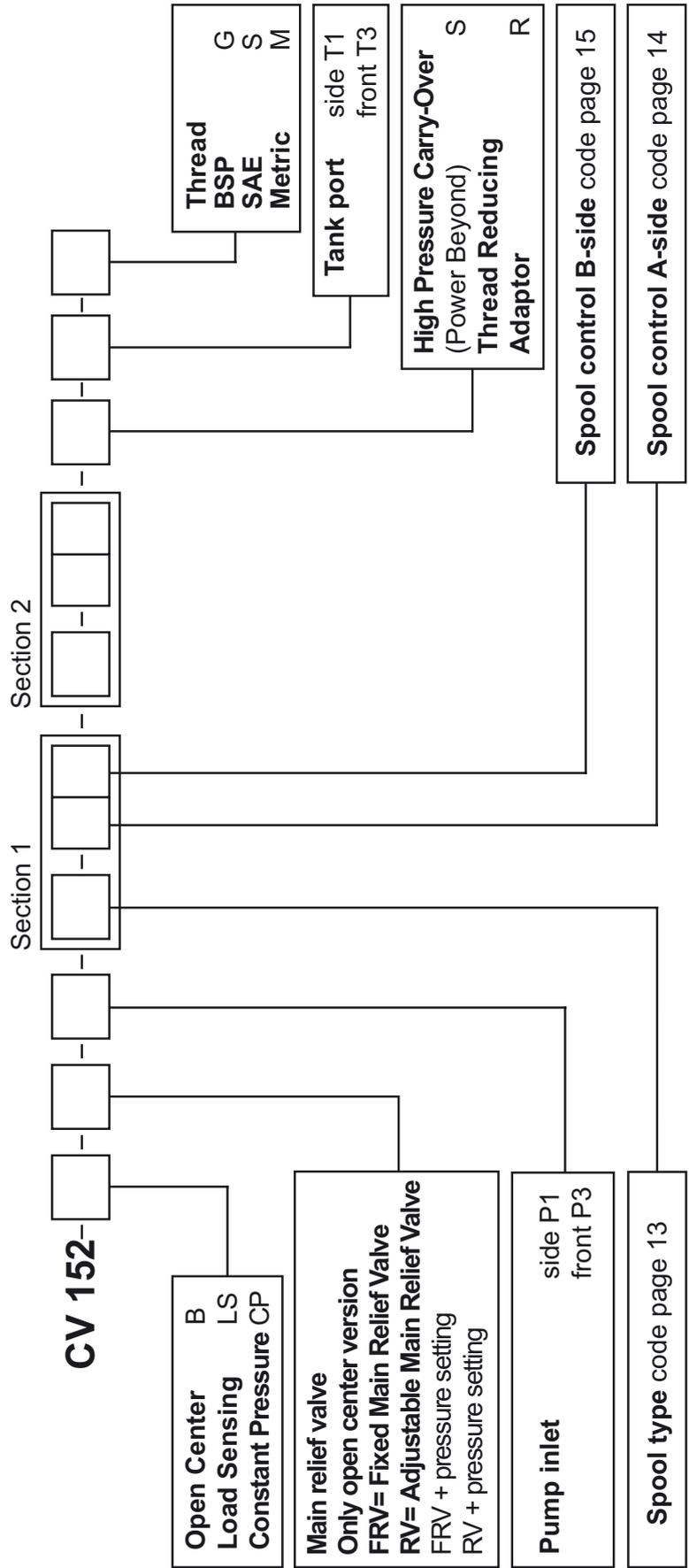
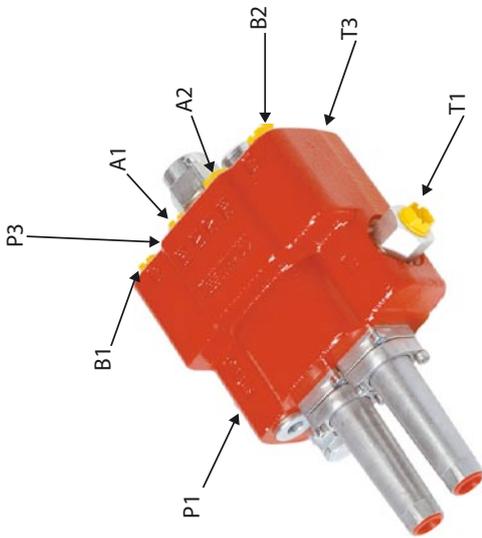


Order code: S6

CV152 WITH QUICK-COUPLING



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hydraulic systems

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- Factory
- Distributor