

EXCAVATOR VALVING & ACCESSORIES

New Zealand



Excavator Valving & Accessories

Contents

- 1 Foreword
- 2 Introduction

Hydraulic Pilot Valves

- 3 Pilot Valve for Auxiliary Spool - HS9501
- 4 Two Stage Pilot Control of Main Spool - HS9515
- 5 Proportional Pilot Control - HS9525
- 6 Joystick Pattern Changer - HS9526/HS9527
- 7 Proportional Hydraulic Controllers, Foot Operated – SVM500 Series
- 8 Proportional Hydraulic Controllers, Single Axis, Stackable, Hand Operated – SVM100 Series
- 9 Proportional Hydraulic Controllers, Dual Axis, Single Lever Hand Operated – SVM400 Series
- 10 Multi-Function Ergonomic Handles

Quickhitch Valves

- 11 Quickhitch Valve – Single Acting - HS9503
- 12 Quickhitch Valve – Double Acting - HS9501

Quickhitch Combination Valves

- 13 Quickhitch, Tilt (Low Flow) & Thumb Valve with Relief Protection - HS9507
- 14 Quickhitch & Tilt Valve with 5-Port Relief (Low Flow) - HS9508
- 15 Quickhitch & Tilt Valve with 4-Port Cross-line Relief (Low Flow) - HS9509
- 16 Two Inlets, Quickhitch & Thumb or Tilt Valve, 5-Port Relief (High Flow) - HS9518

Tilt Control Valves

- 17 Tilt Control Valve with 4-Port Cross-Line Relief (Low Flow) - HS9502
- 18 Tilt Control Valve with 4-Port Cross-Line Relief (Medium Flow) - HS9516
- 19 Tilt Control Valve with 5-Port Relief (Low Flow) - HS9505
- 20 Load Sense Tilt Control Valve with 5-Port Relief (Medium Flow) - HS9506

Tilt & Thumb Valves

- 21 Load Sense Tilt or Thumb Control Valve with Dual Counterbalance - HS9521
- 22 Tilt & Thumb Control Valve with Relief Protection (Low Flow) - HS9504
- 23 Thumb or Tilt Control Valve with 5-Port Relief (High Flow) - HS9512

Flow Sharing Valves

- 24 Dual Pump Flow Sharing Valve - A/HS8222P12GRCS
- 25 Dual Pump Higher Flow Sharing Valve - A/HS8223P16GRCS

Excavator Hose Burst Safety Valves

- 26 SAFEX™ Valves

Relief Valves

- 28 4-Port Cross Line Relief Valves
- 30 5-Port Cross Line Relief Valves

Hydraulic Test Equipment

- 33 Webtec Hydraulic Test Equipment

Excavator Valving & Accessories

Effective 1st June 2018

All prices listed are quoted in \$NZ and are G.S.T. exclusive.

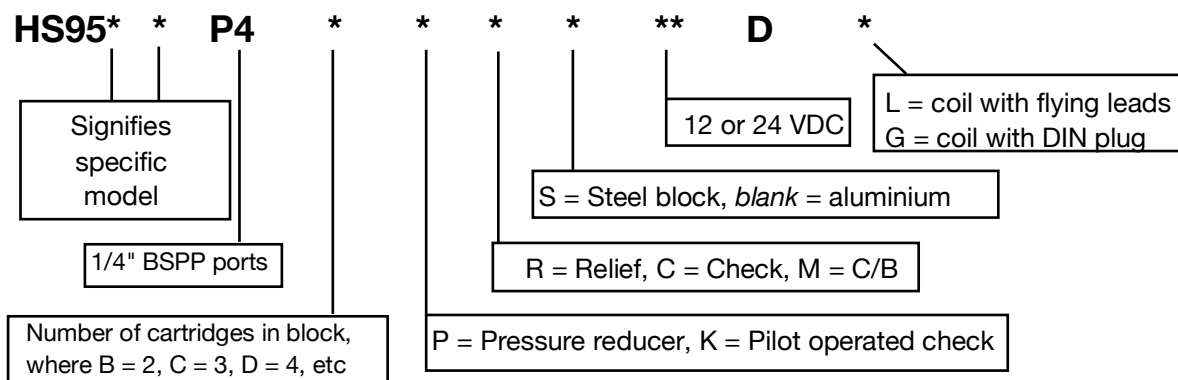
- Whilst every effort is made to hold prices steady, list prices are subject to change without prior notice.
- Where two manifold port sizes are listed the assembly price is for the smaller and may cost more for the larger port size.
- All performance and specification figures are taken from the latest possible literature and may vary from older literature versions.
- It is the responsibility of the system designer to determine suitability of the component.
- A commissioning, assembly or product conversion fee may apply.
- Product pictures shown are indicative only. Actual products may differ from that shown.
- Product contained in this catalogue is offered subject to Hyspecs' normal terms and conditions of sale.
- A restocking fee may apply on goods returned for credit.
- All manifolds priced are for aluminium unless otherwise stated. For steel manifolds an extra charge may apply.
- For high pressure (240+ bar) Hyspecs recommends steel manifolds.
- Pressure or flow setting charges may apply.
- Solenoid valves are priced with flying leads (DC only) unless otherwise stated. AC coils are DIN plug only. Hirschman / DIN plugs are not included in the price.
- Where needed banjo bolts are included in the price.

Excavator Valving & Accessories

Introduction

- **Hyspecs manufactures custom designed cartridge valve manifolds specifically to control excavator attachments and meet safety standards. Hand and foot controls can be added to the excavator to effectively control new attachments.**
- **Features:**
 - Compact design allows valving to be positioned in confined spaces where others do not fit.
 - Manifold design minimises oil leakage paths
 - Reliable low current draw solenoids provide millions of cycles lifetime
 - Hardened spools and cages for longer life
 - All work ports are located on single block face
 - Can be operated continuously in temperatures up to 100°C without challenging the coils insulation.
 - Integral pressure reducing/relieving valves guard against pressure spikes and thermal shock.
 - Low pressure drops
- **Material:**
 - Aluminium or steel for pressures up to 240 bar and 350 bar respectively.
 - All steel blocks are nickel plated to protect your investment.

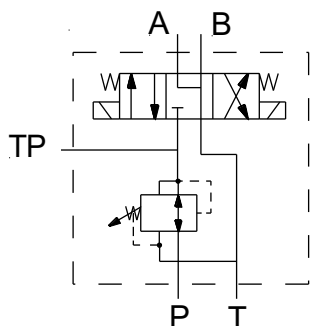
Model Order Code



- **Hyspecs stocks Walvoil proportional hydraulic pilot controls.** Hand and foot operated, single and dual axis controls and multi-function ergonomic handles. See pages 6-9.
- **Hyspecs manufactures hose burst safety valves (SAFEX™ Valves) specifically for excavators** - these valves prevent uncontrolled lowering of the boom/stick cylinders in the event of a hose burst, thereby becoming part of the load holding and lowering system designed to comply with **AS 1418.8 / ISO 8643**. See pages 25-26.
- **Hyspecs manufactures cross line relief valves** – specifically designed to protect tilt and thumb cylinders from being damaged due to excessive external loading. See pages 28-32.

Hydraulic Pilot Valves

Pilot Valve for Auxiliary Spool - HS9501



- Pilot valves are used to provide pilot pressure to the auxiliary spool on an excavator. Auxiliary spools are often used to attach rotating grapples. This valve gives the operator fingertip control of that new attachment. A pressure reducer/reliever provides the user with a means of setting up the desired flow with proportional auxiliary spools.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9501P4BP**DL	Pilot valve, aluminium, flying leads	11	207	12 or 24	\$ 693.00
HS9501P4BP**DG	Pilot valve, aluminium, DIN plug with LED	11	207	12 or 24	\$ 777.00

** Denotes coil voltage

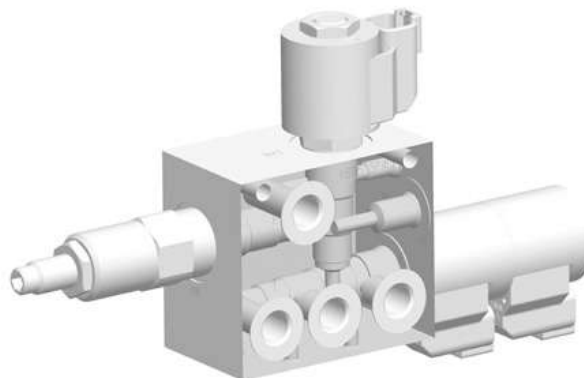
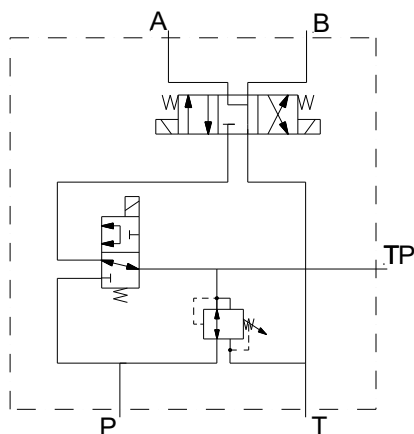
- Valve includes alloy manifold block, 1 x 4-way 3-position solenoid cartridge valve and coils and 1 x pressure reducer/reliever.
- 5 ports, A, B, P, T and TP, all 1/4" BSPP
- Valve overall dimensions, 248mm x 63mm x 51mm (L x W x H)
- Electro-proportional directional cartridge option is available – *Consult Hyspecs*

Spare Components	Description	List
HS9501P4BP_B	Pilot manifold, aluminium	\$ 228.00
PR10-32A-0-N-04 or	Pressure reducer/reliever (5.5 – 27.6 bar)	\$ 152.00
PR10-32A-0-N-08	Pressure reducer/reliever (13.8 – 55.2 bar)	\$ 152.00
SV08-47D-0-N-0	4-way, 3-position solenoid valve (P blocked, A & B to T in neutral)	\$ 221.00
6306012	12 VDC coil, 8 size, DIN plug	\$ 69.00
6306024	24 VDC coil, 8 size, DIN plug	\$ 69.00
6302012	12 VDC coil, 8 size, flying leads	\$ 46.00
6302024	24 VDC coil, 8 size, flying leads	\$ 46.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

- E coils and other terminations available – *Consult Hyspecs*

Hydraulic Pilot Valves

Two Stage Pilot Control of Main Spool - HS9515



- Designed to control the main spool of an excavator, partial flow or full flow.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9515P4CP**DL	Pressure reducer, 3-position solenoid valve and 2-position 3-way solenoid selector, flying leads	11	207	12 or 24	\$ 938.00
HS9515P4CP**DG	Pressure reducer, 3-position solenoid valve and 2-position 3-way solenoid selector, DIN plug with LED	11	207	12 or 24	\$ 1064.00

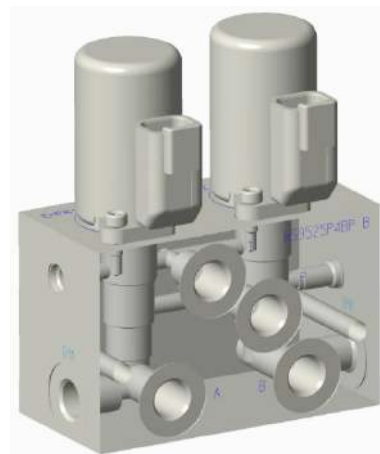
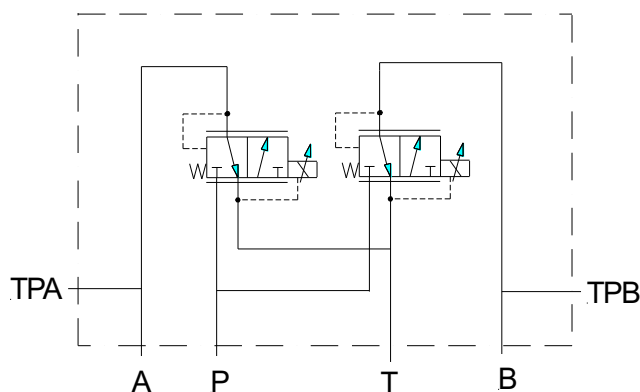
** Denotes coil voltage

- Valve includes aluminium manifold, 1 x 3-way 2-position solenoid cartridge with coils and 1 x pressure reducer/reliever.
- 5 ports, P, T, A, B & TP, all 1/4" BSPP
- Valve overall dimensions, 299mm x 122mm x 50mm (L x W x H)

Spare Components	Description	List
HS9515P4CP	Two stage pilot control manifold, aluminium	\$ 295.00
PR08-32A-0-N-04 or	Pressure reducer/reliever (5.5 – 27.6 bar)	\$ 152.00
PR08-32A-0-N-08	Pressure reducer/reliever (13.8 – 55.2 bar)	\$ 152.00
SV08-47D-0-N-0	4-way, 3-position solenoid valve	\$ 221.00
SV08-31-0-N-0	3-way, 2-position solenoid valve	\$132.00
6306012	12 VDC coil, 8 size, DIN plug	\$ 69.00
6306024	24 VDC coil, 8 size, DIN plug	\$ 69.00
6302012	12 VDC coil, 8 size, flying leads	\$ 46.00
6302024	24 VDC coil, 8 size, flying leads	\$ 46.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Hydraulic Pilot Valves

Proportional Pilot Control - HS9525



- Designed to provide proportional pilot pressure to the auxiliary spool on an excavator to supply proportional flow to attachments.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9525P4BP**	Proportional pilot valve Aluminium, Deutsch connector	18	240	12 or 24	\$ 864.00

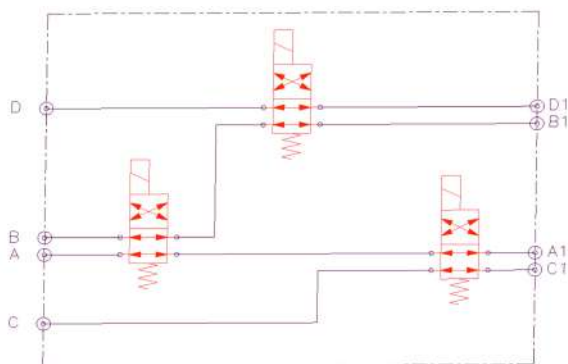
** Denotes coil voltage

- Valve includes alloy manifold block, 2 x proportional reducing/relieving drop-in-style valves with coils and matching Deutsch connectors
- 6 ports, A, B, TPA, TPB, P & T, all 1/4" BSPP
- Valve overall Dimensions: 120mm x 100mm x 50mm
- Plug-In style dual/single valve driver EVDR-0201 as a controller option
- Refer proportional valve controller page for controller options

Spare Components	Description	List
HS9525P4BP_B	Proportional pilot manifold aluminium	\$ 250.00
EHPR98-T38B-**ER	Proportional reducing/relieving with coil (0 – 57 bar)	\$ 285.00
4001417	Deutsch mating connector	\$ 22.00

Hydraulic Pilot Valves

Joystick Pattern Changer - HS9526/HS9527



- Designed for joystick pattern changer between Hitachi and ISO.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9526U7C**DL	Three 08, size 2 position, 4-way solenoid valves, flying leads	11	207	12 or 24	\$ 1032.00
HS9526U7C**DG	Three 08, size 2 position, 4-way solenoid valves, DIN plug with LED	11	207	12 or 24	\$ 1158.00
HS9527U7C**DL	Three size 10, 2 position, 4 way solenoid valves with manual override, flying leads	23	207	12 or 24	\$ 1437.00
HS9527U7C**DG	Three size 10, 2 position, 4 way solenoid valves with manual override, DIN plug with LED	23	207	12 or 24	\$ 1548.00

** Denotes coil voltage

- Valve includes aluminium manifold block, 3 x 4-way, 2 position solenoid cartridges and coils
- 8 ports, A, B, C, D & A1, B1, C1, D1, all 7/16" UNO
- Valve overall Dimensions: HS9526 122mm x 120mm x 50mm
- HS9527 178mm x 150mm x 75mm

Spare Components	Description	List
HS9526U7C	Joystick pattern changer size 8 manifold aluminium	\$ 435.00
HS9527U7C	Joystick pattern changer size 10 manifold aluminium	\$ 510.00
SV08-40-0-N-0	4-way, 2 position solenoid valve	\$ 153.00
SV10-40M-0-N-0	4-way, 2 position solenoid valve with manual override	\$ 252.00
63060**	12 or 24 VDC coil, 8 size, DIN plug	\$ 69.00
63020**	12 or 24 VDC coil, 8 size, flying leads	\$ 46.00
63560**	12 or 24 VDC coil, 10 size, DIN plug	\$ 75.00
63520**	12 or 24 VDC coil, 10 size, flying leads	\$ 57.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Hydraulic Pilot Valves

- Walvoil remote hydraulic controllers allow users to remotely control pilot operated valves and pilot operated pump servos.
- Working on pressure reducing principles, Walvoil hydraulic remote controllers can be configured to a pressure control range to suit the majority of applications. Pressure range settings are field convertible.
- Consult Hydraulic Specialties for the range of control springs available and metering curve information.
- Remote controllers can be configured with ancillary electrical control options to combine a machine's control interface into a single compact package.

Proportional Hydraulic Controllers - Foot Operated - SVM500 Series

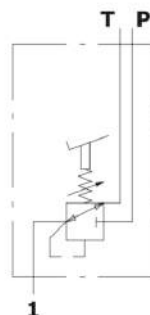
Pedal hydraulic pilot valves, available in different configurations. High sensitivity and low force, reduced weight. For agricultural and earth moving machines.

The SVM500 series works according to the principle of direct-acting pressure reducing valves. In rest position, the foot pedal is held in neutral by return spring; inlet port P is closed, and ports are connected to tank port T. All 1/4" BSP Ports are located under the body opposite the pedal.

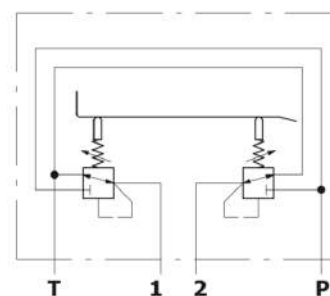
Code	Model	Description	Control Press. bar	Max. Flow lpm	Max. Press. bar	Price
181540001	SVM510-B/00001C	Foot Pedal Single Acting Function	5.8 to 22	20	100	\$ 453.00
181530001	SVM500-B/01F-00001C	Foot Pedal Dual Acting Function	5.8 to 22	20	100	\$ 505.00



SVM510
Hydraulic circuit



SVM500
Hydraulic circuit



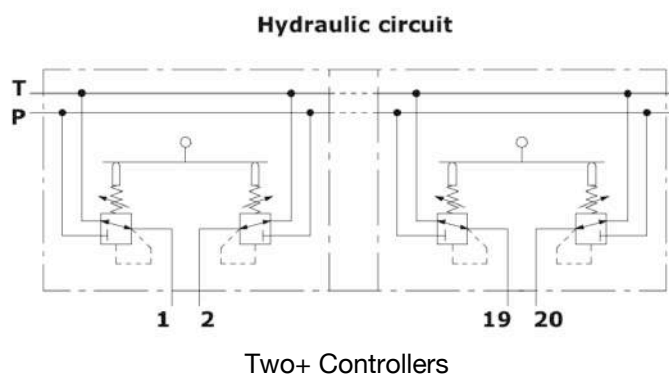
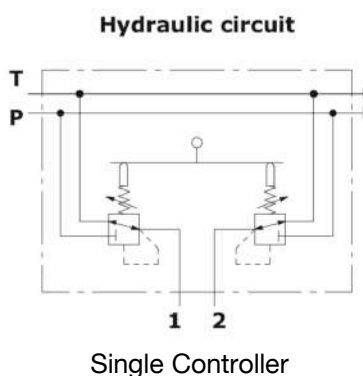
Hydraulic Pilot Valves

Proportional Hydraulic Controllers, Single Axis, Stackable, Hand Operated - SVM100 Series

Low operating efforts, energy consumption and maintenance make these hydraulic remote controls ideal for piloting remote control directional valves, variable displacement pumps/motors, auxiliary valves, friction and hydraulic brakes. Multiple hydraulic remotes are assembled with tie rod kits. Valves come standard up to 4 working sections with a maximum of up to 10 working sections on request – contact Hyspecs.



Code	Model	Description	Control Press. bar	Max. Flow lpm	Max. Press. bar	Price
181121116	SVM100/1-S/07G3-00020A	Single axis 1 controller	4.3 to 15.2	20	100	\$ 468.00
181122121	SVM100/2-S/07G3-00020A	Single axis 2 controllers	4.3 to 15.2	20	100	\$ 780.00
181123073	SVM100/3-S/07G3-00020A	Single axis 3 controllers	4.3 to 15.2	20	100	\$ 1155.00
181124045	SVM100/4-B/01G3-00075B	Single axis 4 controllers	5 to 15	20	100	\$ 1664.00



Hydraulic Pilot Valves

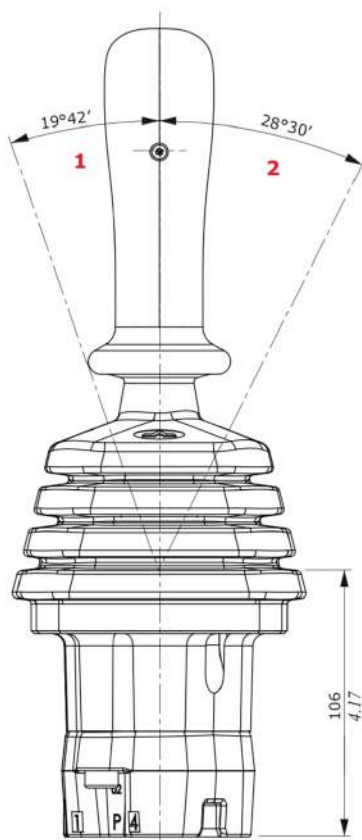
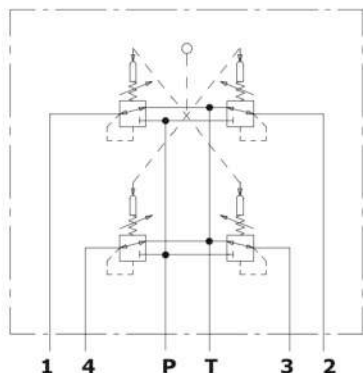
Proportional Hydraulic Controllers, Dual Axis, Single Lever Hand Operated – SVM400 Series

Hydraulic joystick, double function available with a wide range of handles. Single lever joystick to control two directional control valve working sections.

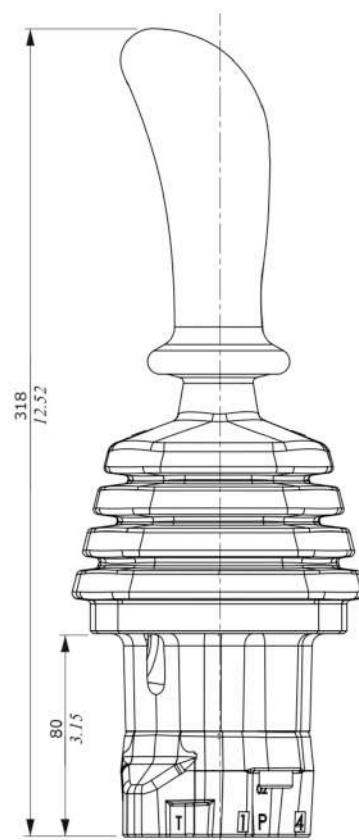
Code	Model	Description	Control Press. bar	Max. Flow lpm	Max. Press. bar	Price
181420100	SVM400/01-B/01V009-00020A	Dual axis no button	4.3 to 15.2	20	100	\$ 697.00
181420684	SVM400/01-B/01V209-045-00020A	Dual axis one on/off button, 2A@12V DC	4.3 to 15.2	20	100	\$ 770.00



Hydraulic circuit



- 1 : Single work port
2 : Two simultaneous work ports



Hydraulic Pilot Valves

Multi-Function Ergonomic Handles

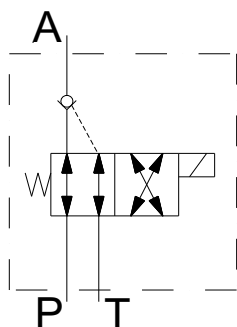
- Quickhitch, tilt and thumb valves require switching gear to allow the operator control.
- Walvoil remote handles provide this control, with their various switching and handle options.
- M12 mounting adaptor
- Quenching diodes must be used on rocker switches for DC operation.



Code	Model	Description	Suggested Use	Rating	Price
5IMP200000	Series 10	Type X (ON)/OFF push button,	Quick hitch	6A Resistive 4A Inductive @30VDC	\$ 78.00
5IMP600000	Series 10	Type T 3-position rocker switch ON/OFF/ON, spring centre	Tilt	6A Resistive 4A Inductive @30VDC	\$ 78.00
2IM4000235	H series	Ergonomic type 2 ON/OFF push buttons	Tilt	2A Resistive @12VDC	\$ 234.00
2IM4000003	H series	Ergonomic type 3 ON/OFF push buttons	Quick hitch, tilt or thumb	2A Resistive @12VDC	\$ 271.00
2IM4000221	H series	Ergonomic type 3 ON/OFF push buttons	Tilt and thumb	2A Resistive @12VDC	\$ 333.00
5IMP032012	V series	Ergonomic type 1 ON/OFF push buttons	Quick hitch	4A Resistive @24VDC	\$ 120.00

Quickhitch Valves

Quickhitch Valve - Single Acting - HS9503



- Single acting quick hitch valves are used to clamp, hold and release excavator attachments via a single acting quick hitch cylinder at the end of the excavator boom.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9503P4BK**DL	S/A Quick hitch valve, aluminium, flying leads	11	207	12 or 24	\$ 593.00
HS9503P4BK**DG	S/A Quick hitch valve, aluminium, DIN plug with LED	11	207	12 or 24	\$ 635.00

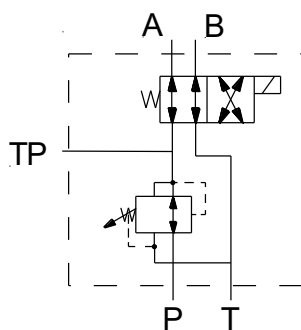
** Denotes coil voltage

- Valve includes steel manifold block, 1 x 3-way 2-position solenoid valve and coil and a pilot operated check valve.
- 3 ports, A, P and T, 1/4" BSPP
- Valve overall dimensions, 85mm x 37mm x 124mm (L x W x H)

Spare Components	Description	List
HS9503P4BK	Quick hitch manifold, aluminium	\$ 304.00
SV08-40-0-N-0	3-way, 2-position solenoid valve	\$ 153.00
PC08-30-0-N-0	Pilot operated check valve	\$ 90.00
6306012	12 VDC coil, 8 size, DIN plug	\$ 69.00
6306024	24 VDC coil, 8 size, DIN plug	\$ 69.00
6302012	12 VDC coil, 8 size, flying leads	\$ 46.00
6302024	24 VDC coil, 8 size, flying leads	\$ 46.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Quickhitch Valves

Quickhitch Valve – Double Acting - HS9501



- Quick hitch valves are used to clamp, hold and release excavator attachments via a quick hitch double acting cylinder at the end of the excavator boom.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9501P4BPS**DL	Quick hitch valve, steel, flying leads	11	350	12 or 24	\$ 693.00
HS9501P4BPS**DG	Quick hitch valve, steel, DIN plug with LED	11	350	12 or 24	\$ 766.00

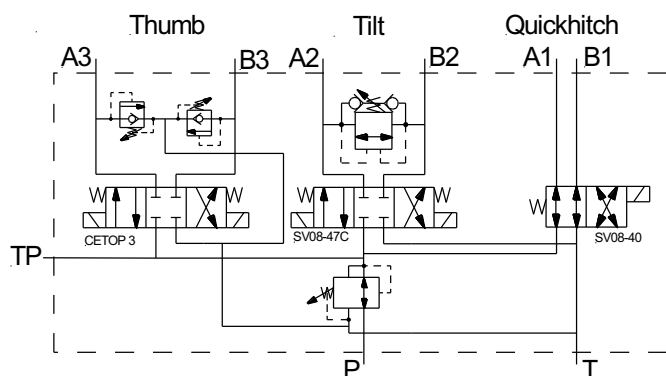
** Denotes coil voltage

- Valve includes steel manifold block, 1 x 4-way 2-position solenoid valve and coil and a pressure reducer/reliever.
- 5 ports, A, B, P, T and TP, all 1/4" BSPP
- Valve overall dimensions, 208mm x 63mm x 51mm (L x W x H)

Spare Components	Description	List
HS9501P4BPS_B	Quick hitch manifold, steel	\$ 304.00
PR50-36A-0-P-50	Pressure reducer/reliever (207 – 350 bar)	\$ 221.00
SV08-40-0-N-0	4-way, 2-position solenoid valve	\$ 153.00
6306012	12 VDC coil, 8 size, DIN plug	\$ 69.00
6306024	24 VDC coil, 8 size, DIN plug	\$ 69.00
6302012	12 VDC coil, 8 size, flying leads	\$ 46.00
6302024	24 VDC coil, 8 size, flying leads	\$ 46.00
SV58-40-0-P-0	For pressures above 207 bar	\$153.00
6356012	12 VDC coil, 10 size, DIN plug	\$ 75.00
6356024	24 VDC coil, 10 size, DIN plug	\$ 75.00
6352012	12 VDC coil, 10 size, flying leads	\$ 57.00
6352024	24 VDC coil, 10 size, flying leads	\$ 57.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Quickhitch Combination Valves

Quickhitch, Tilt (Low Flow) & Thumb Valve with Relief Protection - HS9507



- Designed to control a Quickhitch, Tilt Bucket (low flow) with single acting or equal area ram/s and a Thumb.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9507FPS**DL	Quickhitch, tilt & thumb valve, steel, flying leads, in-built 4-port and 5-port x-line protection	11 & 60	350	12 or 24	\$ 2644.00
HS9507FPS**DG	Quickhitch, tilt & thumb valve, steel, DIN plug with LED, in-built 4-port and 5-port x-line protection	11 & 60	350	12 or 24	\$ 2770.00

** Denotes coil voltage

- Valve includes steel manifold block, 1 x 4-way 3-position solenoid cartridge valve and coils, 1 x Cetop 3 valve, 1 x 4-way 2-position solenoid cartridge valve and coil, 1 x bi-directional relief valve, 2 x relief valves with anti-cav, and 1 x pressure reducer/reliever.
- 9 ports, P, A3, B3 – 3/8" BSPP, A1, B1, A2, B2, TP – 1/4" BSPP, T – 1/2" BSPP
- Valve overall dimensions, 150mm x 170mm x 180mm (L x W x H)
- Electro-proportional directional cartridge option is available – *Consult Hyspecs*

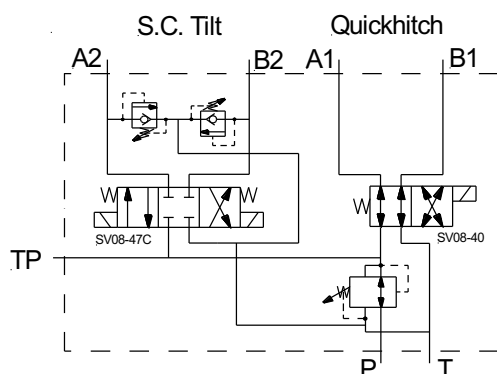
Spare Components	Description	List
HS9507FPS_B	Quickhitch, tilt and thumb manifold, steel	\$ 1120.00
RVBD-08-N-S-0-50	Bi-directional relief valve (3.5 – 207 bar)	\$ 175.00
RVPP-10-N-S-0-50	Relief valve with anti-cavitation protection (3.5 – 315 bar)	\$ 173.00
PR50-38A-0-P-33	Pressure reducer/reliever (maximum setting 207 bar)	\$ 221.00
SV08-40-0-N-0	4-way, 2-position solenoid valve	\$ 153.00
SV08-47C-0-N-0	4-way, 3-position solenoid valve (All ports blocked in neutral)	\$ 221.00
SWH-G02-C2-D**	Cetop 3 valve, 3-position (All ports blocked in neutral)	\$ 270.00
6306012	12 VDC coil, 8 size, DIN plug	\$ 69.00
6306024	24 VDC coil, 8 size, DIN plug	\$ 69.00
6302012	12 VDC coil, 8 size, flying leads	\$ 46.00
6302024	24 VDC coil, 8 size, flying leads	\$ 46.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

© HYDRAULIC SPECIALTIES LTD.

Auckland | Taupo | Christchurch | Nelson | Melbourne | Brisbane

Quickhitch Combination Valves

Quickhitch & Tilt Valve with 5-Port Relief (Low Flow) - HS9508



- Designed to control a Quickhitch and Tilt Bucket with a double acting ram/s.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9508P4EPS**DL	Quickhitch and tilt valve, steel, flying leads, in-built 5-port x-line protection	11	350	12 or 24	\$ 1846.00
HS9508P4EPS**DG	Quickhitch and tilt valve, steel, DIN plug with LED, in-built 5-port x-line protection	11	350	12 or 24	\$ 1972.00

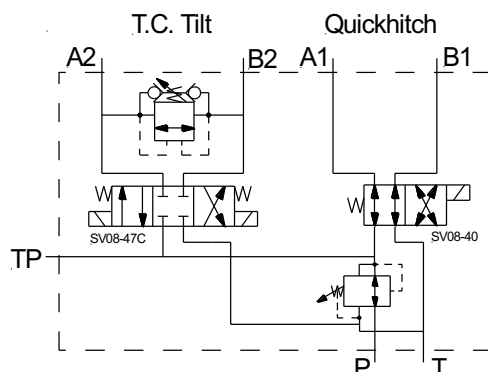
** Denotes coil voltage

- Valve includes steel manifold block, 1 x 4-way 3-position solenoid cartridge valve and coils, 1 x 4-way 2-position solenoid cartridge valve and coil, 2 x relief valves with anti-cav, and 1 x pressure reducer/reliever.
- 7 ports, P, TP, T, A1, B1, A2 & B2 all 1/4" BSPP
- Valve overall dimensions, 248mm x 100mm x 137mm (L x W x H)
- Electro-proportional directional cartridge option is available – *Consult Hyspecs*

Spare Components	Description	List
HS9508P4EPS_B	Quickhitch and tilt with 5-port relief manifold, steel	\$ 767.00
RVPP-10-N-S-0-50	Relief valve with anti-cavitation protection (3.5 – 207 bar)	\$ 173.00
PR50-36A-0-P-50	Pressure reducer/reliever (maximum setting 207 bar)	\$ 221.00
SV08-40-0-N-0	4-way, 2-position solenoid valve	\$ 153.00
SV08-47C-0-N-0	4-way, 3-position solenoid valve (All ports blocked in neutral)	\$ 221.00
6306012	12 VDC coil, 8 size, DIN plug	\$ 69.00
6306024	24 VDC coil, 8 size, DIN plug	\$ 69.00
6302012	12 VDC coil, 8 size, flying leads	\$ 46.00
6302024	24 VDC coil, 8 size, flying leads	\$ 46.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Quickhitch Combination Valves

Quickhitch & Tilt Valve with 4-Port Cross-Line Relief (Low Flow) - HS9509



- Designed to control a Quickhitch and Tilt Bucket with twin single acting or equal area ram/s.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9509P4DPS**DL	Quickhitch and tilt valve, steel, flying leads, in-built 4-port x-line protection	2 x 11	350	12 or 24	\$ 1566.00
HS9509P4DPS**DG	Quickhitch and tilt valve, steel, DIN plug with LED, in-built 4-port x-line protection	2 x 11	350	12 or 24	\$ 1692.00

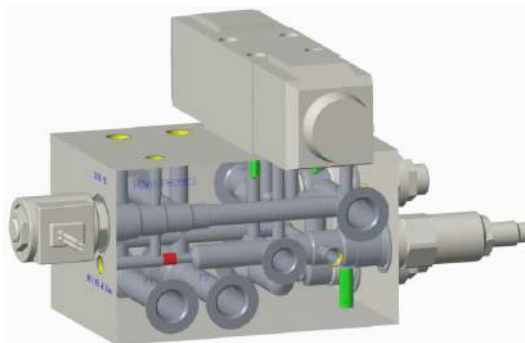
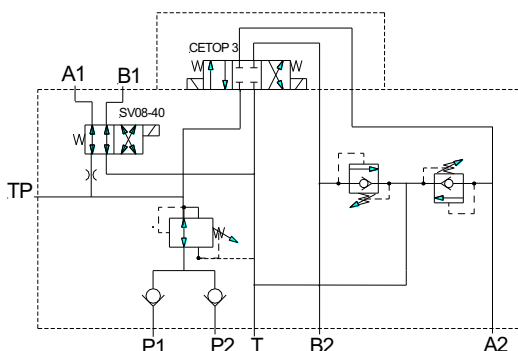
** Denotes coil voltage

- Valve includes steel manifold block, 1 x 4-way 3-position solenoid cartridge valve and coils, 1 x 4-way 2-position solenoid cartridge valve and coil, 1 x bi-directional relief valve and 1 x pressure reducer/reliever.
- 7 ports, P, T, TP, 2 x A & B, all 1/4" BSPP
- Valve overall dimensions, 248mm x 100mm x 105mm (L x W x H)
- Electro-proportional directional cartridge option is available – *Consult Hyspecs*

Spare Components	Description	List
HS9509P4DPS_B	Quickhitch and tilt with 5-port relief manifold, steel	\$ 658.00
RVBD-08-N-S-0-50	Bi-directional relief valve (3.5 – 207 bar)	\$ 175.00
PR50-36A-0-P-50	Pressure reducer/reliever (maximum setting 207 bar)	\$ 221.00
SV08-40-0-N-0	4-way, 2-position solenoid valve	\$ 153.00
SV08-47C-0-N-0	4-way, 3-position solenoid valve (All ports blocked in neutral)	\$ 221.00
6306012	12 VDC coil, 8 size, DIN plug	\$ 69.00
6306024	24 VDC coil, 8 size, DIN plug	\$ 69.00
6302012	12 VDC coil, 8 size, flying leads	\$ 46.00
6302024	24 VDC coil, 8 size, flying leads	\$ 46.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Quickhitch Combination Valves

Two Inlets, Quickhitch & Thumb or Tilt Valve, 5-Port Relief (High Flow) - HS9518



- Designed to control a Quickhitch and Thumb (single D/A ram) or Tilt (High Flow).

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9518P6GPR S**DL	Two inlets, Quickhitch & thumb valve, checks, pressure reducer, 2 & 3 position solenoid valves (cetop3 for thumb), 5-port cross line relief valve on the thumb, steel, flying leads	11 & 60	350	12 or 24	\$ 2296.00
HS9518P6GPR S**DG	Two inlets, Quickhitch & thumb valve, checks, pressure reducer, 2 & 3 position solenoid valves (cetop3 for thumb), 5-port cross line relief valve on the thumb, steel, DIN plug with LED	11 & 60	350	12 or 24	\$ 2338.00

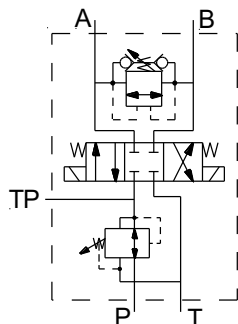
** Denotes coil voltage

- Valve includes steel manifold block, 1 x Cetop 3 valve, 1 x 4-way 2-position solenoid cartridge valve and coil, 2 x relief valves with anti-cavitation, 2 x check valves, and 1 x pressure reducer/reliever.
- 8 ports, P1, P2, T, A2 & B2 all 3/8" BSPP, TP, A1 & B1 all 1/4" BSPP
- Electro-proportional directional cartridge option is available – *Consult Hyspecs*
- Valve overall dimensions, 276mm x 109mm x 170mm (L x W x H)

Spare Components		List
HS9518P6GPRS	Quickhitch, tilt and thumb manifold, steel	\$ 1100.00
RVPP-10-N-S-0-50	Relief valve with anti-cavitation protection	\$ 173.00
PR50-38A-0-P-33	Pressure reducer/reliever	\$ 221.00
SV08-40-0-N-0	4-way, 2-position solenoid valve	\$ 153.00
CV50-20	High pressure check valve	\$ 80.00
SWH-G02-C2-D**	Cetop 3 valve, 4-way, 3-position solenoid valve (All ports blocked in neutral)	\$ 270.00
6306012	12 VDC coil, 8 size, DIN plug	\$ 69.00
6306024	24 VDC coil, 8 size, DIN plug	\$ 69.00
6302012	12 VDC coil, 8 size, flying leads	\$ 46.00
6302024	24 VDC coil, 8 size, flying leads	\$ 46.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Tilt Control Valves

Tilt Control Valve with 4-Port Cross-Line Relief (Low Flow) - HS9502



- Designed to control a Tilt Bucket with single acting or equal area ram/s.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9502P4CPS**DL	Tilt valve, steel, flying leads, in-built 4-port x-line protection	11	350	12 or 24	\$ 1041.00
HS9502P4CPS**DG	Tilt valve, steel, DIN plug with LED, in-built 4-port x-line protection	11	350	12 or 24	\$ 1125.00

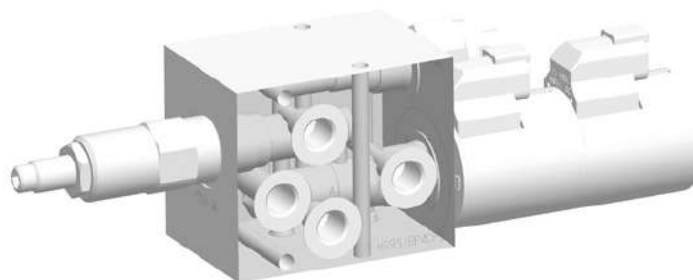
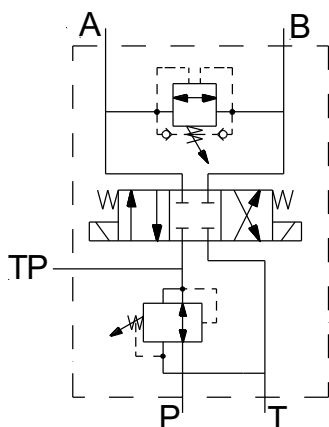
** Denotes coil voltage

- Valve includes steel manifold block, 1 x 4-way 3-position solenoid cartridge valve and coils, 1 x bi-directional relief valve and 1 x pressure reducer/reliever.
- 5 ports, A, B, P, T and TP, all 1/4" BSPP
- Valve overall dimensions, 248mm x 63mm x 51mm (L x W x H)
- Electro-proportional directional cartridge option is available – *Consult Hyspecs*

Spare Components	Description	List
HS9502P4CPS	Tilt manifold, steel	\$ 332.00
RVBD-08-N-S-0-50	Bi-directional relief valve	\$ 175.00
PR50-36A-0-P-50	Pressure reducer/reliever (maximum setting 207 bar)	\$ 221.00
SV08-47C-0-N-0	4-way, 3-position solenoid valve (All ports blocked in neutral)	\$ 221.00
6306012	12 VDC coil, 8 size, DIN plug	\$ 69.00
6306024	24 VDC coil, 8 size, DIN plug	\$ 69.00
6302012	12 VDC coil, 8 size, flying leads	\$ 46.00
6302024	24 VDC coil, 8 size, flying leads	\$ 46.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Tilt Control Valves

Tilt Control Valve with 4-Port Cross-Line Relief (Medium Flow) - HS9516



- Designed to control a Tilt Bucket with larger single acting or equal area ram/s.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9516P4CPS**DL	Pressure reducer, 3 position solenoid valve, cross line relief, flying leads	23	350	12 or 24	\$ 1167.00
HS9516P4CPS**DG	Pressure reducer, 3 position solenoid valve, cross line relief, DIN plug with LED	23	350	12 or 24	\$ 1241.00

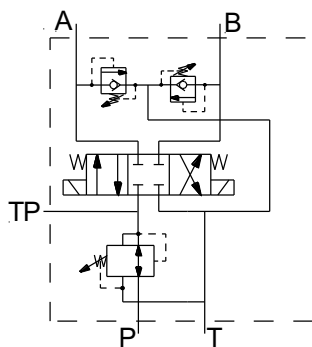
** Denotes coil voltage

- Valve includes steel manifold, 1 x 4-way 3-position solenoid cartridge and coil, 1 x bi-directional relief valve and 1 x pressure reducer/reliever.
- 5 ports, P, T, TP, A & B, all 1/4" BSPP
- Valve overall dimensions, 254mm x 75mm x 62.5mm (L x W x H)

Spare Components	Description	List
HS9516P4CPS_B	Tilt control, high flow manifold, steel	\$ 380.00
PR50-36A-0-P-50	Pressure reducer/reliever (maximum setting 207 bar)	\$ 221.00
SV10-47C-0-N-0	4-way, 3-position solenoid valve	\$ 277.00
RVBD-08-N-S-0-50	B-directional relief valve	\$ 175.00
6356012	12 VDC coil, size 10, DIN plug	\$ 75.00
6356024	24 VDC coil, size 10, DIN plug	\$ 75.00
6352012	12 VDC coil, size 10, flying leads	\$ 57.00
6352024	24 VDC coil, size 10, flying leads	\$ 57.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Tilt Control Valves

Tilt Control Valve with 5-Port Relief (Low Flow) - HS9505



- Designed to control a Tilt Bucket with a differential area cylinder.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9505P4DPS** DL	Tilt valve, steel, flying leads, in-built 5-port x-line protection	11	350	12 or 24	\$ 1447.00
HS9505P4DPS** DG	Tilt valve, steel, DIN plug with LED, in-built 5-port x-line protection	11	350	12 or 24	\$ 1531.00

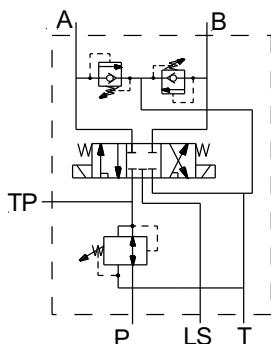
** Denotes coil voltage

- Valve includes steel manifold block, 1 x 4-way 3-position solenoid cartridge valve and coils, 2 x relief valves with anti-cav, and 1 x pressure reducer/reliever.
- 5 ports, A, B, P, T and TP, all 1/4" BSPP
- Valve overall dimensions, 248mm x 75mm x 117mm (L x W x H)
- Electro-proportional directional cartridge option is available – *Consult Hyspecs*

Spare Components	Description	List
HS9505P4DPS_B	Tilt with 5-port relief manifold, steel	\$ 567.00
RVPP-10-N-S-0-50	Relief valve with anti-cavitation protection (3.5 – 207 bar)	\$ 173.00
PR50-36A-0-P-50	Pressure reducer/reliever (maximum setting 207 bar)	\$ 221.00
SV08-47C-0-N-0	4-way, 3-position solenoid valve (All ports blocked in neutral)	\$ 221.00
6306012	12 VDC coil, 8 size, DIN plug	\$ 69.00
6306024	24 VDC coil, 8 size, DIN plug	\$ 69.00
6302012	12 VDC coil, 8 size, flying leads	\$ 46.00
6302024	24 VDC coil, 8 size, flying leads	\$ 46.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Tilt Control Valves

Load Sense Tilt Control Valve with 5-Port Relief (Medium Flow) - HS9506



- Designed to control a tilt bucket with a double acting cylinder with in-built load sensing.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9506DPRS**DL	Tilt valve, steel, flying leads, in-built 5-port x-line protection, load sense	23	350	12 or 24	\$ 1423.00
HS9506DPRS**DG	Tilt valve, steel, DIN plug with LED, in-built 5-port x-line protection, load sense	23	350	12 or 24	\$ 1497.00

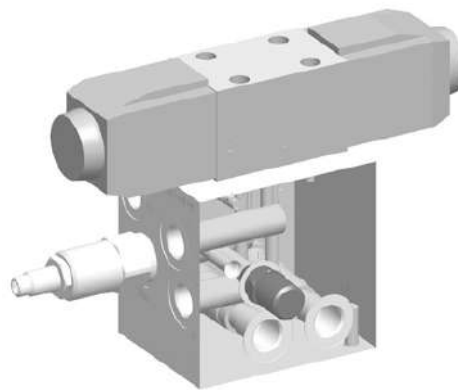
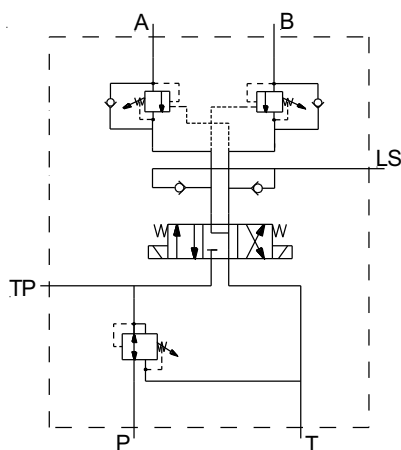
** Denotes coil voltage

- Valve includes steel manifold block, 1 x 5-way 3-position solenoid cartridge valve and coils, 2 x relief valves with anti-cav, 1 x pressure reducer/reliever cartridge
- 6 ports, A, B, P, TP, LS all 1/4" BSPP and T 3/8" BSPP
- Valve overall dimensions, 213mm x 75mm x 154mm (L x W x H)
- Electro-proportional directional cartridge option is available – Consult Hyspecs

Spare Components	Description	List
HS9506DPRS_B	Tilt with 5-port relief manifold, steel	\$ 485.00
RVPP-10-N-S-0-50	Relief valve with anti-cavitation protection (3.5 – 250 bar)	\$ 173.00
PR50-36A-0-P-50	Pressure reducer/reliever (maximum setting 250 bar)	\$ 221.00
SV10-57C-0-N-0	5-way, 3-position solenoid valve (All ports blocked in neutral)	\$ 257.00
6356012	12 VDC coil, 10 size, DIN plug	\$ 75.00
6356024	24 VDC coil, 10 size, DIN plug	\$ 75.00
6352012	12 VDC coil, 10 size, flying leads	\$ 57.00
6352024	24 VDC coil, 10 size, flying leads	\$ 57.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Tilt & Thumb Valves

Load Sense Tilt or Thumb Control Valve with Dual Counterbalance - HS9521



- Designed to control a high flow tilt bucket or thumb with built-in load sense & dual counterbalance.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9521P6FPMS**DG	Pressure reducer, Cetop 3, load sense checks, double counterbalance valves, DIN plug with LED	60	350	12 or 24	\$ 1498.00

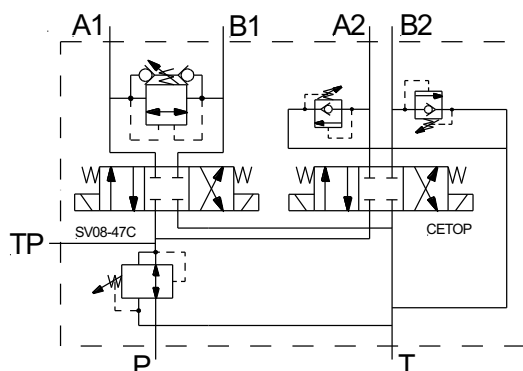
** Denotes coil voltage

- Valve includes steel manifold, 1 x Cetop 3 valve, 2 x counterbalance valves, 2 x check valves and 1 x pressure reducer/reliever.
- 6 ports, P, T, A & B all 3/8" BSPP; LS & TP all 1/4" BSPP
- Valve overall dimensions, 179mm x 123mm x 165mm (L x W x H)

Spare Components	Description	List
HS9521P6FPMS_B	Load sense tilt control with dual counterbalance manifold, steel	\$ 575.00
CBCG-LJN	Counterbalance valve	\$ 170.00
PR50-38A-0-P-33	Pressure reducer/reliever (55 – 228 bar)	\$ 221.00
CV04-20	Load sense check valve	\$ 46.00
SWH-G02-C4-D**	Cetop 3 valve, 3-position solenoid valve (P blocked, A & B to T in neutral)	\$ 270.00
NWH-02-D**	12 or 24 VDC coil, DIN plug	\$ 88.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Tilt & Thumb Valves

Tilt & Thumb Control Valve with Relief Protection (Low Flow) - HS9504



- Designed to control a Tilt Bucket with single acting or equal area ram/s and Thumb.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9504EPS**DL	Tilt & thumb valve, steel, flying leads, in-built 4-port and 5-port x-line protection	11 & 60	350	12 or 24	\$ 2367.00
HS9504EPS**DG	Tilt & thumb valve, steel, DIN plug with LED, in-built 4-port and 5-port x-line protection	11 & 60	350	12 or 24	\$ 2451.00

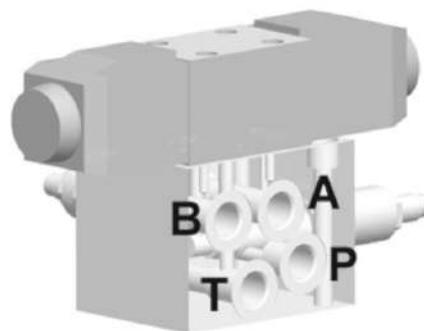
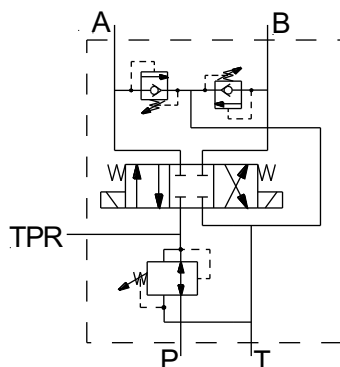
** Denotes coil voltage

- Valve includes steel manifold block, 1 x 4-way 3-position solenoid cartridge valve and coils, 1 x Cetop 3 valve, 1 x bi-directional relief valve, 2 x relief valves with anti-cav, and 1 x pressure reducer/reliever.
- P ($\frac{3}{8}$ " BSPP) & T ($\frac{1}{2}$ " BSPP); TP, A1 & B1 ($\frac{1}{4}$ " BSPP) and A2 & B2 ($\frac{3}{8}$ " BSPP)
- Valve overall dimensions, 250mm x 220mm x 180mm (L x W x H)
- Electro-proportional directional cartridge option is available – *Consult Hyspecs*

Spare Components	Description	List
HS9504EPS_B	Tilt and thumb manifold, steel	\$ 1042.00
RVBD-08-N-S-0-50	Bi-directional relief valve	\$ 175.00
RVPP-10-N-S-0-50	Relief valve with anti-cavitation protection (3.5 – 315 bar)	\$ 173.00
PR50-38A-0-P-33	Pressure reducer/reliever (55 – 207 bar)	\$ 221.00
SV08-47C-0-N-0	4-way, 3-position solenoid valve (All ports blocked in neutral)	\$ 221.00
SWH-G02-C2-D**	Cetop 3 valve, 4-way, 3-position solenoid valve (All ports blocked in neutral) *Use Eaton Cetop for higher pressure POA.	\$ 270.00
6306012	12 VDC coil, 8 size, DIN plug	\$ 69.00
6306024	24 VDC coil, 8 size, DIN plug	\$ 69.00
6302012	12 VDC coil, 8 size, flying leads	\$ 46.00
6302024	24 VDC coil, 8 size, flying leads	\$ 46.00
ISOL-30R	DIN plug to suit DC coils	\$ 19.00

Tilt & Thumb Valves

Thumb or Tilt Control Valve with 5-Port Relief (High Flow) - HS9512



- Designed to control a thumb or tilt via a D/A cylinder.

Model	Description	Q max l/min	P max bar	Voltage DC	List
HS9512CPRS**	Thumb control of a single D/A cylinder, steel manifold, 5-port x-line protection	60	350	12 or 24	\$ 1604.00

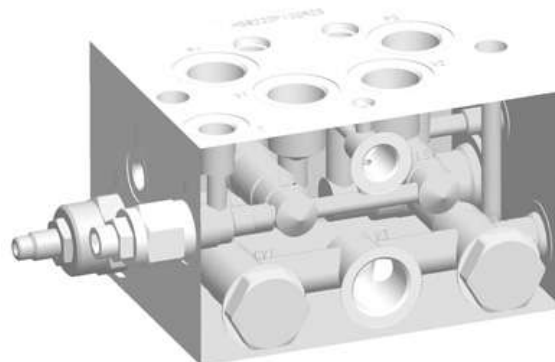
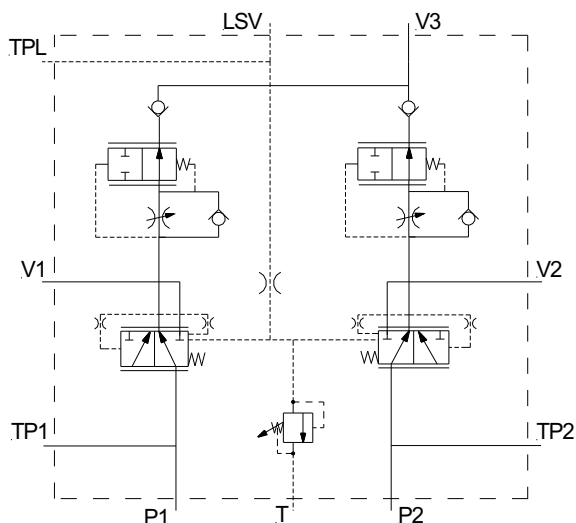
** Denotes coil voltage

- Valve includes steel manifold block, 1 x Cetop 3 valve, 2 x relief valves with anti-cav and 1 x pressure reducer/reliever.
- 5 ports, P, T, A & B all $\frac{3}{8}$ " BSPP, TPR $\frac{1}{4}$ " BSPP
- Electro-proportional directional valve option is available – *Consult Hyspecs*

Spare Components		List
HS9512CPRS	Thumb manifold, steel	\$ 767.00
RVPP-10-N-S-0-50	Relief valve with anti-cavitation protection (3.5 – 315 bar)	\$ 173.00
PR50-38A-0-P-33	Pressure reducer/reliever (55 – 228 bar)	\$ 221.00
SWH-G02-C2-D**	Cetop 3 valve, 4-way, 3-position solenoid valve (All ports blocked in neutral)	\$ 270.00

Flow Sharing Valves

Dual Pump Flow Sharing Valve - A/HS8222P12GRCS



- Designed for high flow (up to 190 LPM) attachment. The valve will deliver priority flow from each main pump to port the attachment (port V3) depending on demand from load sensing line.

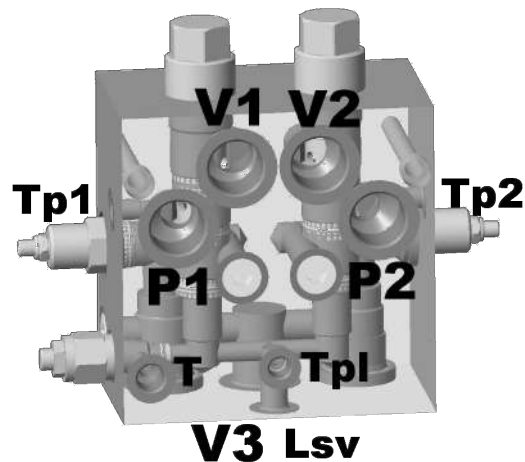
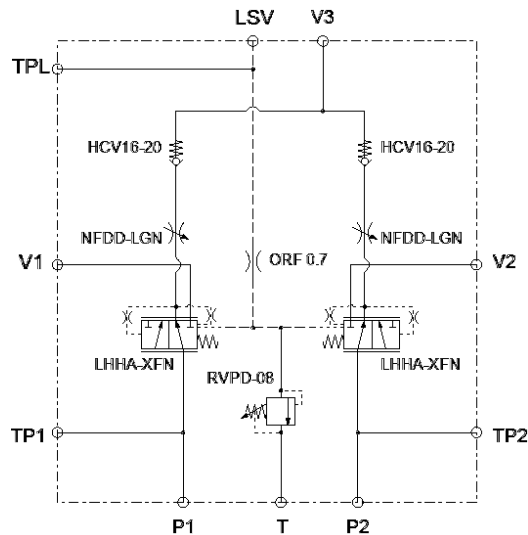
Model	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price
A/HS8222P12GRCS	130 x 2 Input	350	Load sense on demand with maximum flow and pressure limiter	3/4" main ports, 3/8" load sense and tank ports, 1/4" test ports	\$ 2251.00

- Manifold dimensions, 165 x 126 x 100mm (excluding cartridges)

Spare Components	Description	List
HS8222P12GRCS	Dual pump flow sharing manifold, steel	\$ 1065.00
FCVL-12-N-S-0-F	Flow control to limit maximum flow taking	\$ 140.00
EC12-43-0-N-160	Priority-on-demand pressure compensator	\$ 250.00
CV11-12	Check valve (02-172411)	\$ 153.00
RVPD-08	Relief valve (3.5 – 350 bar)	\$ 100.00

Flow Sharing Valves

Dual Pump Higher Flow Sharing Valve - A/HS8223P16GRCS



- Designed for higher flow (up to 150 x 2 LPM) attachment. The valve will deliver priority flow from each main pump to the attachment (port V3) depending on demand from load sensing line.

Model	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price
A/HS8223P16GRCS	240 x 2 Input	350	Load sense on demand with maximum flow and pressure limiter	1" main ports, 3/8" load sense and tank ports, 1/4" test ports	\$ 3590.00

- Manifold dimensions, 176 x 176 x 110mm (excluding cartridges)

Spare Components	Description	List
HS8223P16GRCS*	Dual pump flow sharing manifold, steel	\$1450.00
NFDD-LGN*	Flow control to limit maximum flow taking	\$160.00
LHHA-XFN*	Pressure compensator	\$695.00
HCV16-20	Check valve	\$165.00
RVPD-08	Relief valve (3.5 – 350 bar)	\$100.00

- * Non-common stock item - Contact Hyspecs for lead time

Excavator Hose Burst Safety Valves

SAFEX™ Valves



SAFEX™ valves are designed to be mounted directly to the boom and/or the stick (arm) cylinders of hydraulic excavators. With the correct installation and adjustment these valves prevent uncontrolled lowering of the boom/stick cylinders in the event of a hose burst, thereby becoming part of the load holding and lowering system designed to comply with **AS 1418.8 / ISO 8643**.

Model	Port Size		E/EP, PIL, DR	Max. Press. In bar (psi)	Rated Flow Per Valve lpm	List
	C	V				
A/HS4541P6CRS	BSPP 3/8"	BSPP 3/8"	1/4" BSPP	350 (5000)	30	\$ 785.00
A/HS4542P8CRS	BSPP 1/2"	BSPP 1/2"	1/4" BSPP	350 (5000)	90	\$ 845.00
A/HS4543P12CRS	BSPP 3/4"	BSPP 3/4"	1/4" BSPP	400 (5800)	180	\$ 875.00
A/HS4543U21CRS	UNO 1 5/16"	UNO 1 5/16"	1/4"BSPP	350 (5000)	180	\$ 875.00
A/HS4882BCRS	SAE 3/4" C61&62	SAE 3/4" C61&62	1/4"BSPP	350 (5000)	90	\$ 1148.00
A/HS4883BCRS	SAE 3/4" C61&62	SAE 3/4" C61&62	1/4"BSPP	350 (5000)	180	\$ 1180.00
A/HS4884BCRS	SAE 3/4" C61&62	SAE 3/4" C61&62	1/4"BSPP	350 (5000)	300	\$ 1459.00
A/HS4885BCRS	SAE 3/4" C61&62	SAE 3/4" C61&62 Long tail	1/4"BSPP	350 (5000)	180	\$ 1295.00
A/HS4886CCRS	SAE 1" C61	SAE 1" C61&62	1/4"BSPP	350 (5000)	180	\$ 1220.00
A/HS4887CCRS	SAE 1" C62	SAE 1" C61&62	1/4"BSPP	400 (5800)	180	\$ 1220.00
A/HS4888CCRS	SAE 1" C62	SAE 1" C61&62	1/4" BSPP	400 (5800)	300	\$ 1584.00
A/HS4889CCRS	SAE 1" C62	SAE 1" C61&62 Long Tail	1/4" BSPP	400 (5800)	180	\$ 1290.00
A/HS4890DCRS	SAE 1.25" C62	SAE 1.25" C62	1/4" BSPP	400 (5800)	300	\$ 1685.00
A/HS4891ECRS	SAE 1.5" C62	SAE 1.5" C62	1/4" BSPP	400 (5800)	300	\$ 1775.00
A/HS4847BCRS	SAE 3/4" C61&62	SAE 3/4" C62	1/4" BSPP	350 (5000)	180	\$ 1245.00
A/HS4848CDRS	SAE 1" C62	SAE 1" C62	1/4" BSPP	400 (5800)	360	\$ 1848.00

(continued over page)

Safety / Load Drop Valves

SAFEX™ Valve (*continued*)

Features and Benefits

- Designed to meet the Australian Safety Regulations for Excavators and complies with ISO 8643.
- Compact design with dual code SAE 61 and 62 ports.
- Relief valve with screen is included for cylinder protection (full flow).
- Duplicated valve (V), pilot (PIL) ports allow the valves to be fitted to either side. End pilot (PIL) and drain (DR) ports make it easy to connect.
- E/TP port on the valves can be used for initial bleed off, a test point to set the relief, manual lowering, and equalizing two boom cylinders.
- Assembled from top quality standard cartridges, which can be purchased in any major city around the world.
- Manufactured by HYSPECS and HYTECH.
- Steel manifolds and Nickel plated
- Tamper proof capable.

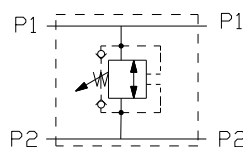
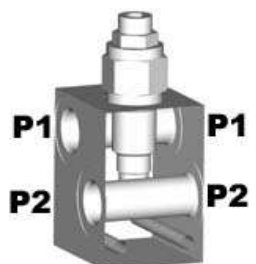
IMPORTANT: It is the owner's responsibility to ensure that these valves are installed and set correctly in order to comply with the safety standards. Incorrect installation and/or adjustment could result in severe injury, disability or death!

NB. Contact Hyspecs for Safex Valve technical data sheets and setup procedure.

Relief Valves

4-Port Cross Line Relief Valves

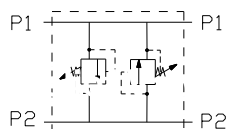
HS1020P8F or 12F



Cartridge Options	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price P8
RVBD-10	76	350*	Differential poppet	1/2" - 3/4"	\$ 312.00
CR10-28	60	240	Differential poppet	1/2" - 3/4"	\$ 391.00
HS1020P8F or 12F manifold only \$ 127.00 or \$ 200.00 HS1020P8FS or 12FS steel manifold only \$ 189.00 or \$ 264.00					

- Manifold dimensions, 76 x 60 x 50mm for 1/2" and 75 x 75 x 50mm for 3/4" (excluding cartridge)
- * Requires steel block over 240 bar

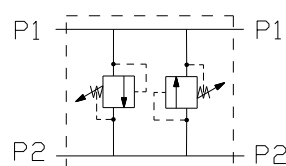
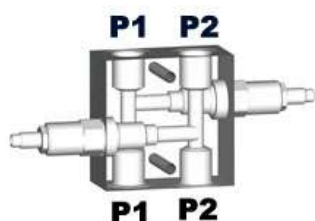
HS1020P6X



Cartridges	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price
RV10-20 x 2	38	228	Direct acting poppet	3/8"	\$ 406.00
HS1020P6X manifold only \$ 160.00					

- Manifold dimensions, 75 x 50 x 37mm (excluding cartridge)

HS1020P8Y or P12Y



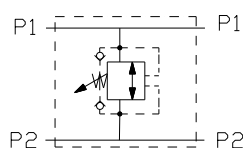
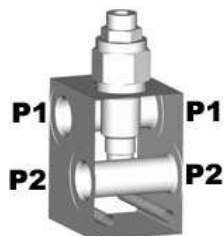
Cartridge Options	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price
RV10-20 x 2	38	228	Direct acting poppet	1/2" - 3/4"	\$ 446.00
RV10-22 x 2	115	240	Differential poppet	1/2" - 3/4"	\$ 446.00
RV5A-10 x 2	114	350*	Pilot operated	1/2" - 3/4"	\$ 488.00
HS1020P8Y or P12Y manifold only \$ 200.00 HS1020P8YS steel manifold only \$ 330.00					

- Manifold dimensions, 100 x 100 x 50mm (excluding cartridge)
- * Require steel block over 240 bar

Relief Valves

4-Port Cross Line Relief Valves

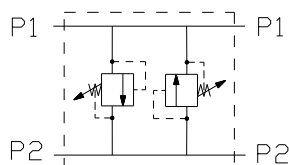
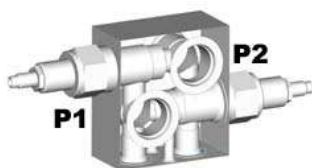
HS1220P12F



Cartridge Options	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price
RVBD-12	152	350*	Differential poppet	3/4"	\$ 490.00
HS1220P12F manifold only \$ 200.00 HS1220P12FS steel manifold only \$ 281.00					

- Manifold dimensions, 110 x 75 x 60mm (excluding cartridge)
- * Requires steel block over 240 bar

HS1620U21X



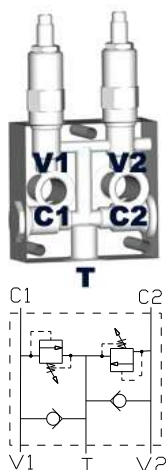
Cartridge Options	Q max l/min	P max bar	Notes	Ports UNO	Assembly Price
RV3-16 x 2	300	350*	Differential poppet	1 5/16"	\$ 902.00
RV5-16 x 2	300	350*	Pilot-operated	1 5/16"	\$ 946.00
HS1620U21X manifold only \$ 342.00 HS1620U21XS steel manifold only \$ 567.00					

- Manifold dimensions, 110 x 100 x 50mm (excluding cartridge)
- * Requires steel block over 240 bar

Relief Valves

5-Port Cross Line Relief Valves

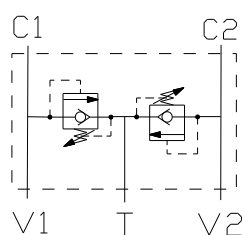
HS1020P8W



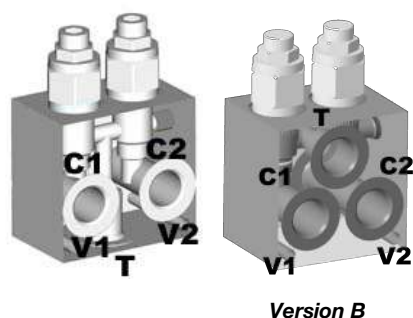
Cartridges	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price
RV10-20 x 2 +CV10-20 x 2	38	228	Direct acting poppet	1/2"	\$ 632.00
RVD50-20 x 2 +CV50-20 x 2	56	350*	Poppet, low pressure rise	1/2"	\$ 846.00
HS1020P8W manifold only \$ 286.00					

- Manifold dimensions, 100 x 100 x 40mm (excluding cartridge)
- Consult Hyspecs for anti-cav performance
- * Requires steel block over 240 bar – *contact Hyspecs* for pricing

HS1020P8ZB or P12ZB or HS1020P8ZB_B**



Cartridges	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price P8
RVPP-10 x 2	100	350*	Pilot operated with in-built check	1/2" - 3/4"	\$ 524.00
Alloy manifold only HS1020P8ZB or P12ZB (\$ 178.00 or \$ 207.00) or HS1020P8ZB_B (\$178.00)					
Steel manifold only HS1020P8ZBS or P12ZBS (\$ 264.00 or \$ 315.00) or HS1020P8ZBS_B (\$ 264.00)					

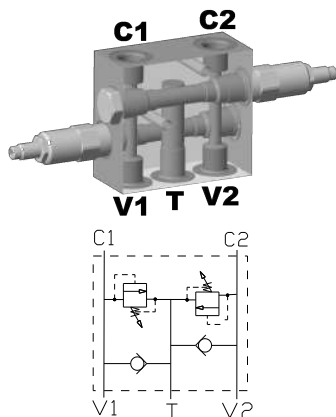


- Manifold dimensions, 80 x 75 x 50mm for P8 and 100 x 75 x 50mm for P12 and 75 x 75 x 60mm for Version B (excluding cartridges)
- * Requires steel block over 240 bar – *contact Hyspecs* for pricing
- ** Version B – main ports centre distance 37mm
- Consult Hyspecs for anti-cav performance

Relief Valves

5-Port Cross Line Relief Valves

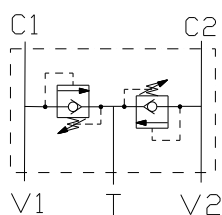
HS1020P8ZDS



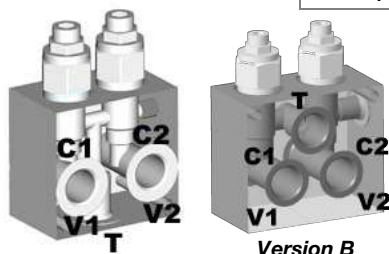
Cartridges	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price
RV50-22 x 2 + CV50-20	76	350	Differential relief	1/2"	\$ 754.00
HS1020P8ZDS manifold only \$ 280.00					

- Manifold dimensions 110 x 100 x 50mm
- Steel manifold
- Contact Hyspecs for anti-cav performance

HS1220P12ZB or HS1220P12ZB_B**

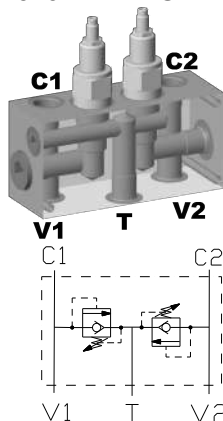


Cartridges	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price P8
RVPP-12 x 2	227	350*	Pilot operated with in-built check	3/4"	\$ 892.00
HS1220P12ZB or HS1220P12ZB_B manifold only \$ 312.00					
HS1220P12ZBS or HS1220P12ZBS_B steel manifold only \$ 490.00					



- Manifold dimensions 115 x 100 x 48mm for P12ZB and 115 x 100 x 60mm for P12ZB_B (Version B) (excluding cartridges)
- * Requires steel block over 240 bar
- ** Version B – main ports centre distance 46mm
- Consult Hyspecs for anti-cav performance

HS1620P12ZB2S*



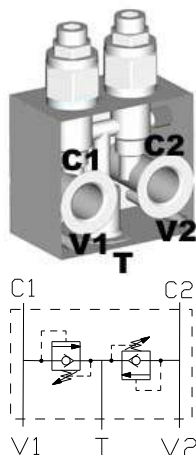
Cartridges	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price P8
RVCV56-20 x 2	115	420	Direct acting with in-built check	3/4"	\$ 980.00
HS1620P12ZB2S manifold only \$ 450.00					

- Consult Hyspecs for anti-cav performance
- Steel manifold
- *Non-common stock item – *Contact Hyspecs* for lead time

Relief Valves

5-Port Cross Line Relief Valves

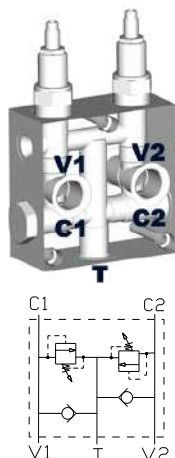
HS1620P12ZBS or P16ZBS*



Cartridges	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price P8
RVCV56-20 x 2	115	420	Direct acting with in-built check	3/4" -1"	\$ 1050.00
HS1620P12ZBS or P16ZBS manifold only \$ 520.00					

- Manifold dimensions 135 x 100 x 50mm (excluding cartridges)
- Consult Hyspecs for anti-cav performance
- Steel manifold
- *Non-common stock item – *Contact Hyspecs* for lead time

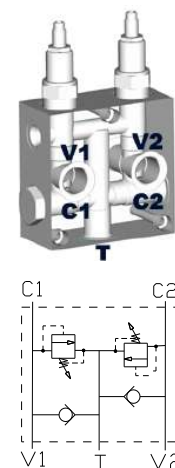
HS1220P12W or P16W



Cartridges	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price
RV12-26 x 2 +CV12-20 x 2	150	207	Pilot-operated	3/4"-1"	\$ 1064.00
HS1220P12W or P16W manifold only \$ 504.00					

- Manifold dimensions, 130 x 115 x 50mm (excluding cartridge)
- Consult Hyspecs for anti-cav performance

HS1620P16WS



Cartridges	Q max l/min	P max bar	Notes	Ports BSPP	Assembly Price
RV56-26 x 2 +CV11-12 x 2	300*	350	Pilot-operated	1"	\$ 1761.00
HS1620P16WS manifold only \$ 845.00					

- Manifold dimensions, 150 x 150 x 70mm (excluding cartridge)
- Steel manifold
- Consult Hyspecs for anti-cav performance
- * Relieving flow rating only. CV11-12 is rated to 114LPM

Hydraulic Test Equipment

Webtec Hydraulic Test Equipment

Webtec are specialist manufacturers of hydraulic measurement and control products helping to improve the productivity of heavy machinery.

For anyone who has experienced a hydraulic component failure when they could least afford it, the Webtec range of test equipment holds the answer.

If your system is down and oil is collecting around your feet, the downtime is costing you money. You need to quickly identify which component has failed, fix it, test the system and get back to work.

A Webtec portable tester will allow you, even if you are working alone, to easily and safely simulate operating conditions using the built-in load valve to help pinpoint the fault.

Hyspecs carry a wide range of Webtec products, the following are but a few examples of this range. Please speak to a Hyspecs Engineer to find out more.

Diagnostic Test Equipment

Ideal for hydraulic fault-finding and reporting, used by mobile machinery dealers & service technicians worldwide. The equipment often pays for itself the second time it's used through a reduction in 'warranty claims', only replacing faulty parts and a reduction in machine downtime.

Digital Testers With or Without Remote Inputs

- Measure flow (1% FS), pressure and temperature
- Simple 'On / Off' control
- Secondary flow and speed inputs
- Simulate machine performance using loading valve
- INTERPASS(R) protected



Flow Meters

- Precision turbine flow meters (1% IR)
- 2 models cover range 0.1 - 750 lpm, up to 480 bar
- Additional top ports
- With or without built-in loading valve



Hydraulic Test Equipment

Flow Indicators

- Unidirectional, up to 400 lpm and 420 bar
- Optional relay switch
- Optional thermometer
- Available in aluminium for oil, or brass for water
- Ideal for tank line monitoring



Digital Pressure Gauge

- Digital pressure gauge with peak capture
- Two pressure ranges available 100 / 600 bar
- Backlit display
- Change engineering units



For further information please call us on 0800 497 732 and talk with a sales engineer or email hyspecs@hyspecs.co.nz.

Rules - Of - Thumb

- For every 1 kW of drive, the equivalent of 5 lpm @ 100 Bar can be produced
- To idle a pump when it is unloaded will require about 5% of its full rated power

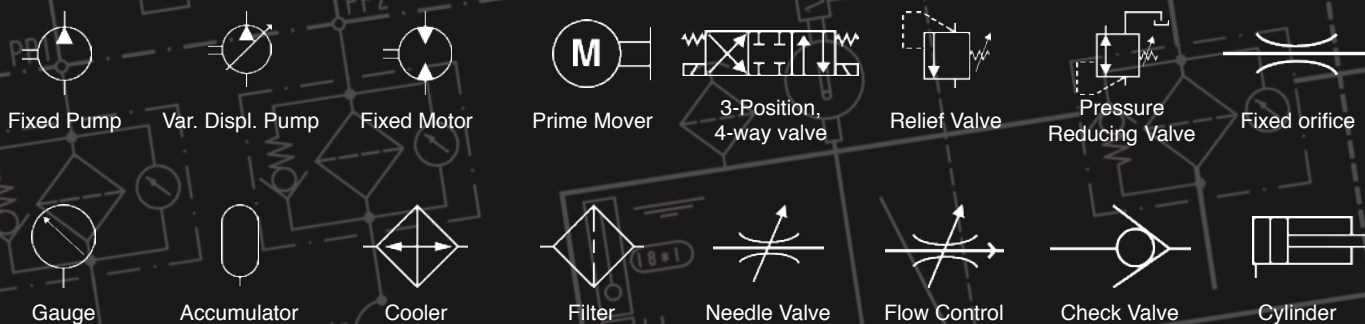
Fluid Power Formulas

- For a pump/motor,
Torque (Nm) = Power (kW) x 9543 / Speed (rpm)
- Force developed by a cylinder,
Force (N) = Bore Area (cm²) x Pressure (Bar) x 10

Fluid Power Formulas

- 1 U.S. gallon = 231 in³ = 3.785 L
- 1 L = 0.2642 U.S. gallon = 61.0303 in³
- 1 in³ = 16.387 cc
- 1 Imperial gallon = 1.2 U.S. gallon
- 1 Bar at sea level = 14.504 PSI
- 1 HP = 0.746 kW
- 1 Atmosphere = 1.013 Bar
- 1 km/h = 0.62 mph
- 1 m = 3.28 ft = 39.37 in
- 1 Nm = 0.7376 foot-lbs

Some Common Fluid Power Symbols



Auckland | Taupo | Christchurch | Nelson | Melbourne | Brisbane



Auckland



Christchurch



Melbourne



Brisbane

HYDRAULIC SPECIALTIES LTD

0800 497 732

hyspecs@hyspecs.co.nz

www.hyspecs.co.nz