WORLD BEST HYDRAULIC VALVES



Hydraulic Modular valve

Cartridge valve

HYDRAULIC VALVES





Hydraulic solution **Hydro-Tek**®





CARTRIDGE VALVE

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MODULAR VALVE

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Hydro-Tek



Check Valve (INSERTED TYPE 1/4)

DESCRIPTION

This valve is a screw in, cartridge type, hydraulic check valve, for use as a blocking or load holding device for high pressure applications.

OPERATION

These check valves allow free flow from part ① to ② and block flow on the opposite direction. They have a very small size and can be fitted directly into threaded holes with shoulders shaped with an angle of 118 degrees.

The backwards installation - with sealing on port ② instead of ① is not recommended.

Seat design is leak proof.

FEATURES

- ⓐ Hardened seat for long life and low leakage.
- **(b)** Valves are burnished
- © Max Working pressure 350 bar

RATINGS

- Operating Pressure : 240 bar
- Proof Pressure : 350 bar
- Flow : See Performance Chart
- Internal Leakage : 0.10 cc/mion max. at 240 bar
- Crack Pressure Defined : Gauge psi evident at ①
 at 16.4 cc/min attained



SYMBOL





Check Valve(INSERTED TYPE 1/4)



DIMENSIONS



CAVITY



MATERIALS

Main body and seat aer made in high quality steel, while ball is hardened and lapped.



Check Valve (INSERTED TYPE 3/8)

DESCRIPTION

This valve is a screw in, cartridge type, hydraulic check valve, for use as a blocking or load holding device for high pressure applications.

OPERATION

These check valves allow free flow from part ① to ② and block flow on the opposite direction. They have a very small size and can be fitted directly into threaded holes with shoulders shaped with an angle of 118 degrees.

The backwards installation - with sealing on port ② instead of ① is not recommended.

Seat design is leak proof.

FEATURES

- ⓐ Hardened seat for long life and low leakage.
- **(b)** Valves are burnished
- © Max Working pressure 350 bar

RATINGS

- Operating Pressure : 240 bar
- Proof Pressure : 350 bar
- Flow : See Performance Chart
- Internal Leakage : 0.10 cc/mion max. at 240 bar
- Crack Pressure Defined : Gauge psi evident at ①
 at 16.4 cc/min attained



SYMBOL







Check Valve(INSERTED TYPE 3/8)



DIMENSIONS



CAVITY



MATERIALS

Main body and seat aer made in high quality steel, while ball is hardened and lapped.



Check Valve (7/8)

DESCRIPTION

A screw-in, cartridge-style, hydraulic check valve for use as a blocking or load-holding device.

OPERATION

Cartridge check valves, ball style. They allow free flow from port ① to port ② and block flow ion the opposite direction. The fully guided ball is spring biased closed until sufficient pressure is applied at port ①.

FEATURES

- ⓐ Hardened seat for long life and low leakage.
- (b) Optional bias springs for back-pressure application flexibility.

RATINGS

- Operating Pressure : 250 bar
- Proof Pressure : 350 bar
- Flow : 30 ℓ/min

MATERIALS

All components are made in high quality steel. The poppet is hardened and ground



SYMBOL



Check Valve (7/8)



DIMENSIONS







Check Valve (X type)

DESCRIPTION

A screw-in, cartridge-style, hydraulic check valve for use as a blocking or load-holding device.

OPERATION

Cartridge check valves, ball style. They allow free flow from port ① to port ② and block flow ion the opposite direction. The fully guided ball is spring biased closed until sufficient pressure is applied at port ①.

FEATURES

- ⓐ Hardened seat for long life and low leakage.
- (b) Optional bias springs for back-pressure application flexibility.

RATINGS

- Operating Pressure : 250 bar
- Proof Pressure : 350 bar
- Flow : 30 ℓ/min

MATERIALS

All components are made in high quality steel.



SYMBOL







DIMENSIONS







Pilot Check Valve

DESCRIPTION

A screw-in, cartridge-style, pilot-operated, hydraulic check valve for use in blocking or load-holding circuits..

OPERATION

This value allows flow from (2) to (3), while normally blocking flow from (3) to (2).

Flow will be allowed from ③ to ② when sufficient pressure is applied at \bigcirc .

the cartridge has a 3:1 pilot ratio, meaning that at least one-third of the load

pressure held at ③ is required at ① to open the valve.

FEATURES

- ⓐ Hardened seat for long long life and low leakage.
- **b** Optional sealed piston.
- © Optional spring ranges.
- d Compact size.

RATINGS

- Operating Pressure : 240 bar
- Flow : See Performance Chart
- Maximum Internal Leakage at 207 bar : to 2 : 0.25ml/minute
- 2 to 1 without sealed piston : 115 ml/minute
- 2 to 1 without sealed piston : zero leakage



SYMBOL



Pilot Check Valve









RELIEF VALVE (3/4)

DESCRIPTION

A screw-in, Cartridge-style, direct-acting, poppettype, hydraulic relief valve intended for lower flow circuits requiring low internal leakage.

OPERATION

The valve blocks flow from 1 to 2 until sufficient pressure is present at 1 to force the spring-opposed poppet from its seat.

For settings over 180 bar.

FEATURES

- (a) Hardened seat for long life and low leakage.
- (b) Optional bias springs for back-pressure application flexibility.
- © Rapid response to pressure change.
- d Compact size.

RATINGS

- Operating Pressure : 248 bar
- Flow : The performance Chart illustrates flow handing capacity at max. setting for each spring range option. Pressure rise will vary with spring (range) and with setting within range due to flow forces. Consult factory for specific flow characteristic values.
- Internal Leakage : 0.25 cc/min max. to of 75% of norminal setting
- Crack Pressure Defined : bar evident a 0.95 lpm attained
- Temperature : -40°C to 1200°C with standard Buna seals



SYMBOL







RELIEF VALVE (3/4)



DIMENSIONS







RELIEF VALVE (7/8)

DESCRIPTION

A screw-in, cartridge-style, pilot-operated, spool-type hydraulic relief valve, intended for use as a pressure limiting device in demanding hydraulic circuits which require fast response and low hysteresis.

OPERATION

The valve blocks flow from ① to ② until sufficient pressure is present at ① to force the piloting relief off its seat, allowing the main (second stage) spool to shift, opening ① to ②.

The cartridge offers smooth transition in response to load changes in demanding hydraulic circuits.

FEATURES

- ⓐ Ajustments cannot be vacked out of the valve.
- (b) Ajustments prohibit springs from going solid.
- © Hardened spool and cage for long life.
- (d) Optional spring range to 210 bar
- (e) Fast, smooth response to pressure surges.

RATINGS

- Operating Pressure : 240 bar
- Flow : The performance Chart illustrates flow handing capacity at max. setting for each spring range option. Pressure rise will vary with spring (range) and with setting within range due to flow forces. Consult factory for specific flow characteristic values.
- Internal Leakage : 115 cc/min max. to of 85% of norminal setting
- Crack Pressure Defined : bar evident a 7.6 Ipm attained
- Temperature : -40℃ to 120℃ with standard Buna seals



SYMBOL



Flow Characteristic 32 cSt oil at 40°C



RELIEF VALVE (7/8)



DIMENSIONS





HSHV 9

SHUTTLE VALVE (LOGIC CHECK)





PERFORMANCE





DESCRIPTION

Port size 1/2". Valve body made from steel. If P-Part drilled from the side into the cavity port 1/2" may vo plugged. Port 1/2" may also ve used to screw a pipe at hose fitting directly into it.

OPERATION

If P-port is pressurised oil flows to A-port through the check valve mometed in the poppet spool. Pressure drop over the check valve and area ratio P to A result in a force moving the poppet spool auto its seat. T port is sealed off leakfree. If P-port is depressurised poppet spool will ve pushed open by the pressure in A-port. Flow passes from A to T. The check valve in the poppet spool prevents leak to P-port.

FEATURES

- (a) Hardened seat for long life and low leakage.
- (b) Compact size.
- © Valves are burnished.

RATINGS

- Max working Pressure : 210 bar
- Tolerance on nominal flow $\pm 10\%$ (at 100 bar)

SHUTTLE VALVE (LOGIC CHECK)

HSHV

DIMENSIONS





HPOD 9

PILOT OPERATED DIRECTIONAL VALVE



SYMBOL



PERFORMANCE



DESCRIPTION

This unit is a direct acting, screw in cartridge style, spool type, hydraulic 2-way directional control element, requiring remote pilot actuation.

OPERATION

This valve blocks flow between port ③ and port ② with a spring biased spool. The spool will shift when piloted at port ① with sufficient pressure to overcome the spring bias and allow flow between port ③ and port ②.

FEATURES

- (a) Leakproof screw adjustment.
- (b) This valve has a fixed or an adjustable bias spring.
- © Adjustable screw can not be backed out of the valve.
- (d) Overset protection spring can not go solid.
- e Hardened precision fitted spool & cage provides reliable, long life.

RATINGS

- Operating Pressure : 350 bar
- Proof Pressure : 700 bar
- Flow : 37 ℓ/min nominal
- Internal leakage : 85 cc/min

PILOT OPERATED DIRECTIONAL VALVE

HPOD

DIMENSIONS





HSQV

SEQUENCE VAVLE

DESCRIPTION

For use on Dock Leveler where pressure is to be maintained regardless of drop in system pressure.

OPERATION

In its steady state, the valve blocks flow at (1), while allowing flow to pass from (2) to (3).

On attainment of a pre-determined pressure at (1), the cartridge shifts to open (1) to (2).

FEATURES

- (a) Adjustments cannot be backed out of the valve.
- (b) Adjustments prohibit spring from going solid.
- © Hardened spool and cage for long life.
- d Compact size.

RATINGS

- Max Pressure : 315 bar
- Max Flow : 40 ℓ/min
- Max ightening Torque : 50 Nm



SYMBOL







SEQUENCE VAVLE



DIMENSIONS



CAVITY 15° Ø28 Ø24±0.05 3.5 +0.40 M 22x1.5 5. 6.³ 13 15 3 1 33 38 63 / 50 51 3° Ŝ ~ Ø9.5 max. 29° Ø9.5 max. Ø17 max. Ø18^{+0.05} Ø19^{+0.05}



SOLENOID VALVE (NORMAL CLOSED TYPE) -WITH EMERGENCY (Φ12.7)

DESCRIPTION

A solenoid-operated, 2-way, normally closed, poppettype, screw-in hydraulic cartridge valve, intended to act as a blocking or load-holiding device for low flow circuits.

OPERATION

When de-energized, the valve acts as a check valve allowing oil flow only from port ① to port ②,

When energized the oil flow is possible from port ② to ① and is restricted from ① to ②.

To operate the manual overrid turn the round knob counterclockwise; to reseat the valve for normal operation turn the knob clockwise.

FEATURES

- (a) Continuous-duty rated coil.
- (b) Hardened seat for long life and low leakage.
- © Optional coil voltages and terminations.
- (d) Compact size.
- (e) Cartridges are voltage interchangeable.

RATINGS

- External valve surface are zinc coated
- Operating Pressure : 280 bar max.
- Flow : 40 ℓ/min max.
- Filtration : 280 micron or better
- · Coil must be ordered separately



SYMBOL





SOLENOID VALVE (NORMAL CLOSED TYPE) -WITH EMERGENCY (Ø12.7)



DIMENSIONS







SOLENOID VALVE (NORMAL CLOSED TYPE) -WITH EMERGENCY (Φ15.87)

DESCRIPTION

A solenoid-operated, 2-way, normally closed, poppettype, screw-in hydraulic cartridge valve, intended to act as a blocking or load-holiding device for low flow circuits.

OPERATION

When de-energized, the valve acts as a check valve allowing oil flow only from port ① to port ②.

When energized the oil flow is possible from port ② to ① and is restricted from ① to ②.

To operate the manual overrid turn the round knob counterclockwise; to reseat the valve for normal operation turn the knob clockwise.

FEATURES

- (a) Continuous-duty rated coil.
- (b) Hardened seat for long life and low leakage.
- © Optional coil voltages and terminations.
- (d) Compact size.
- (e) Cartridges are voltage interchangeable.

PERFORMANCE



RATINGS

- External valve surface are zinc coated
- Operating Pressure : 280 bar max.
- Flow : 40 ℓ/min max.
- Filtration : 280 micron or better
- · Coil must be ordered separately



SYMBOL



SOLENOID VALVE (NORMAL CLOSED TYPE) -WITH EMERGENCY (Φ15.87)



DIMENSIONS







SOLENOID VALVE (NORMAL CLOSED TYPE) - WITHOUT EMERGENCY

DESCRIPTION

solenoid-operated, 2-way, normally closed, poppettype, screw-in hydraulic cartridge valve, intended to act as a blocking or load-holiding device for low flow circuits.

OPERATION

When de-energized, the valve acts as a check valve allowing oil flow only from port ① to port ②. When energized the oil flow is possible from port ② to ① and is restricted from① to ②.

FEATURES

- (a) Continuous-duty rated coil.
- (b) Hardened seat for long life and low leakage.
- © Optional coil voltages and terminations.
- (d) Compact size.
- (e) Cartridges are voltage interchangeable.

PERFORMANCE



RATINGS

- External valve surface are zinc coated
- Operating Pressure : 280 bar max.
- Flow : 40 ℓ /min max.
- Filtration : 280 micron or better
- · Coil must be ordered separately



SYMBOL



SOLENOID VALVE (NORMAL CLOSED TYPE) - WITHOUT EMERGENCY



DIMENSIONS







SOLENOID VALVE (NORMAL OPEN TYPE) - WITH EMERGENCY

DESCRIPTION

Cartridge valves, two way, normally open poppet style DC solenoid operated. Leak proof design.

OPERATION

When de-energized the valve acts as a check valve allowing oil flow only from port (2) to port (1).

When energized, the poppet lowers, blocking flow from port (2) to port (1) and allowing flow from port (1) to port (2) after overcoming the coil force.

FEATURES

- (a) Continuous-duty rated coil.
- (b) Hardened seat for long life and low leakage.
- © Optional coil voltages and terminations.
- d Compact size.
- (e) Cartridges are voltage interchangeable.

RATINGS

- External valve surface are zinc coated
- Operating Pressure : 280 bar max.
- Flow : 30 ℓ/min max.
- Filtration : 280 micron or better
- · Coil must be ordered separately



SYMBOL





SOLENOID VALVE (NORMAL OPEN TYPE) - WITH EMERGENCY



DIMENSIONS







SOLENOID VALVE (DOUBLE LOCK TYPE) - WITH EMERGENCY

DESCRIPTION

The consist of normally closed direct acting double lock solenoid cartridge valves.

OPERATION

When de-energized, the Code acts as a check valve, allowing flow from ① to ②, while blocking flow from ② to ①. When energized, the cartridge's poppet lifts to open the ② to ① flow path. In thos mode, flow from ① to ② is severly restricted.

FEATURES

- (a) Continuous-duty rated coil.
- (b) Hardened seat for long life and low leakage.
- © Optional coil voltages and terminations.
- d Compact size.

RATINGS

- · External valve surfaces are ginc coated
- Max working pressure 210 bar
- Max flow 15~25 ℓ/min

MATERIALS

All components are made in high quality steel. The piston is hardened and ground.



SYMBOL





SOLENOID VALVE (DOUBLE LOCK TYPE) - WITH EMERGENCY



DIMENSIONS







PRESSURE COMPENSATED FIXED THROTTLE VALVE

DESCRIPTION

They are flow control valves, two ways, pressure compensated and with fixed orifice.

OPERATION

Flow setting is preadjusted through the calivrated orifice drilled in the compensator piston and is kept constant from (1) to (2) regardless of the $\triangle p$ between port (1) and (2) On the opposite direction, from (2) to (1), the flow is restricted (not pressure compensated) according to the orifice size.

FEATURES

Max working pressure : 210bar Tolerance in nominal flow $\pm 10\%$ (at 100 bar)

|--|

Pressure Compensated Flow		
code	Raegulated flow rate	Application
F01	1 (ℓ/min)	
F02	2 (≬/min)	
F03	3 (≬/min)	
F04	4 (≬/min)	МХОН
F06	6 (≬/min)	w, Λ, απ
F08	8 (≬/min)	
F10	10 (ℓ/min)	
F12	12 (≬/min)	



SYMBOL



PRESSURE COMPENSATED FIXED THROTTLE VALVE





CAVITY



MATERIALS

Valves are made in high quality steel, the female is grinded the piston is hardened and ground.



PRESSURE COMPENSATED FIXED THROTTLE VALVE

DESCRIPTION

They are flow control valves, two ways, pressure compensated and with fixed orifice.

OPERATION

Flow setting is preadjusted through the calivrated orifice drilled in the compensator piston and is kept constant from (1) to (2) regardless of the $\triangle p$ between port (1) and (2). On the opposite direction, from (2) to (1), the flow is restricted (not pressure compensated) according to the orifice size.

FEATURES

Valves are burnished Max working pressure : 210bar Tolerance in nominal flow $\pm 10\%$ (at 100 bar)

RATINGS

Pressure Compensated Flow		
code	Raegulated flow rate	Application
F01	1 (≬/min)	
F01	1 (≬/min)	
F02	2 (≬/min)	
F03	3 (≬/min)	
F04	4 (≬/min)	SH
F06	6 (≬/min)	
F08	8 (≬/min)	
F10	10 (≬/min)	
F12	12 (≬/min)	



SYMBOL






D





DESCRIPTION

They are flow control valves, two ways, pressure compensated and with fixed orifice.

OPERATION

Flow setting is preadjusted through the calivrated orifice drilled in the compensator piston and is kept constant from (1) to (2) regardless of the $\triangle p$ between port (1) and (2). On the opposite direction, from (2) to (1), the flow is restricted (not pressure compensated) according to the orifice size.

FEATURES

Max working pressure : 210bar Tolerance in nominal flow \pm 10% (at 100 bar)

RATINGS					
	Pressure Compensate	ed Flow			
code	Raegulated flow rate	Application			
G01	1 (≬/min)				
G02	2 (≬/min)	-			
G03	3 (≬/min)	-			
G04	4 (≬/min)				
G06	6 (≬/min)	- D1, D3			
G08	8 (≬/min)				
G10	10 (≬/min)				
G12	12 (≬/min)				



SYMBOL











DESCRIPTION

They are flow control valves, two ways, pressure compensated and with fixed orifice.

OPERATION

Flow setting is preadjusted through the calivrated orifice drilled in the compensator piston and is kept constant from (1) to (2) regardless of the $\triangle p$ between port (1) and (2). On the opposite direction, from (2) to (1), the flow is restricted (not pressure compensated) according to the orifice size.

FEATURES

Max working pressure : 210bar Tolerance in nominal flow \pm 10% (at 100 bar)

RATINGS					
	Pressure Compensate	d Flow			
code	Raegulated flow rate	Application			
K04	1 (ℓ/min)				
K08	2 (ℓ/min)				
K12	3 (≬/min)	B5			
K16	4 (ℓ/min)				
K20	6 (≬/min)				



SYMBOL









DE

CAVITY



Hydro-Tek 40



DESCRIPTION

A screw-in, cartridge-style, restrictor check valve.

OPERATION

This value acts as a restrictor in the O to direction. As a check value it provides free flow from O to O.

FEATURES

Hardened spool and cage for long life. Industry-commom cavity.

SYMBOL





DIMENSIONS



D





PRESSURE COMPENSATED ADJUSTABLE THROTTLE VALVE

DESCRIPTION

They are flow control valves, two ways, pressure compensated and with adjustable orifice.

OPERATION

Flow through the valve from input port ① to outlet port ② is set using the one-piece poppet/adjuster. The spring-loaded spool shifts due to the resulting pressure drop, metering the main flow from port ②. Restricted reverse flow is unregulated from Ports ② to ①.

FEATURES

Max working pressure : 210bar Tolerance in nominal flow $\pm 10\%$ (at 100 bar)

RATINGS

Regulated flow : 2~12 (ℓ/min)



SYMBOL



PERFORMANCE



PRESSURE COMPENSATED ADJUSTABLE THROTTLE VALVE



DIMENSIONS







(2)

(2)

PRESSURE COMPENSATED ADJUSTABLE THROTTLE ALVE

DESCRIPTION

They are flow control valves, two ways, pressure compensated and with adjustable orifice.

OPERATION

Flow through the valve from input port ① to outlet port ② is set using the one-piece poppet/adjuster. The spring-loaded spool shifts due to the resulting pressure drop, metering the main flow from port ②. Restricted reverse flow is unregulated from Ports ② to ①.

FEATURES

Max working pressure : 210bar Tolerance in nominal flow $\pm 10\%$ (at 100 bar)

RATINGS

Regulated flow : 2~12 (ℓ/min)

SYMBOL

(1)

PERFORMANCE





PRESSURE COMPENSATED ADJUSTABLE THROTTLE ALVE

DIMENSIONS





HPCV 9

PRESSURE COMPENSATED ADJUSTABLE THROTTLE VALVE

DESCRIPTION

They are flow control valves, two ways, pressure compensated and with adjustable orifice.

OPERATION

Flow through the valve from input port ① to outlet port ② is set using the one-piece poppet/adjuster. The spring-loaded spool shifts due to the resulting pressure drop, metering the main flow from port ②. Restricted reverse flow is unregulated from Ports ② to ①.

FEATURES

- (a) Minimal flow change with pressure variation.
- b Partial reverse flow capability.
- © Hardened working parts for maximum durability.
- (d) Adjustable and tamperproof versions available.

RATINGS

- Pressure : 420 bar
- Regulated Flow : 1-40 ℓ/min
- Fluid : Mineral oil or synthetic fluid with lubricant properties
- Ideal viscosity 15 50 cSt
- Filtration : 25 microns or better



SYMBOL



PERFORMANCE



PRESSURE COMPENSATED ADJUSTABLE THROTTLE VALVE



DIMENSIONS







SPEED CONTROL VALVE



SYMBOL



PERFORMANCE



DESCRIPTION

A screw-in, cartridge-style, variable orifice, hydraulic flow restrictor valve.

OPERATION

The valve increases its orifice value form fully closed to fully open with counter-clockwise adjustment rotation.

FEATURES

- (a) Desired settings may be locked down.
- (b) Hardened parts for long life.
- © Linear adjustment.
- d Compact size.

RATINGS

- Operating Pressure : 240 bar
- Flow : 42 lpm nominal at 7 bar differential at full open 0.5 turns
- Internal Leakage : 0.25 cc/min max. at shut-off
- Adjustment Torque Required : 0.56 Nm at 7 bar, 5.41 Nm at 207 bar



SPEED CONTROL VALVE



DIMENSIONS







COUNTER BALANCE VALVE



SYMBOL



PERFORMANCE



DESCRIPTION

This valve is a direct acting, screw in cartridge style, poppet type, adjustable, pilot assited, hydraulic counterblance valve.

OPERATION

This valve controls moving load and preventing it from runing ahead of the pump, locking the load in any position, it also provides static overload andthermal expansion protection.

The valve is a modulating device that allows free flow from port ② to port ① and then blocks reverse flow until a pilot pressure inversely proportional to the load pressure is sensed at port ③ modulating flow from port ① to port ②.

FEATURES

- (a) Leakproof screw adjustment.
- (b) Adjustable screw can not be backed out of the valve.
- © Overset protection spring can not go solid.

RATINGS

- Max Pressure : 315 bar
- Max Flow : 20 ℓ/min
- Max ightening Torque : 40 Nm

COUNTER BALANCE VALVE

HCBV

211

ALL DE

DIMENSIONS





HBRV

Ρ

С

BURST VALVE

DESCRIPTION

These values can block flow when the lowering speed exceeds preset value as it might happen in case of hose failure. They should ideally be screwed directly into the actuator outlet port. Sealing parts are superfinished and enable to lock the load in the position where the actuator is in the moment of hose failure.

OPERATION

These valves can be supplied, in request, with an orifice on the disc, allowing an emergency lowering of the load. It is reccomended to fit a flow regulator valve downstream the hose burst valve, at the end of flexible hose, to control the lowering speed at the nominal value.

SYMBOL C

Ρ

FEATURES

- Max Pressure : 350 bar
- Max Flow : see diagram





BURST VALVE

HBRV

DIMENSIONS





RATINGS								
G	A	В		С	D		E	F
PF 1/4	8.5	17.5		8	9.	5	2.4	48
PF 3/8	10.5	23	1	0.5	12.	.5	3.5	52
PF 1/2	13	25		12	15	5	4.5	60
G	Installation torqu	e Min flow(≬/	min)	Max flow	/(≬/min)		Hex.	Weight (kg)
PF 1/4	2 Nm	4		25	5		5.5	0.005
PF 3/8	3 Nm	6.3		50			5.5	0.01
PF 1/2	4 Nm	16		80			7	0.02



FLOW-Q ℓ/min

MATERIALS

Screw and disc are made in high quality steel, sealing surfaces are lapped.

HMNV

MANUAL VALVE



DESCRIPTION

A cam-operated, two-way, normally-closed poppet-type directional valve

OPERATION

The vavlve blocks flow in the 2 to 1 flow path until cam force is supplied sufficient to overcome the spring bias load force.

FEATURES

- ⓐ Hardened seat and poppet for long life.
- b Stainless steel cam button.



MANUAL VALVE

HMNV

TT

DIMENSIONS





HMNE

MANUAL VALVE



SYMBOL



DESCRIPTION

Manually-operated four-way, three-position directional valve, with adaptability

to a variety of adjustment operators, in a variety of spool configurations.

OPERATION

Three positions: centered 45 counterclockwise, and 45 clockwise.

In the center position ports (1) and (3) are open while ports (2) and (4) are closed.

In the 45 counterclockwise from center position, ports ① and ④ are open while

ports (2) and (3) are open.

In the 45 clockwise form center position, ports ① and ② are open while

ports ③ and ④ are open.

All ports are paritially open in transtion.

FEATURES

- (a) Three-position detent, friction lock (with detented neutral), or spring return
- (b) operators may be ordered separately.
- © May be fully pressurized at all ports.
- d Optional lock-down bracket
- (e) Hravy-duty construction.
- (f) Induestry common cavity.

RATINGS

- Operating Pressure : 240 bar
- Max. Flow : See Performance Chart
- Internal Leakage : 164cc/minute at 240 bar

MANUAL VALVE

HMNE

DIMENSIONS





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HOW TO ORDER



Please contact Hydro-Tek for different specification of modular block.

SPECIFICATIONS

MODEL CODE	PORT SIZE	PRESSURE kgf/cm² (Max.)	FLOW L/min (Max.)
HBP/A/B-01-C	1/4"	250	40
HBP/A/B-03-C	3/8"	250	80

MODULAR RELIEF VALV

DIMENSIONS



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HOW TO ORDER



Please contact Hydro-Tek for different specification of modular block.

SPECIFICATIONS

MODEL CODE	PORT SIZE	PRESSURE kgf/cm² (Max.)	FLOW L/min (Max.)
HRP/A/B-01-C	1/4"	250	40
HRP/A/B-03-C	3/8"	250	80

MODULAR REDUCING VALVE

DIMENSIONS



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 HC P - 01 - 0

 Cracking pressure

 0: 0.03 kgf/cm²

 2: 0.2 kgf/cm²

 4: 0.4 kgf/cm²

 Valve size

 01: CETOP-3

 03: CETOP-5

 P: P port

 A: A port

 B: B port

Note.

Please contact Hydro-Tek for different specification of modular block.

SPECIFICATIONS

MODEL CODE	PORT SIZE	PRESSURE kgf/cm² (Max.)	FLOW L/min (Max.)
HCP/A/B-01-C	1/4"	250	40
HCP/A/B-03-C	3/8"	250	80

MODULAR CHECK VALVE

DIMENSIONS







HCP-03- *
 HCA-03- *
 HCB-03- *





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SPECIFICATIONS

MODEL CODE	PORT SIZE	PRESSURE kgf/cm² (Max.)	FLOW L/min (Max.)
HPW/A/B-01-1/2	1/4"	250	40
HPW/A/B-03-1/2	3/8"	250	80

MODULAR PILOT OPERATED CHECK VA

DIMENSIONS



HPW-01- * HPA-01- * HPB-01- *



HPW-03- * HPA-03- * HPB-03- *





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HOW TO ORDER



Please contact Hydro-Tek for different specification of modular block.

SPECIFICATIONS

MODEL CODE	PORT SIZE	PRESSURE kgf/cm² (Max.)	FLOW L/min (Max.)
HSW/A/B-01-X/Y	1/4"	250	40
HSW/A/B-03-X/Y	3/8"	250	80

MODULAR THROTTLE CHECK VA

DIMENSIONS



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HOW TO ORDER



Please contact Hydro-Tek for different specification of modular block.

SPECIFICATIONS

MODEL CODE	PORT SIZE	PRESSURE kgf/cm² (Max.)	FLOW L/min (Max.)
HHP-01-C	1/4"	250	40
HHP-03-C	3/8"	250	80

MODULAR SEQUENCE VALVE

DIMENSIONS



HHP-01- *

HHP-03- *



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HOW TO ORDER



Please contact Hydro-Tek for different specification of modular block.

SPECIFICATIONS

MODEL CODE	PORT SIZE	PRESSURE kgf/cm² (Max.)	FLOW L/min (Max.)
HHA/B-01-C	1/4"	250	40
HHA/B-03-C	3/8"	250	80
MODULAR COUNTER BALANCE VA

DIMENSIONS



HHA-03- * HHB-03- *



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HOW TO ORDER

SERIES CODE	VALVE SIZE	POSITIONS	DIAGRAM	VOLTAGE	TYPE
DV	01 : CETOP 3 03 : CETOP 5	2 : 2positions 3 : 3positions	*	1 : DC 12V 2 : DC 24V 3 : AC 110V 4 : AC 220V	N : DIN TYPE B : BOX TYPE

※

DIAGRAM	А	Р	С	0	Т
3 POSITIONS		<u>ATHX</u> E	<u>AIITX</u>	<u>AXIHII</u>	<u>AIIHX</u> A
2 POSITIONS					

SPECIFICATIONS

	FREQUENCY (Hz) RANGE	
AC110V	60	99 ~ 121
AC220V	. 00	198 ~ 242
DC12		10.8 ~ 13.2
DC24		21.6 ~ 26.4

VALVE SIZE	PRESSURE kgf/cm² (Max.)	FLOW L/min (Max.)		
CETOP 3	315	63		
CETOP 5	350	100		

SOLENOID OPERATED DIRECTIONAL VA

DIMENSIONS

DV-01- -* - *- * B

DV-01- -* -*- * N



DV-03- -* - *- * B

DV-03- -* -*- * N





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HOW TO ORDER

SERIES CODE	VALVE SIZE	QUANTITY OF CIRCUIT		PORTS SIZE		DIMENSION
MFB	01 : CETOP 3	2 : 2ports 3 : 3ports 4 : 4ports 5 : 5ports	6 : 6ports 7 : 7ports 8 : 8ports	1 : PF 3/8" 2 : PT 3/8" 3 : NPT 3/8"	4 : PF 1/2" 5 : PT 1/2" 6 : NPT 1/2"	A : 60 B : 100

DIMENSIONS





MFB-01 - * - * - *



MODEL	D	L	
MFB-01-2-*-*		100	
MFB-01-3-*-*		150	
MFB-01-4-*-*	3/8"	200	
MFB-01-5-*-*		250	
MFB-01-6-*-*		300	
MFB-01-7-*-*		350	
MFB-01-8-*-*		400	









HOW TO ORDER

SERIES CODE	VALVE SIZE	QUANTITY OF CIRCUIT		PORTS SIZE		DIMENSION
MFB	03 : CETOP 5	2 : 2ports 3 : 3ports 4 : 4ports 5 : 5ports	6 : 6ports 7 : 7ports 8 : 8ports	1 : PF 3/8" 2 : PT 3/8" 3 : NPT 3/8"	4 : PF 1/2" 5 : PT 1/2" 6 : NPT 1/2"	B : 100







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