


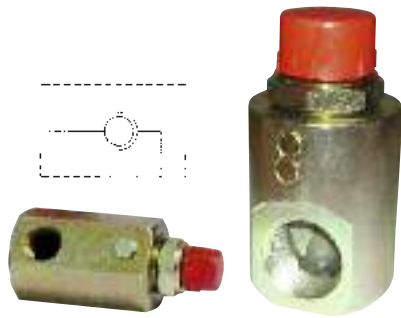
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90° Rotating Couplings

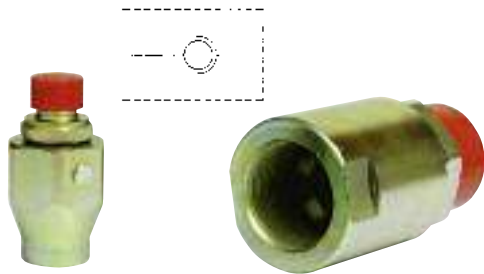
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Mounted between the end of a hydraulic hose and a fixed component thus allowing rotation of the hose • Made from a steel construction • Max rotating speed 0.2m/sec

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar	Max Pressure when Rotating
G0990	1/4"	25	400	200
G1010	3/8"	35	400	200
G1020	1/2"	60	300	150
G1030	3/4"	100	300	150
G1040	1"	180	300	100
G1042	1 1/4"	200	300	100
G1043	1 1/2"	250	300	80
G1044	2"	300	250	50

In-Line Rotating Couplings

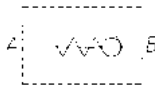


Zinc Plated • Steel Body • Max rotating speed 0.2 m/sec

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar	Max Pressure when Rotating
G1050	1/4"	25	400	200
G1060	3/8"	35	400	200
G1070	1/2"	60	300	150
G1080	3/4"	100	300	150
G1090	1"	180	300	100
G1091	1 1/4"	200	300	100
G1092	1 1/2"	250	300	80
G1093	2"	300	250	50

Check Valves

Springs available for inline check valves:
1 Bar • 3 Bar
5 Bar • 8 Bar

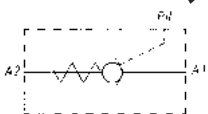


IN LINE

Poppet type – Superior valve seating by means of a machined cone • Flow is free in one direction and blocked in the reverse direction • Standard spring set @ 0.4 Bar
• Zinc Plated Steel Body • Temp -10 +100 °c • 250 Bar Rated

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar	Max Pressure when Rotating
V0590	1/4"	30	250	400
V0600	3/8"	45	250	400
V0610	1/2"	70	250	400
V0620	3/4"	110	250	400
V0630	1"	160	250	400
V0631	1 1/4"	200	250	400
V0632	1 1/2"	300	250	400

SINGLE PILOT CHECK VALVE



This valve is used to stop the actuator in position until pilot pressure is applied
Zinc Plated • Steel Body • Hardened Internal Components • 250 Bar Rated

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0273	1/4"	25	250
V0275	3/8"	40	250
V0277	1/2"	70	250

Check Valves

This valve is used to block the actuator in position in both directions. It is easily assembled on a hydraulic cylinder • Zinc Plated • Steel Body • 4 Bar Cracking Pressure • 250 Bar Rated

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar	Max Pressure when Rotating
V0010	1/4"	25	250	400
V0020	3/8"	35	250	400
V0030	1/2"	50	250	400
V0040	3/4"	105	250	400

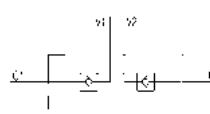
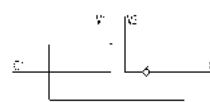
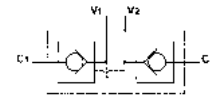
Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar	Max Pressure when Rotating
V0220	1/4"	25	250	400
V0230	3/8"	35	250	400
V0240	1/2"	50	250	400
V0245	3/4"	105	250	400

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar	Max Pressure when Rotating
V0055	3/8"	55	250	400

DOUBLE PILOT OPERATED CHECK VALVE

SINGLE PILOT CHECK VALVE

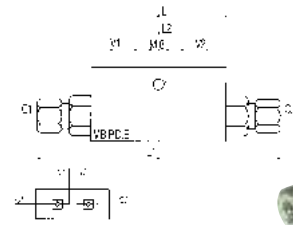
DOUBLE HEX CYLINDRICAL TYPE



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Check Valves for 12mm Pipe Mounting DIN2353

Part Number	Thread BSP V1+V2	Pilot Ratio	Max Flow L/Min	Max Pressure Bar	Pipe Size Bar	L	L1	L2	L3	H	S	Max Working Bar	Max Holding Pressure Bar
V0090	1/4"	1:5.7	25	250	12	64	134	34	160	40	30	250	400
V0110	3/8"	1:5.7	30	250	12	64	134	36	166	40	30	250	400
V0130	3/8"	1:5.7	35	250	12	80	154	38	180	40	30	250	400
V0135	1/2"	1:5.2	5	250	12	90	164	45	196	45	35	250	400



Check Valves Straight Through Ports

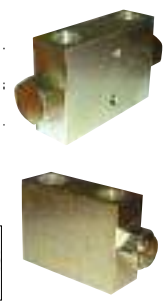
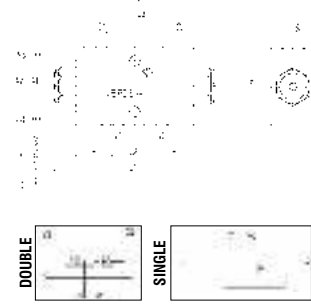
This valve is used to block the cylinder in both directions. It is easily assembled on a hydraulic cylinder • zinc plated steel body • 4 bar cracking pressure

Part Number	Thread BSP V1-V2-C1-C2	Max Flow L/Min	L	L1	L2	L3	H	S	Max Working Bar	Max Holding Pressure Bar
V0178	1/4"	25	80	112	30	52	60	30	250	400
V0180	3/8"	30	80	112	30	52	60	30	250	400
V0190	1/2"	55	115	157	39	80	80	35	250	400

Part Number	Thread BSP V1-V2-C1-C2	Max Flow L/Min	L	L1	L2	L3	H	S	Max Working Bar	Max Holding Pressure Bar
V0272	1/4"	25	80	96	33.5	50	60	30	250	400
V0274	3/8"	30	80	96	33.5	50	60	30	250	400

DOUBLE

SINGLE

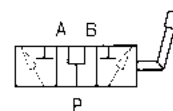


3-Way Diverter Valves

Diverter flow is used to connect or to take out inlet flow towards two ports • Cast Iron Body • Open Centre* • Low leakage • Hardened Spindle • 250 Bar Rated

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0880	3/8"	35	250
V0890	1/2"	60	250
V0900	3/4"	100	250
V0910	1"	180	250

* Closed centre available on request



4-Way Diverter Valves

4 Way • All ports crossed cast iron body • 250 Bar Rated

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0970	3/8"	35	250
V0980	1/2"	60	250
V0981	3/4"	100	250



6-Way Diverter Valves



6 Way Diverter is ideal to control a double acting cylinder
cast iron body • Open centre* • Low leakage • Hardened Spindle • 300 Bar Rated

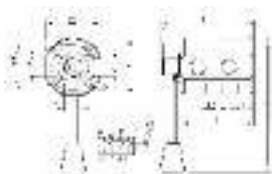
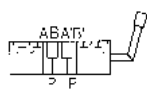
Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0920	3/8"	35	300
V0940	1/2"	60	300
V0950	3/4"	100	300
V0960	1"	180	300

6 Way • steel body • max working pressure 300 Bar

Part Number	Thread BSP	Max Flow L/Min	L	L1	L2	L3	L4	ØD	H	H1	G	Max Working Pressure Bar
V0930	3/8"	40	60	140	58	32	25	47	74	96	M8	300
V0932	1/2"	40	69	150	66	37	27	47	83	105	M8	300

* Closed centre available on request

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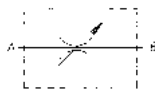


Flow Control Valves



This valve is used to adjust flow speed in both directions good quality graduated adjustment • C/W allen lock-off screw
• Zinc Plated Steel Body • Rated to 350 Bar

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0584	1/4"	15	400
V0586	3/8"	30	400
V0587	1/2"	50	400
V0589	3/4"	80	400

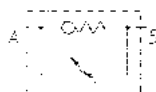


Flow Control Valves with Check



This valve is used to control flow in one direction, opposite direction flow is free good quality graduated adjustment
• C/W allen lock-off screw • Zinc Plated Steel Body • Rated to 350 Bar Rated

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0581	1/4"	15	400
V0582	3/8"	30	400
V0583	1/2"	50	400
V0588	3/4"	80	400



Barrel Flow Control Valves



* CLOSED CENTRE AVAILABLE ON REQUEST

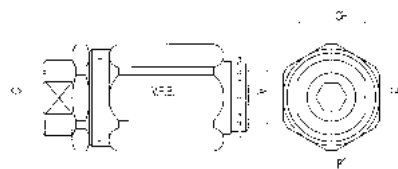
This valve is used to adjust flow speed in one direction, opposite direction flow is free
Zinc Plated • Steel Body • Poppet Type • Cracking Pressure 0.5 Bar

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0540	1/4"	30	250
V0550	3/8"	45	250
V0560	1/2"	70	250
V0570	3/4"	110	250
V0580	1"	180	250

This valve is used to adjust flow speed in one direction, opposite direction flow is free
Zinc Plated • Steel Body • Poppet Type • Cracking Pressure 0.5 Bar

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0545	1/4"	30	250
V0555	3/8"	45	250
V0565	1/2"	70	250
V0575	3/4"	110	250
V0585	1"	160	250

Option available upon request: Aluminium Body • Matric Thread



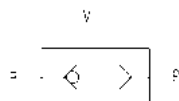
REGULATED HIGH REGULATED LOW

Shuttle Valve



This valve is used to select the higher pressure between two pressure lines
Steel Body • Zinc Plating

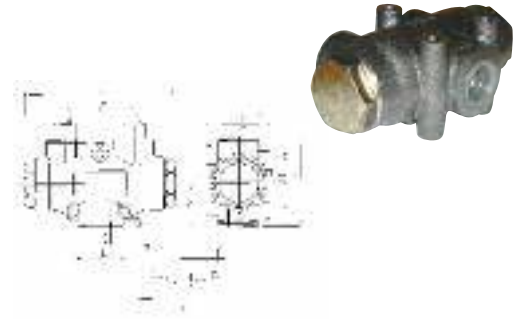
Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0666	1/4"	30	250
V0668	3/8"	45	250
V0670	1/2"	70	250
V0680	3/4"	110	250



Cartridge Valves - Flow Divider

50/50 Flow Divider • 3-80 L/min • Steel Construction • Yellow Zinc plated • 250 Bar Max Working Pressure

Part Number	Max Flow L/Min	P (BSP)	A+B	L1	L2	L3	L4	ØG	H	H1	S
V1000	3-6	3/8"	3/8"	117	53	40	45	7	35	68	48
V1002	6-10	3/8"	3/8"	117	53	40	45	7	35	68	48
V1003	10-20	3/8"	3/8"	117	53	40	45	7	35	68	48
V1004	20-32	3/8"	3/8"	117	53	40	45	7	35	68	48
V1005	25-40	1/2"	3/8"	117	53	40	45	7	35	68	48
V1006	40-60	1/2"	3/8"	117	53	40	45	7	35	68	48
V1007	60-80	1/2"	3/8"	117	53	40	45	7	35	68	48



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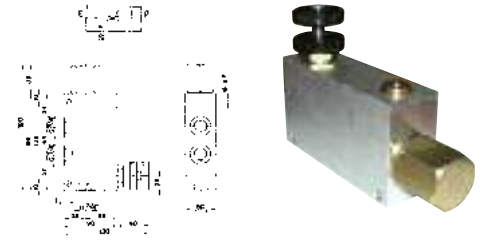
Cartridge Valves - 3 Port Flow Control Valve

(Ongoing Pressure Line)

These valves enable the operator to set preferential rate control flow at the required valve by means of external regulation irrespective of any variation in the pump delivery pressure to the valve, releasing excess to the secondary pressure line.

Extruded aluminium alloy body and hardened steel internal components.

Part Number	Thread BSP	Q Max Flow at inlet port (E)	Q Max Flow at inlet port (E)	Max Pressure Bar
VCFCB3PA03B	3/8"	55 L/min	30L/min	210 Bar
VCFCB31PA04B	1/2"	90 L/min	55 L/min	210 Bar
VCFCB32PA06B	3/4"	150 L/min	90 L/min	210 Bar



Cartridge Valves - 3 Port Flow Control Valve

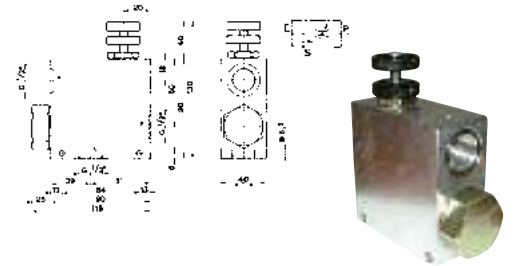
(Excess to Tank)

Pressure compensated excess to tank.

These valves enable the operator to set preferential rate control flow at the required valve by means of external regulation irrespective of any variation in the pump delivery pressure to the valve, releasing excess to the tank even when the flow is just a few bar higher.

Extruded aluminium alloy body and hardened steel internal components.

Part Number	Thread BSP	Q Max Flow at inlet port (E)	Q Max Flow at inlet port (E)	Max Pressure Bar
VCFCB3A03B	3/8"	55 L/min	30L/min	210 Bar
VCFCB31A04B	1/2"	90 L/min	55 L/min	210 Bar
VCFCB32A06B	3/4"	150 L/min	90 L/min	210 Bar



Cartridge Valves - Relief Valves In-Line

The relief valve provides overload protection in a fast and accurate way. the relief valve is direct acting • Yellow Zinc Plated • Steel Body • Leak-proof Cap • STD Spring 50-400 Bar

Options available upon request: spring set at 4-50 Bar and 100-350 Bar steel body • yellow zinc plating • locking wire on RV cartridge handknob • protection cap

Part Number	Thread BSP	Relief Valve Setting	Max Flow L/Min	Max Pressure Bar
V0689	1/4"	50-250	30	300
V0690	3/8"	50-250	40	300
V0700	3/8"	50-250	45	300
V0710	1/2"	50-250	70	300
V0720	3/4"	50-250	120	300
V0725	3/4"	50-400	120	300
V0735	1"	50-400	180	300

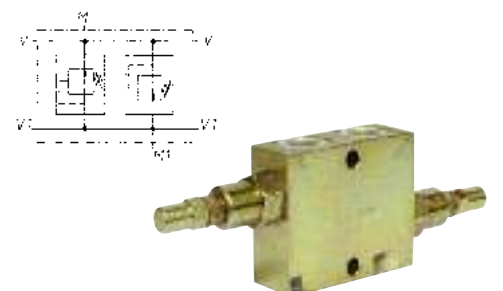


Cartridge Valves - Relief Valves Dual Cross Line (Inline)

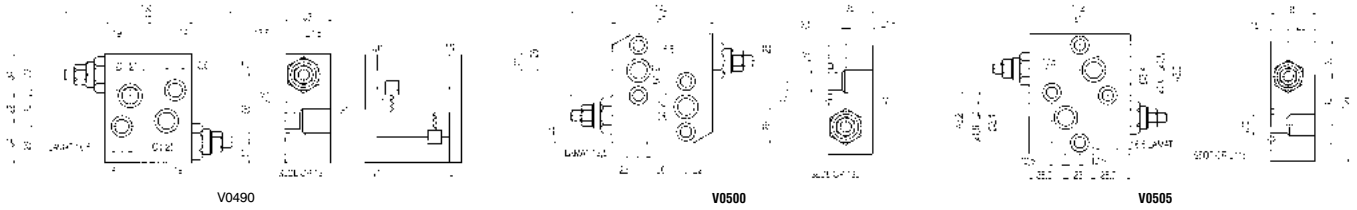
This dual crossline relief provides protection against sudden shock pressures created by sudden stops in a hydraulic circuit • 350 Bar Rated • Other settings available

Part Number	Thread BSP	Relief Valve Setting	Max Flow L/Min	Max Pressure
V0438	1/4"	50 - 180	30	300
V0440	3/8"	50 - 180	45	300
V0450	1/2"	50 - 180	70	300
V0460	3/4"	50 - 180	110	300

0-50 Bar, 20-100 Bar, 50-250 Bar and 80-300 Bar available upon request



Relief Valve Dual Cross Line Mounted



Part Number	Description	Max Flow L/min	V1-V2 Ports BSP	Relief Valve Setting	Max Pressure Bar
V0490	Dual Cross Line RV for OMR Motor	50	1/2"	50-250	300
V0500	Dual Cross Line RV for OMR Motor	60	1/2"	50-250	300
V0505	Dual Cross Line RV for OMR Motor	100	3/4"	50-250	300

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Hose Burst Valves



Hose burst valves are ideally fitted into the port of a hydraulic cylinder. This valve prevents uncontrolled descent of a load in the case of a hose failure.

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0770	1/4"	25	350
V0780	3/8"	50	350
V0790	1/2"	80	350
V0800	3/4"	150	350
V0810	1"	210	300

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0771	1/4"	25	350
V0781	3/8"	50	350
V0791	1/2"	80	350
V0801	3/4"	150	350
V0811	1"	210	300

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0772	1/4"	25	350
V0782	3/8"	50	350
V0792	1/2"	80	350
V0802	3/4"	150	350
V0812	1"	210	300

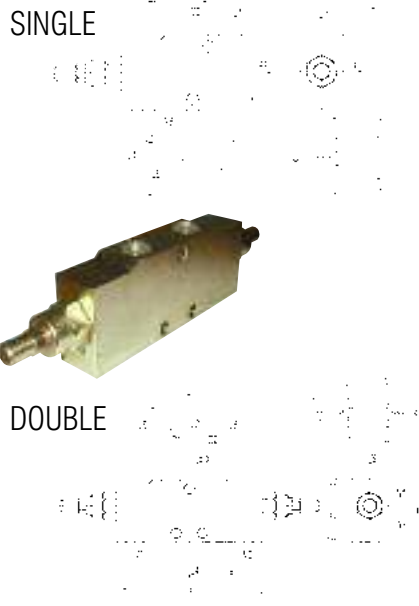
Sequence Valves



Option available upon request: steel body • zinc plating • metric ports • lockwire on cap • face mounting
 Sequence valve provides flow to a secondary circuit when a primary circuit function has been completed, return flow is free • rated to 350 Bar • std RV 40-210 Bar • other RV settings available

Part Number	Thread BSP	Max Flow L/Min	Max Pressure Bar
V0640	3/8"	35	250
V0660	1/2"	60	250

Overcentre Valves



Single overcentre • steel bodied

Part Number	V1-V2-C1-C2 Thread BSP	Max Flow L/min	L	L1	L2	L3	L4	L5	L6	H	S	Max Working Pressure	Max Holding Pressure	Pilot Ratio
V0392	3/8"	40	100	149	30	60	20	50	55	60	30	250	400	1:4
V0412	1/2"	60	100	149	35	65	20	50	57.5	60	30	250	400	1:4
V0419	3/4"	95	127	192	45	64	23.5	62.5	75	80	35	250	400	1:3

Double overcentre • steel bodied

Part Number	V1-V2-C1-C2 Thread BSP	Max Flow L/min	L	L1	L2	L3	L4	L5	L6	H1	H2	H	S	Max Working Pressure	Max Holding Pressure	Pilot Ratio
V0422	3/8"	40	150	248	50	110	30	50	44	32	28	60	30	250	400	1:4
V0432	1/2"	60	150	248	50	110	30	50	44	32	28	60	30	250	400	1:4
V0435	3/4"	95	190	320	65	143	44	62.5	64	40	40	80	35	250	400	1:3

Motor mounted • steel bodied

Part Number	Description	Max Flow L/min	Max Working Pressure	Max Holding Pressure
V0415	Single Overcentre for OMP/OMR Series	50	250	400
V0425	Double Overcentre for OMP/OMR Series	50	250	400

In Line Needle Check Valves in Carbon Steel - In line double-acting flow control and shut-off control needle valves

They allow flow control in both directions. Needle adjustments give:

- full shut off (via metal seat);
- accurate control for a wide range of flowrates.

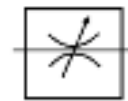
The valve has a graduated adjustment scale below the handle to indicate accurately the valve position.

There is a locking screw in the handle to allow the handle to be fixed. (Preventing accidental adjustment or movement due to vibration).

A panel mounting nut (G) can be supplied on request.

ON REQUEST

- Versions in AISI 316 stainless steel code FT 2257/2
- Viton seals (V)
- NPT threads
- Complete with panel mounting nut (G)
- Handwheel in ABS (mp) - plastic



Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar	Min Burst Pressure Bar
FT257/2-01-18	1/8"G	12	400	1600
FT257/2-01-14	1/4"G	25	400	1600
FT257/2-01-38	3/8"G	60	400	1600
FT257/2-01-12	1/2"G	75	400	1600
FT257/2-01-34	3/4"G	120	400	1600
FT257/2-01-100	1"G	200	320	1300
FT257/2-01-114	1 1/4"G	250	320	1300
FT257/2-01-112	1 1/2"G	300	320	1300
FT257/2-01-200	2"G	350	320	1300

In Line Needle Check Valves in Carbon Steel - 90° Angle double-acting shut-off control valves

They allow flow control in both directions. Needle adjustments give:

- full shut off (via metal seat)
- accurate control for a wide range of flowrates.

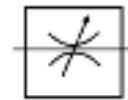
The valve has a graduated adjustment scale below the handle to indicate accurately the valve position.

There is a locking screw in the handle to allow the handle to be fixed. (Preventing accidental adjustment or movement due to vibration).

A panel mounting nut (G) can be supplied on request.

ON REQUEST

- Versions in AISI 316 stainless steel code FT 2258/2
- Viton seals (V)
- NPT threads
- Complete with panel mounting nut (G)
- Handwheel in ABS (mp) - plastic



Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar	Min Burst Pressure Bar
FT258/2-01-14	1/4"	20	400	1600
FT258/2-01-38	3/8"	50	400	1600
FT258/2-01-12	1/2"	65	400	1600
FT258/2-01-34	3/4"	90	400	1600

In Line Needle Check Valves in Carbon Steel - Single-acting control needle valves in line

Their function is to control and eventually shut-off the flow in one direction, allowing a free return flow in the opposite direction.

The check valve spring is housed in such a way that it does not close as a pack during opening of the check valve poppet.

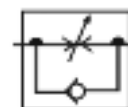
Needle adjustments give:

- full shut off (via metal seat);
- accurate control for a wide range of flowrates.

The valve has a graduated adjustment scale below the handle to indicate accurately the valve position.

There is a locking screw in the handle to allow the handle to be fixed. (Preventing accidental adjustment or movement due to vibration).

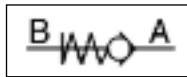
A panel mounting nut (G) can be supplied on request. Opening pressure is 0.35 bar.



Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar	Min Burst Pressure Bar
FT257/5-01-18	1/8"G	10	400	1600
FT257/5-01-14	1/4"G	20	400	1600
FT257/5-01-38	3/8"G	50	400	1600
FT257/5-01-12	1/2"G	65	400	1600
FT257/5-01-34	3/4"G	90	400	1600
FT257/5-01-100	1"G	150	320	1300
FT257/5-01-114	1 1/4"G	200	320	1300
FT257/5-01-112	1 1/2"G	300	320	1300
FT257/5-01-200	2"G	350	320	1300

In Line Check Valves in Carbon Steel - Check valve with machined cone poppet

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The valve has a metal to metal seat incorporating a high quality machined cone/spool with hardened tip.

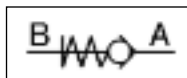
They may be supplied with various springs (0.35 standard, optional 2-4-6-8-10 bar).

ON REQUEST

- Version AISI 316 stainless steel code FT 2257/6
- NPT threads

Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT257/6-18	1/8"G	10	400
FT257/6-14	1/4"G	20	400
FT257/6-38	3/8"G	40	400
FT257/6-12	1/2"G	65	400
FT257/6-34	3/4"G	90	400
FT257/6-100	1"G	110	400
FT257/6-114	1 1/4"G	225	400
FT257/6-112	1 1/2"G	320	320
FT257/6-200	2"G	550	320

In Line Check Valves in Carbon Steel - Ball type check valves



These check valves have a guided ball giving a metal to metal seat.

They may be supplied with two springs (0.35 standard and 4.5 bar). They are used for working pressures up to 350 bar.

ON REQUEST

- Version AISI 316 stainless steel code FT 2260/6

Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT260/6-01-G18	1/8"G	10	350
FT260/6-01-G14	1/4"G	15	350
FT260/6-01-G38	3/8"G	30	350
FT260/6-01-G12	1/2"G	55	350
FT260/6-01-G34	3/4"G	80	350
FT260/6-01-G100	1"G	110	350

Pressure Compensating Flow Control Vavles - Single-acting pressure compensating flow control needle valve



Two inlet flow control valves, pressure compensated and including high capacity single acting valve to allow the free flow in one direction.

THEY INCLUDE TWO NECKS IN SERIES:

- The first one with port section definable by an external control;
- The second one with automatically variable section in relation with counterpressure variations on use.

The choice of the adjustable neck situated upstream is that which best ensures the precision of the valve towards variations of the fluid temperature.

Regarding the structure of the valve, the following points must be underlined

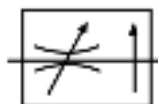
- The rigorous symmetry of the internal components such as to impede unforeseen perturbations of the static and dynamic balances;
- The optimization of the arrangement of internal spring controlling the intervention of the automatic throttling, with variable preload with throttling fixed setting, useful to improve the behaviour at medium-high flowrates;
- The geometry of the passage across which the flow is automatically throttled, designed to minimise the effect of the flow hydromechanic forces on the total balance of the moving element;
- The accuracy of the machinings which enabled to cancel any hysteresis effect of mechanical origin;

- The original aesthetic feature, underlined by the particular form of control handwheel;
- The easiness to reset the flow value thanks to reference pointers. Moreover we believe important to underline the choice of constructive solution fitting to the concept of "double valence", according to which the central body, configured as a threaded cartridge and insertable in the two different bodies at the base or directly in standard modular units, brings about the three marketed versions:

The solution enables the user to request the single modular components to be assembled according to the application.

ON REQUEST

- Complete with rings (G)
- Seals in Viton (V)



Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT277/2-01-14	1/4"G	20	320
FT277/2-01-38	3/8"G	35	320
FT277/2-01-12	1/2"G	65	320
FT277/2-01-34	3/4"G	100	320

Pressure Compensated Flow Control Valves - Single-acting pressure compensated flow control needle valves

Two inlet flow control valves, pressure compensated and including high capacity single acting valve to allow the free flow in one direction.

THEY INCLUDE TWO NECKS IN SERIES:

- the first one with port section definable by an external control;
- the second one with automatically variable section in relation with counterpressure variations on use.

The choice of the adjustable neck situated upstream is that which best ensures the precision of the valve towards variations of the fluid temperature.

Regarding the structure of the valve, the following points must be underlined

- The rigorous symmetry of the internal components such as to impede unforeseen perturbations of the static and dynamic balances;
 - The optimization of the arrangement of internal spring controlling the intervention of the automatic throttling, with variable preload with throttling fixed setting, useful to improve the behaviour at medium-high flowrates;
 - The geometry of the passage across which the flow is automatically throttled, designed to minimise the effect of the flow hydromechanic forces on the total balance of the moving element;
 - The accuracy of the machinings which enabled to cancel any hysteresis effect of mechanical origin;
 - The original aesthetic feature, underlined by the particular form of control handwheel;
 - The easiness to reset the flow value thanks to reference pointers.
- Moreover we believe important to underline the choice of constructive solution fitting to the concept of "double valence", according to which the central body, configured as a threaded cartridge and insertable in the two different bodies at the base or directly in standard modular units, brings about the three marketed versions:
- FT 277/2 two-way;
 - FT 277/5 two-way with single-acting valve;
 - FT 287/2 with cartridge mounted.
- The solution enables the user to request the single modular components to be assembled according to the application.



- On request
- Complete with rings (G)
 - Seals in Viton (V)

Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT277/5-01-14	1/4"G	20	320
FT277/5-01-38	3/8"G	35	320
FT277/5-01-12	1/2"G	65	320
FT277/5-01-34	3/4"G	100	320

Pressure Compensated Flow Control Valves

The accuracy of the working of the internal components ensures a very low hysteresis.

The careful controls performed on all the products guarantee that the valves function well even in the most difficult working conditions.

ON REQUEST

- Complete with mounting nut (G)
- Viton seals (V)



Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT270/2-01-14	1/4"G	15	210
FT270/2-01-38	3/8"G	25	210
FT270/2-01-12	1/2"G	50	210
FT270/2-01-34	3/4"G	80	210
FT270/2-01-100	1"G	140	210

Pressure Compensated Flow Control Valves - Single-acting pressure compensated flow control needle valves

Inside the base there are wide transverse sections which appreciably reduce the loss of pressure.

The accuracy of the working of the internal components ensures a very low hysteresis.

The careful controls performed on all the products guarantee that the valves function well even in the most difficult working conditions.

ON REQUEST

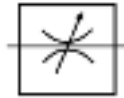
- Complete with panel mounting nut
- Viton seals (V)



Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT270/5-01-14	1/4"G	15	210
FT270/5-01-38	3/8"G	25	210
FT270/5-01-12	1/2"G	50	210
FT270/5-01-34	3/4"G	80	210
FT270/5-01-10	1"G	140	210

Press-Forged Control Valves In Brass - In line double-acting needle control valves (Female/Female)

1.6



They allow for regulation of flow in both directions.
Suitable for applications with air, gas and liquid in general.
As an alternative to FT 257/2 where the working pressure does not exceed 210 bar and when ferrous materials cannot be used.

SAME BASIC CHARACTERISTICS AS THE FT 257 SERIES:

- Accurate flow regulation;
- Efficient metallic sealing;
- Simple setting of flow rates;
- Secure against accidental needle withdrawal;
- Secure needle position with locking Screw inserted in the handwheel;
- Provisions for panel mounting, for which special lock nut (G) is supplied on request.

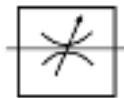
ON REQUEST

- Versions in stainless steel AISI 316 code FT 225½-01
- Viton seals (V)
- NPT threads
- Handwheel in ABS (mp) plastic
- Complete with lock nut (G)

For use with pressures up to 210 bar.

Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT1251/2-01-18	1/8"G	10	210
FT1251/2-01-14	1/4"G	13	210
FT1251/2-01-38	3/8"G	30	210
FT1251/2-01-12	1/2"G	60	210
FT1251/2-01-34	3/4"G	80	210

Press-Forged Control Valves In Brass - 90° angle double-acting needle control valves (Female/Female)



They allow for regulation of flow in both directions.
Suitable for applications with air, gas and liquids in general.
As an alternative to FT 257/2 where the working pressure does not exceed 210 bar and when ferrous materials cannot be used.

SAME BASIC CHARACTERISTICS AS THE FT 257 SERIES:

- Accurate flow regulation;
- Efficient metallic sealing;

- Simple setting of flow rates;
- Secure against accidental needle withdrawal;
- Secure needle position with locking Screw inserted in the handwheel;
- Provisions for panel mounting, for which special lock nut (G) is supplied on request.

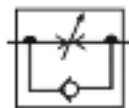
ON REQUEST

- Viton seals (V)
- NPT threads
- Handwheel in ABS (mp) plastic
- Complete with lock nut (G)

They allow use with pressures up to 210 bar.

Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT1252/2-01-18	1/8"G	10	210
FT1252/2-01-14	1/4"G	13	210
FT1252/2-01-38	3/8"G	30	210
FT1252/2-01-12	1/2"G	60	210

Press-Forged Control Valves In Brass - In line single-acting needle control valves (Female/Female)



They allow for regulation of flow in one direction and full free flow in the opposed direction.
As an alternative to FT 257/5 where the working pressure does not exceed 210 bar and when ferrous materials cannot be used.
Suitable for application with air, gas and liquids in general.

SAME BASIC CHARACTERISTICS AS THE FT 257 SERIES:

- Full shut off via metal seal;
- Simple setting of flow rates;
- Secure against accidental needle withdrawal;
- Secure needle position with locking screw inserted in the handwheel;
- Provisions for panel mounting, for which special lock nut (G) is supplied (on request only).

ON REQUEST

- Seals in Viton (V)
- NPT threads
- Handwheel in ABS (mp) plastic
- Complete with lock nut (G)

Max. working pressure is 210 bar.

Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT1251/5-01-14	1/4"G	13	210
FT1251/5-01-38	3/8"G	30	210
FT1251/5-01-12	1/2"G	60	210
FT1251/5-01-34	3/4"G	80	210

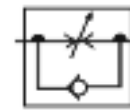
Press-Forged Control Valves In Brass - Single-acting needle control valves

They ensure an accurate control of the fluid in one directions and allow for free passage in the opposed direction.
As an alternative to FT 257/5 where the working pressure does not exceed 210 bar and when ferrous materials cannot be used.
Suitable for application with air, gas and liquids in general.

- SAME BASIC CHARACTERISTICS AS THE FT 257 SERIES:**
- Full shut off via metal seal;
 - Simple setting of flow rates;
 - Secure against accidental needle withdrawal;
 - Secure needle position with locking screw inserted in the handwheel;
 - Provisions for panel mounting, for which special lock nut (G) is supplied (on request only).

Max. working pressure is 210 bar.

- ON REQUEST**
- Versions in stainless steel AISI 316 code FT 2253/5
 - Seals in Viton (V)
 - NPT threads
 - Handwheel in ABS (mp) plastic
 - Complete with lock nut (G)



Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT1253/5-01-18	1/8"G	8	210
FT1253/5-01-14	1/4"G	9	210
FT1253/5-01-38	3/8"G	23	210
FT1253/5-01-12	1/2"G	35	210
FT1253/5-01-34	3/4"G	80	210

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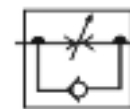
Press-Forged Control Valves In Brass - 90° single-acting needle control valves

They ensure an accurate control of the fluid in one directions and allow for free passage in the opposed direction.
As an alternative to FT 257/5 where the working pressure does not exceed 210 bar and when ferrous materials cannot be used.
Suitable for application with air, gas and liquids in general.

- SAME BASIC CHARACTERISTICS AS THE FT 257 SERIES:**
- Full shut off via metal seal;
 - Simple setting of flow rates;
 - Secure against accidental needle withdrawal;
 - Secure needle position with locking screw inserted in the handwheel;
 - Provisions for panel mounting, for which special lock nut (G) is supplied (on request only).

Max. working pressure is 210 bar.

- ON REQUEST**
- Seals in Viton (V)
 - NPT threads
 - Handwheel in ABS (mp) plastic



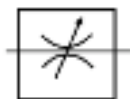
Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT1254/5-01-18	1/8"G	8	210
FT1254/5-01-14	1/4"G	9	210
FT1254/5-01-38	3/8"G	23	210
FT1254/5-01-12	1/2"G	35	210

Fine Control Valves - In line double-acting fine control needle valves

FT's solution for applications requiring precise adjustment of small flow rates.
For both hydraulic-pneumatic applications with flow rates up to 3 L/min max.

- SAME BASIC CHARACTERISTICS AS THE FT 1250 SERIES:**
- Full shut off via metal seal;
 - Provision for panel mounting;
 - Security against accidental needle withdrawal.

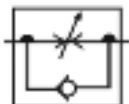
- ON REQUEST**
- NPT threads
 - Viton seals



Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT1237/2-01-18	1/8"G	2.2	210

Fine Control Needle Valves - In line single-acting fine control needle valves

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FT's solution for applications requiring precise adjustment of small flow rates. For both hydraulic-pneumatic applications with flow rates up to 3 L/min max.

SAME BASIC CHARACTERISTICS AS THE FT 1250 SERIES:

- Full shut off via metal seal;
- Provision for panel mounting;
- Security against accidental needle withdrawal.

ON REQUEST

- NPT threads
- Viton seals

Part Number	Ports Size	Max Flow L/Min	Max Working Pressure Bar
FT1237/5-01-18	1/8"G	14	210

Gauge Isolator Valves - In line gauge isolator needle valves



The FT 290 isolator needle valves (in line) are normally used to protect the pressure gauge, since they have the double function of dampening pressure surge during opening and of isolating the pressure-gauge entirely. A rotating (locating) swivel nut allows for accurate pressure gauge orientation.

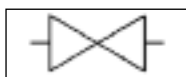
For pressure-gauges with taper thread, it is necessary to use copper plug nuts FT 1201 to be requested separately. Suitable for pressure up to 400 bar and temperature from -20 to +100 they can be panel mounted by use of lock nut (G) which may be supplied on request.

ON REQUEST

- Versions with connections Female/Female (01)
- For rigid pipes (04)
- For flexible pipes (05)
- Seals in Viton (V)
- Complete with lock nut (G). Indicate whether KM or hexagonal.

Part Number	Ports Size	Max Working Pressure Bar
FT290/14	1/4"G	400
FT290/12	1/2"G	400

Gauge Isolator Valves - 90° angle gauge isolator needle valves



The FT 291 isolator needle valves (angle) are normally used to protect the pressure gauge since they have the double function of dampening pressure surge during opening and of isolating the pressure-gauge entirely. A rotating (locating) swivel nut allows for accurate pressure gauge orientation. For pressure - gauges with taper threads, it will be necessary to use copper plug nuts FT 1201 to be requested separately.

Provided with connector FT 299-24 they also allow the connection of "Pressure gauges with connection 1/2" Gas". (As alternative it is advisable to use the mod. FT 290-12). Suitable for pressure up to 400 bar and temperature from -20 to +100 they can be panel mounted by use of lock nut (G) which may be supplied on request.

ON REQUEST

- Versions with connections Female/Female (01)
- For rigid pipes (04)
- For flexible pipes (05)
- Seals in Viton (V)
- Complete with lock nut (G). Indicate whether KM or hexagonal.

Part Number	Ports Size	Max Working Pressure Bar
FT291-14	1/4"G	400

Gauge Isolator Valves - Push-button gauge isolator valves

The new FT 292 push-button isolator valves are used to protect pressure-gauges, since they have the double function of dampening the pressure surge during opening and of isolating the pressure-gauge entirely. A reading is obtained by depressing the button. Releasing the button shuts off the flow to the gauge with residual pressure being automatically drained. The button can be locked to give a continuous reading.

The maximum release pressure is 50 Kg/sq cm. Panel mounting facility. Panel mounting fixtures are supplied only if expressly requested, indicate whether KM or hexagonal. Complete with connector FT 299, they allow for full location orientation for ease of reading. They may be used for working pressures up to 400 bar.



Part Number	Ports Size	Max Working Pressure Bar
FT292	1/4"	400

Directional Control Valves

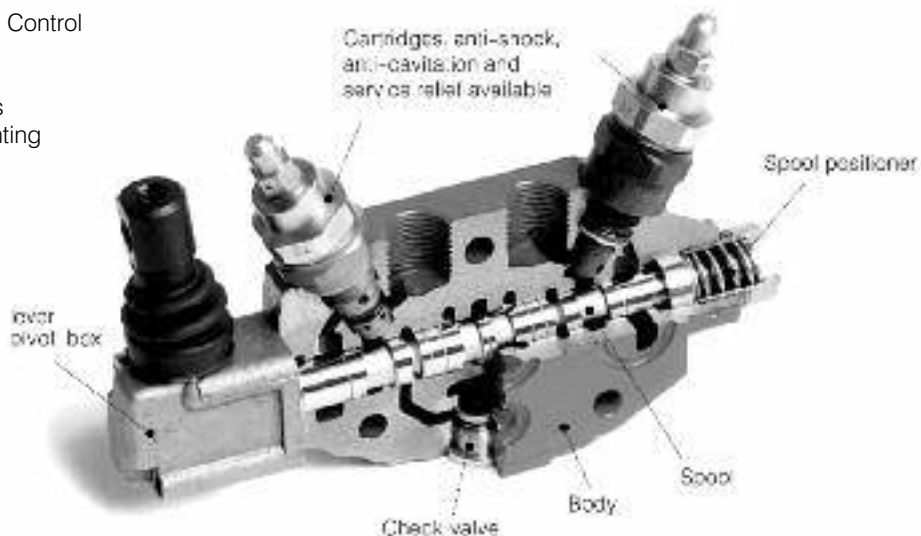
Ask For:
 Hydraulic and Pneumatic Pilot Control
 Solenoid Control
 Proportional control
 Special Spools, Positioner Kits
 Special Bodies and Valve Painting

ALL AVAILABLE UPON REQUEST.

1.6



HDM140
3/8"



Monoblock Directional Control Valves Type HDM

- Lever control
- Electro hydraulic on/off
- Parallel and series circuits
- Unload in neutral, high pressure carryover
- Ancillary Valves: shock-and anticavitation valves, shock valves, check valves



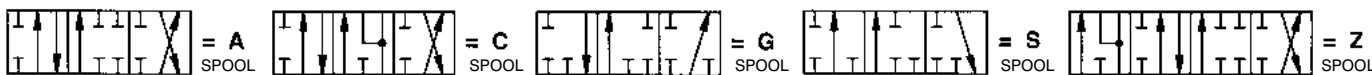
System Description

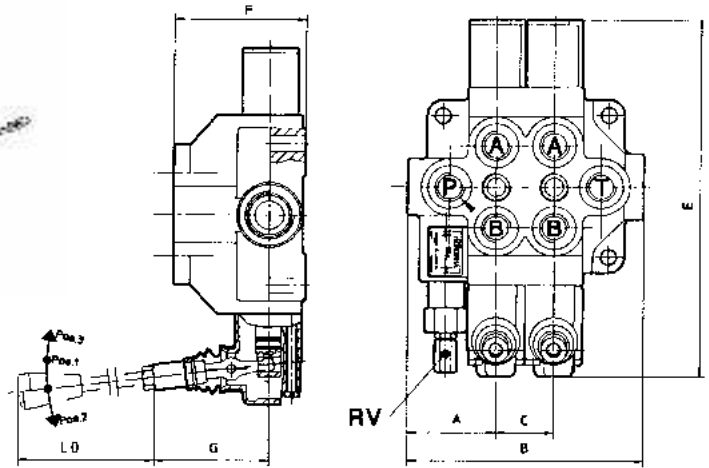
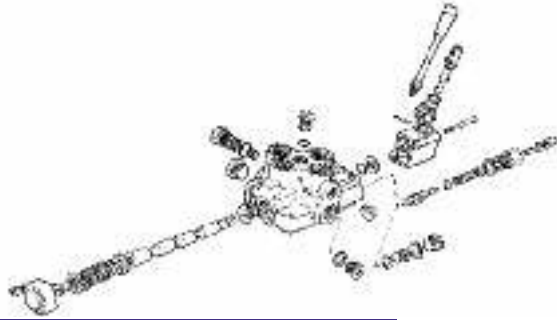
The valves of the HDM range are compact monobloc valves, available in 4 sizes. With the combination of different directional valves, stops, operators and shock-and/or anti-cavitation valves* this monobloc is adaptable to any requirements. The HDM valves are available with open centre, high pressure carryover or closed centre operation.

* Only with HDM 11S and HDM19

Part Number		HDM140	HDM 11 P	HDM 11 S	HDM 18	HDM 19	HDM 25
Number of Spools		1	2-6	1-6	1-4	1-3	1-2
Flow Rate	L/min	40	45	45	70	70	100
Inlet Pressure Max.	bar	320	400	400	400	320	400
Return Pressure Max.	bar	30	30	30	30	30	30
Fluid		Mineral oil to DIN 51524					
Operating Temperature	°C	-20 to +80					
Viscosity Range	mm ² /s	16 to 75					
Filtration	Micron	30					
Directional valve							
Controls Available		Lever / cable control / electro hydraulic (on/off) / electro hydraulic proportional					

Spools Available – Plus Many More





Lever Lengths – mm

HDM 140	150	200	250	300	-
HDM 11	150	200	250	300	-
HDM 19	-	185	250	300	350
HDM 18	-	185	250	300	350
HDM 25	-	185	250	300	350

	A	B	C	E	F	G	P	T	A+B
HDM 140*	35	85	0	187	53	87		3/8" BSP	
HDM 11 P	51.3	28.6 X S + 128.6	28.6	180	57	66		3/8" BSP	
HDM 11 S	53.0	30 X S + 111	36	180	67	66		1/2" BSP	
HDM 19		Contact Us							
HDM 18	60	40 X S + 124	40	216	72	73		1/2" BSP	
HDM 25	62	40 X S + 124	40	252	90	80		3/4" BSP	

S = Number of Spool -1

* Single Section Valve Only

3/8" Ports - 40L/min Monoblock HDM140 Series C/W Relief Valve

Part Number	Description	Bar
200.0514.12.024	HDM140 K02150A01 One Bank Double Acting Spring Return Lever Operated	320
200.0514.12.047	HDM140 K02150G01 One Bank Single Acting Spring Return Lever Operated	320
200.0514.12.044	HDM140 K02150C03 One Bank Motor Spool 3 Position Detent Lever Operated	320

3/8" Ports - 45L/min Monoblock HDM11/P Series C/W Relief Valve

Part Number	Description	Bar
200.0611.22.182	HDM11P/2K04 150 A01 A01 2 Bank Double Acting Spring Return Lever Operated	400
200.0611.32.164	HDM11P/3K04 150 A01 A01 A01 A01 3 Bank Double Acting Spring Return Lever Operated	320
200.0611.42.124	HDM11P/4K04 150 A01 A01 A01 A01 4 Bank Double Acting Spring Return Lever Operated	320
200.0611.52.078	HDM11P/5K04 150 A01 A01 A01 A01 A01 5 Bank Double Acting Spring Return Lever Operated	
200.0611.52.026	HDM11P/6K04 150 A01 A01 A01 A01 A01 A01 6 Bank Double Acting Spring Return Lever Operated	

1/2" Ports - 45L/min Monoblock HDM11/P Series C/W Relief Valve

Part Number	Description	Bar
200.0611.13.042	HDM11S/1K03 150 A01 1 Bank Double Acting Spring Return Lever Operated	400
200.0611.23.043	HDM11S/2K03 150 A01 A01 2 Bank Double Acting Spring Return Lever Operated	400
200.0611.33.044	HDM11S/3K03 150 A01 A01 A01 3 Bank Double Acting Spring Return Lever Operated	400
200.0611.43.040	HDM11S/4K03 150 A01 A01 A01 A01 4 Bank Double Acting Spring Return Lever Operated	400
200.0611.53.037	HDM11S/5K03 150 A01 A01 A01 A01 A01 5 Bank Double Acting Spring Return Lever Operated	400
200.0611.63.015	HDM11S/6K03 150 A01 A01 A01 A01 A01 A01 6 Bank Double Acting Spring Return Lever Operated	400

1/2" Ports - 70L/min Monoblock HDM18 Series C/W Relief Valve

Part Number	Description	Bar
200.0718.13.002	HDM18/1K02 150/A08 1 Bank Double Acting Spring Return Lever Operated	400
200.0718.23.001	HDM18/2K02 150/A08 A08 2 Bank Double Acting Spring Return Lever Operated	400
200.0718.33.008	HDM18/3K02 150/A08 A08 A08 3 Bank Double Acting Spring Return Lever Operated	400
200.0718.43.007	HDM18/4K02 150/A08 A08 A08 A08 4 Bank Double Acting Spring Return Lever Operated	400

3/4" Ports - 100L/min Monoblock HDM25 Series C/W Relief Valve

Part Number	Description	Bar
200.0725.14.001	HDM25/1K03 150/A01 L100 1 Bank Double Acting Spring Return Lever Operated	400
200.0725.24.001	HDM25/2K03 150/A01/A01 L100 2 Bank Double Acting Spring Return Lever Operated	400

Slice Directional Control Valves Type HDS

System Description

The HDS valve range represents a flexible unit construction, the elements of which may be combined into one valve unit as required. The valves are available connected in parallel and in series circuits. A typical valve unit comprises an inlet plate, the directional control valve sections and end plate. With all valves in neutral the flow returned to the tank (open centre). In addition high pressure carry over or closed centre circulation are available.



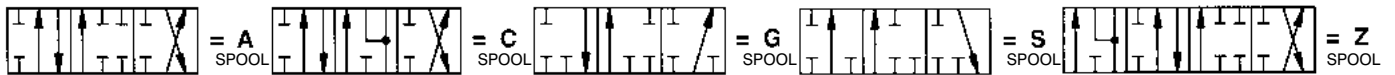
- Lever control
- Electro hydraulic on/off and proportional operation
- Open centre, closed centre and high pressure carryover
- Pilot operated check valves
- Priority flow control valves
- Shock, anticavitation and combined shock and anticavitation valves

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Technical Data		HDS 11	HDS 15	HDS 19	HDS 20	HDS 30
Number of Spools		1-10	1-10	1-10	1-10	1-10
Flow Rate	L/min	45	60	70	80	120
Inlet Pressure max.	bar	320	320	320	320	320
Return Pressure max.	bar	30	30	30	30	30
Fluid		Mineral Oil to DIN 51524				
Operating Temperature	°C	-20 to +80				
Viscosity Range	mm ² /s	16-75				
Filtration	Micron	≤ 30				

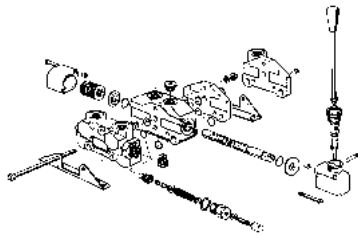
Directional Valve	
Controls Available	Lever / Joystick for 2 Valves / Cable Control / Hydraulic or Pneumatic on/off
	Electro Hydraulic (on/off) / Electro Pneumatic Proportional

Spools Available – Plus Many More

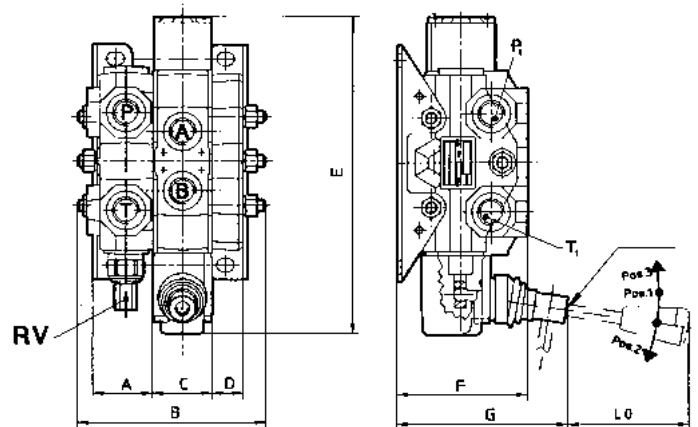


	A	B	C	D	E	F	G	P+T	A+B
HDS 11	40	31.8 x W + 101.6	31.8	40	171	75	122	3/8" BSP	
HDS 15	44	40 x W + 86	40	21	179	88	115	1/2" BSP	
HDS 19	Contact Us								
HDS 20	40	40 x W + 100	40	40	252	106	121	3/4" 1/2" BSP	
HDS 30	50	44 x W + 124	44	50	262	113	126	1" 3/4"	

W = Width of directional sections (max. 10 sections per control block)



Lever Lengths – mm						
HDM 140	150	200	250	300	-	
HDS 11	150	200	150	300	-	
HDS 15	-	185	250	300	350	-
HDS 20	-	185	250	300	350	-
HDS 30	-	185	250	300	350	-
HDS 19	-	185	250	300	350	-



3/8" Ports - 45L/min Slice HDS11 Series C/W Main Relief

Part Number	Description	Bar
	HDS11 1 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS11 2 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS11 3 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
Advised Upon Ordering	HDS11 4 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS11 5 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS11 6 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS11 7 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS11 8 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS11 9 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS11 10 Bank C/W Main RV Double Acting Spring Return Lever Operated	320

1/2" Ports - 60L/min Slice HDS15 Series C/W Main Relife

Part Number	Description	Bar
Advised Upon Ordering	HDS15 1 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS15 2 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS15 3 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS15 4 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS15 5 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS15 6 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS15 7 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS15 8 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS15 9 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS15 10 Bank C/W Main RV Double Acting Spring Return Lever Operated	320

1/2" Ports - 80L/min Slice HDS20 Series C/W Main Relife

Part Number	Description	Bar
Advised Upon Ordering	HDS20 1 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS20 2 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS20 3 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS20 4 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS20 5 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS20 6 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS20 7 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS20 8 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS20 9 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS20 10 Bank C/W Main RV Double Acting Spring Return Lever Operated	320

3/4" Ports - 120L/min Slice HDS30 Series C/W Main Relife

Part Number	Description	Bar
Advised Upon Ordering	HDS30 1 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS30 2 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS30 3 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS30 4 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS30 5 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS30 6 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS30 7 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS30 8 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS30 9 Bank C/W Main RV Double Acting Spring Return Lever Operated	320
	HDS30 10 Bank C/W Main RV Double Acting Spring Return Lever Operated	320

Directional Control Valves Type L.8S

- Electrohydraulic proportional control • Load Sensing capability • Wide range of functions
- Various inlet sections to allow operation with all types of pumps
- Load independent flow control in parallel operation
- Flexible range for constructing a mobile hydraulic system using a modular concept

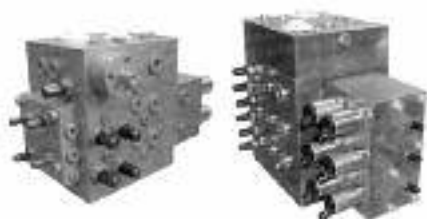
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Systems Data		
Nominal flow	L/min	max. 150
Flow Rate, Port A+B	L/min	max. 90
Inlet Pressure, Port P+D	bar	max. 315
Inlet Pressure, Port A+B	bar	max. 315
Peak Pressure, Max. 10 sec/min	bar	max. 330
Return Pressure	bar	max. 200
Fluid	Mineral oil to DIN 51524	
Fluid Temperature Range	°C	-20 to +80
Viscosity Range	mm ² /s	10 to 380
Oil Cleanliness	NAS 1638 class 9, ISO/DIN 4406 class 20/17/14	

Proportional Directional Control Valves Type LV

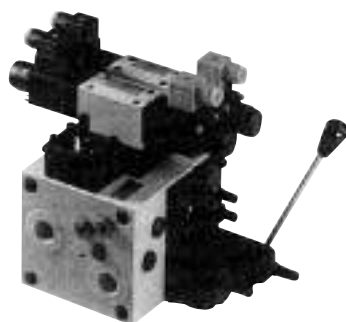
- The flexible modular system enables the setup to be adapted perfectly to the respective application
- A load-independence will be achieved by individual pressure compensators which are assigned to each proportional directional control valve (load-sensing)
- Individual pressure compensator and individual adjustable primary pressure relief



Systems Data			
		LV 16	LV22
Flow Rate, A and B	L/min	180	330
Inlet Pressure	bar	max. 350	
Return Pressure	bar	max. 50	
Fluid	Mineral oil to DIN 51524		
Operating Temperature Range	°C	-20 to +80	
Viscosity Range	mm ² /s	10 to 380	
Filtration	Nas ISO 4406	Class 18/15	

Proportional Directional Control Valve System

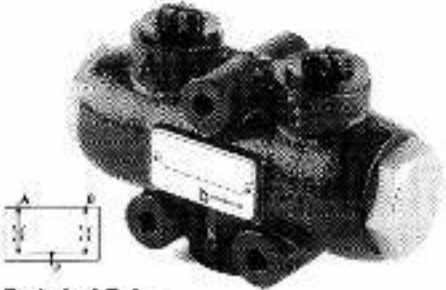
- Load sensing capability may be used with all types of pump in systems with varying flow requirements irrespective of load even when used by several receivers simultaneously
- A flexible concept, especially designed for use in mobile hydraulics



Systems Data				
		12 SV	18 SV	25 SV
Flow Rate	L/min	100	200	450
Inlet Pressure	bar	350		
Return Pressure	bar	50		
Fluid	Mineral Oil to DIN 51525			
Operating Temperature Range	°C	-30 to +70		
Viscosity Range	mm ² /s	3 to 380 (1000)		

Flow Dividers MTDA

- Flow division and combining
- Available with unequal outputs
- Flow division is virtually independent of pressure and viscosity



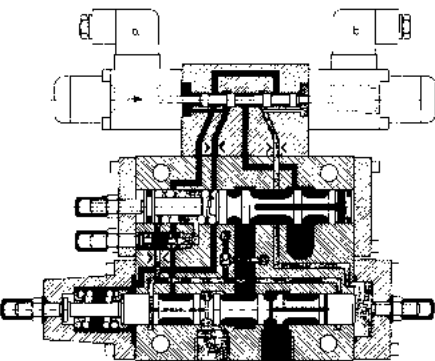
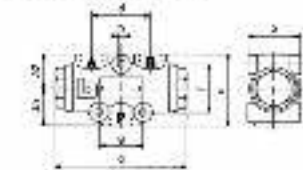
Technical Data

Operating pressure max.	34	315
Temperature	90	min. - 40 to max. 60
Viscosity range	10-170	min. 10 to max. 300

Operating flow ranges

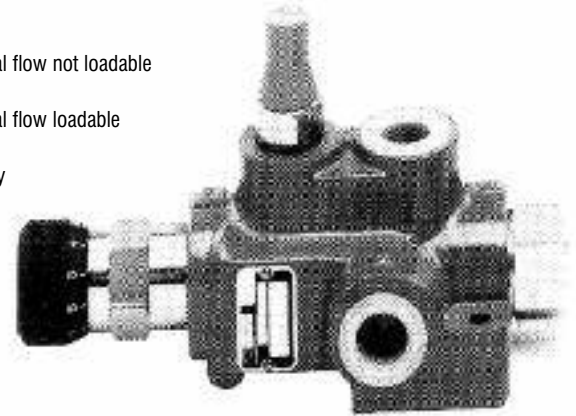
Part Number	Q (l/min) Flow range	Port and thread	
		P	A - B
MTDA 08 - 004 M	2 - 4		
MTDA 08 - 006 M	3 - 6		
MTDA 08 - 008 M	4 - 8		
MTDA 08 - 012 M	6 - 12	M 10 x 1,5	
MTDA 08 - 016 M	8 - 16		
MTDA 08 - 025 M	12 - 25		
MTDA 08 - 032 M	16 - 32		
MTDA 08 - 050 M	25 - 50	M 27 x 1,5	M 18 x 1,5
MTDA 08 - 075 M	37 - 75		
MTDA 08 - 100 M	50 - 100		
MTDA 16 - 100 M	35 - 100	M 27 x 1,5	M 22 x 1,5
MTDA 16 - 160 M	50 - 160		
MTDA 16 - 200 M	62 - 200	M 33 x 2	M 27 x 2
MTDA 16 - 250 M	75 - 250		

Outline dimensions



Priority Flow Control Valves MTKA, MTQA & MTCA

- Manually variable or fixed flow
- MTKA
Residual flow is loadable
- MTQA
Priority flow with relief valve residual flow not loadable
- MTCA
Priority flow with relief valve residual flow loadable
- MTKK
As MTKA function in stackable body
- MTKL
Load sensing function



Technical Data

Type		MTKA, MTQA, MTKK	MTCA
Operating pressure max.	bar	30	315
Max. flow	l/min	70	80
Accuracy	%	± 5	
Pressure drop Δp	bar	3,5 ... 6	4 ... 10
Operating temperature range	°C		- 20 ... + 60
Viscosity range	mm ² /s		10 ... 300

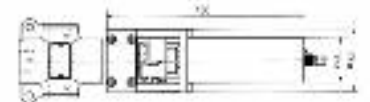
Standard range

Order codes: MT [] [] [] - M 08 [e.g. MTKA 03 - M 08]

Fixed constant flow		Adjustable constant flow	
MTKA	3 l/min = 03	MTKA	0A = 0 - 12 l/min
MTQA	5 l/min = 05	MTQA	0B = 0 - 25 l/min
MTCA	8 l/min = 08	MTCA	0C = 0 - 50 l/min
	12 l/min = 12		0D = 0 - 65 l/min
	15 l/min = 15		

Other flow rates available on request

Remote control
For remote operation the flow control valve can be fitted with an electric motor drive unit



Outline dimensions (all parts are M 22 x 1,5 threads)

MTKA	MTQA	MTCA	Dimensions for variable control version
74	118	108	Dimensions for variable control version
1,2 kg	1,3 kg	2,6 kg	Graduated 0 - 10 mm, roller 329° Detent version available on request

Solenoid Diverter Valves

Diverter valves are an added extra facility to the directional control valve when it is needed for a sequence of operations, such as a safety operation or to control a selected actuator.

3 Way Solenoid Diverter Valves

Part Number	Port Size BSP	Type	Voltage	Nominal Flow L/min	Max Pressure Standard (Bar)	Max Pressure with Drain (Bar)	Weight (Kg)
12A240020	3/8"	DFE050	12V DC	30	160	250	1.6
12A240040	3/8"	DFE050	24V DC	30	160	250	1.6
12A440013	1/2"	DFE10	12V DC	60	160	250	2.9
12A440025	1/2"	DFE10	24V DC	60	160	250	2.9
12A640014	3/4"	DFE20	12V DC	110	160	250	4.2
12A640026	3/4"	DFE20	24V DC	110	160	250	4.2

6 Way Solenoid Diverter Valves

Part Number	Port Size BSP	Type	Voltage	Nominal Flow L/min	Max Pressure Standard (Bar)	MAX Pressure with Drain (Bar)	Weight (Kg)
12A270033	3/8"	DFE050	12V DC	30	160	250	2
12A270023	3/8"	DFE050	24V DC	30	160	250	2
12A470014	1/2"	DFE10	12V DC	60	160	250	3.7
12A470025	1/2"	DFE10	24V DC	60	160	250	3.7
12A670014	3/4"	DFE20	12V DC	110	160	250	6.3
12A670026	3/4"	DFE20	24V DC	110	160	250	6.3

Optional Extras

Part Number	Description
2X1001010	Type C02 (ISO4400) 12/24V DC Herschmann Connector



DFE050
3 WAY • 3/8" BSP



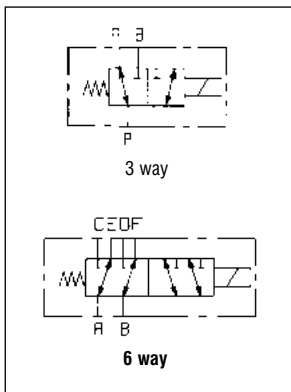
DFE20
3 WAY • 3/4" BSP



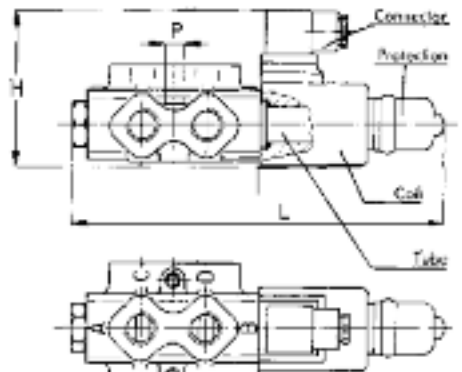
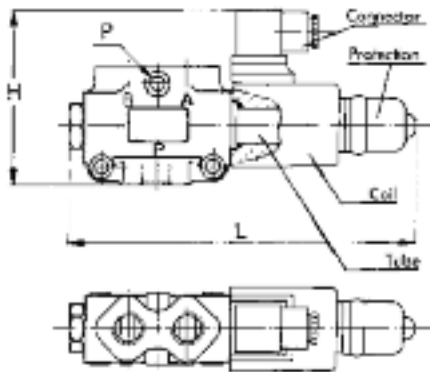
DFE10
6 WAY • 1/2" BSP



DFE16



DFE..J3



Note: for DFE 10-DFE 20 units the 2 way version is obtained by plugging A or B port of a DFE..J3

Type	H		L		O		P		Weight		Details for Y drain connection
	mm	in	mm	in	mm	in	mm	in	Kg	lb	
DFE 5/3	84	3.30	182	7.16	23	0.90	6,5	0.25	1,7	3.7	
DFE 5/6	84	3.30	197	7.75	23	0.90			1,9	4.2	
DFE 10/3	105	4.13	215	8.46	24	0.94			2,9	6.4	
DFE 10/6	103	4.05	242	9.52	24	0.94			3,7	8.1	
DFE 20/3	114	4.48	241	9.48	17	0.67			5,2	11.5	
DFE 20/6	103	4.05	276	10.86	17	0.67	10,5	0.41	5,3	11.7	