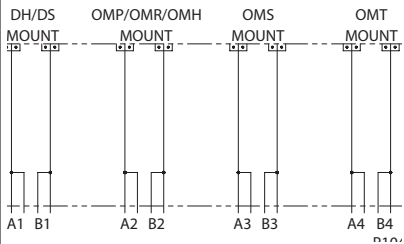
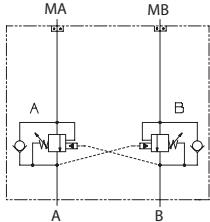
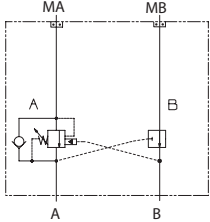
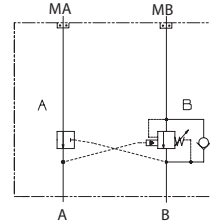
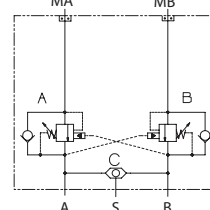


Symbol	Description	Order No.	Page
	Motormount HIC Test Block	11025000	15.21

Symbol	Description	Motor	Model No.	Page
	Dual counterbalance valve	DH	MM-DH-00-DCB10-HV	15.22
		DS	MM-DS-00-DCB10-HV	15.23
		OMP/OMR	MM-OMP/OMR-00-DCB10-HV	15.24
		OMH	MM-OMH-00-DCP441-1	15.25
		OMS	MM-OMS-00-DCP441-1	15.26
		OMT	MM-OMT-00-DCP441-1	15.27

Symbol	Description	Motor	Model No.	Page
	Single counterbalance valve (A port)	DH	MM-DH-00-ACB10-HV	15.28
		DS	MM-DS-00-ACB10-HV	15.29
		OMP/OMR	MM-OMP/OMR-00-ACB10-HV	15.30
		OMH	MM-OMH-00-ACP441-1	15.31
		OMS	MM-OMS-00-ACP441-1	15.32
		OMT	MM-OMT-00-ACP441-1	15.33

Symbol	Description	Motor	Model No.	Page
	Single counterbalance valve (B port)	DH	MM-DH-00-BCB10-HV	15.34
		DS	MM-DS-00-BCB10-HV	15.35
		OMP/OMR	MM-OMP/OMR-00-BCB10-HV	15.36
		OMH	MM-OMH-00-BCP441-1	15.37
		OMS	MM-OMS-00-BCP441-1	15.38
		OMT	MM-OMT-00-BCP441-1	15.39

Symbol	Description	Motor	Model No.	Page
	Dual counterbalance valve with shuttle	DH	MM-DH-LS-DCB10-HV	15.39
		DS	MM-DS-LS-DCB10-HV	15.40
		OMP/OMR	MM-OMP/OMR-LS-DCB10-HV	15.41
		OMH	MM-OMH-LS-DCP441-1	15.42
		OMS	MM-OMS-LS-DCP441-1	15.43
		OMT	MM-OMT-LS-DCP441-1	15.44

Motor mount HICs
 Quick reference

Symbol	Description	Motor	Model No.	Page
	Single counterbalance valve (A port) with shuttle	DH	MM-DH-LS-ACB10-HV	15.46
		DS	MM-DS-LS-ACB10-HV	15.47
		OMP/OMR	MM-OMP/OMR-LS-ACB10-HV	15.48
		OMH	MM-OMH-LS-ACP441-1	15.49
		OMS	MM-OMS-LS-ACP441-1	15.50
		OMT	MM-OMT-LS-ACP441-1	15.51

Symbol	Description	Motor	Model No.	Page
	Single counterbalance valve (B port) with shuttle	DH	MM-DH-LS-BCB10-HV	15.52
		DS	MM-DS-LS-BCB10-HV	15.53
		OMP/OMR	MM-OMP/OMR-LS-BCB10-HV	15.54
		OMH	MM-OMH-LS-BCP441-1	15.55
		OMS	MM-OMS-LS-BCP441-1	15.56
		OMT	MM-OMT-LS-BCP441-1	15.57

Symbol	Description	Motor	Model No.	Page
	Dual cross-port relief valve	DH	MM-DH-00-DVME06	15.58
		DS	MM-DS-00-DVME06	15.59
		OMP/OMR	MM-OMP/OMR-00-DVME06	15.60

Symbol	Description	Motor	Model No.	Page
	Dual cross-port relief valve	OMH	MM-OMH-00-DCP211-2	15.61
		OMS	MM-OMS-00-DCP211-2	15.62
		OMT	MM-OMT-00-DCP211-2	15.63

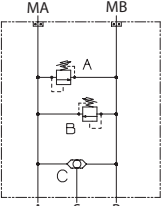
Symbol	Description	Motor	Model No.	Page
	Single cross-port relief valve (A port)	DH	MM-DH-00-AVME06	15.64
		DS	MM-DS-00-AVME06	15.65
		OMP/OMR	MM-OMP/OMR-00-AVME06	15.66

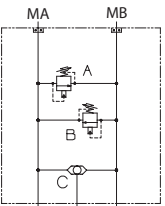
Symbol	Description	Motor	Model No.	Page
	Single cross-port relief valve (A port)	OMH	MM-OMH-00-ACP211-2	15.67
		OMS	MM-OMS-00-ACP211-2	15.68
		OMT	MM-OMT-00-ACP211-2	15.69

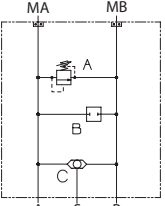
Symbol	Description	Motor	Model No.	Page
	Single cross-port relief valve (B port)	DH	MM-DH-00-BVME06	15.70
		DS	MM-DS-00-BVME06	15.71
		OMP/OMR	MM-OMP/OMR-00-BVME06	15.72

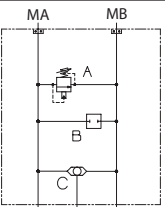
Symbol	Description	Motor	Model No.	Page
	Single cross-port relief valve (B port)	OMH	MM-OMH-00-BCP211-2	15.73
		OMS	MM-OMS-00-BCP211-2	15.74
		OMT	MM-OMT-00-BCP211-2	15.75

Motor mount HICs
 Quick reference

Symbol	Description	Motor	Model No.	Page
	Dual cross-port relief valve with shuttle	DH	MM-DH-LS-DVME06	15.76
		DS	MM-DS-LS-DVME06	15.77
		OMP/OMR	MM-OMP/OMR-LS-DVME06	15.78

Symbol	Description	Motor	Model No.	Page
	Dual cross-port relief valve with shuttle	OMH	MM-OMH-LS-DCP211-2	15.79
		OMS	MM-OMS-LS-DCP211-2	15.80
		OMT	MM-OMT-LS-DCP211-2	15.81

Symbol	Description	Motor	Model No.	Page
	Single cross-port relief valve (A port) with shuttle	DH	MM-DH-LS-AVME06	15.82
		DS	MM-DS-LS-AVME06	15.83
		OMP/OMR	MM-OMP/OMR-LS-AVME06	15.84

Symbol	Description	Motor	Model No.	Page
	Single cross-port relief valve (A port) with shuttle	OMH	MM-OMH-LS-ACP211-2	15.85
		OMS	MM-OMS-LS-ACP211-2	15.86
		OMT	MM-OMT-LS-ACP211-2	15.87

Symbol	Description	Motor	Model No.	Page
	Single cross-port relief valve (B port) with shuttle	DH	MM-DH-LS-BVME06	15.88
		DS	MM-DS-LS-BVME06	15.89
		OMP/OMR	MM-OMP/OMR-LS-BVME06	15.90

Symbol	Description	Motor	Model No.	Page
	Single cross-port relief valve (B port) with shuttle	OMH	MM-OMH-LS-BCP211-2	15.91
		OMS	MM-OMS-LS-BCP211-2	15.92
		OMT	MM-OMT-LS-BCP211-2	15.93

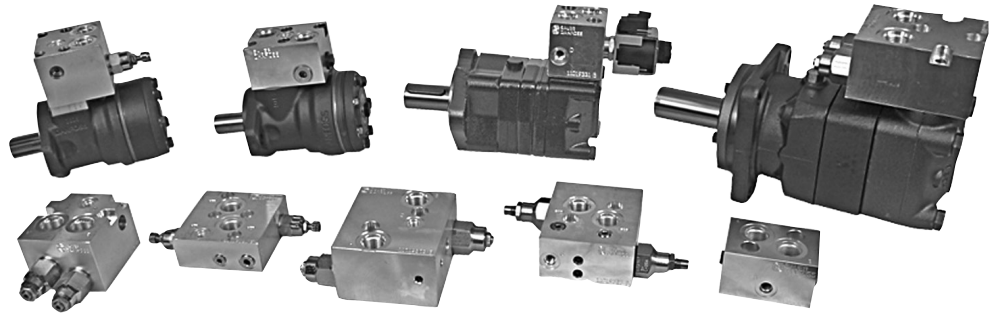
Symbol	Description	Motor	Model No.	Page
	Bypass solenoid with drain	DH	MM-DH-00-SVP10-NCR	15.94
		DS	MM-DS-00-SVP10-NCR	15.95
		OMP/OMR	MM-OMP/OMR-00-SVP10-NCR	15.96
		OMH	MM-OMH-00-SVP10-NCR	15.97
		OMS	MM-OMS-00-SVP10-NCR	15.98
		OMS	MM-OMT-00-CP502-3	15.99

Symbol	Description	Motor	Model No.	Page
	Dual shock valve with anticavitation	DH	MM-DH-00-DPVLP	15.100
		DS	MM-DS-00-DPVLP	15.101
		DS	MM-OMP/OMR-00-DPVLP	15.102
		OMH	MM-OMH-00-DPVLP	15.103
		OMS	MM-OMS-00-DPVLP	15.104
		OMT	MM-OMT-00-DPVLP	15.105

OVERVIEW

This family of motor mount HICs (Hydraulic Integrated Circuits) complements Sauer-Danfoss orbital motors—also known as Low Speed, High Torque (LSHT) motors. These HICs perform several complementary functions common in LSHT motor applications.

Motor mount HIC family



FUNCTIONS

There are four basic types of HIC functions, or schemes, with additional functions available:

- Counterbalance (or overcenter)
 - Dual or single valve on A or B port
 - With or without brake shuttle
- Cross-port relief
 - Dual or single valve on A or B port
 - With or without brake shuttle
- Bypass solenoid
 - With drain port
- Dual shock valve with anti-cavitation checks
 - Uses PVL (shock valve from PVG line)
 - Dual only
 - Ductile iron manifold only

ADVANTAGES

There are advantages to using Comatrol motor mount HICs:

- Pre-packaged designs, specifically for SD motors
 - Pre-work is done to ensure proper assembly and mounting to motor
- System plumbing and packaging efficiencies
 - Reduction in fittings, tubing, and/or hoses
 - Reduction in assembly time
- HICs have been pre-tested to NFPA test standards
- Off-the-shelf* solution of common valve functions applied with orbital motors

ORBITAL MOTORS

There are seven specific Sauer-Danfoss orbital motor types in this program. The table below highlights the motors and their basic technical information. For more information refer to the technical information manual number in the table. HICs fit only the porting configuration shown.

Sauer-Danfoss orbital motors compatible with HICs

Motor type	Units	Displacement range	Max pressure drop* [continuous]	Max pressure drop* [intermittent]	Max flow* [continuous]	Max flow* [intermittent]	Port style for HIC mount	Technical Information
DH	US	2.20 - 23.82 in ³	1800 psi	2400 psi	15.9 US gal/min	19.8 US gal/min	Manifold	520L0439 [DH and DS Orbital Motors]
	Metric	25.0 - 389.2 cm ³	124 bar	166 bar	60 l/min	75 l/min		
DS	US	3.16 - 23.91 in ³	2000 psi	2500 psi	15.9 US gal/min	19.8 US gal/min		
	Metric	51.6 - 390.7 cm ³	138 bar	172 bar	60	75 l/min		
OMP	US	1.53 - 23.82 in ³	2030	2540	15.9 US gal/min	19.8 US gal/min	G 1/2 (BSP)	520L0262 [OMP, OMR, OMH and OMEW Orbital Motors]
	Metric	36.0 - 389.2 cm ³	140 bar	175 bar	60 l/min.	75 l/min		
OMR	US	3.16 - 22.8 in ³	2540 psi	2900 psi	15.9 US gal/min	19.8 US gal/min		
	Metric	51.6 - 372.6 cm ³	175 bar	200 bar	60 l/min.	75 l/min		
OMH	US	12.32 - 28.80 in ³	2540 psi	2900 psi	19.8 US gal/min	23.8 US gal/min		
	Metric	201.3 - 470.6 cm ³	175 bar	200 bar	75 l/min.	90 l/min.		
OMS	US	4.91 - 29.78 in ³	3050 psi	3990 psi	19.8 US gal/min	23.8 US gal/min	G 1/2 (BSP)	520L0407 [OMS, OMT and OMV Orbital Motors]
	Metric	80.5 - 488.0 cm ³	210 bar	275 bar	75 l/min.	90 l/min.		
OMT	US	9.83 - 31.95 in ³	2900 psi	3480 psi	33.0 US gal/min	39.6 US gal/min	G 3/4 (BSP)	
	Metric	161.1 - 523.6 cm ³	200 bar	240 bar	125 l/min.	150 l/min.		

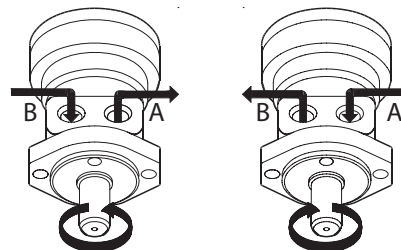
* Pressures and flows are displacement and shaft size dependent. Refer to motor catalog for more specific motor technical details.

Motor mount HICs Application notes

Motor rotation

For the motor mount HIC program, the port designations are illustrated here. With the shaft facing you, A is the port on the right, while B is the port on the left.

Motor rotation



151-1874.10

Order code

The order code is easy to understand. Each code starts with MM for Motor Mount. The second field represents motor type (DH, DS, OMP/OMR, OMH, OMS, or OMT). The third field represents secondary valve (00 for none, LS for shuttle). The fourth field gives the primary valve position (D for dual, A port, or B port) followed by the cartridge used (CB10-HV, CP441-1, VME-06, CP211-1, SVP10-NCR, CP502-3 or PVLV). The remainder of the code details options specific to that cartridge, including port style on the HIC. See each individual valve in this section for a detailed breakdown of the available options.

Sample order code

MM-DH-00-DCB10-HV-1-C-1-E-100-B-10S

- Motor mount: MM
- Motor code: DH
- Secondary valve: 00 = No valve
- Dual counterbalance valve: DC
- Type: HV = Hydraulic Vent
- Pressure range: 1 = 35-110 bar [507-1595 psi], 2 = 60-150 bar [870-2176 psi], 3 = 80-230 bar [1160-3336 psi]
- Pilot ratio: 1 = 55-180 bar [797-2611 psi], 2 = 75-240 bar [1088-3481 psi], 3 = 90-350 bar [1305-5076 psi]
- For pilot ratio C (10:1): 1 = 110-350 bar [1595-5076 psi]
- Cartridge: B10
- Adjust type: 1 = 100 bar [1450 psi]
- Housing and ports: 10S = Al, #10SAE, 4B = Al, 1/2 BSP
- Seals: B = Buna-N, V = Viton
- Cracking pressure (bar): Example: 100 = 100 bar [1450 psi]. See CB10-HV for std. settings
- Part #: 11019287, 11019288
- Cartridge seal kit: 354001419, 354001519
- Check crack pressure: 1 = 1 bar (14.5 psi)
- Part # P104 595

**ORBITAL MOTORS
 (continued)**

Important notes

- Motors are sold separately from HICs.
 - Contact your Sauer-Danfoss representative to order motors.
 - Refer to the motor technical information manual for detailed motor information.

- Mounting bolts and O-rings are included with the purchase of the HIC.
 - The service mount kit allows ordering of just bolts and O-rings.
 - All O-rings are viton.

- All HICs in this program are aluminum, except the dual shock valve HIC.
 - Dual shock valve housing is ductile iron.
 - For ductile iron on any other HIC, please contact your Comatrol representative.

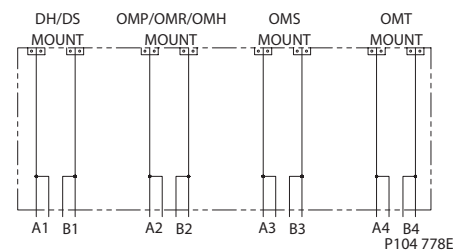
- OMP/OMR and OMH use the same mount, but OMH has higher flow capability.
 - The OMH uses different cartridges to accommodate the higher flow.

- DH and DS use the same mount, but DS requires an additional subplate to clear the motor housing.
 - This subplate is included with the purchase of the HIC.
 - The subplate is also included in the service mount kit for DS HICs.

- Motor mount HICs using dual valves have both valves set identically at the factory.

- Testing
 - A test block is available for HIC testing and adjustment of pressure settings.
 - The test block order number is **11025000**.
 - For further details, refer to the *Accessories* section of this catalog.

Test block schematic



COUNTERBALANCE VALVES

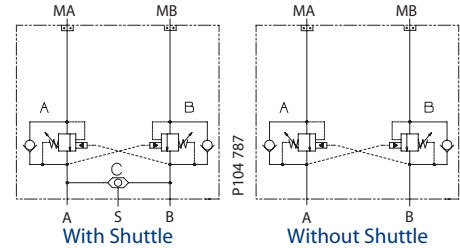
Counterbalance valves prevent motors from drifting excessively due to control valve leakage. They can hold the load in the event of hose/tube failure, or limit overrun when a load is in a lowering or runaway mode (vehicle going downhill). They provide a smooth, cushioned stop when the control valve is suddenly closed.

Counterbalance valves have a pilot ratio of 3.0:1, 4.5:1, or 10.0:1. Typical pilot ratio for motor applications is 10.0:1

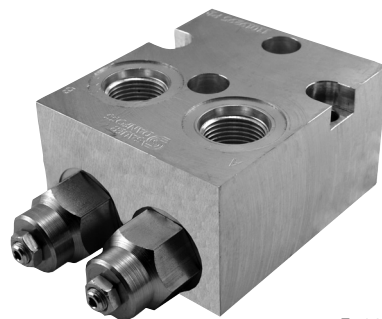
An optional shuttle valve is available for functions such as load sensing feedback, operating an unloading valve, or releasing a brake. The shuttle connects the highest pressure port (A or B) to the S port.

Configurations are available with dual counterbalance valves, or single valve on A or B port. Typical counterbalance applications include swing drives, winch drives, and vehicle propulsion. For more information about counterbalance valves, see [Counterbalance valves](#), section 9 of this catalog.

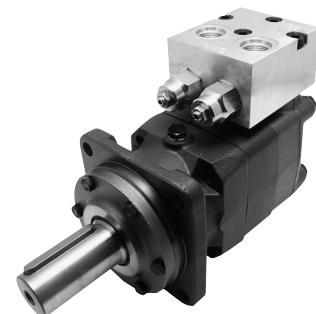
Dual counterbalance valve



Dual counterbalance valve



F102 243



F102 246

COUNTERBALANCE VALVES (continued)

Sample system circuits

Motor with dual counterbalance valve

A typical rotary circuit application for a counterbalance valve contains a pump, directional control valve, system relief valve, and motor. Without a counterbalance valve there is no back pressure to hold the load on the motor, or to prevent free rotation when the control valve shifts to the neutral position. Additionally nothing prevents motor rotation in the event of hydraulic line failure.

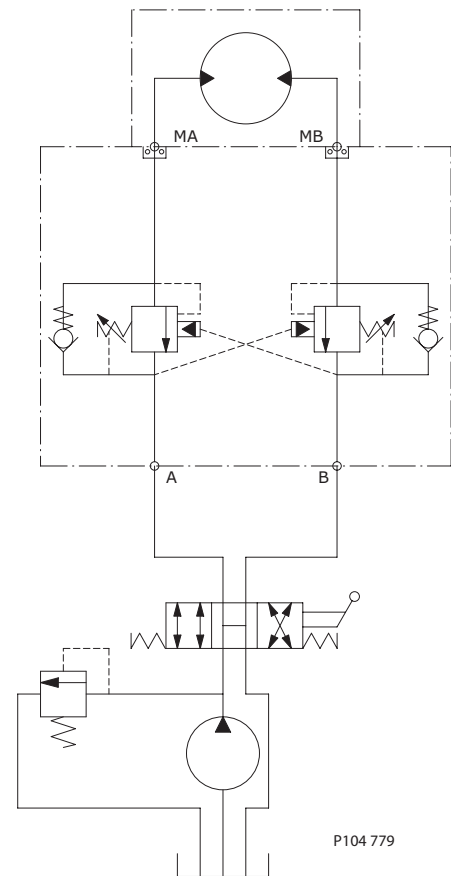
A counterbalance valve controls motion. It also provides protection against hose or tube failure. In this circuit, a dual counterbalance HIC is mounted to a standard motor, providing functionality in both directions.

Moving the directional control valve to the left causes the motor to rotate in one direction. The motor rotates the load with free flow going through the check valve portion of the counterbalance valve, while piloting open the opposite counterbalance valve to allow flow to discharge from the motor.

When the directional control valve is centered, the counterbalance valve prevents leakage and locks the load in position. Moving the directional control valve to the right sends flow to rotate the motor in the opposite direction.

If the load causes the motor to overrun the pump, pilot pressure to the downstream counterbalance valve decreases and the valve modulates to match the motor speed to the pump flow.

Dual counterbalance valve



P104 779

Typical application of dual counterbalance valve in a motor circuit.

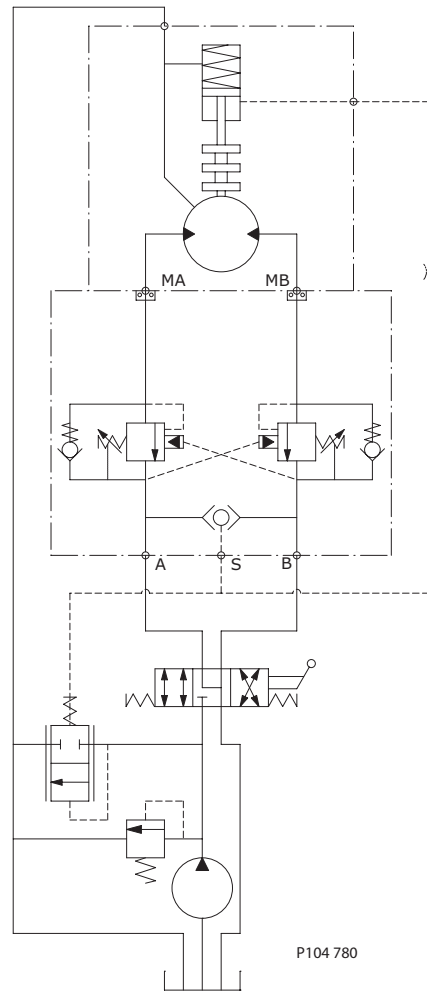
COUNTERBALANCE VALVES (continued)

Motor with dual counterbalance valve and shuttle operating a brake and unloading valve
 Adding a load sense, or brake shuttle valve allows further functionality. In this circuit, an integral brake and an unloading valve (logic element), are added. The shuttle valve senses the higher pressure work port and provides pressure to release the brake when the system pressure exceeds the minimum brake release pressure.

When the directional control valve shifts in either direction, pressure builds in the circuit to release the brake and allows the motor to rotate. As shown in the diagram, an orifice provides a slight delay in timing the brake release. When the directional control valve is centered, the brake re-engages. Additionally, the LS pressure signal pilots an unloading valve.

When the directional control valve is centered, pressure builds at the outlet of the gear pump and opens the unloading valve, allowing the pump flow to bypass the circuit and exhaust into the reservoir. When the directional control valve shifts in either direction, the unloading valve is piloted to stay in the closed position, thus allowing pump flow to enter the working circuit. Similarly, this LS pressure could communicate flow demand to a load sensing open circuit piston pump.

Dual counterbalance with shuttle



Motor with integral brake, system includes pump unloading valve.

Motor mount HICs
 Application notes

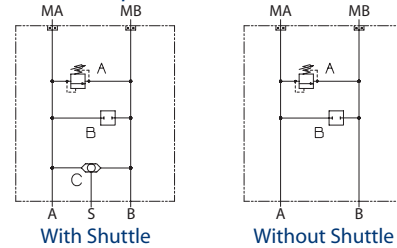
CROSS-PORT RELIEF VALVES

The cross-port relief valve controls maximum torque of the motor. It provides overpressure protection for the work ports. The cross port relief valve is a full-flow relief. It can bypass all motor flow when pressure reaches the relief setting.

The cross-port relief valve is available in configurations with dual (cross-port) valves or with relief on A or B port only. An optional shuttle valve is also available for load-sensing pumps or auxiliary functions such as brake release.

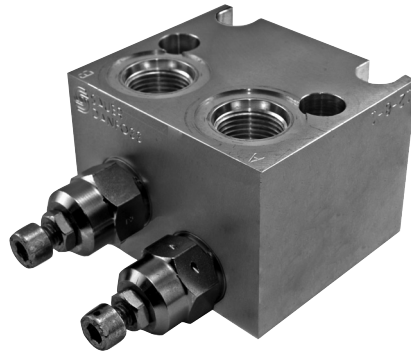
Typical applications for cross-port relief valves include vehicle propulsion, auger drives, conveyer drives, and slew drive. Any rotary application requiring pressure limiting can benefit from a motor-mounted cross-port relief valve. For more information on relief valves, see *Relief Valves*, section 4 of this catalog.

Dual cross-port relief with shuttle



P104 788

Cross-port relief valve



F102 238



F102 239

CROSS-PORT RELIEF VALVES (continued)

Sample system circuits

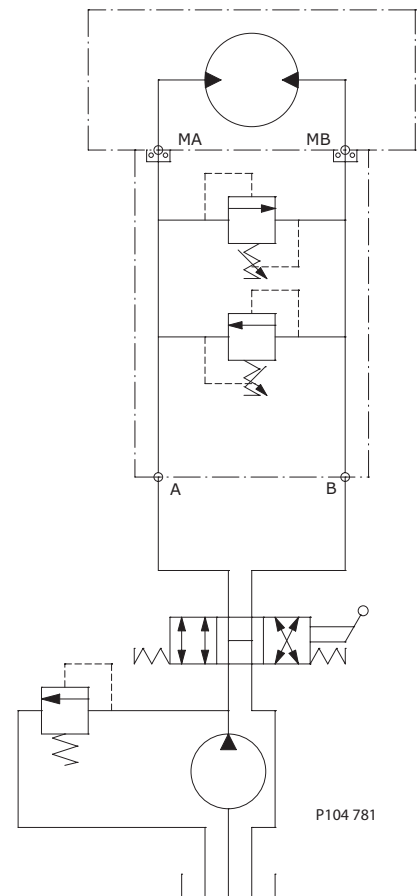
Motor with dual cross-port relief

A typical rotary circuit application for a cross-port relief valve contains a pump, directional control valve, system relief valve, and motor. Without a cross-port relief valve there is no overpressure protection at motor work ports. A cross-port relief valve controls motor torque while reducing system component fatigue.

In this circuit, a dual cross-port relief HIC is mounted to a standard motor, providing functionality in both directions. Moving the directional control valve to the left causes the motor to rotate in one direction. When the load exceeds the valve setting, the valve opens allowing the flow to bypass to the opposite work port. The cross-port relief valve remains open until the load on the motor decreases below the pressure setting.

The system relief valve shown in this circuit provides the primary pressure protection. The directional control valve can isolate the pump and motor while shifting, making independent pressure protection necessary. A motor-mounted cross-port relief is typically used in circuits where limiting the torque from the load is critical, where the load is very dynamic, or where distance from the system relief limits responsiveness.

Dual cross-port relief



Simple rotary circuit with dual cross-port relief valve.

Motor mount HICs
 Application notes

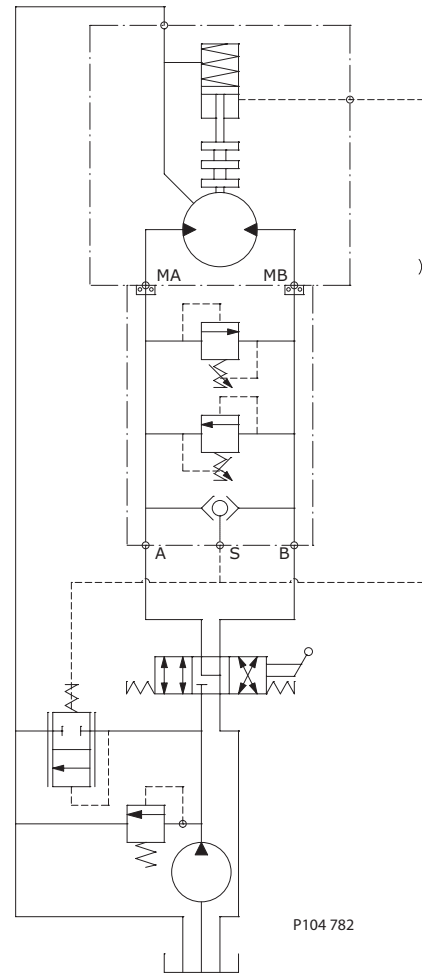
CROSS-PORT RELIEF VALVES (continued)

Motor with dual cross-port relief, and shuttle operating a brake and unloading valve
 Adding a load sense, or brake shuttle valve allows further functionality. In this circuit, an integral brake and an unloading valve (logic element), are added. The shuttle valve senses the higher pressure work port and provides pressure to release the brake when the system pressure exceeds the minimum brake release pressure.

When the directional control valve shifts in either direction, pressure builds in the circuit to release the brake and allows the motor to rotate. As shown in the diagram, an orifice provides a slight delay in timing the brake release. When the directional control valve is centered, the brake re-engages. Additionally, the LS pressure signal pilots an unloading valve.

When the directional control valve is centered, pressure builds at the outlet of the gear pump and opens the unloading valve, allowing the pump flow to bypass the circuit and exhaust into the reservoir. When the directional control valve shifts in either direction, the unloading valve is piloted to stay in the closed position, thus allowing pump flow to enter the working circuit. Similarly, this LS pressure could communicate flow demand to a load sensing open circuit piston pump.

Dual cross-port relief with shuttle



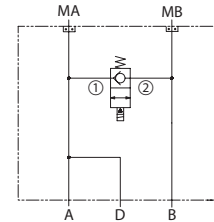
P104 782

Motor with integral brake, system includes pump unloading valve.

BYPASS SOLENOID VALVES

The bypass solenoid allows an electric signal to enable/disable motor rotation independent of system hydraulics. The normally closed solenoid valve bypasses flow from B to A when energized. This function is unidirectional. Contact your Comatrol representative if you require reverse logic or if you want to use a flow control valve instead of a solenoid.

Bypass solenoid

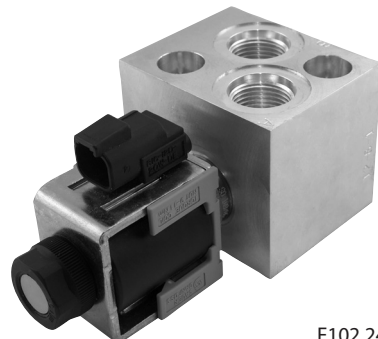


P104 750

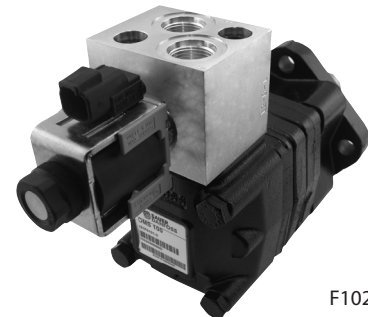
The manifold includes a drain port connected to port A to simplify circuit plumbing. Depending on motor drain pressure capabilities, you may connect the motor drain directly to port D on the HIC instead of routing it back to the reservoir.

Typical uses for this valve include applications requiring individual motors on the same circuit to be turned off independently, disabling motor during system start-up to limit pressure losses, and on/off fan drive applications. For further information on solenoid valves, see *Solenoid valves*, section 10 of this catalog.

Bypass solenoid valve with robust coil



F102 241



F102 242

BYPASS SOLENOID VALVES (continued)

Sample system circuits

Motor with drain, no directional valve

A typical rotary circuit application for a bypass solenoid valve contains a pump, system relief valve, motor, and in most cases, a directional control valve. The bypass solenoid valve allows an electrically-actuated method of bypassing flow at the motor.

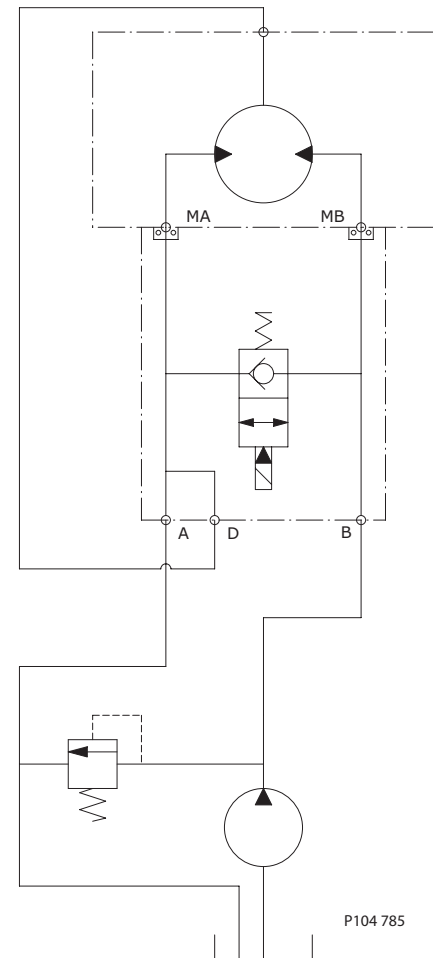
A bypass solenoid valve, when energized, stops the motor rotating by bypassing flow around the motor. In this circuit, a bypass solenoid HIC is mounted to a motor with a drain port, providing functionality in only one direction of motor rotation. The pump provides flow directly to one port of the HIC.

Flow normally goes through the motor and exits the opposite port to the reservoir. When the bypass solenoid valve is energized, the flow bypasses the motor. This causes the motor to stop rotating even though the pump continues to provide flow.

Because this circuit only flows in one direction, and the HIC drain port connects to the discharge port, the motor drain port can connect directly to the HIC. This simplifies system plumbing. You can eliminate the motor drain line to the reservoir. If the motor does not have a case drain, cap the HIC drain port.

The system relief provides pressure protection in this circuit. A circuit similar to this is typically used in systems where the motor only needs to rotate in one direction, a directional control valve is not required, and the application requires the motor to disengage while

Bypass solenoid with drain port



This circuit has no directional valve. The solenoid bypass valve controls motor rotation (on/off).

BYPASS SOLENOID VALVES (continued)

the pump flow continues.

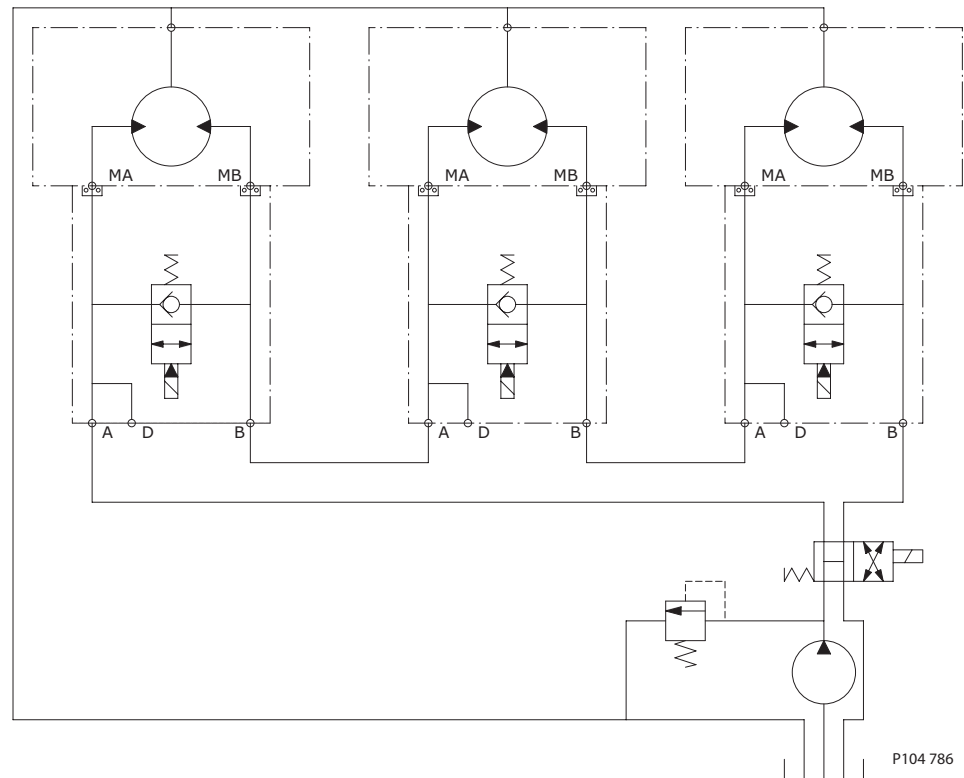
Motors in series

Another potential application of the solenoid bypass valve is one with two or more motors in series. This circuit contains a pump, directional control valve, system relief valve, and a series of motors with drain ports. The motors rotate in one direction, so the system uses a two-position directional valve.

When the directional control valve shifts to the left, flow enters and exits the motor on the right, then through the motor in the middle, through the left motor, then back to the directional control valve and discharges to the reservoir. The function of the solenoid bypass valve in this circuit is to engage and disengage motors that use the same flow source. Any of the three motors can be bypassed individually while maintaining the series flow through the circuit.

Because the drain port connects directly to the discharge port, you cannot use it with motors in series. This circuit is typical of conveyor or auger systems where multiple motors use a common flow source.

Bypass solenoid valve with motors in series



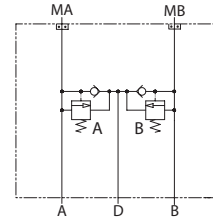
This circuit uses three motors in series with a solenoid operated directional valve and pump relief.

Motor mount HICs
 Application notes

**DUAL SHOCK VALVE
 WITH ANTICAVITATION
 CHECKS**

This valve provides overpressure protection of the motor work ports. It absorbs momentary pressure spikes (shock effects). It is not a full-flow pressure relief valve: Use the dual cross-port relief HIC for full-flow pressure protection or torque limitation. The valve protects the motor from cavitation by allowing additional flow to the motor through the drain port when the motor overruns the pump. This is useful in series wheel-drive applications where one motor must turn faster than the other while the vehicle is cornering. Other applications include auger drives, conveyer drives, slew drives, or any rotary working circuits that experience shock effects.

Dual shock valve with anticavitation checks



P104 763

A dual shock valve with anti-cavitation motor mount HIC is typically used in circuits where limiting the torque spikes from the load is critical, where the load is very dynamic, or where distance from the system relief valve causes delayed responsiveness. The anticavitation function is also beneficial in high inertial load applications.

Because the valves seat on the cavity, the housing is made of ductile iron. This limits wear. Only dual valve configurations are available. This HIC uses the PVLP shock valves from our PVG line of flow-sharing directional valves. For more information on PVLP, refer to the [PVG 32 Technical Information Manual, 520L0344](#).

Dual shock valve with anticavitation checks



F102 244



F102 245

**DUAL SHOCK VALVE
 WITH ANTICAVITATION
 CHECKS (continued)**

Sample system circuit

Single motor with drain, open center/closed port directional valve

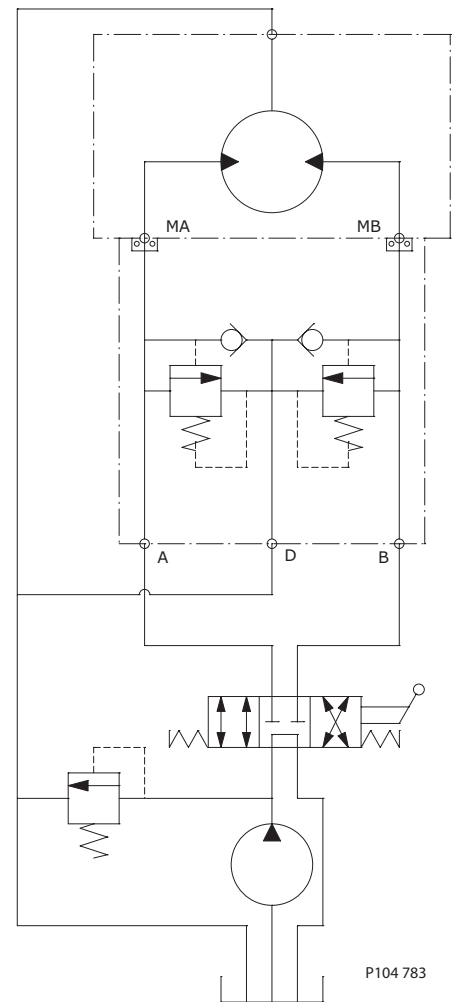
A typical rotary circuit application for a shock valve with anticavitation contains a pump, directional control valve, system relief valve, and motor. Without this valve there is no over-pressure protection at the motor work ports and no protection against cavitation during overrun.

In this circuit, a dual shock valve with anticavitation HIC is mounted to a standard motor, providing functionality in both directions. Moving the directional control valve to the left causes the motor to rotate in one direction. When the motor load exceeds the pressure setting of the shock valve, the valve opens allowing flow to bypass to the drain port. If the drain port is not connected, the flow discharges through the anticavitation check to the opposite system port. The shock valve remains open until the load on the motor decreases below the pressure setting.

The system relief valve in this circuit provides full-flow pressure protection close to the gear pump. The shock valves protect the circuit from pressure spikes closest to the load.

The anticavitation function prevents motor cavitation when the motor overruns pump flow. For anticavitation to function properly, it requires a flow source, typically drawing from the reservoir through the drain port as

Dual shock valve with anticavitation checks



Single motor with closed center directional valve and system relief valve. Connection at port D is necessary for anticavitation function.

Motor mount HICs
 Application notes

**DUAL SHOCK VALVE
 WITH ANTICAVITATION
 CHECKS (continued)**

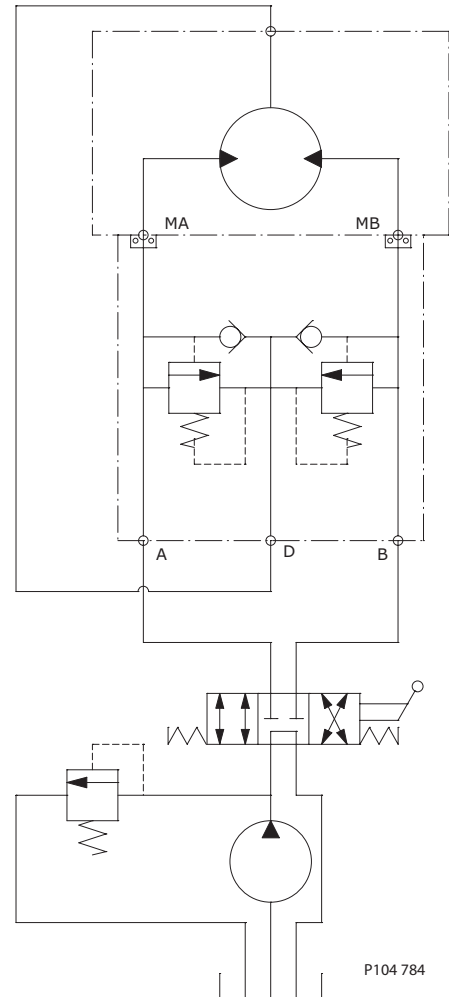
shown in the circuit.

Using anticavitation checks as drain checks

Applications that do not require anticavitation protection can use the anticavitation checks as drain checks. Connecting the motor drain directly to the drain port on the HIC allows drain flow to join motor discharge and return to the reservoir through the directional control valve. This saves running a motor drain to the reservoir, but doing this defeats the anticavitation feature: Do not apply the valve in this fashion unless your application never experiences overrunning loads.

Because the drain port is connected to the motor case, pressure spikes in this circuit discharge through the downstream motor port.

Dual shock valve with motor drain

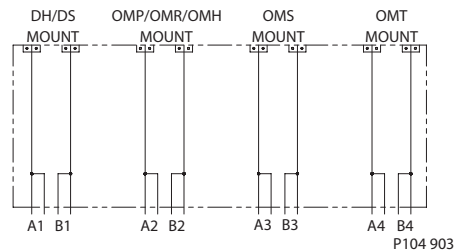


Single motor with drain shown. Connect motor drain to port D on HIC to use anticavitation checks as drain checks. This defeats anticavitation function.

OPERATION

Use this steel test block for setting or testing motor-mount HICs. It contains the mounting patterns for DH, DS, OMH, OMP, OMR, OMS, and OMT motors. Interface ports are SAE.

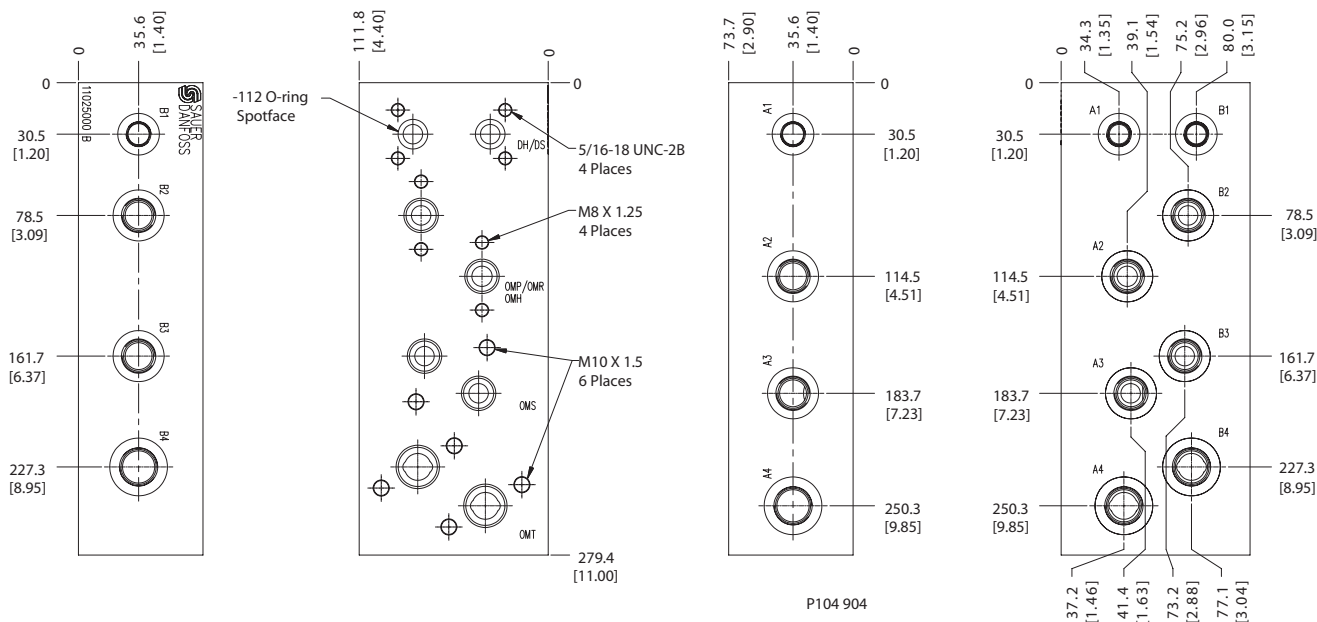
Schematic Diagram



SPECIFICATIONS

Rated pressure	345 bar [5000 psi]
Weight	16.21 kg [35.7 lb]
Ports	
A1/B1 (DH/DS)	SAE #6
A2/B2 (OMP/OMR/OMH)	SAE #8
A3/B3 (OMS)	SAE #8
A4/B4 (OMT)	SAE #10

DIMENSIONS



ORDERING INFORMATION

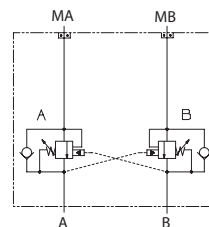
Order Number - **11025000**

Motor mount HICs
 MMHC Test Block - 11025000

OPERATION

This is a dual counterbalance HIC that mounts to DH motors with manifold mount porting.

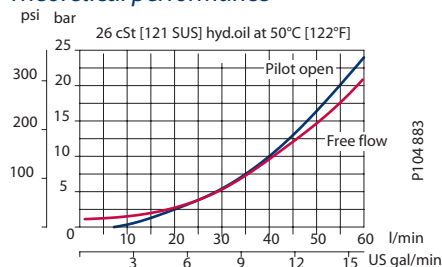
Schematic



P104 593

SPECIFICATIONS

Theoretical performance



P104 883

Specifications

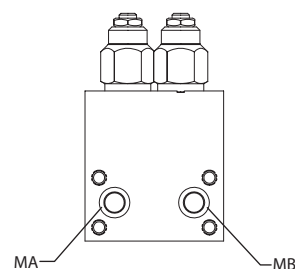
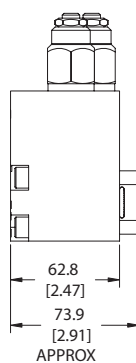
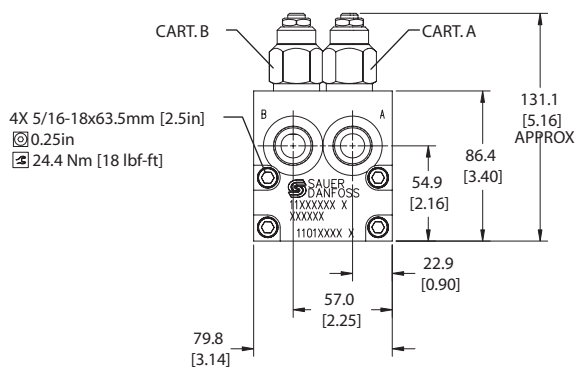
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ 70% of crack pressure
Weight	1.49 kg [3.28 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Service mount kit	11023864
Motor	DH

Motor mount HICs
MM-DH-00-DCB10-HV

DIMENSIONS

Cross-sectional view

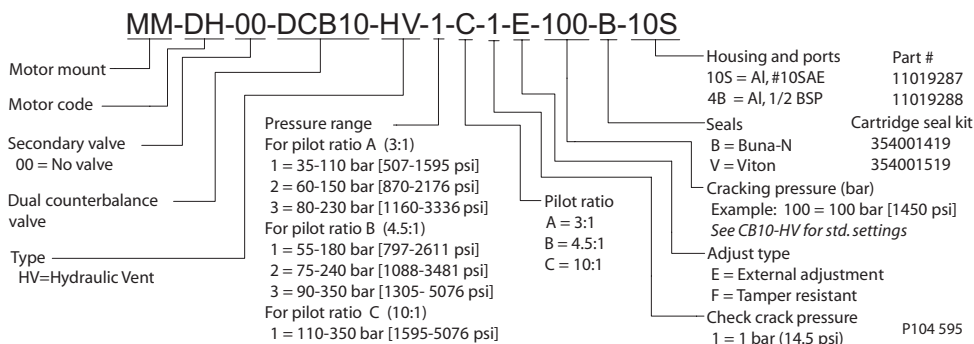
mm [in]



HIC Includes:
- 5/16-18 x 2.5" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (2X)

P104 594

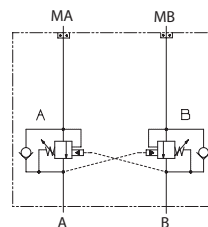
ORDERING INFORMATION



OPERATION

This is a dual counterbalance HIC that mounts to DS motors with manifold mount porting.

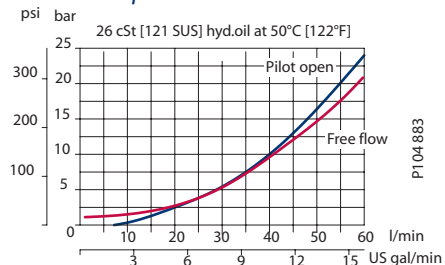
Schematic



P104 593

SPECIFICATIONS

Theoretical performance



P104-883

Specifications

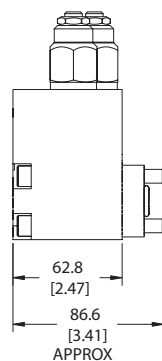
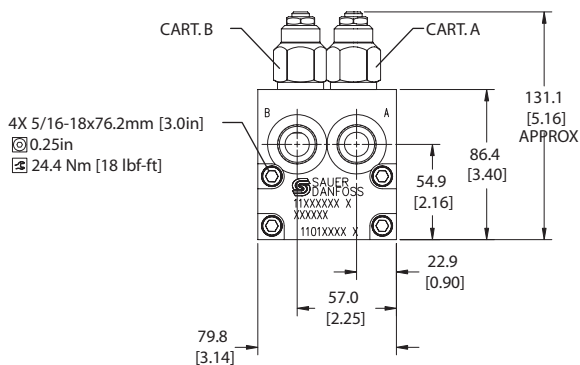
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.60 kg [3.53 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Service mount kit	11023865
Motor	DS

Motor mount HICs
MM-DS-00-DCB10-HV

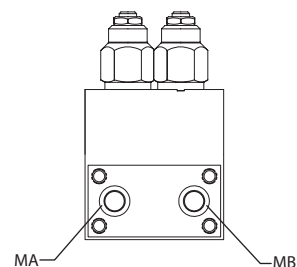
DIMENSIONS

Cross-sectional view

mm [in]



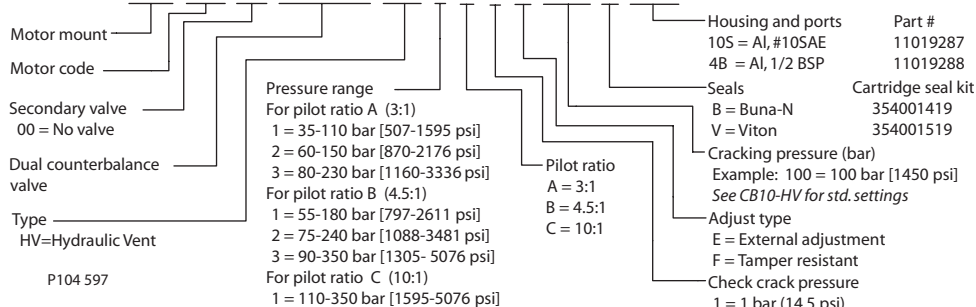
P104 596



HIC Includes:
- 5/16-18 x3.0" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (4X)
- Sub-plate

ORDERING INFORMATION

MM-DS-00-DCB10-HV-1-C-1-E-100-B-10S

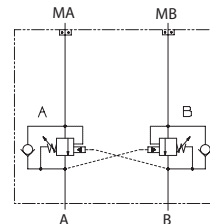


P104 597

OPERATION

This is a dual-counterbalance HIC that mounts to OMP/OMR motors with BSP porting.

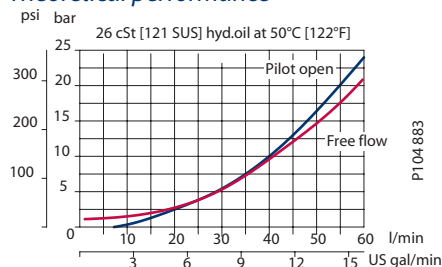
Schematic



P104 593

SPECIFICATIONS

Theoretical performance



P104 883

Specifications

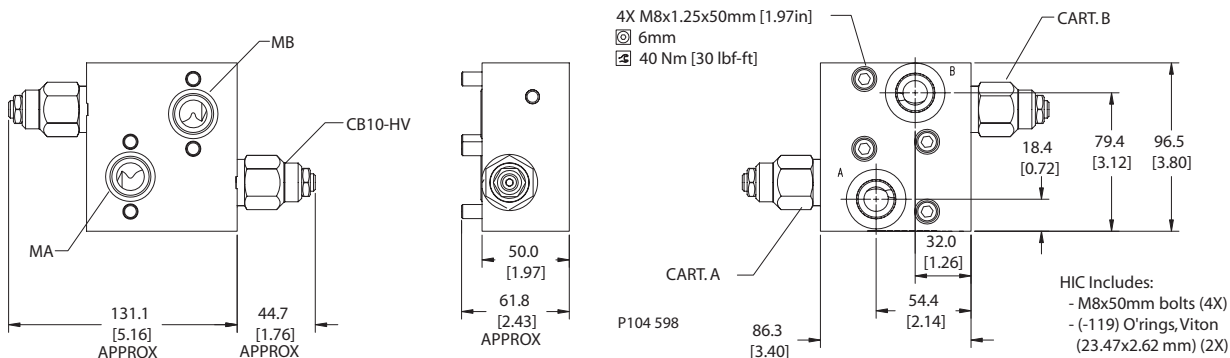
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.43 kg [3.15 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Service mount kit	11023162
Motor	OMP/OMR

Motor mount HICs
MM-OMP/OMR-00-DCB10-HV

DIMENSIONS

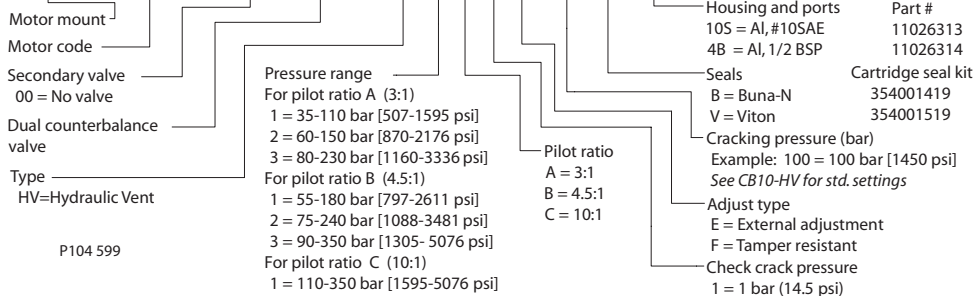
Cross-sectional view

mm [in]



ORDERING INFORMATION

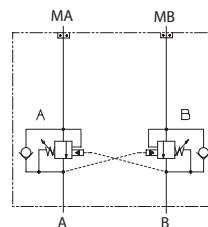
MM-OMP/OMR-00-DCB10-HV-1-C-1-E-100-B-10S



OPERATION

This is a dual-counterbalance HIC that mounts to OMH motors with BSP porting.

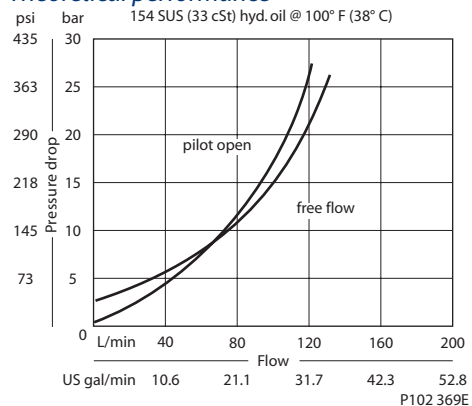
Schematic



P104 593

SPECIFICATIONS

Theoretical performance



Specifications

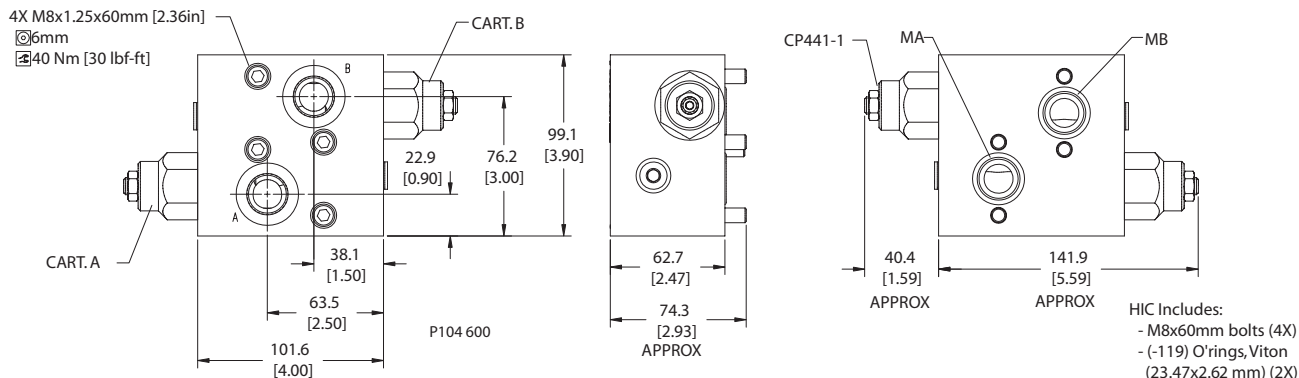
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	1.93 kg [4.25 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Service mount kit	11023869
Motor	OMH

Motor mount HICs
MM-OMH-00-DCP441-1

DIMENSIONS

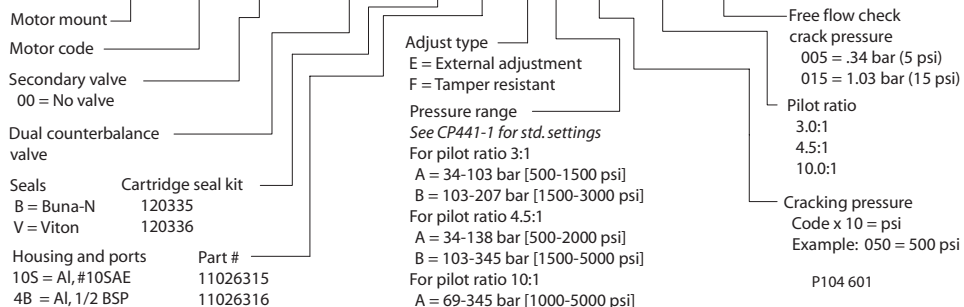
Cross-sectional view

mm [in]



ORDERING INFORMATION

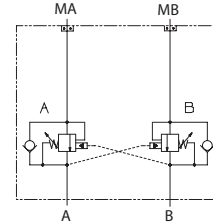
MM-OMH-00-DCP441-1-B-10S-E-A-250-10.0-015



OPERATION

This is a dual-counterbalance HIC that mounts to OMS motors with BSP porting.

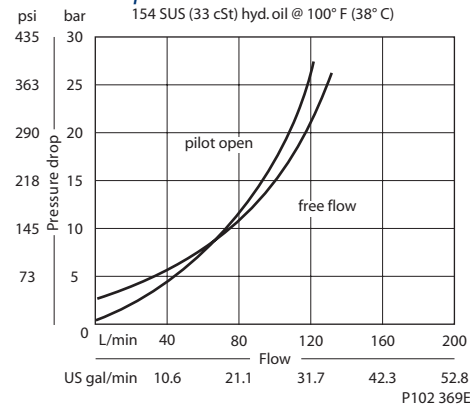
Schematic



P104 593

SPECIFICATIONS

Theoretical performance



Specifications

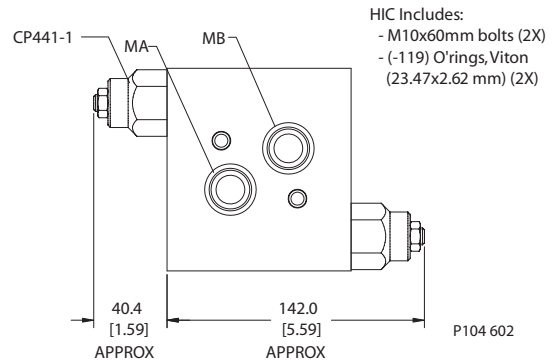
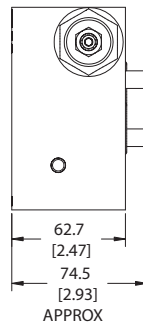
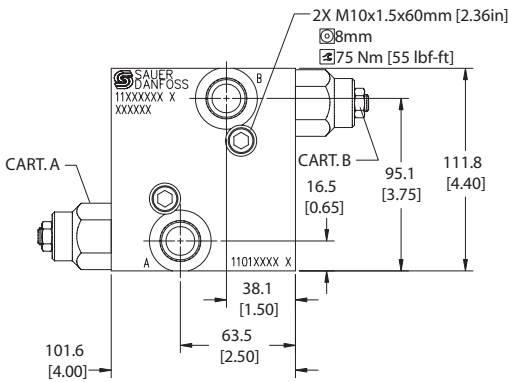
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.13 kg [4.70 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Service mount kit	11023867
Motor	OMS

Motor mount HICs
MM-OMS-00-DCP441-1

DIMENSIONS

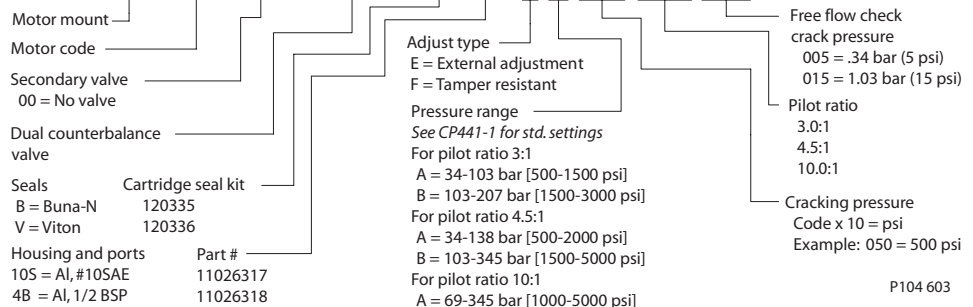
Cross-sectional view

mm [in]



ORDERING INFORMATION

MM-OMS-00-DCP441-1-B-10S-E-A-250-10.0-015

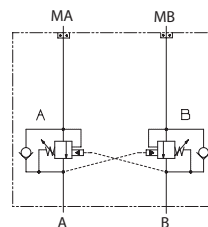


P104 603

OPERATION

This is a dual-counterbalance HIC that mounts to OMT motors with BSP porting.

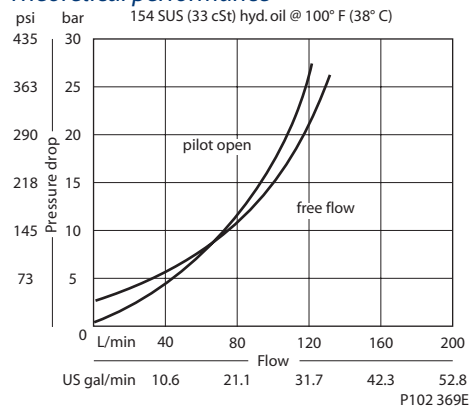
Schematic



P104 593

SPECIFICATIONS

Theoretical performance



Specifications

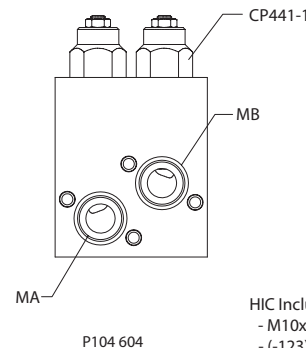
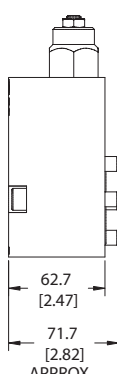
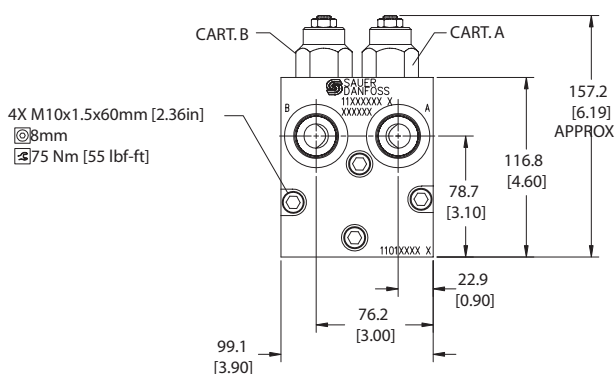
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.20 kg [4.85 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Service mount kit	11023871
Motor	OMT

Motor mount HICs
 MM-OMT-00-DCP441-1

DIMENSIONS

Cross-sectional view

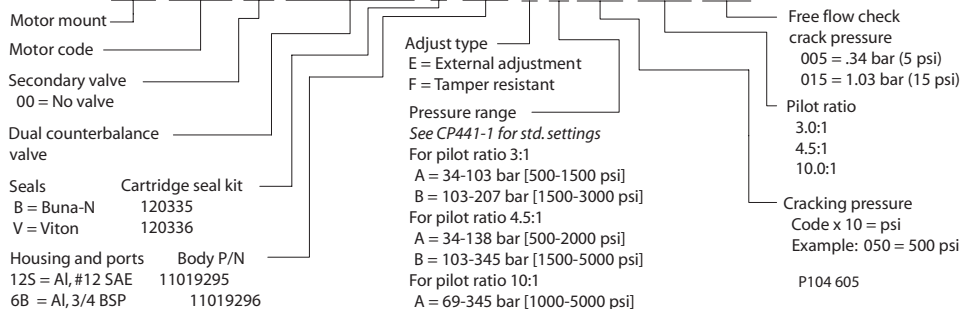
mm [in]



HIC Includes:
 - M10x60mm bolts (4X)
 - (-123) O'rings, Viton (29.82x2.62 mm) (2X)

ORDERING INFORMATION

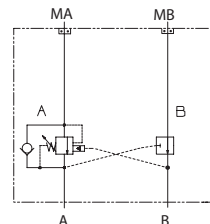
MM-OMT-00-DCP441-1-B-12S-E-A-250-10.0-015



OPERATION

This is a single-counterbalance HIC (A port) that mounts to DH motors with manifold mount porting.

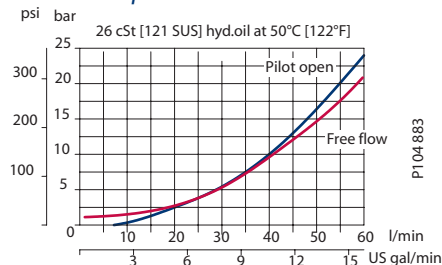
Schematic



P104 606

SPECIFICATIONS

Theoretical performance



P104 883

Specifications

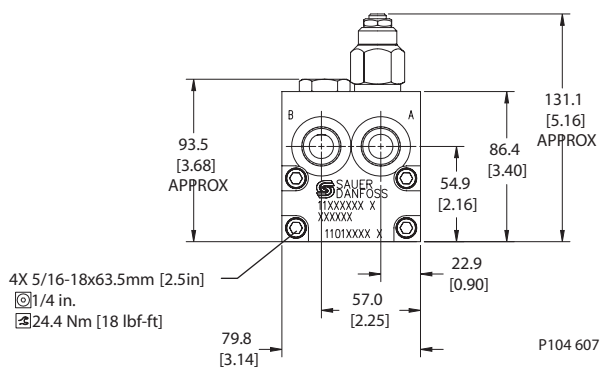
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ 70% of crack pressure
Weight	1.49 kg [3.28 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Plug	SDC10-V-3S-B1
Service mount kit	11023864
Motor	DH

Motor mount HICs
MM-DH-00-ACB10-HV

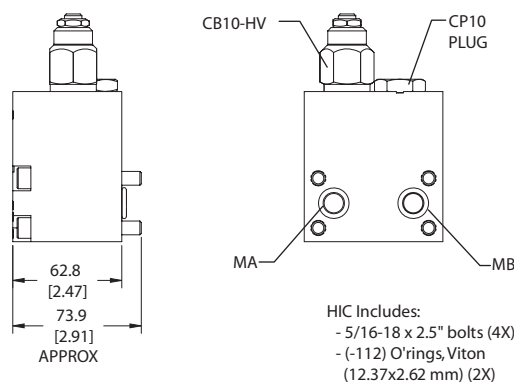
DIMENSIONS

Cross-sectional view

mm [in]

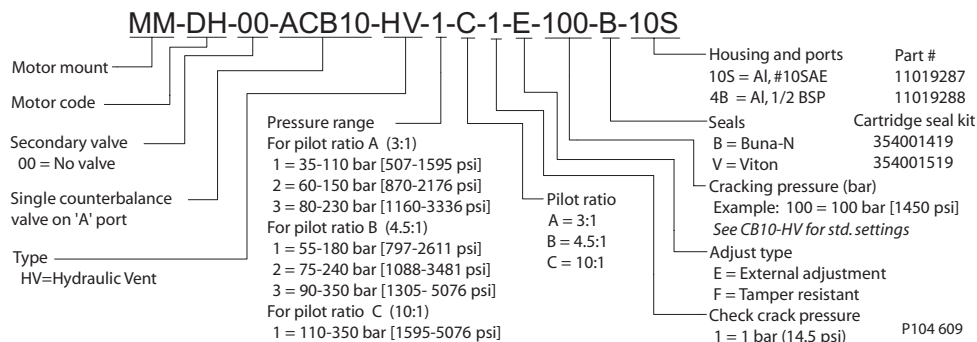


P104 607



HIC Includes:
- 5/16-18 x 2.5" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (2X)

ORDERING INFORMATION

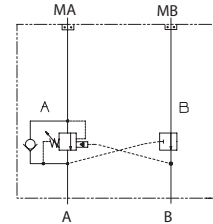


P104 609

OPERATION

This is a single-counterbalance HIC (A port) that mounts to DS motors with manifold mount porting.

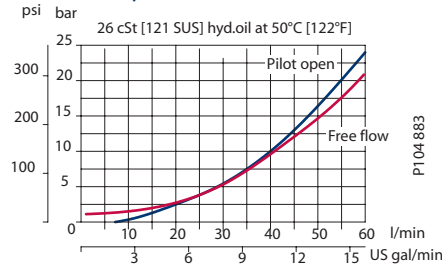
Schematic



P104 606

SPECIFICATIONS

Theoretical performance



Specifications

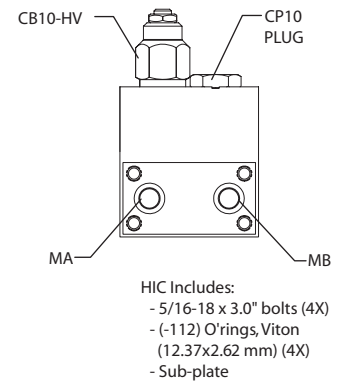
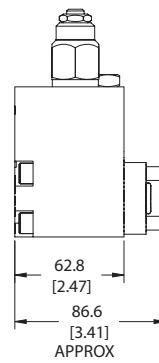
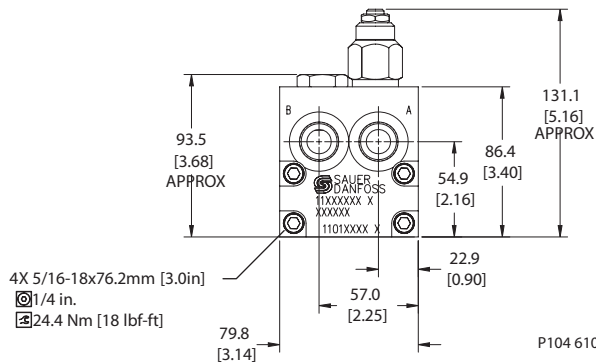
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.60 kg [3.53 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Plug	SDC10-V-3S-B1
Service mount kit	11023865
Motor	DS

Motor mount HICs
 MM-DS-00-ACB10-HV

DIMENSIONS

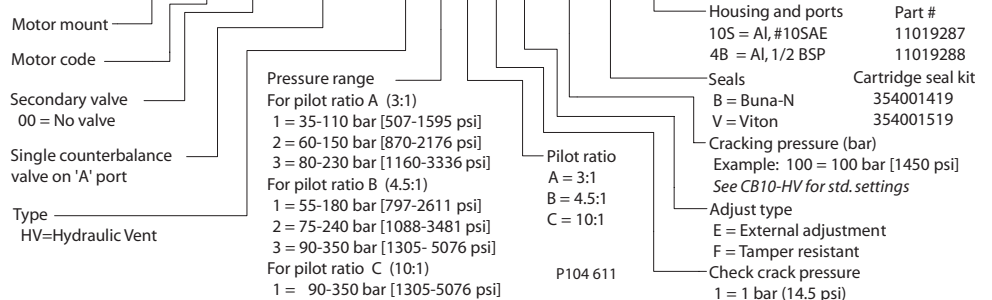
Cross-sectional view

mm [in]



ORDERING INFORMATION

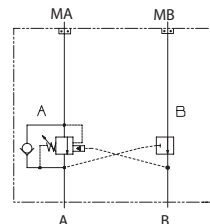
MM-DS-00-ACB10-HV-1-C-1-E-100-B-10S



OPERATION

This is a single-counterbalance HIC (A port) that mounts to OMP/OMR motors with BSP porting.

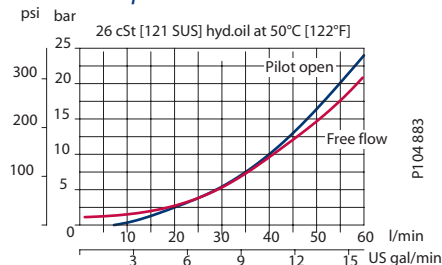
Schematic



P104 606

SPECIFICATIONS

Theoretical performance



Specifications

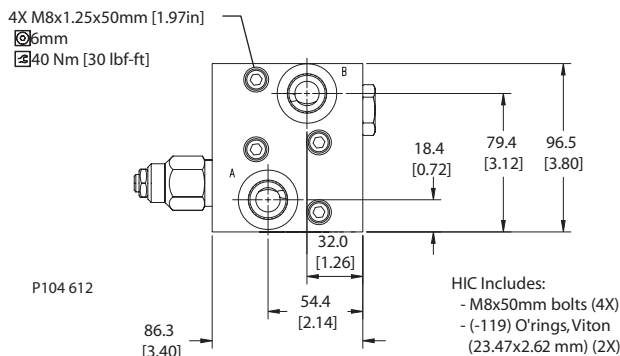
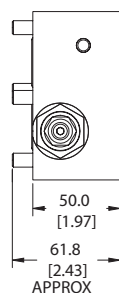
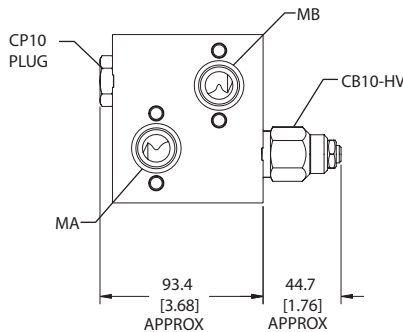
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ 70% of crack pressure
Weight	1.43 kg [3.15 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Plug	SDC10-V-3S-B1
Service mount kit	11023162
Motor	OMP/OMR

Motor mount HICs
MM-OMP/OMR-00-ACB10-HV

DIMENSIONS

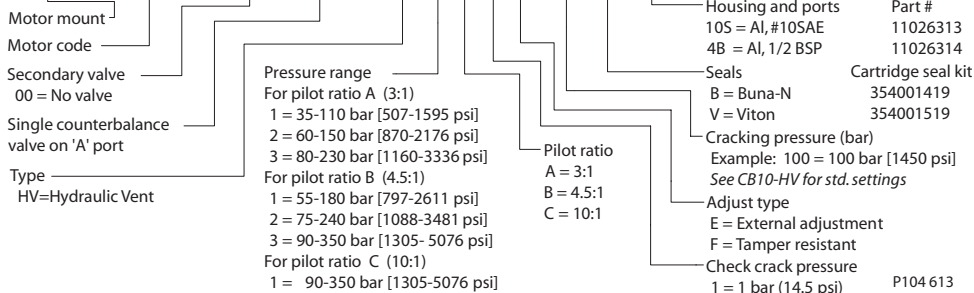
Cross-sectional view

mm [in]



ORDERING INFORMATION

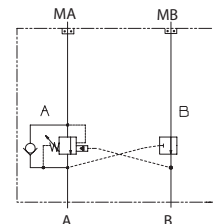
MM-OMP/OMR-00-ACB10-HV-1-C-1-E-100-B-10S



OPERATION

This is a single-counterbalance HIC (A port) that mounts to OMH motors with BSP porting.

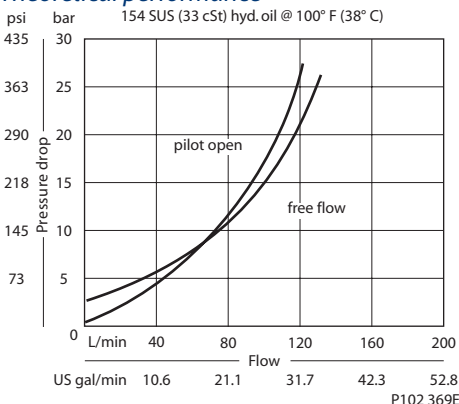
Schematic



P104 606

SPECIFICATIONS

Theoretical performance



Specifications

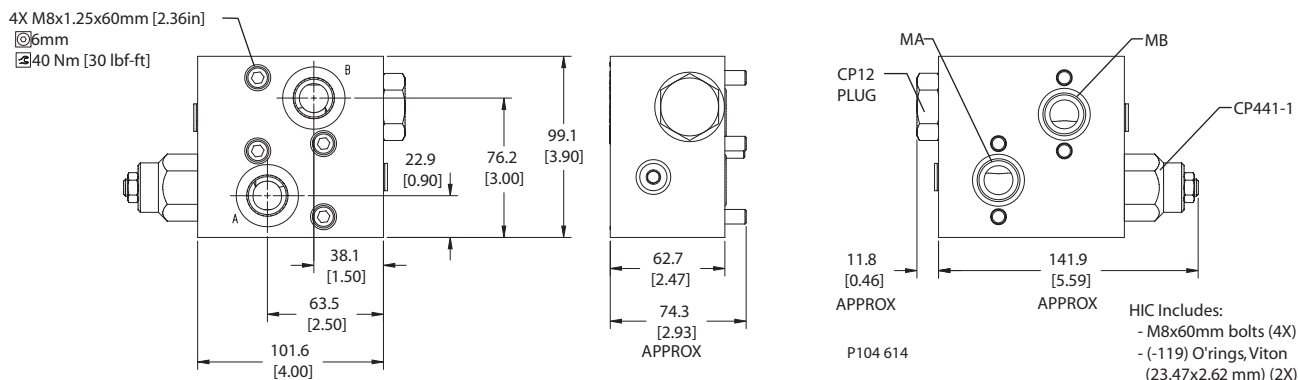
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	1.93 kg [4.25 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Plug	CP12-V-3S-B1
Service mount kit	11023869
Motor	OMH

Motor mount HICs
MM-OMH-00-ACP441-1

DIMENSIONS

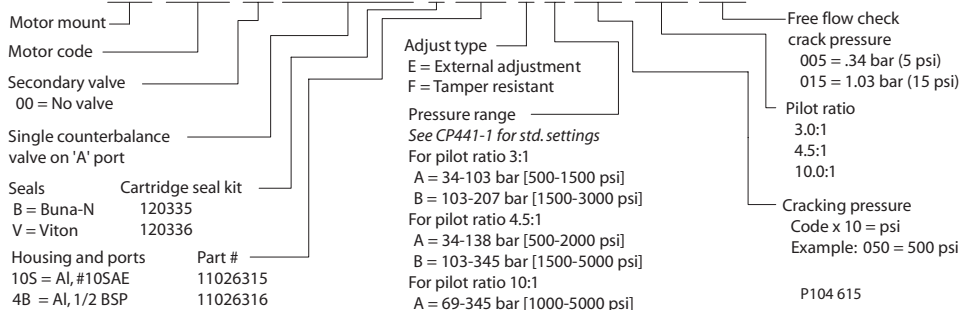
Cross-sectional view

mm [in]



ORDERING INFORMATION

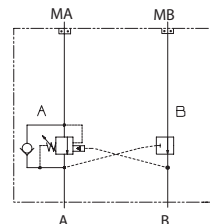
MM-OMH-00-ACP441-1-B-10S-E-A-250-10.0-015



OPERATION

This is a single-counterbalance HIC (A port) that mounts to OMS motors with BSP porting.

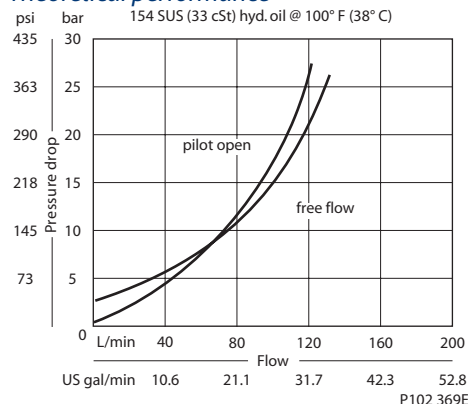
Schematic



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SPECIFICATIONS

Theoretical performance



Specifications

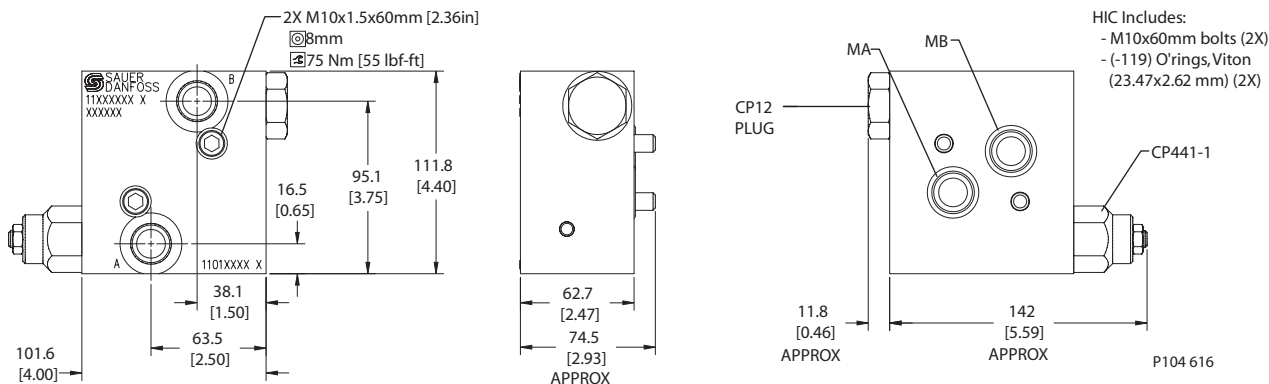
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.13 kg [4.70 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Plug	CP12-V-3S-B1
Service mount kit	11023867
Motor	OMS

Motor mount HICs
MM-OMS-00-ACP441-1

DIMENSIONS

Cross-sectional view

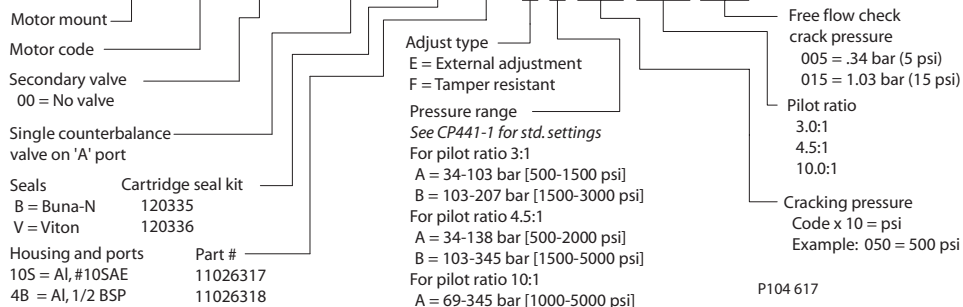
mm [in]



HIC Includes:
- M10x60mm bolts (2X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

ORDERING INFORMATION

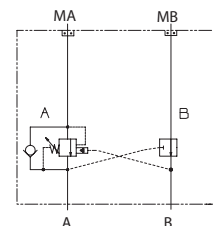
MM-OMS-00-ACP441-1-B-10S-E-A-250-10.0-015



OPERATION

This is a single-counterbalance HIC (A port) that mounts to OMT motors with BSP porting.

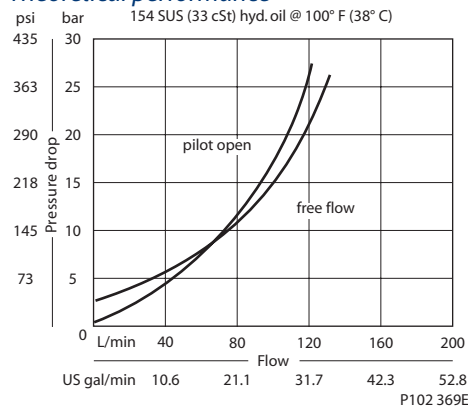
Schematic



P104 606

SPECIFICATIONS

Theoretical performance



Specifications

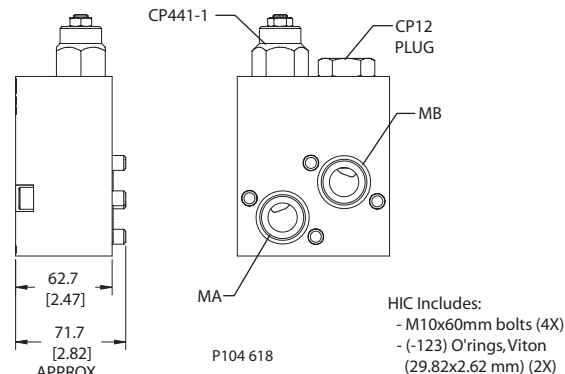
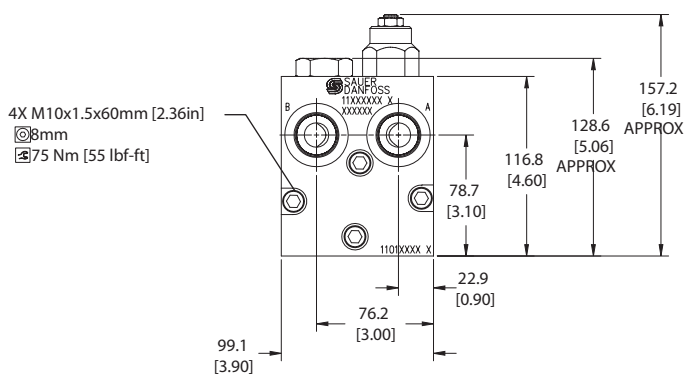
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.20 kg [4.85 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Plug	CP12-V-3S-B1
Service mount kit	11023871
Motor	OMT

Motor mount HICs
MM-OMT-00-ACP441-1

DIMENSIONS

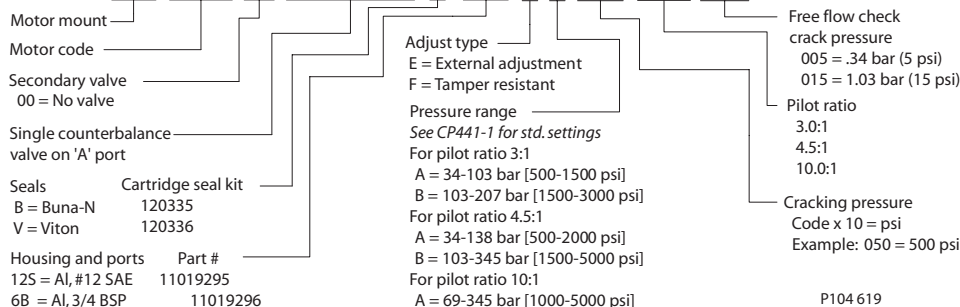
Cross-sectional view

mm [in]



ORDERING INFORMATION

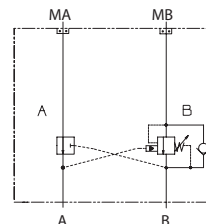
MM-OMT-00-ACP441-1-B-12S-E-A-250-10.0-015



OPERATION

This is a single counterbalance HIC (on B port) that mounts to DH motors with manifold mount porting.

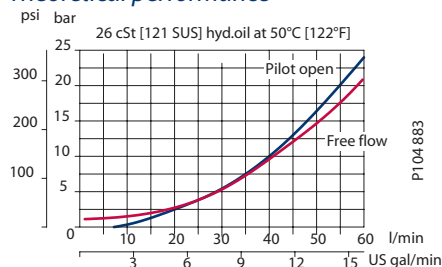
Schematic



P104 620

SPECIFICATIONS

Theoretical performance



Specifications

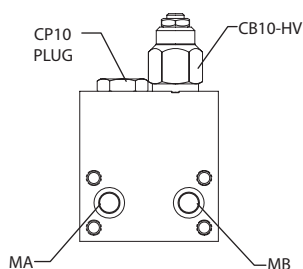
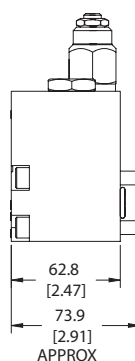
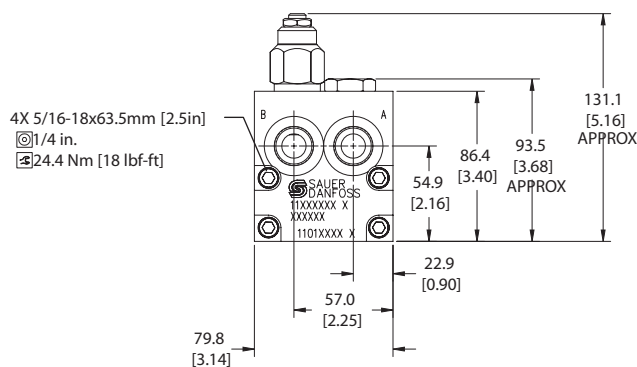
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.49 kg [3.28 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Plug	SDC10-V-3S-B1
Service mount kit	11023864
Motor	DH

Motor mount HICs
MM-DH-00-BCB10-HV

DIMENSIONS

Cross-sectional view

mm [in]



HIC Includes:
- 5/16-18 x 2.5" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (2X)

P104 621

ORDERING INFORMATION

MM-DH-00-BCB10-HV-1-C-1-E-100-B-10S

Motor mount

Motor code

Secondary valve
00 = No valve

Single counterbalance valve on 'B' port

Type
HV=Hydraulic Vent

Pressure range
For pilot ratio A (3:1)
1 = 35-110 bar [507-1595 psi]
2 = 60-150 bar [870-2176 psi]
3 = 80-230 bar [1160-3336 psi]
For pilot ratio B (4.5:1)
1 = 55-180 bar [797-2611 psi]
2 = 75-240 bar [1088-3481 psi]
3 = 90-350 bar [1305- 5076 psi]
For pilot ratio C (10:1)
1 = 90-350 bar [1305-5076 psi]

Pilot ratio
A = 3:1
B = 4.5:1
C = 10:1

Housing and ports
10S = Al, #10SAE
4B = Al, 1/2 BSP

Seals
B = Buna-N
V = Viton

Cracking pressure (bar)
Example: 100 = 100 bar [1450 psi]
See CB10-HV for std. settings

Adjust type
E = External adjustment
F = Tamper resistant

Check crack pressure

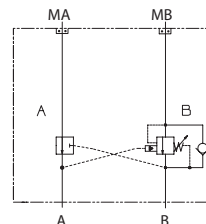
Part #
11019287
11019288
354001419
354001519

P104 622

OPERATION

This is a single counterbalance HIC (on B port) that mounts to DS motors with manifold mount porting.

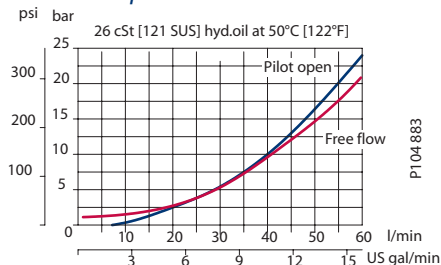
Schematic



P104 620

SPECIFICATIONS

Theoretical performance



P104-883

Specifications

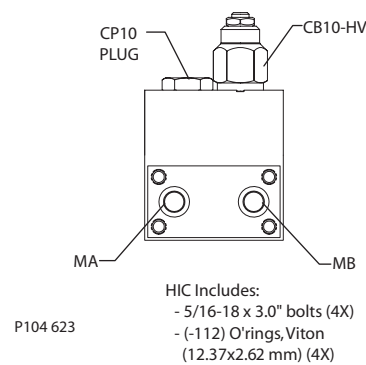
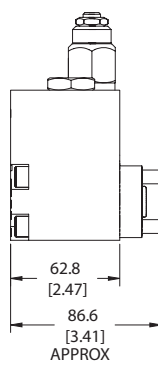
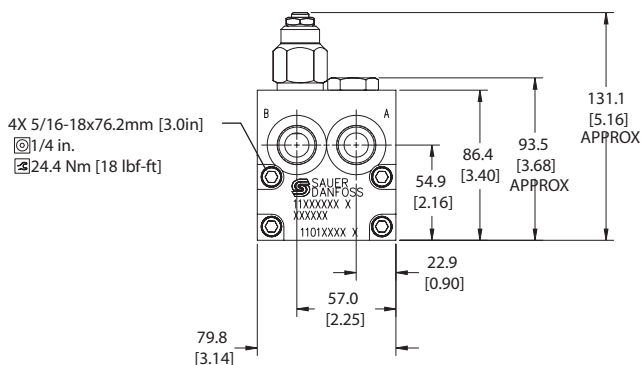
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.60 kg [3.53 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Plug	SDC10-V-3S-B1
Service mount kit	11023865
Motor	DS

Motor mount HICs
MM-DS-00-BCB10-HV

DIMENSIONS

Cross-sectional view

mm [in]

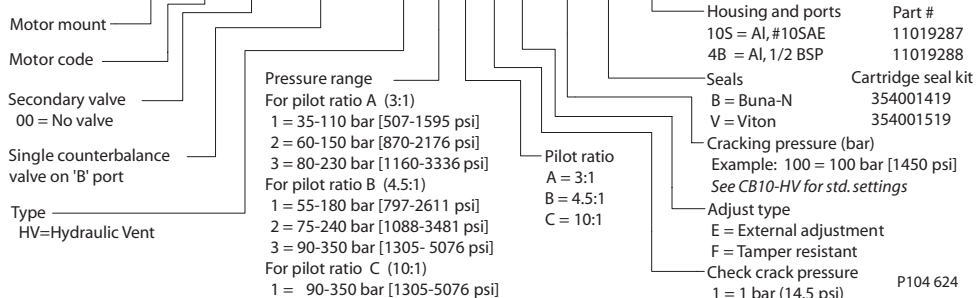


P104 623

HIC Includes:
- 5/16-18 x 3.0" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (4X)

ORDERING INFORMATION

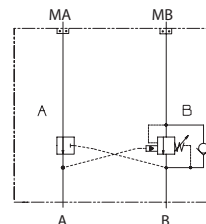
MM-DS-00-BCB10-HV-1-C-1-E-100-B-10S



OPERATION

This is a single counterbalance HIC (on B port) that mounts to OMP/OMR motors with BSP porting.

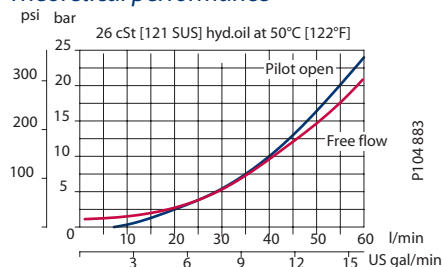
Schematic



P104 620

SPECIFICATIONS

Theoretical performance



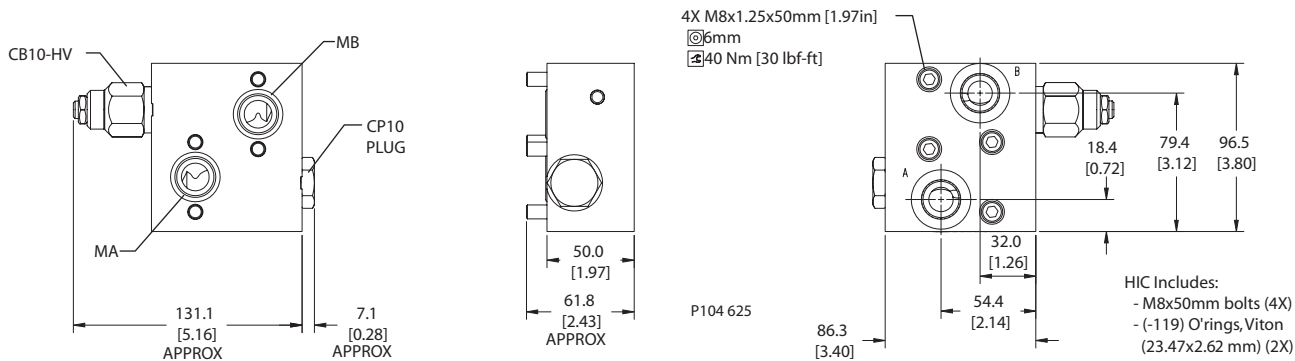
Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.43 kg [3.15 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Plug	SDC10-V-3S-B1
Service mount kit	11023762
Motor	OMP/OMR

DIMENSIONS

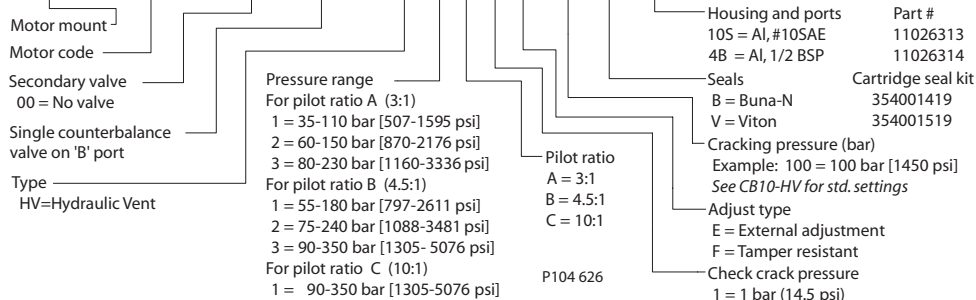
Cross-sectional view

mm [in]



ORDERING INFORMATION

MM-OMP/OMR-00-BCB10-HV-1-C-1-E-100-B-10S

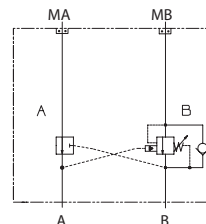


Motor mount HICs
MM-OMP/OMR-00-BCB10-HV

OPERATION

This is a single counterbalance HIC (on B port) that mounts to OMH motors with BSP porting.

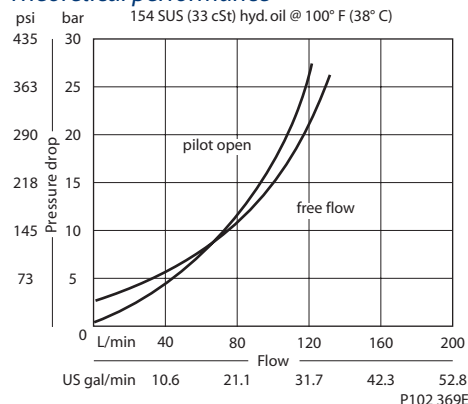
Schematic



P104 620

SPECIFICATIONS

Theoretical performance



Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	1.93 kg [4.25 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Plug	CP12-V-3S-B1
Service mount kit	11023869
Motor	OMH

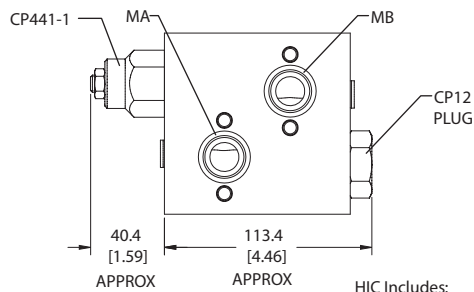
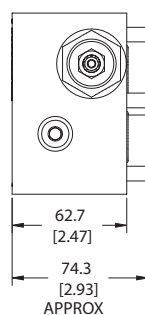
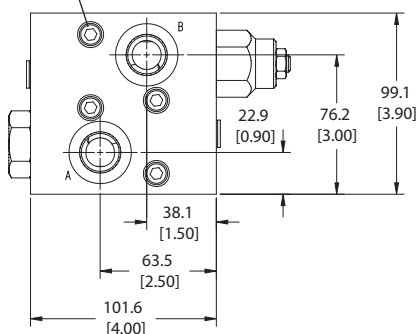
Motor mount HICs
 MM-OMH-00-BCP441-1

DIMENSIONS

Cross-sectional view

mm [in]

4X M8x1.25x60mm [2.36in]
 6mm
 40 Nm [30 lbf-ft]

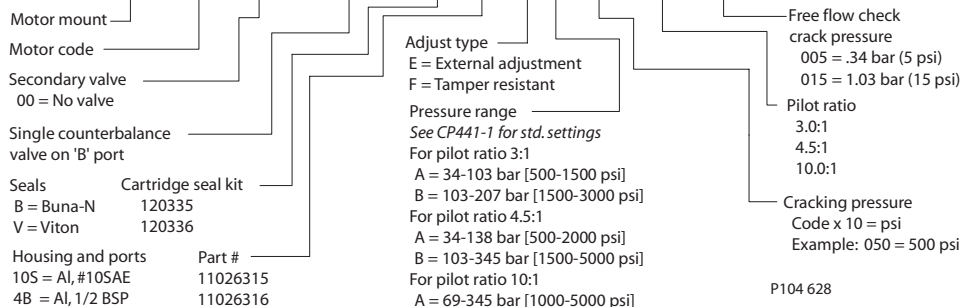


P104 627

HIC Includes:
 - M8x60mm bolts (4X)
 - (-119) O'rings, Viton (23.47x2.62 mm) (2X)

ORDERING INFORMATION

MM-OMH-00-BCP441-1-B-10S-E-A-250-10.0-015

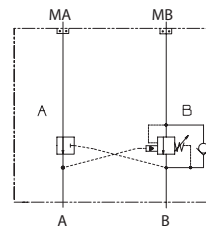


P104 628

OPERATION

This is a single counterbalance HIC (on B port) that mounts to OMS motors with BSP porting.

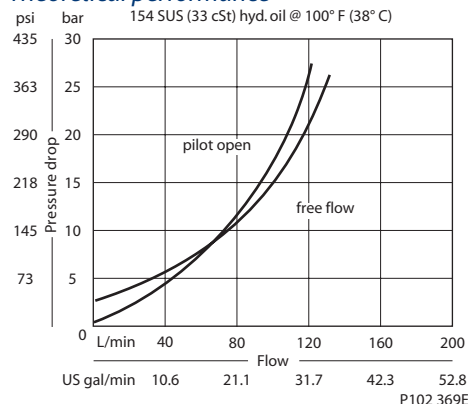
Schematic



P104 620

SPECIFICATIONS

Theoretical performance



Specifications

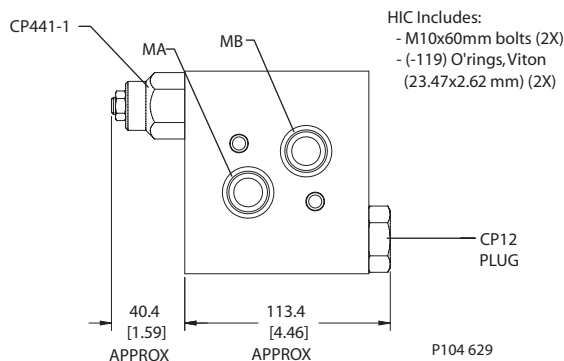
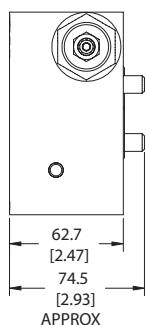
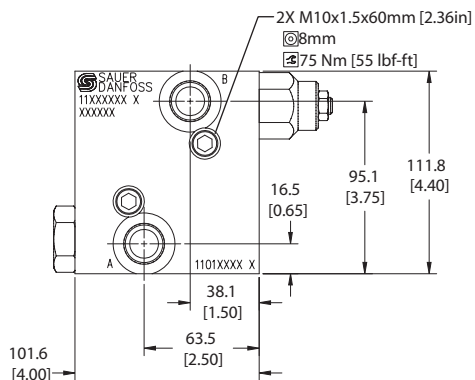
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.13 kg [4.70 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Plug	CP12-V-3S-B1
Service mount kit	11023867
Motor	OMS

Motor mount HICs
MM-OMS-00-BCP441-1

DIMENSIONS

Cross-sectional view

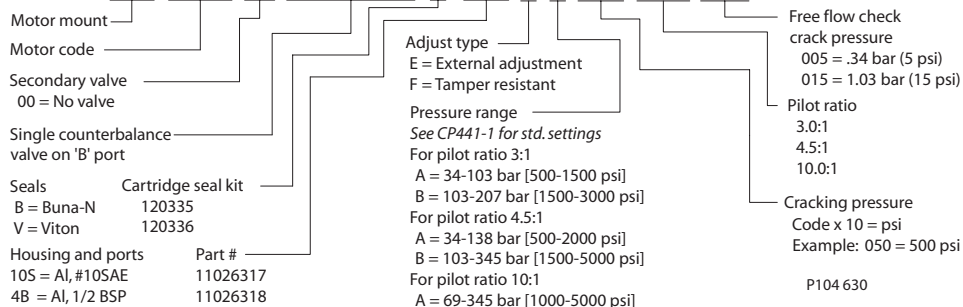
mm [in]



P104 629

ORDERING INFORMATION

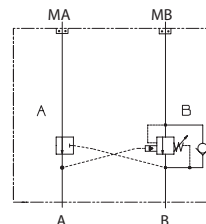
MM-OMS-00-BCP441-1-B-10S-E-A-250-10.0-015



OPERATION

This is a single counterbalance HIC (on B port) that mounts to OMT motors with BSP porting.

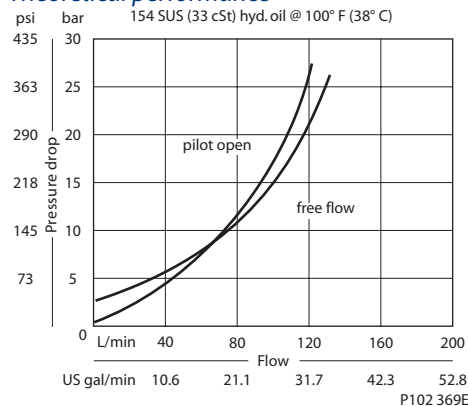
Schematic



P104 620

SPECIFICATIONS

Theoretical performance



Specifications

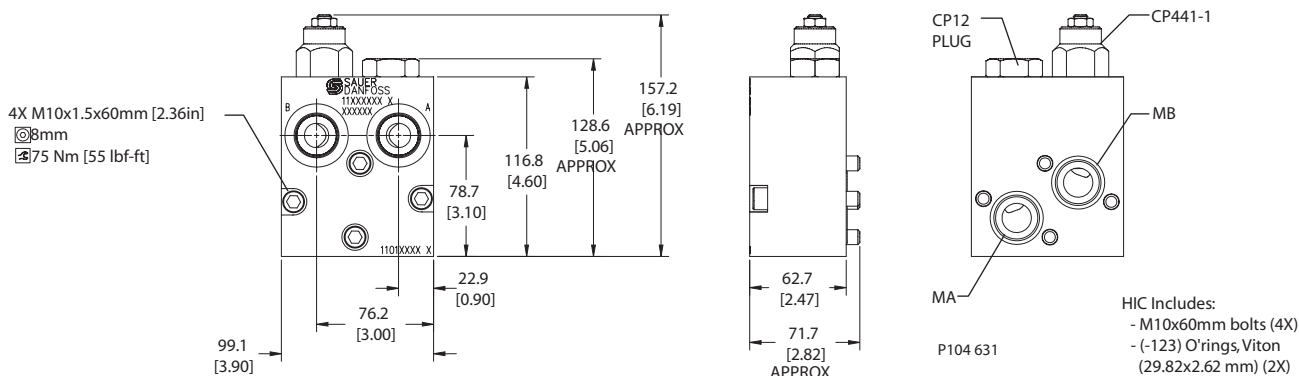
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.20 kg [4.85 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Plug	CP12-V-3S-B1
Service mount kit	11023871
Motor	OMT

Motor mount HICs
MM-OMT-00-BCP441-1

DIMENSIONS

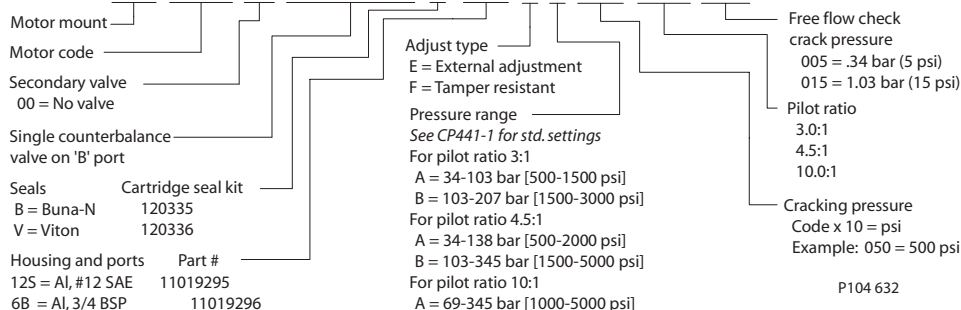
Cross-sectional view

mm [in]



ORDERING INFORMATION

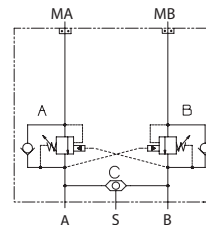
MM-OMT-00-BCP441-1-B-12S-E-A-250-10.0-015



OPERATION

This is a dual counterbalance HIC with shuttle that mounts to DH motors with manifold mount porting.

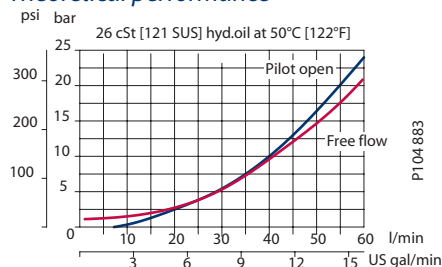
Schematic



P104 633

SPECIFICATIONS

Theoretical performance



P104 883

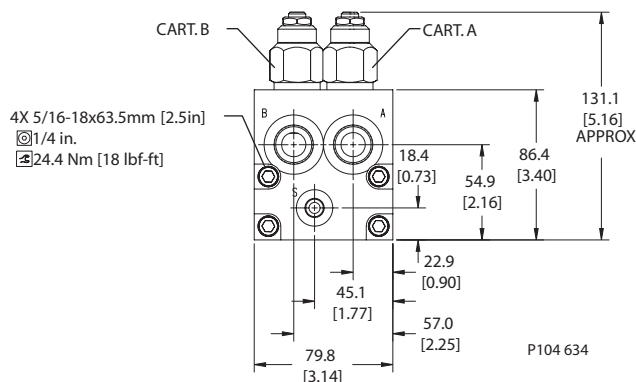
Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ 70% of crack pressure
Weight	1.49 kg [3.28 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023864
Motor	DH

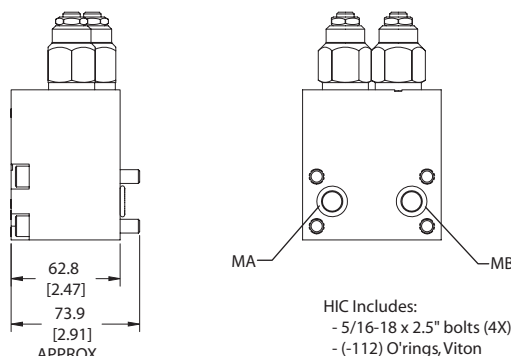
DIMENSIONS

Cross-sectional view

mm [in]

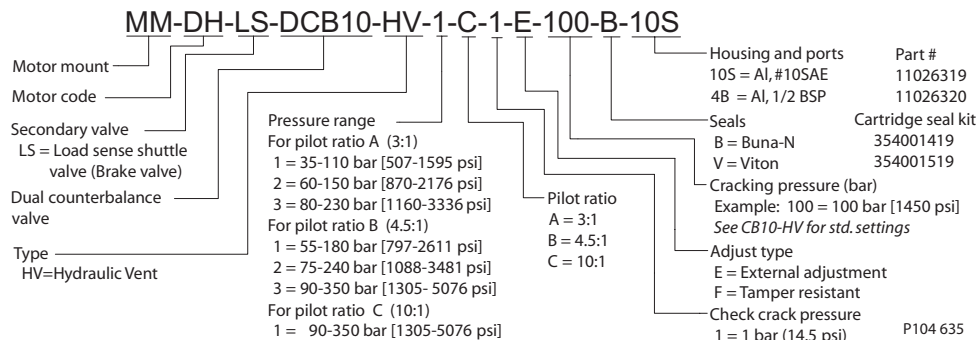


P104 634



HIC Includes:
- 5/16-18 x 2.5" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (2X)

ORDERING INFORMATION

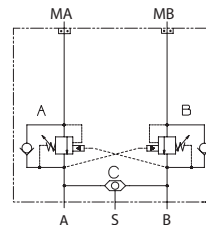


Motor mount HICs
MM-DH-LS-DCB10-HV

OPERATION

This is a dual counterbalance HIC with shuttle that mounts to DS motors with manifold mount porting.

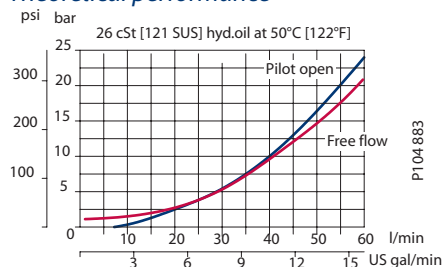
Schematic



P104 633

SPECIFICATIONS

Theoretical performance



P104-883

Specifications

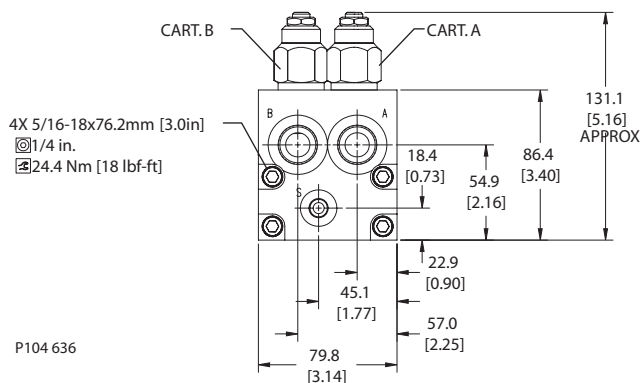
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.60 kg [3.53 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023865
Motor	DS

Motor mount HICs
 MM-DS-LS-DCB10-HV

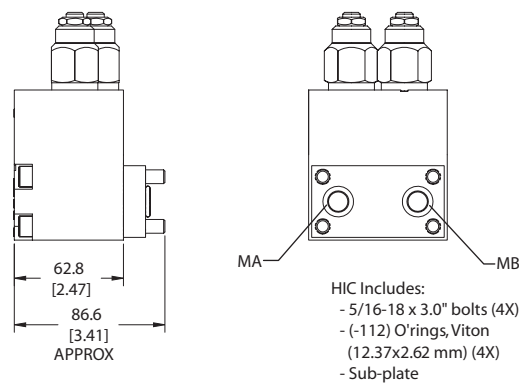
DIMENSIONS

Cross-sectional view

mm [in]



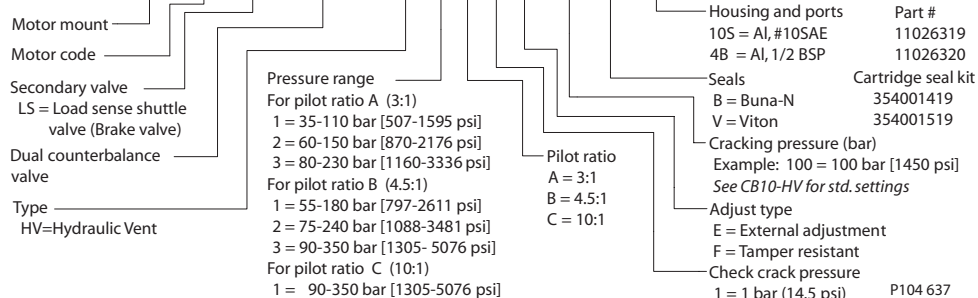
P104 636



HIC Includes:
 - 5/16-18 x 3.0" bolts (4X)
 - (-112) O'rings, Viton (12.37x2.62 mm) (4X)
 - Sub-plate

ORDERING INFORMATION

MM-DS-LS-DCB10-HV-1-C-1-E-100-B-10S

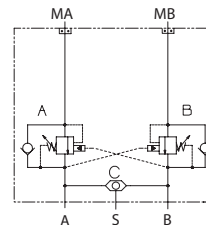


P104 637

OPERATION

This is a dual counterbalance HIC with shuttle that mounts to OMP/OMR motors with BSP porting.

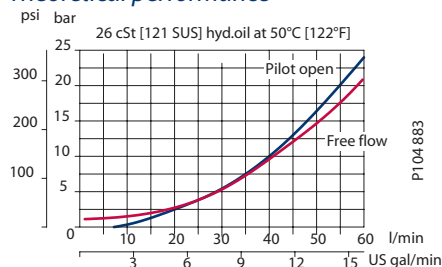
Schematic



P104 633

SPECIFICATIONS

Theoretical performance



P104 883

Specifications

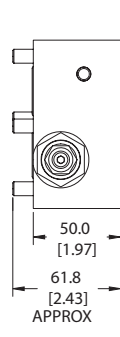
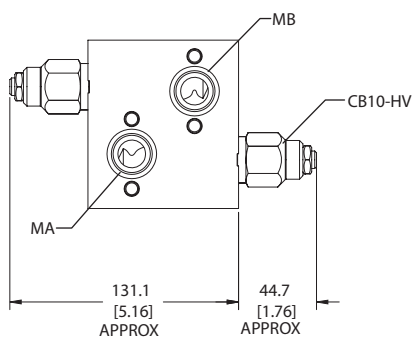
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.44 kg [3.17 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023162
Motor	OMP/OMR

Motor mount HICs
MM-OMP/OMR-LS-DCB10-HV

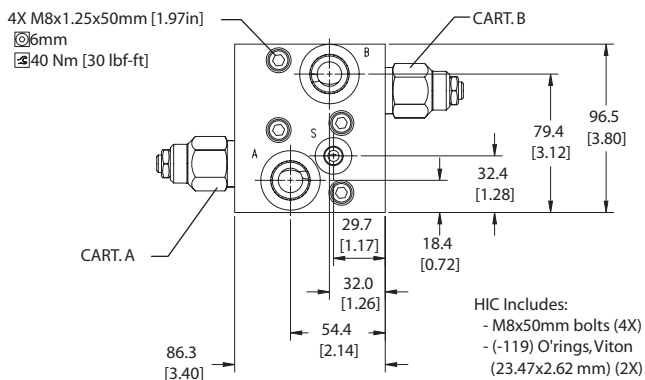
DIMENSIONS

Cross-sectional view

mm [in]

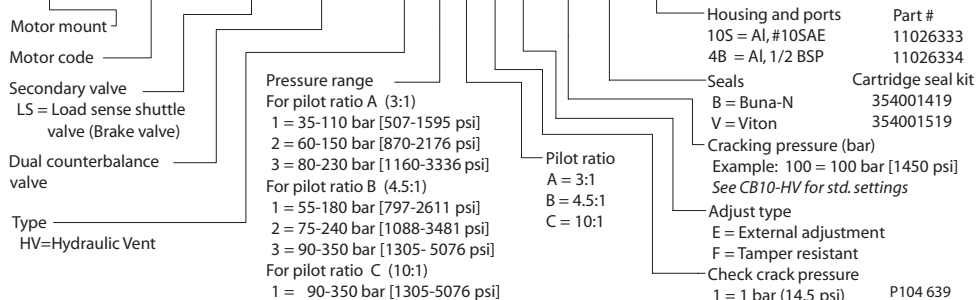


P104 638



ORDERING INFORMATION

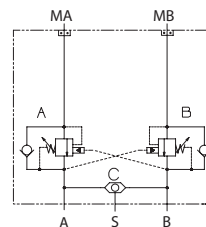
MM-OMP/OMR-LS-DCB10-HV-1-C-1-E-100-B-10S



OPERATION

This is a dual counterbalance HIC with shuttle that mounts to OMH motors with BSP porting.

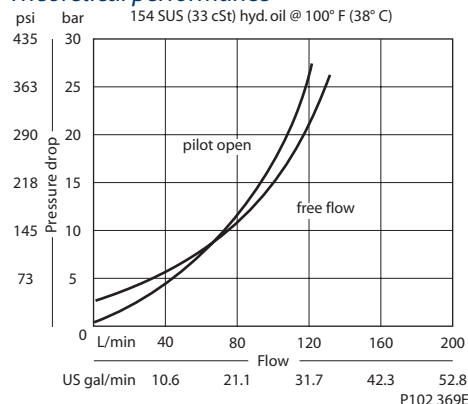
Schematic



P104 633

SPECIFICATIONS

Theoretical performance



Specifications

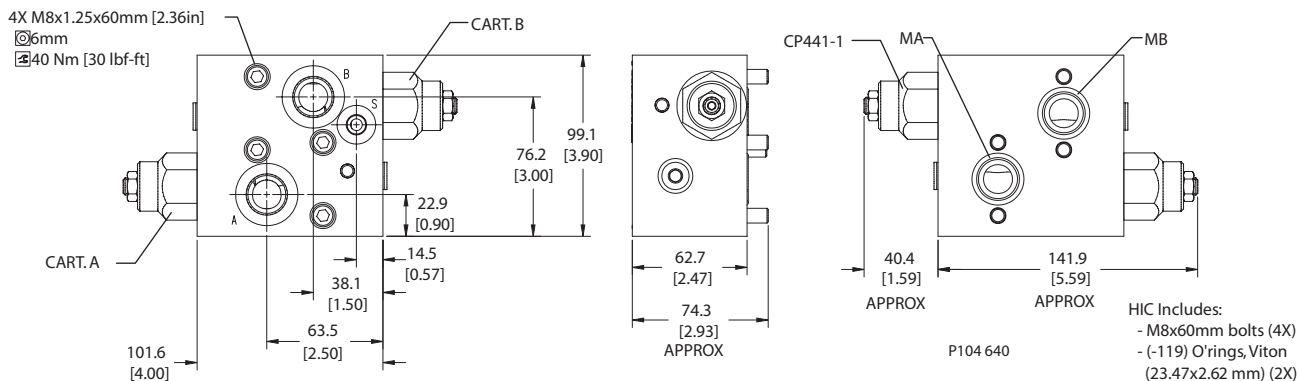
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	1.93 kg [4.25 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023869
Motor	OMH

Motor mount HICs
MM-OMH-LS-DCP441-1

DIMENSIONS

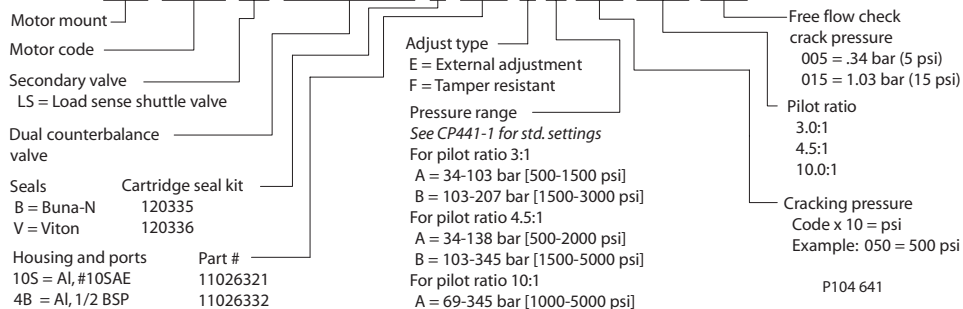
Cross-sectional view

mm [in]



ORDERING INFORMATION

MM-OMH-LS-DCP441-1-B-10S-E-A-250-10.0-015

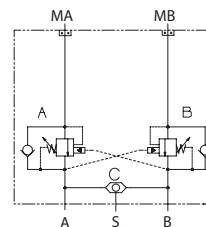


P104 641

OPERATION

This is a dual counterbalance HIC with shuttle that mounts to OMS motors with BSP porting.

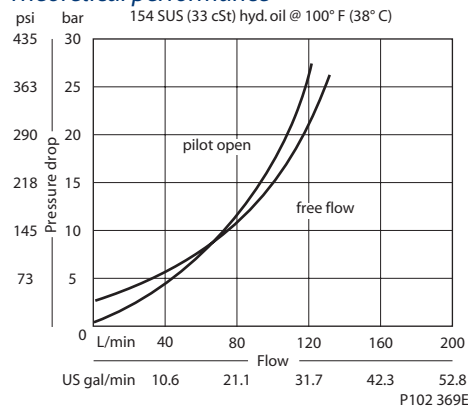
Schematic



P104 633

SPECIFICATIONS

Theoretical performance



Specifications

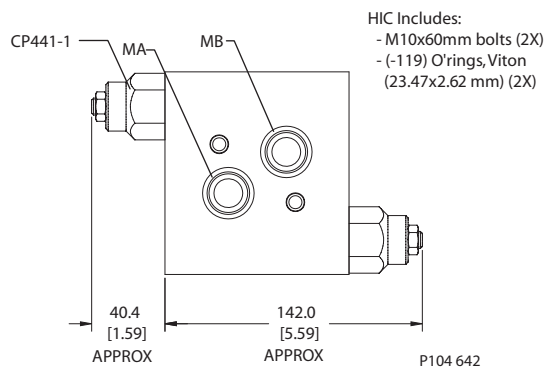
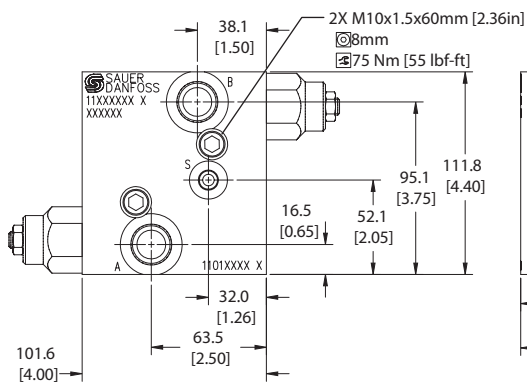
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.13 kg [4.70 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023867
Motor	OMS

Motor mount HICs
MM-OMS-LS-DCP441-1

DIMENSIONS

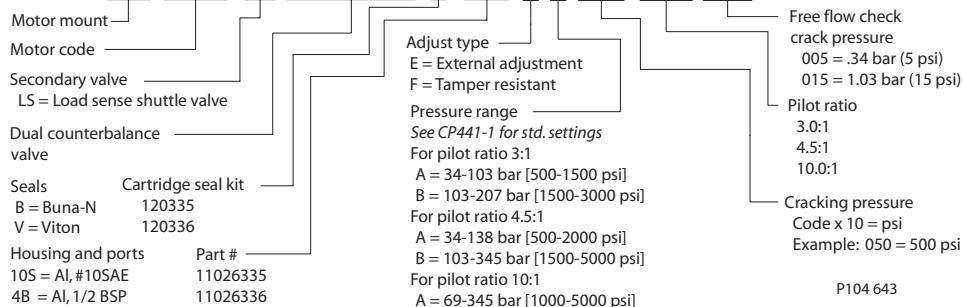
Cross-sectional view

mm [in]



ORDERING INFORMATION

MM-OMS-LS-DCP441-1-B-10S-E-A-250-10.0-015

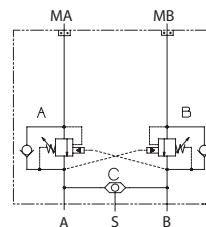


P104 643

OPERATION

This is a dual counterbalance HIC with shuttle that mounts to OMT motors with BSP porting.

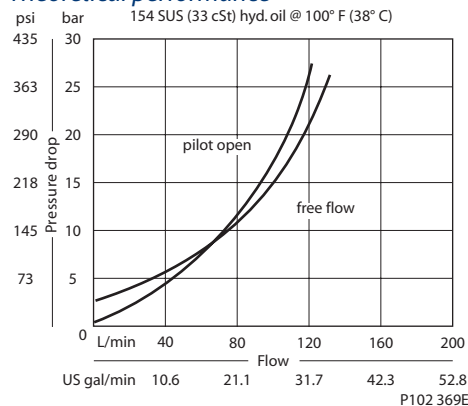
Schematic



P104 633

SPECIFICATIONS

Theoretical performance



Specifications

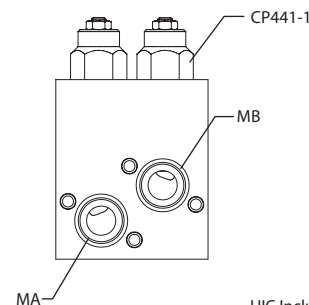
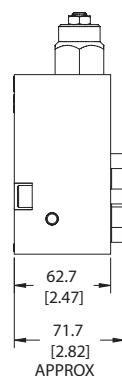
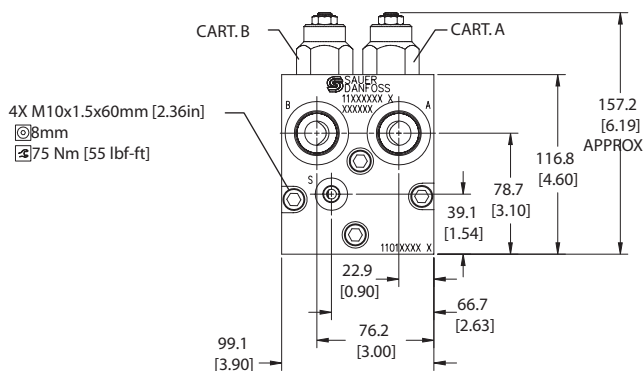
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.19 kg [4.83 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023871
Motor	OMT

Motor mount HICs
MM-OMT-LS-DCP441-1

DIMENSIONS

Cross-sectional view

mm [in]

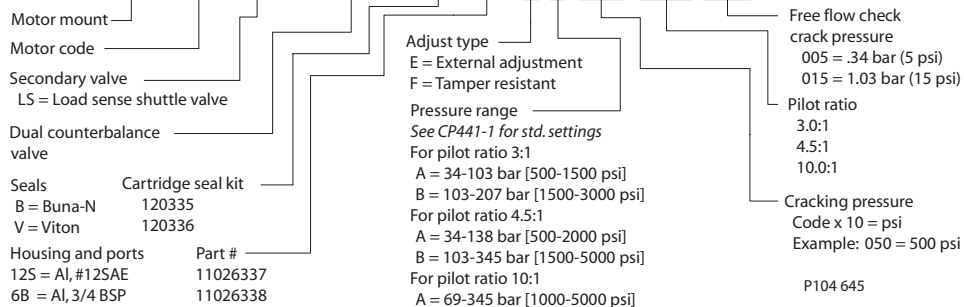


P104 644

HIC Includes:
- M10x60mm bolts (4X)
- (-123) O'rings, Viton (29.82x2.62 mm) (2X)

ORDERING INFORMATION

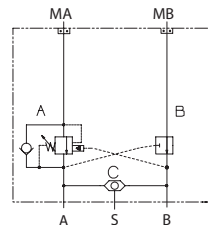
MM-OMT-LS-DCP441-1-B-12S-E-A-250-10.0-015



OPERATION

This is a single counterbalance (A port) HIC with shuttle that mounts to DH motors with manifold mount porting.

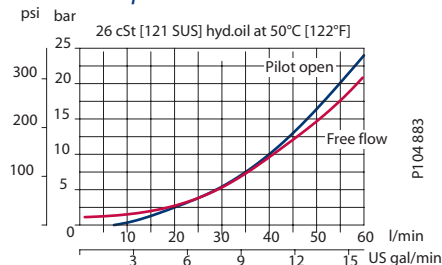
Schematic



P104 646

SPECIFICATIONS

Theoretical performance



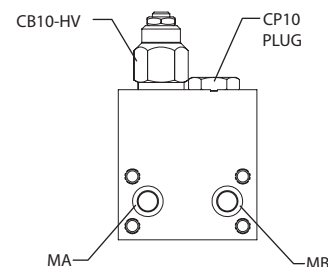
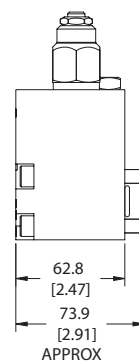
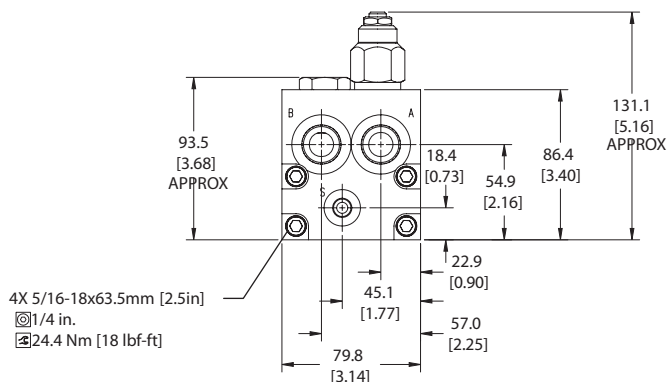
Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.49 kg [3.28 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Shuttle	CP124-1
Plug	SDC10-V-3S-B1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023864
Motor	DH

DIMENSIONS

Cross-sectional view

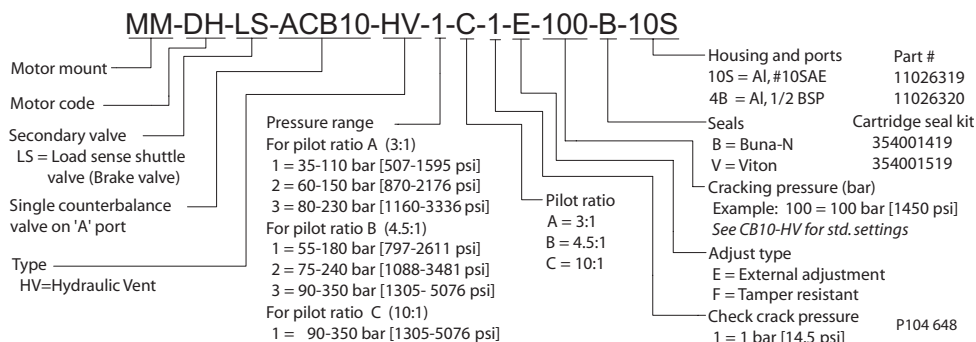
mm [in]



HIC Includes:
- 5/16-18 x 2.5" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (2X)

P104 647

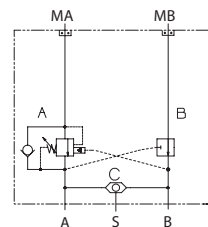
ORDERING INFORMATION



OPERATION

This is a single counterbalance (A port) HIC with shuttle that mounts to DS motors with manifold mount porting.

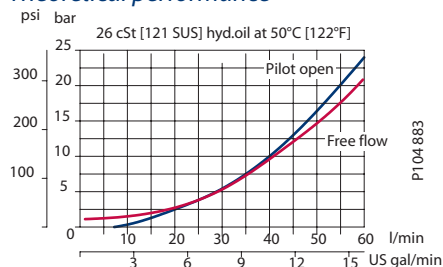
Schematic



P104 646

SPECIFICATIONS

Theoretical performance



P104-883

Specifications

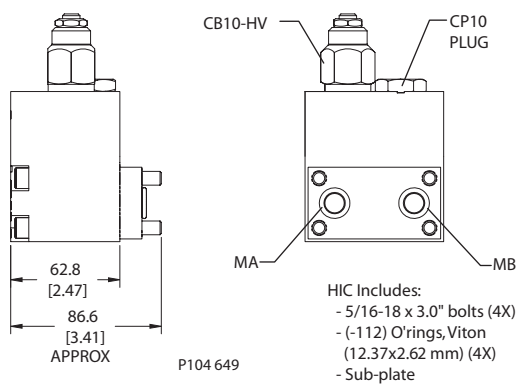
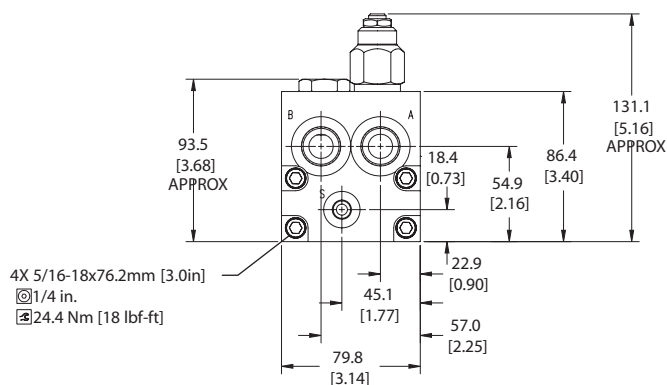
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.60 kg [3.53 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Shuttle	CP124-1
Plug	SDC10-V-3S-B1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023865
Motor	DS

Motor mount HICs
 MM-DS-LS-ACB10-HV

DIMENSIONS

Cross-sectional view

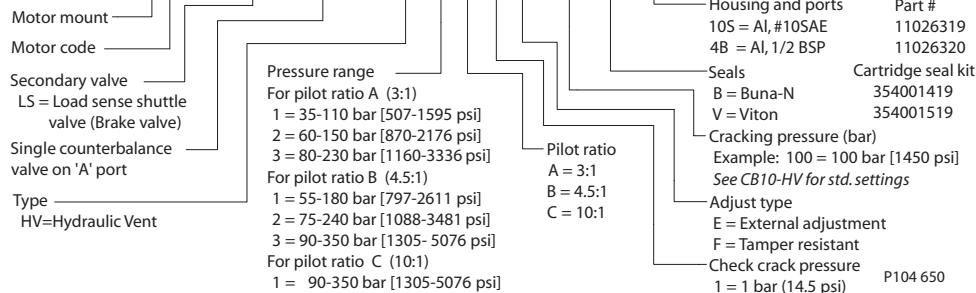
mm [in]



HIC Includes:
 - 5/16-18 x 3.0" bolts (4X)
 - (-112) O-rings, Viton (12.37x2.62 mm) (4X)
 - Sub-plate

ORDERING INFORMATION

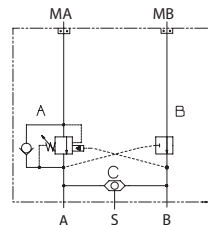
MM-DS-LS-ACB10-HV-1-C-1-E-100-B-10S



OPERATION

This is a single counterbalance (A port) HIC with shuttle that mounts to OMP/OMR motors with BSP porting.

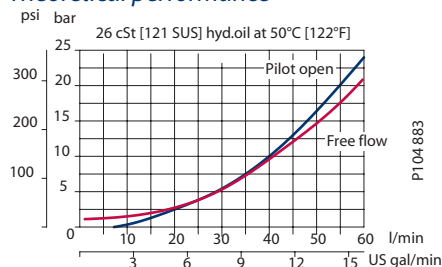
Schematic



P104 646

SPECIFICATIONS

Theoretical performance



P104 883

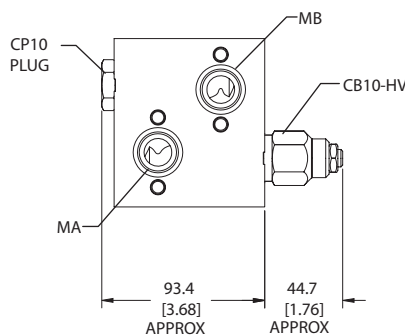
Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.44 kg [3.17 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Shuttle	CP124-1
Plug	SDC10-V-3S-B1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023162
Motor	OMP/OMR

DIMENSIONS

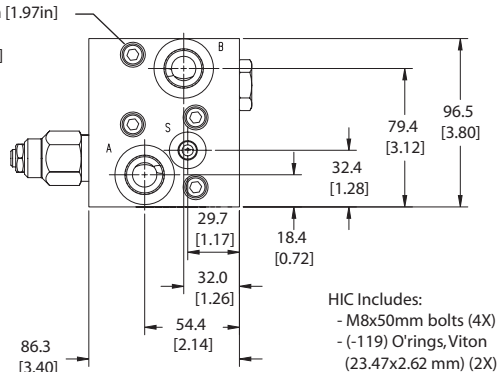
Cross-sectional view

mm [in]



4X M8x1.25x50mm [1.97in]
⌀6mm
⊖40 Nm [30 lbf-ft]

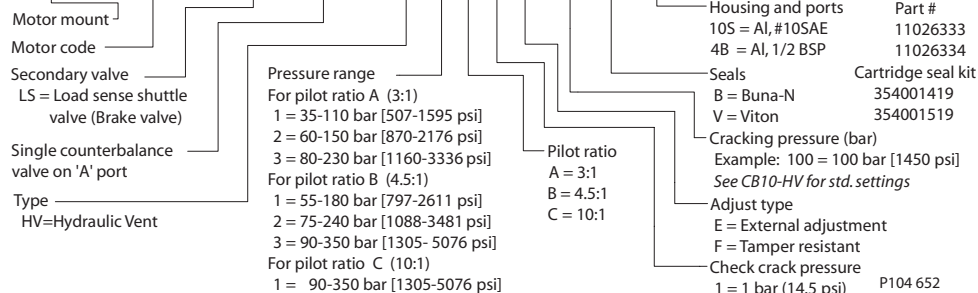
P104 651



HIC Includes:
- M8x50mm bolts (4X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

ORDERING INFORMATION

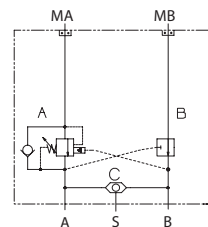
MM-OMP/OMR-LS-ACB10-HV-1-C-1-E-100-B-10S



OPERATION

This is a single counterbalance (A port) HIC with shuttle that mounts to OMH motors with BSP porting.

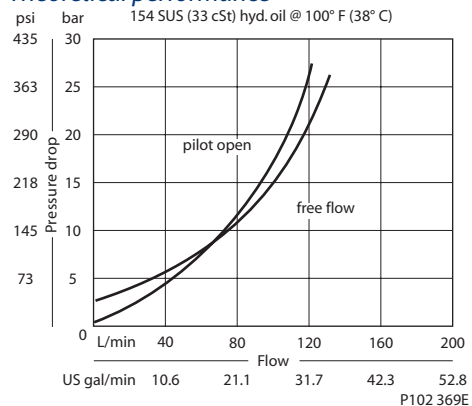
Schematic



P104 646

SPECIFICATIONS

Theoretical performance



Specifications

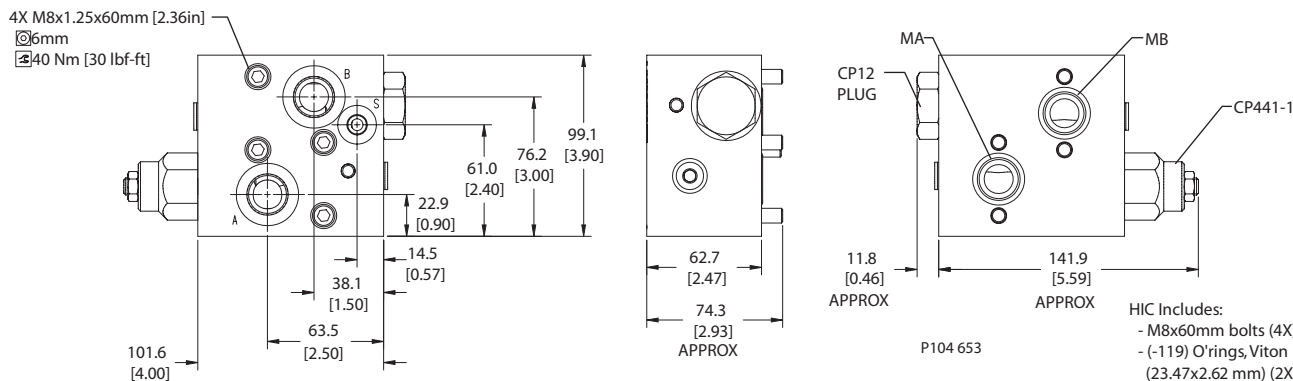
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	1.93 kg [4.25 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Shuttle	CP124-1
Plug	CP12-V-3S-B1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023869
Motor	OMH

Motor mount HICs
MM-OMH-LS-ACP441-1

DIMENSIONS

Cross-sectional view

mm [in]

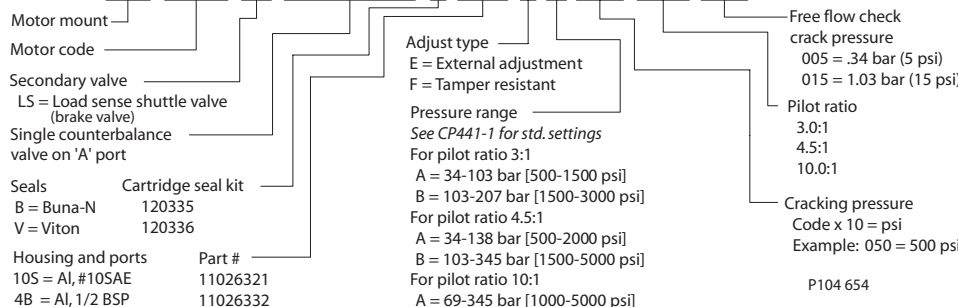


P104 653

HIC Includes:
- M8x60mm bolts (4X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

ORDERING INFORMATION

MM-OMH-LS-ACP441-1-B-10S-E-A-250-10.0-015

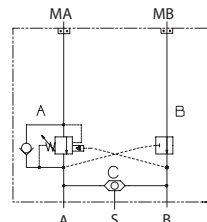


P104 654

OPERATION

This is a single counterbalance (A port) HIC with shuttle that mounts to OMS motors with BSP porting.

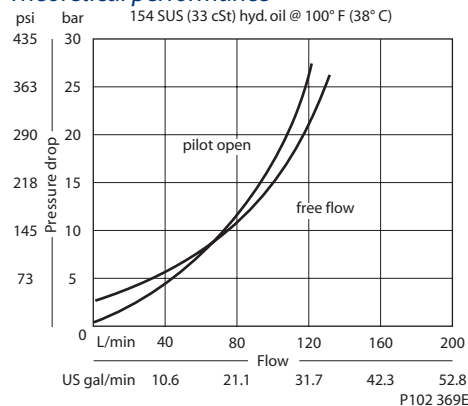
Schematic



P104 646

SPECIFICATIONS

Theoretical performance



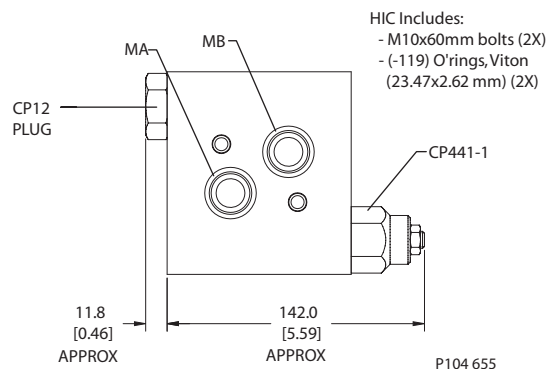
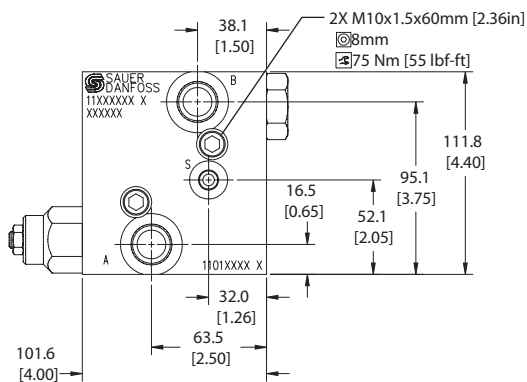
Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.13 kg [4.70 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Shuttle	CP124-1
Plug	CP12-V-3S-B1
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023867
Motor	OMS

DIMENSIONS

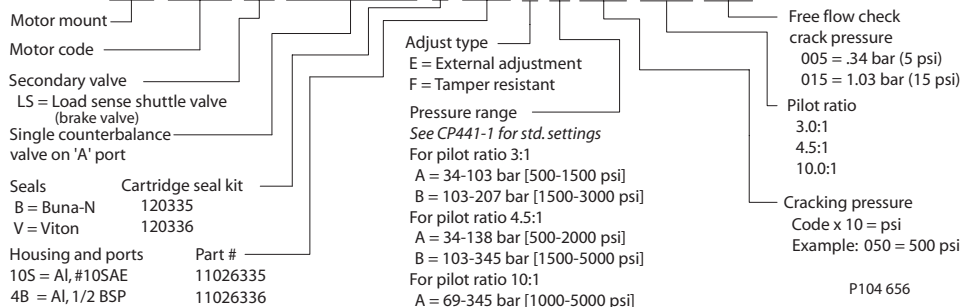
Cross-sectional view

mm [in]



ORDERING INFORMATION

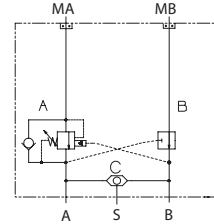
MM-OMS-LS-ACP441-1-B-10S-E-A-250-10.0-015



OPERATION

This is a single counterbalance (A port) HIC with shuttle that mounts to OMT motors with BSP porting.

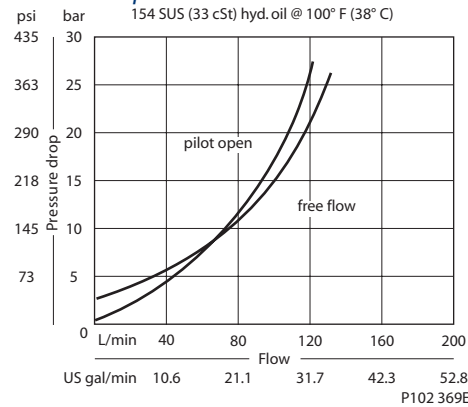
Schematic



P104 646

SPECIFICATIONS

Theoretical performance



Specifications

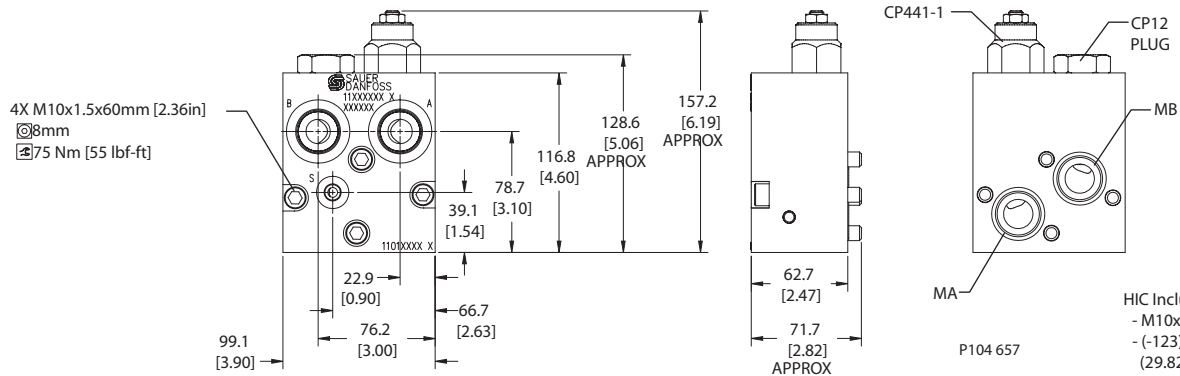
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.19 kg [4.83 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Shuttle	CP124-1
Plug	CP12-V-3S-B1
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023871
Motor	OMT

Motor mount HICs
MM-OMT-LS-ACP441-1

DIMENSIONS

Cross-sectional view

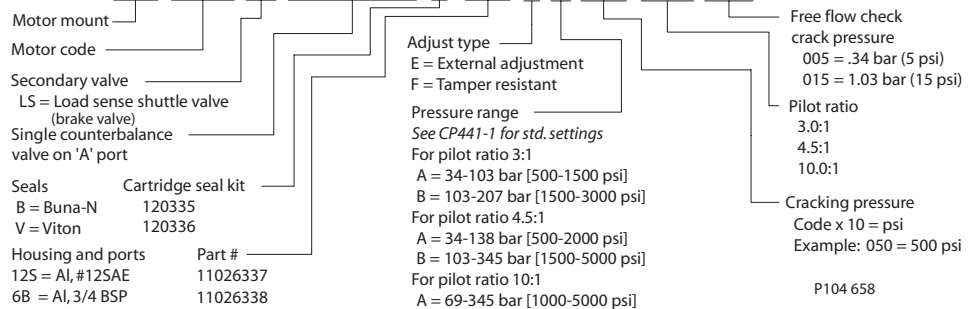
mm [in]



HIC Includes:
- M10x60mm bolts (4X)
- (-123) O-rings, Viton (29.82x2.62 mm) (2X)

ORDERING INFORMATION

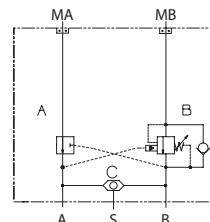
MM-OMT-LS-ACP441-1-B-12S-E-A-250-10.0-015



OPERATION

This is a single counterbalance (B port) HIC with shuttle that mounts to DH motors with manifold mount porting.

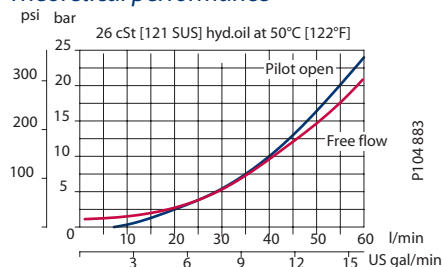
Schematic



P104 659

SPECIFICATIONS

Theoretical performance



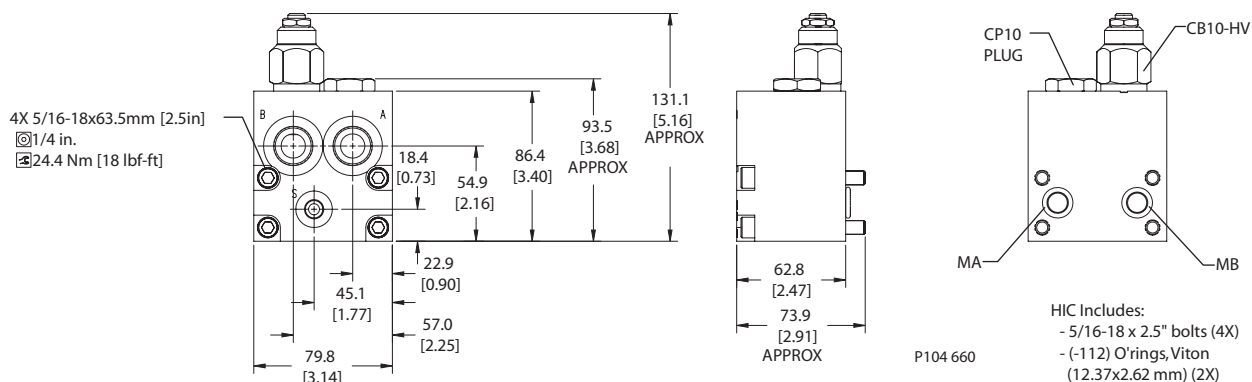
Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.49 kg [3.28 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Shuttle	CP124-1
Plug	SDC10-V-3S-B1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023864
Motor	DH

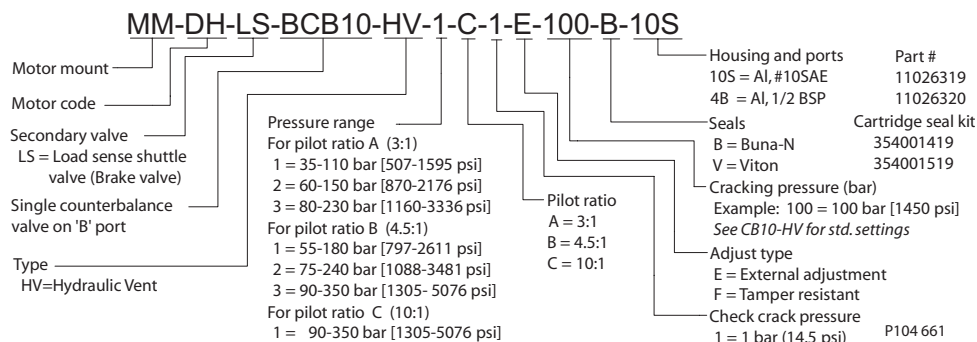
DIMENSIONS

Cross-sectional view

mm [in]



ORDERING INFORMATION

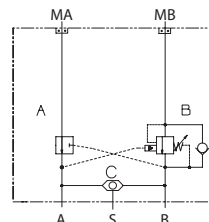


Motor mount HICs
MM-DH-LS-BCB10-HV

OPERATION

This is a single counterbalance (B port) HIC with shuttle that mounts to DS motors with manifold mount porting.

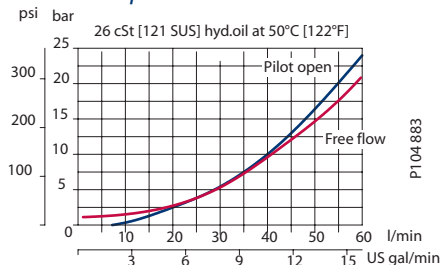
Schematic



P104 659

SPECIFICATIONS

Theoretical performance



P104-883

Specifications

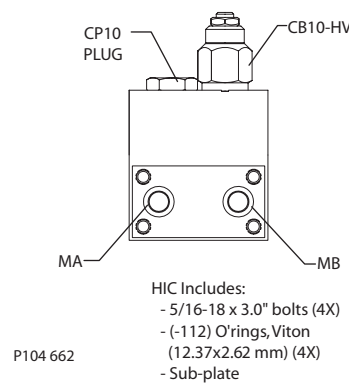
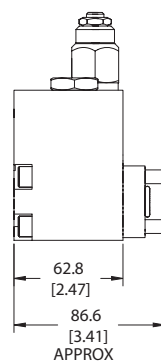
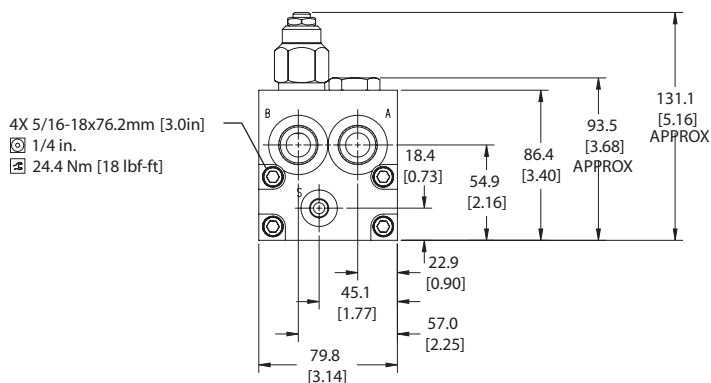
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.60 kg [3.53 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Shuttle	CP124-1
Plug	SDC10-V-3S-B1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023865
Motor	DS

Motor mount HICs
MM-DS-LS-BCB10-HV

DIMENSIONS

Cross-sectional view

mm [in]

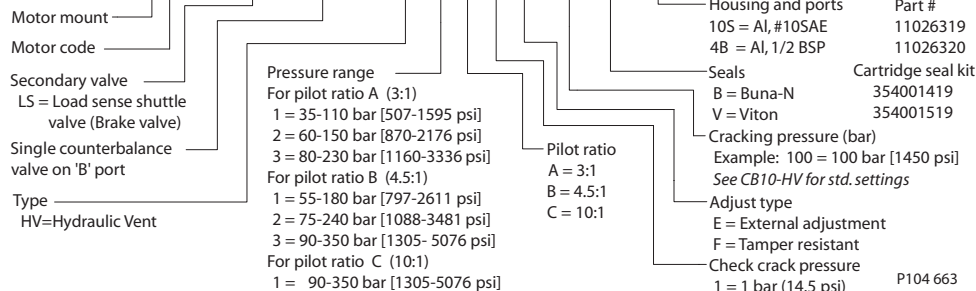


HIC Includes:
- 5/16-18 x 3.0" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (4X)
- Sub-plate

P104 662

ORDERING INFORMATION

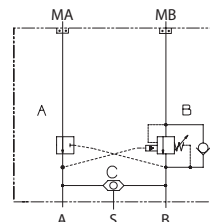
MM-DS-LS-BCB10-HV-1-C-1-E-100-B-10S



OPERATION

This is a single counterbalance (B port) HIC with shuttle that mounts to OMP/OMR motors with BSP porting.

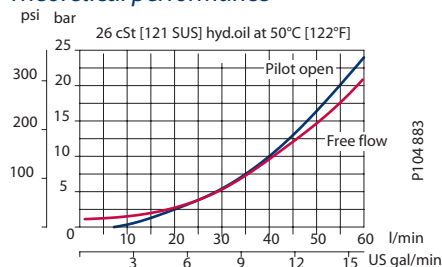
Schematic



P104 659

SPECIFICATIONS

Theoretical performance



P104 883

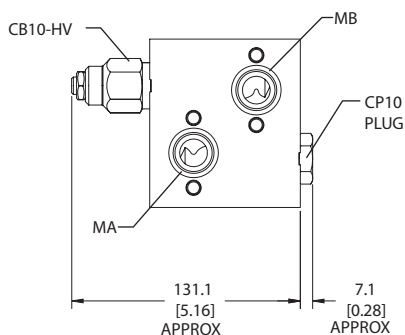
Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	60 l/min [16 US gal/min]
Leakage	6 drops/min @ at 70% of crack pressure
Weight	1.44 kg [3.17 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CB10 HV
Shuttle	CP124-1
Plug	SDC10-V-3S-B1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023162
Motor	OMP/OMR

DIMENSIONS

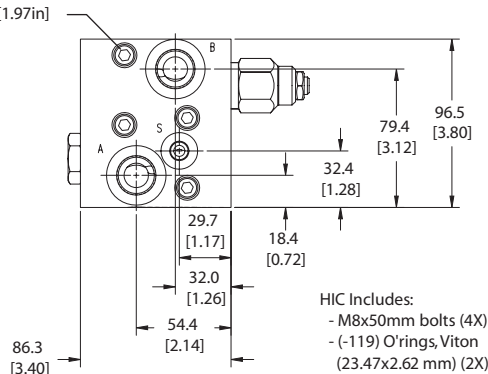
Cross-sectional view

mm [in]



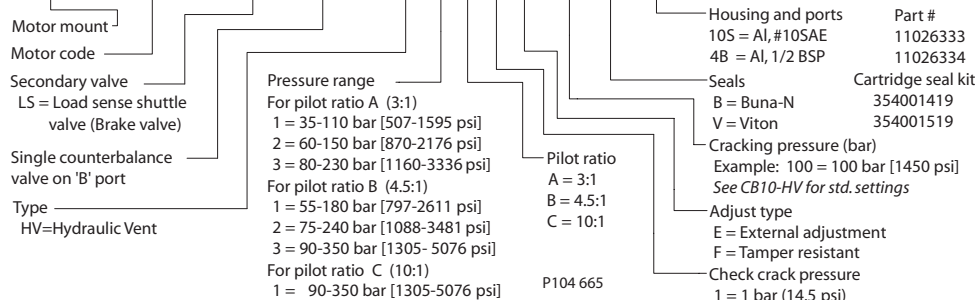
4X M8x1.25x50mm [1.97in]
 @6mm
 40 Nm [30 lbf-ft]

P104 664



ORDERING INFORMATION

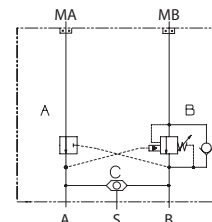
MM-OMP/OMR-LS-BCB10-HV-1-C-1-E-100-B-10S



OPERATION

This is a single counterbalance (B port) HIC with shuttle that mounts to OMH motors with BSP porting.

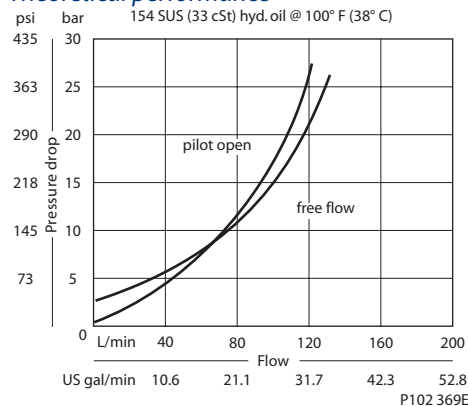
Schematic



P104 659

SPECIFICATIONS

Theoretical performance



Specifications

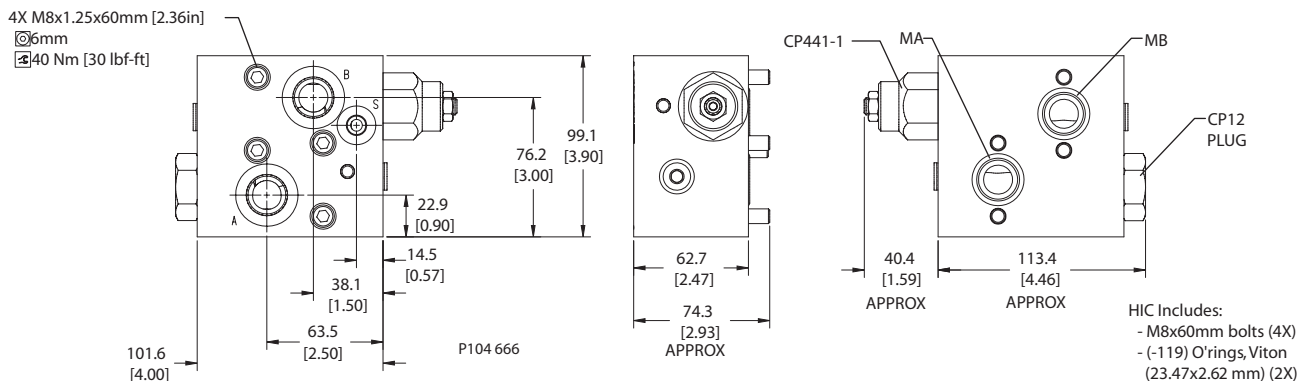
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	1.93 kg [4.25 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Shuttle	CP124-1
Plug	CP12-V-3S-B1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023869
Motor	OMH

Motor mount HICs
 MM-OMH-LS-BCP441-1

DIMENSIONS

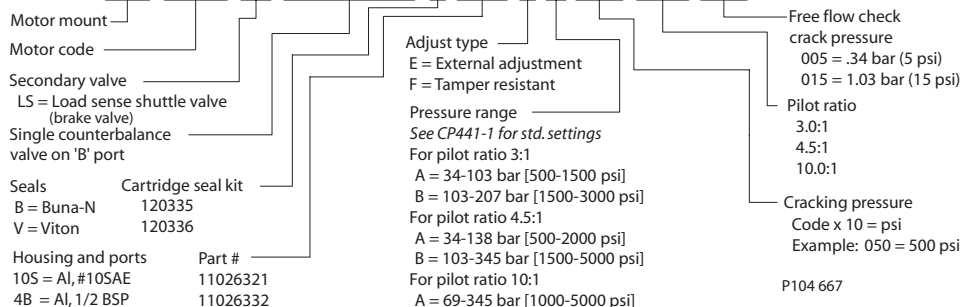
Cross-sectional view

mm [in]



ORDERING INFORMATION

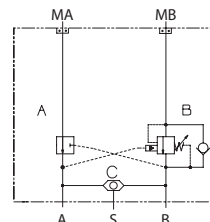
MM-OMH-LS-BCP441-1-B-10S-E-A-250-10.0-015



OPERATION

This is a single counterbalance (B port) HIC with shuttle that mounts to OMS motors with BSP porting.

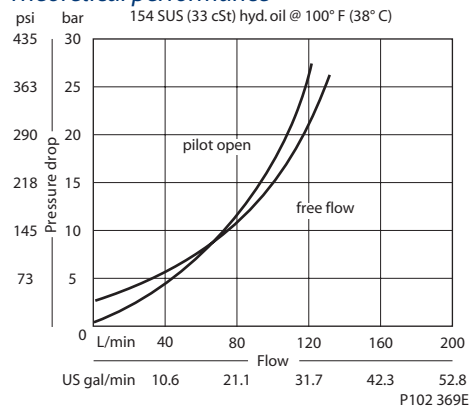
Schematic



P104 659

SPECIFICATIONS

Theoretical performance



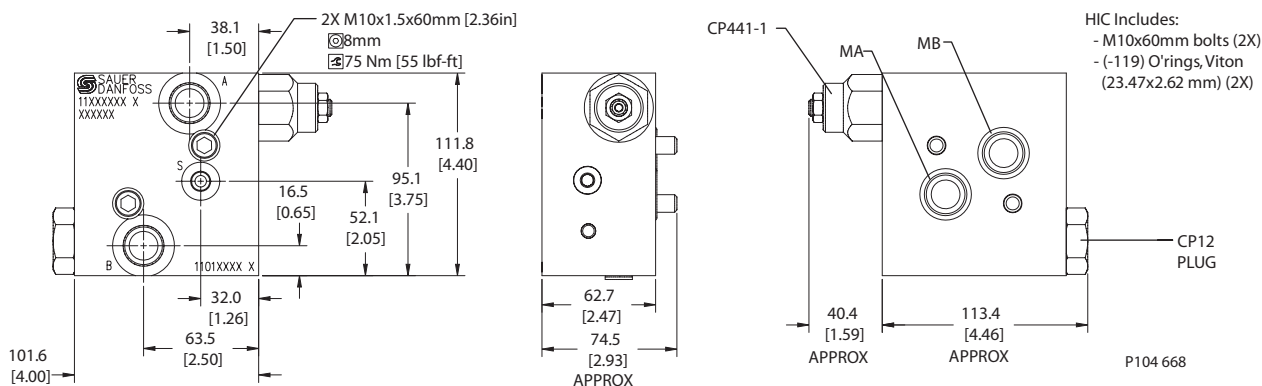
Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.13 kg [4.70 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Shuttle	CP124-1
Plug	CP12-V-3S-B1
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023867
Motor	OMS

DIMENSIONS

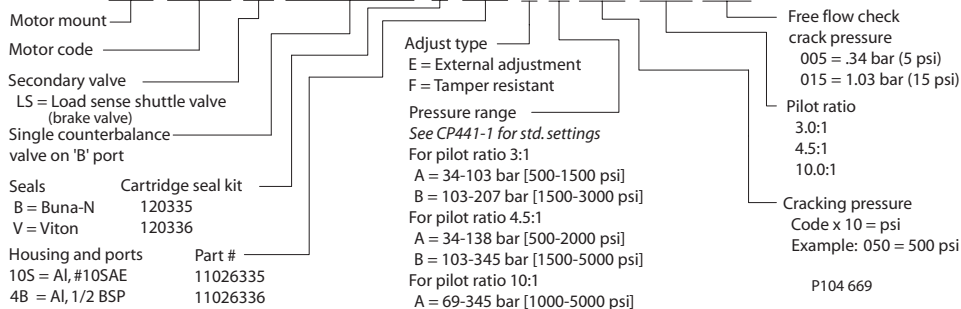
Cross-sectional view

mm [in]



ORDERING INFORMATION

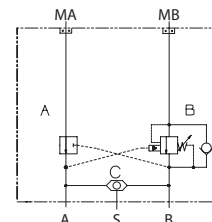
MM-OMS-LS-BCP441-1-B-10S-E-A-250-10.0-015



OPERATION

This is a single counterbalance (B port) HIC with shuttle that mounts to OMS motors with BSP porting.

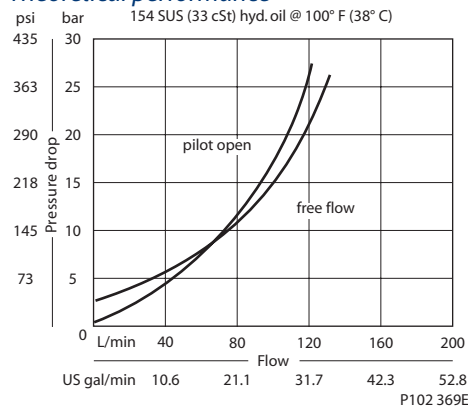
Schematic



P104 659

SPECIFICATIONS

Theoretical performance



Specifications

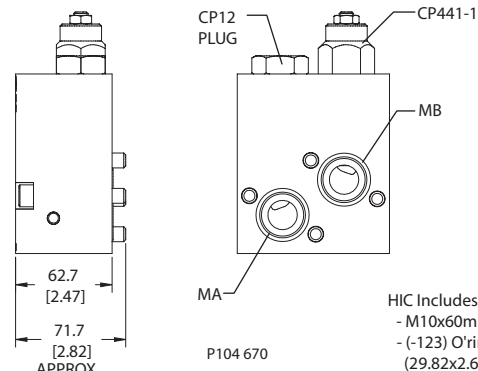
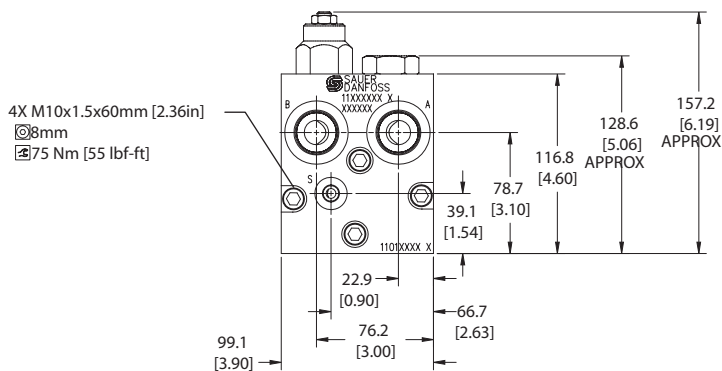
Rated pressure	210 bar [3045 psi]
Rated flow at 22 bar [319 psi]	115 l/min [30 US gal/min]
Leakage	10 drops/min @ at 70% of crack pressure
Weight	2.19 kg [4.83 lb]
Pilot ratio	3.0:1, 4.5:1, 10.0:1
Cartridge	CP441-1
Shuttle	CP124-1
Plug	CP12-V-3S-B1
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023871
Motor	OMT

Motor mount HICs
MM-OMT-LS-BCP441-1

DIMENSIONS

Cross-sectional view

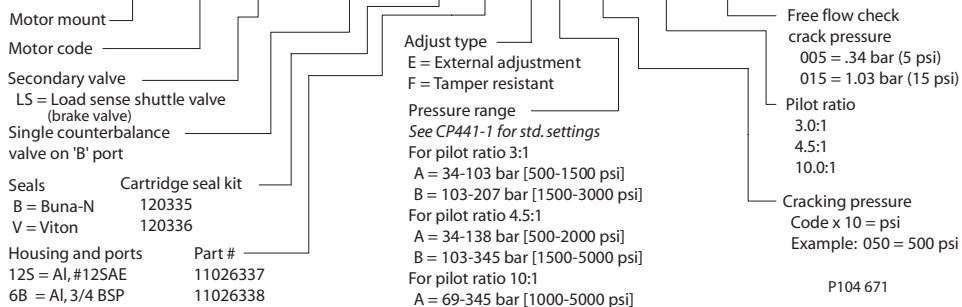
mm [in]



HIC Includes:
- M10x60mm bolts (4X)
- (-123) O'rings, Viton (29.82x2.62 mm) (2X)

ORDERING INFORMATION

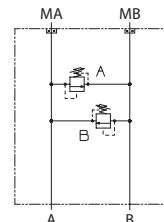
MM-OMT-LS-BCP441-1-B-12S-E-A-250-10.0-015



OPERATION

This is a dual cross-port relief HIC that mounts to DH motors with manifold mount porting.

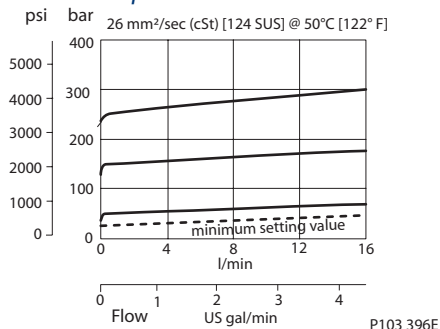
Schematic



P104 905

SPECIFICATIONS

Theoretical performance



Specifications

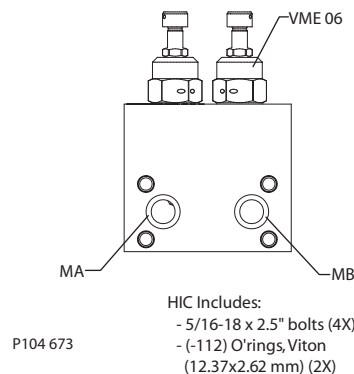
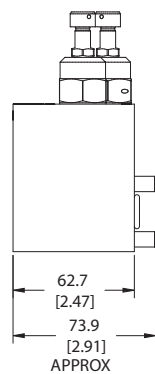
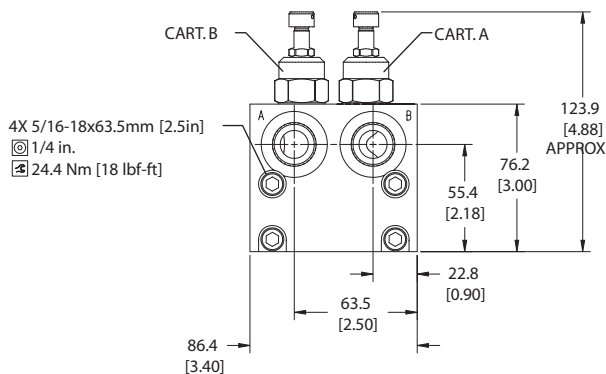
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.28 kg [2.82 lb]
Cartridge	VME 06
Service mount kit	11023864
Motor	DH

Motor mount HICs
MM-DH-00-DVME06

DIMENSIONS

Cross-sectional view

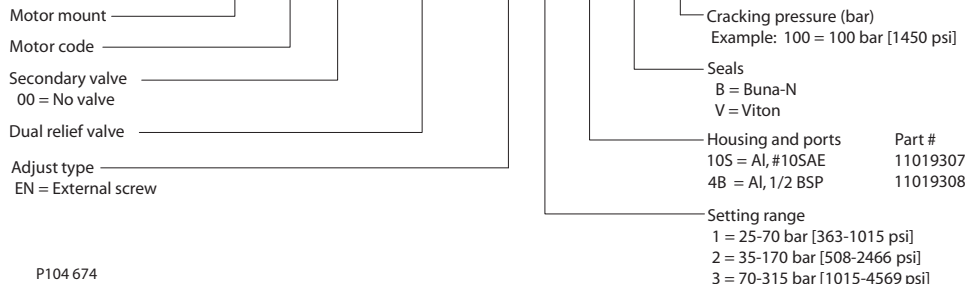
mm [in]



P104 673

ORDERING INFORMATION

MM-DH-00-DVME06-EN-2-10S-B-100

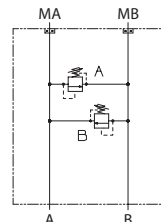


P104 674

OPERATION

This is a dual cross-port relief HIC that mounts to DS motors with manifold mount porting.

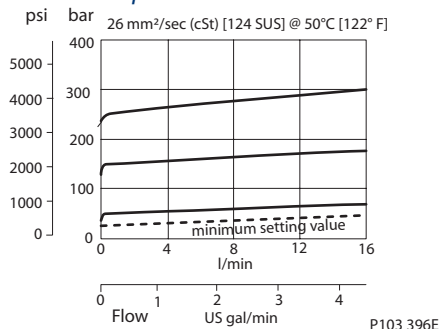
Schematic



P104 905

SPECIFICATIONS

Theoretical performance



Specifications

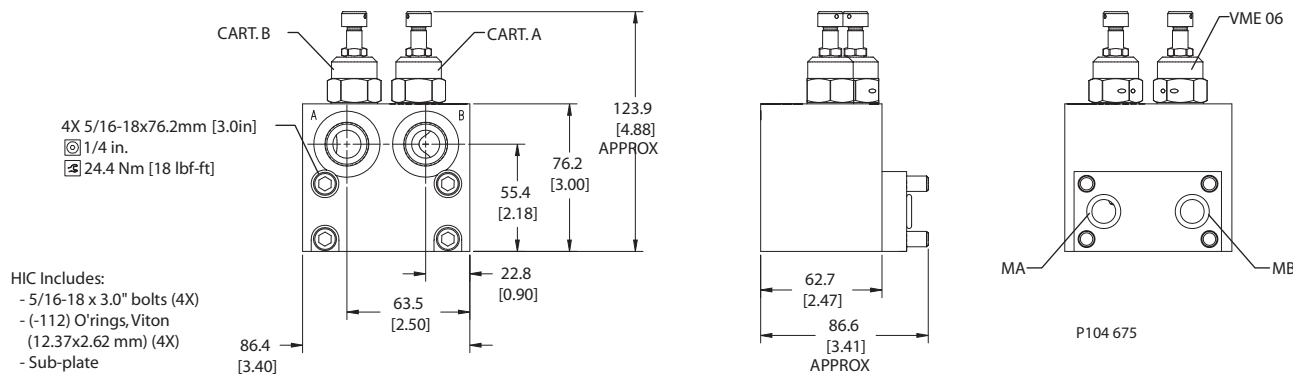
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.39 kg [3.06 lb]
Cartridge	VME 06
Service mount kit	11023865
Motor	DS

Motor mount HICs
 MM-DS-00-DVME06

DIMENSIONS

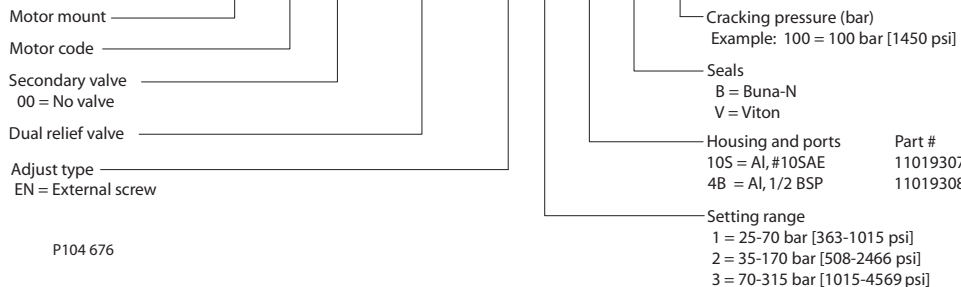
Cross-sectional view

mm [in]



ORDERING INFORMATION

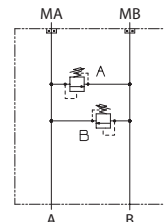
MM-DS-00-DVME06-EN-2-10S-B-100



OPERATION

This is a dual cross-port relief HIC that mounts to OMP/OMR motors with BSP porting.

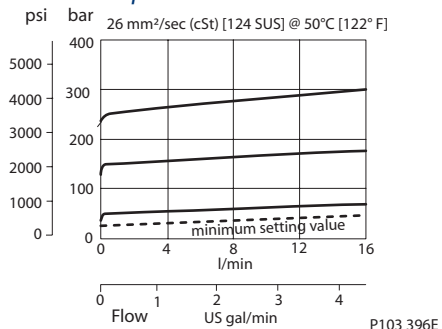
Schematic



P104 905

SPECIFICATIONS

Theoretical performance



P103 396E

Specifications

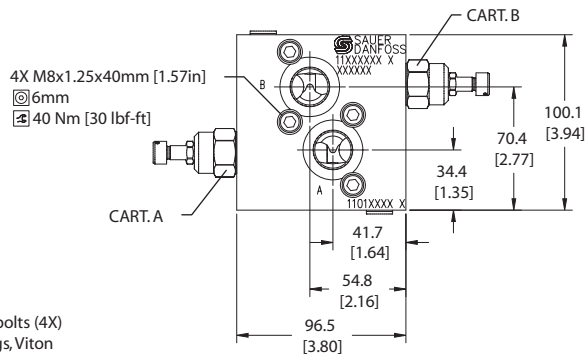
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.14 kg [2.51 lb]
Cartridge	VME 06
Service mount kit	11023868
Motor	OMP/OMR

Motor mount HICs
MM-OMP/OMR-00-DVME06

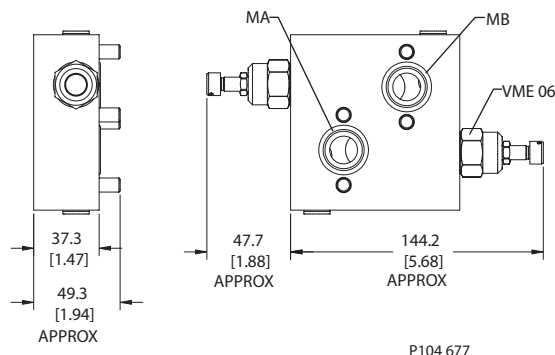
DIMENSIONS

Cross-sectional view

mm [in]



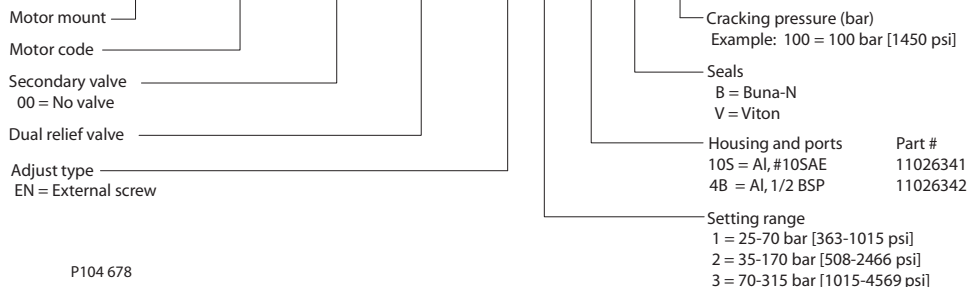
HIC Includes:
- M8x40mm bolts (4X)
- (-119) O-rings, Viton (23.47x2.62 mm) (2X)



P104 677

ORDERING INFORMATION

MM-OMP/OMR-00-DVME06-EN-2-10S-B-100

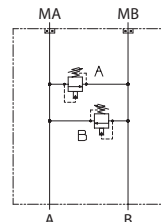


P104 678

OPERATION

This is a dual cross-port relief HIC that mounts to OMH motors with BSP porting.

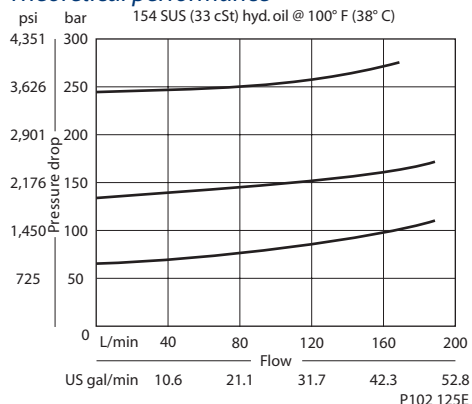
Schematic



P104 672

SPECIFICATIONS

Theoretical performance



Specifications

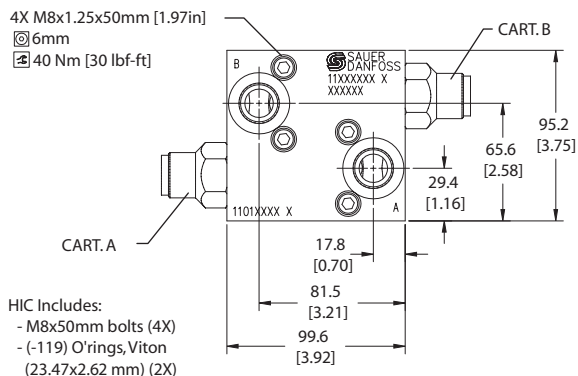
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.42 kg [3.13 lb]
Cartridge	CP211-2
Service mount kit	11023762
Motor	OMH

Motor mount HICs
MM-OMH-00-DCP211-2

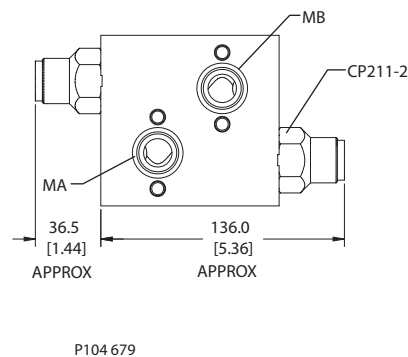
DIMENSIONS

Cross-sectional view

mm [in]

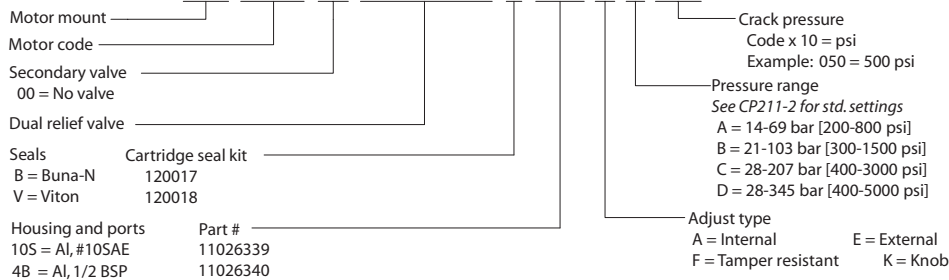


HIC Includes:
- M8x50mm bolts (4X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)



ORDERING INFORMATION

MM-OMH-00-DCP211-2-B-10S-E-C-254

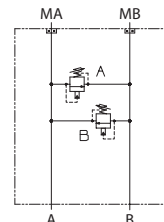


P104 680

OPERATION

This is a dual cross-port relief HIC that mounts to OMS motors with BSP porting.

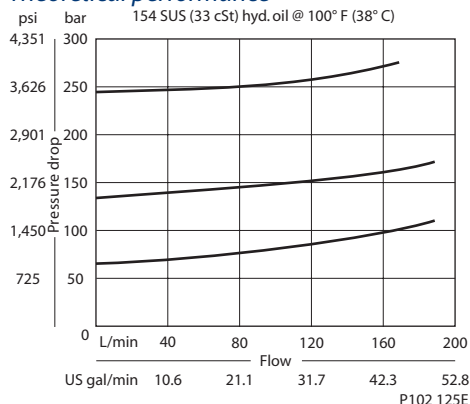
Schematic



P104 672

SPECIFICATIONS

Theoretical performance



Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.60 kg [3.53 lb]
Cartridge	CP211-2
Service mount kit	11023866
Motor	OMS

Motor mount HICs
MM-OMS-00-DCP211-2

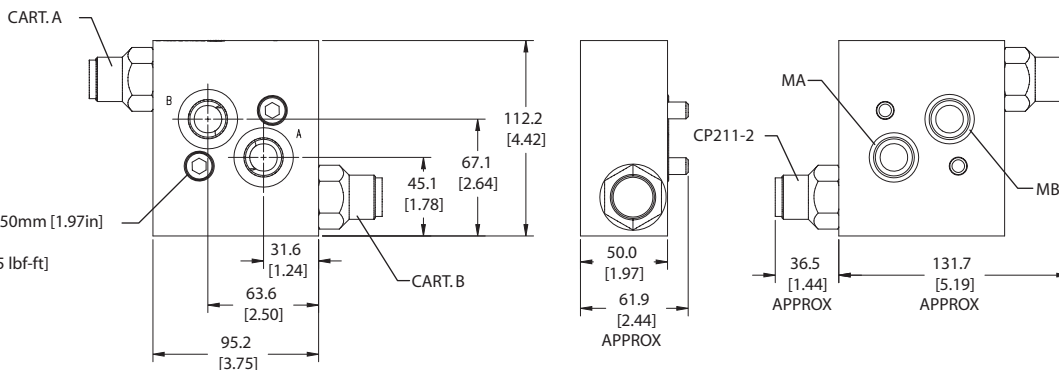
DIMENSIONS

Cross-sectional view

mm [in]

HIC Includes:
- M10x50mm bolts (2X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

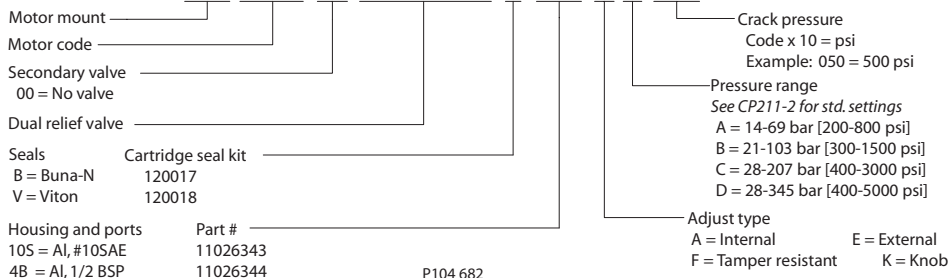
2X M10x1.5x50mm [1.97in]
Ø3mm
75 Nm [55 lbf-ft]



P104 681

ORDERING INFORMATION

MM-OMS-00-DCP211-2-B-10S-E-C-254

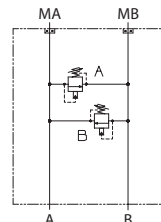


P104 682

OPERATION

This is a dual cross-port relief HIC that mounts to OMT motors with BSP porting.

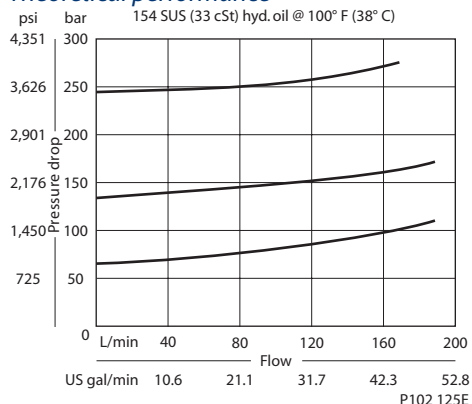
Schematic



P104 672

SPECIFICATIONS

Theoretical performance



Specifications

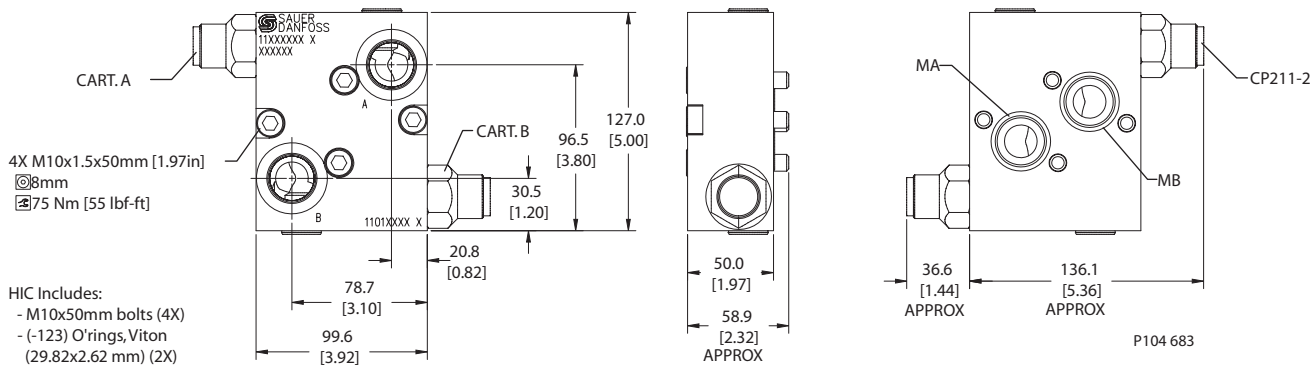
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.85 kg [4.08 lb]
Cartridge	CP211-2
Service mount kit	11023870
Motor	OMT

Motor mount HICs
MM-OMT-00-DCP211-2

DIMENSIONS

Cross-sectional view

mm [in]

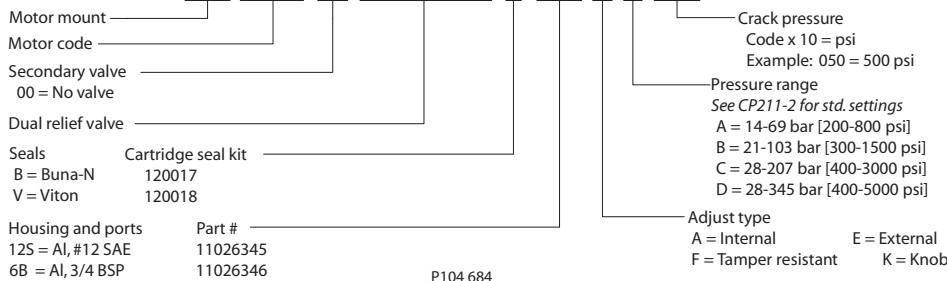


4X M10x1.5x50mm [1.97in]
⊘8mm
75 Nm [55 lbf-ft]

HIC Includes:
- M10x50mm bolts (4X)
- (-123) O'rings, Viton (29.82x2.62 mm) (2X)

ORDERING INFORMATION

MM-OMT-00-DCP211-2-B-12S-E-C-254

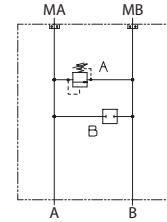


P104 684

OPERATION

This is a single cross-port relief (A to B) HIC that mounts to DH motors with manifold mount porting.

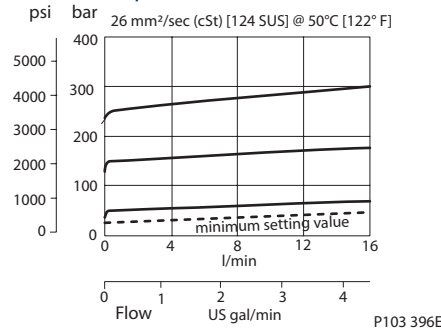
Schematic



P104 906

SPECIFICATIONS

Theoretical performance



Specifications

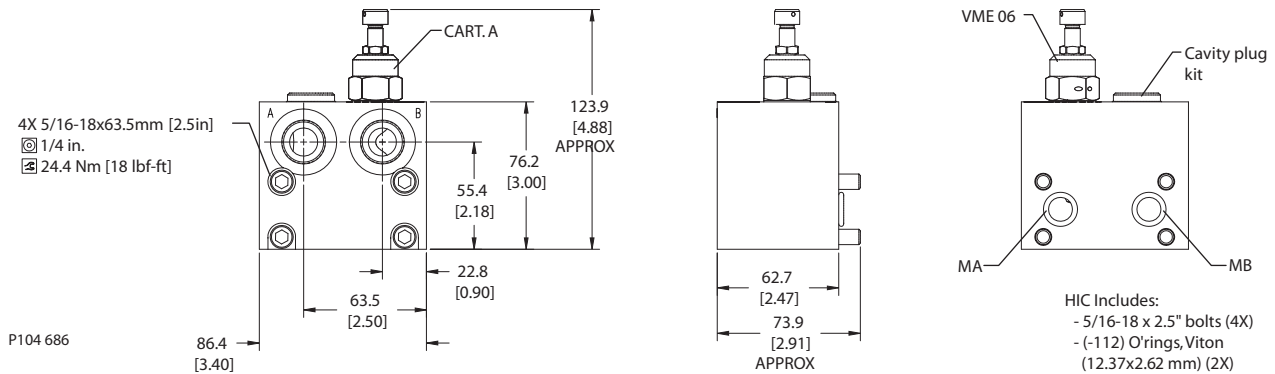
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.28 kg [2.82 lb]
Cartridge	VME 06
Plug	11023862
Service mount kit	11026074
Motor	DH

Motor mount HICs
 MM-DH-00-AVME06

DIMENSIONS

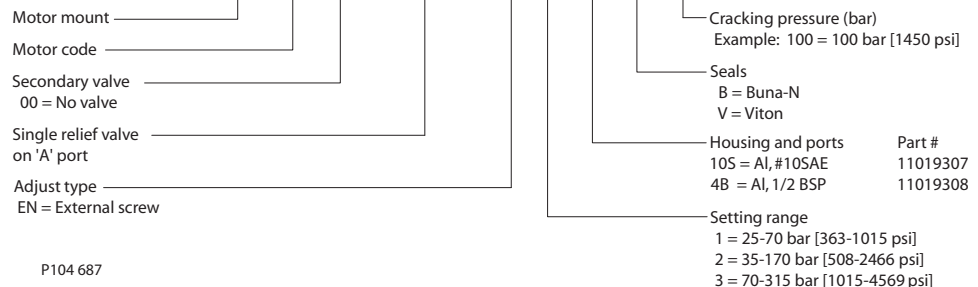
Cross-sectional view

mm [in]



ORDERING INFORMATION

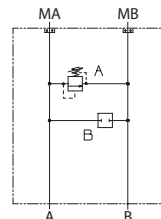
MM-DH-00-AVME06-EN-2-10S-B-100



OPERATION

This is a single cross-port relief (A to B) HIC that mounts to DS motors with manifold mount porting.

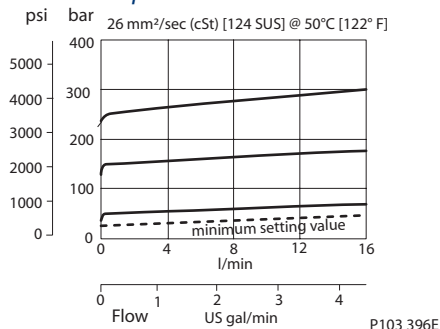
Schematic



P104 906

SPECIFICATIONS

Theoretical performance



P103 396E

Specifications

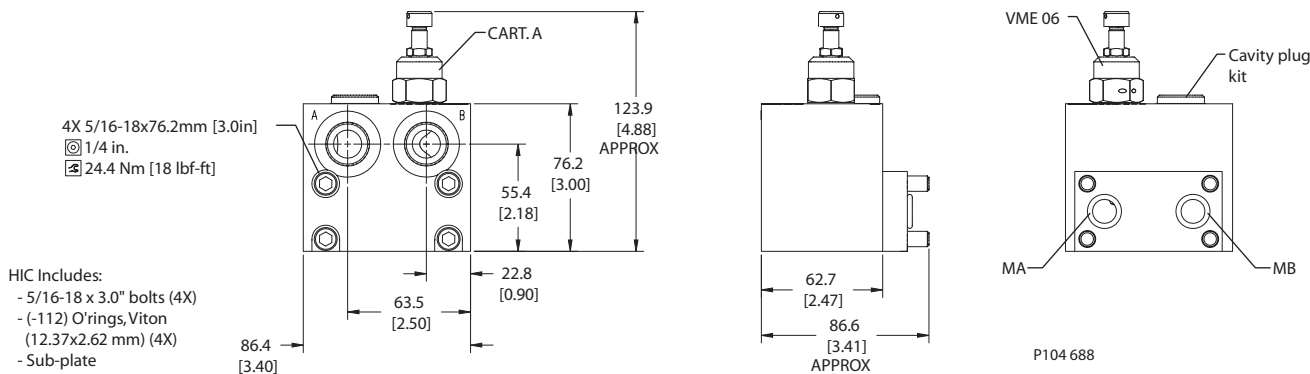
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.39 kg [3.06 lb]
Cartridge	VME 06
Plug	11026074
Service mount kit	11023865
Motor	DS

Motor mount HICs
MM-DS-00-AVME06

DIMENSIONS

Cross-sectional view

mm [in]

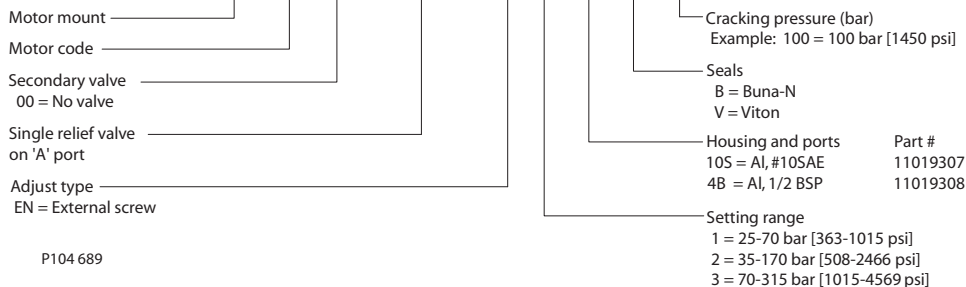


- HIC Includes:
- 5/16-18 x 3.0" bolts (4X)
 - (-112) O'rings, Viton (12.37x2.62 mm) (4X)
 - Sub-plate

P104 688

ORDERING INFORMATION

MM-DS-00-AVME06-EN-2-10S-B-100

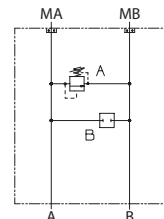


P104 689

OPERATION

This is a single cross-port relief (A to B) HIC that mounts to OMP/OMR motors with BSP porting.

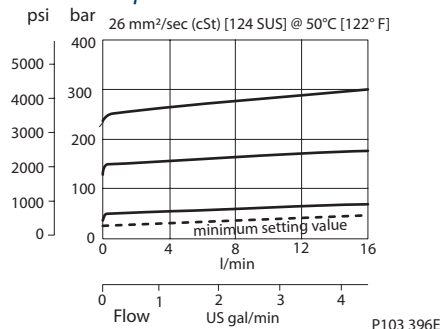
Schematic



P104 906

SPECIFICATIONS

Theoretical performance



Specifications

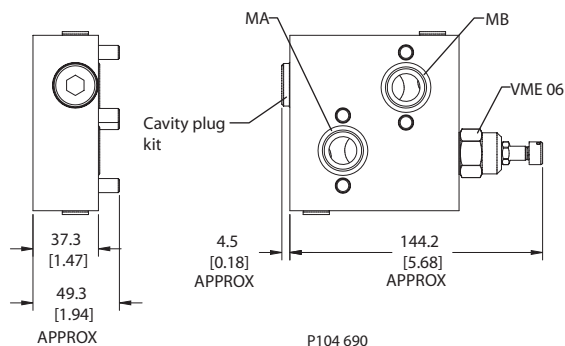
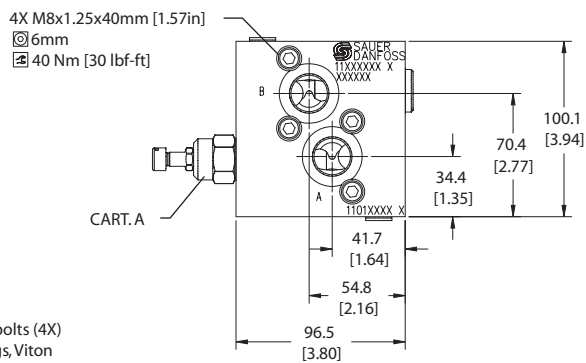
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.14 kg [2.51 lb]
Cartridge	VME 06
Plug	11026074
Service mount kit	11023868
Motor	OMP/OMR

Motor mount HICs
MM-OMP/OMR-00-AVME06

DIMENSIONS

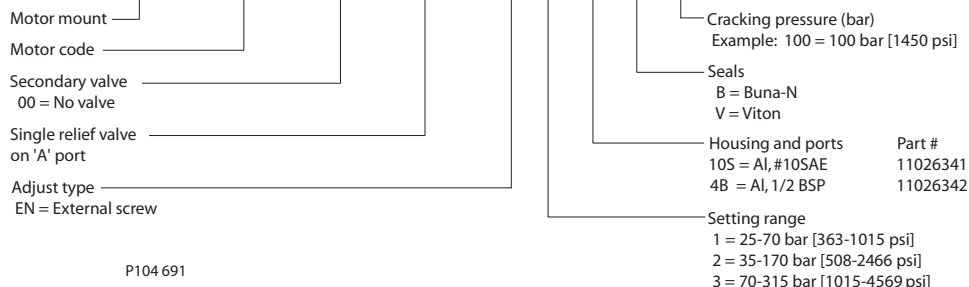
Cross-sectional view

mm [in]



ORDERING INFORMATION

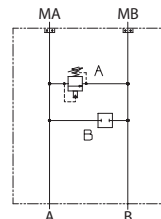
MM-OMP/OMR-00-AVME06-EN-2-10S-B-100



OPERATION

This is a single cross-port relief (A to B) HIC that mounts to OMH motors with BSP porting.

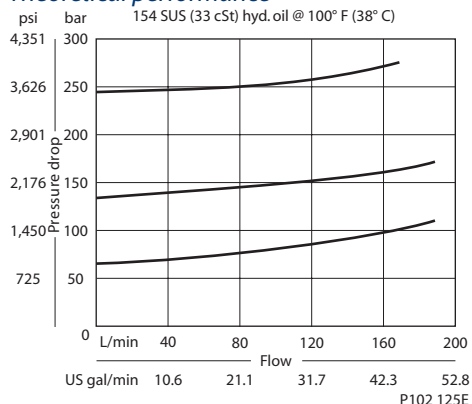
Schematic



P104 685

SPECIFICATIONS

Theoretical performance



Specifications

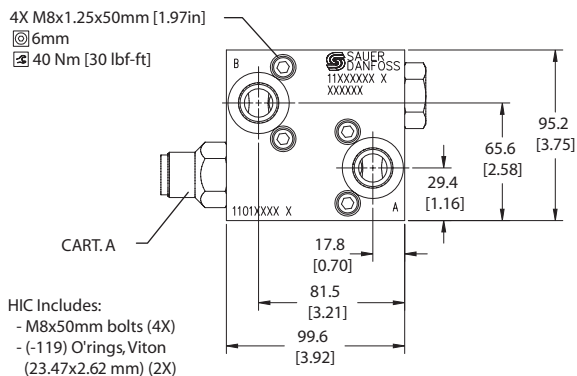
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.42 kg [3.13 lb]
Cartridge	CP211-2
Plug	CP12-V-2-B
Service mount kit	11023162
Motor	OMH

Motor mount HICs
MM-OMH-00-ACP211-2

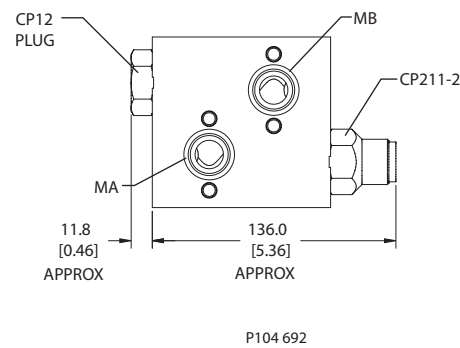
DIMENSIONS

Cross-sectional view

mm [in]



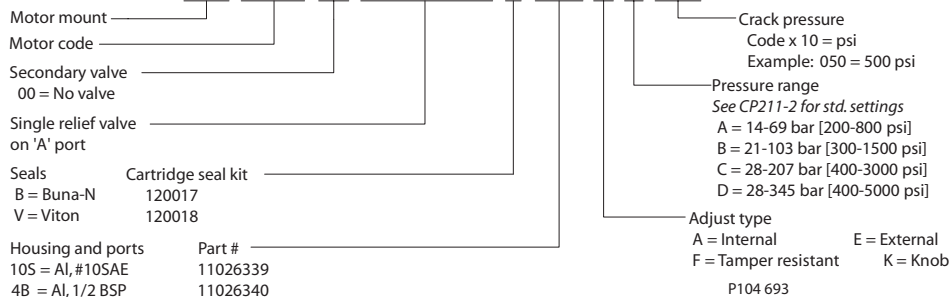
HIC Includes:
- M8x50mm bolts (4X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)



P104 692

ORDERING INFORMATION

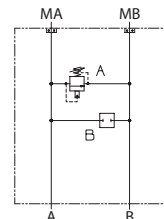
MM-OMH-00-ACP211-2-B-10S-E-C-254



OPERATION

This is a single cross-port relief (A to B) HIC that mounts to OMS motors with BSP porting.

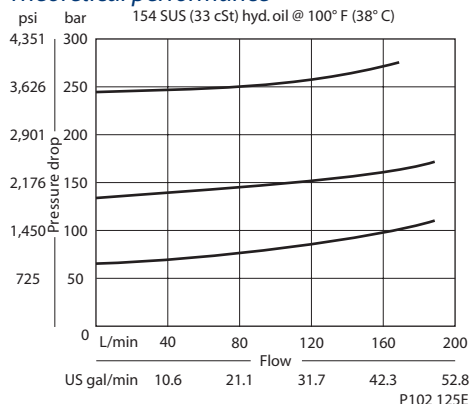
Schematic



P104 685

SPECIFICATIONS

Theoretical performance



Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.60 kg [3.53 lb]
Cartridge	CP211-2
Plug	CP12-V-2-B
Service mount kit	11023866
Motor	OMS

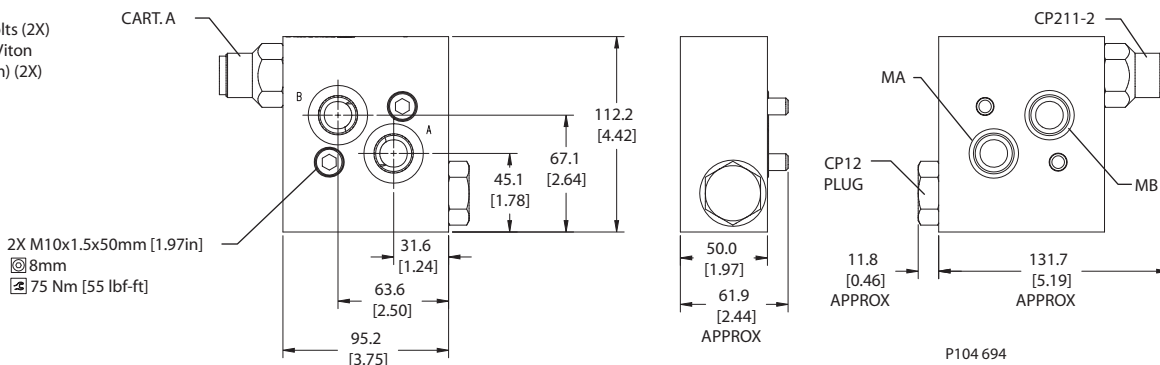
Motor mount HICs
MM-OMS-00-ACP211-2

DIMENSIONS

Cross-sectional view

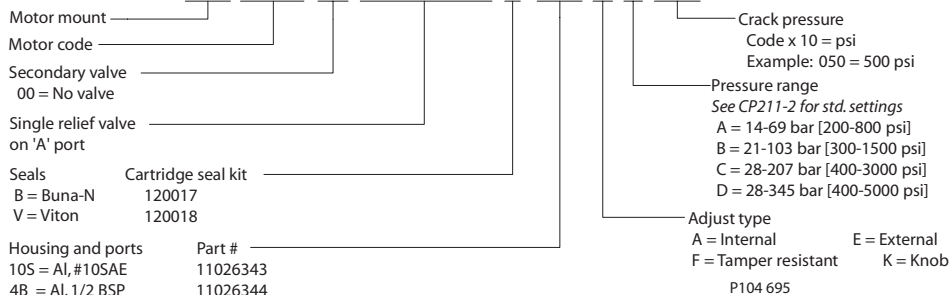
mm [in]

HIC Includes:
- M10x50mm bolts (2X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)



ORDERING INFORMATION

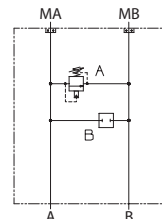
MM-OMS-00-ACP211-2-B-10S-E-C-254



OPERATION

This is a single cross-port relief (A to B) HIC that mounts to OMT motors with BSP porting.

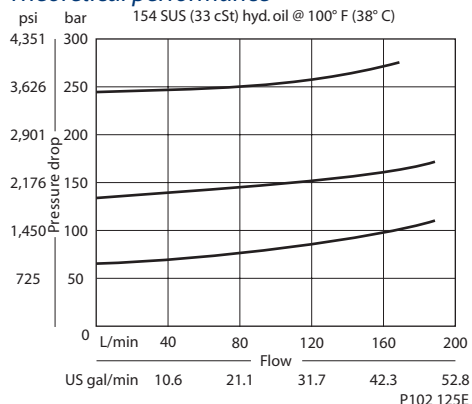
Schematic



P104 685

SPECIFICATIONS

Theoretical performance



Specifications

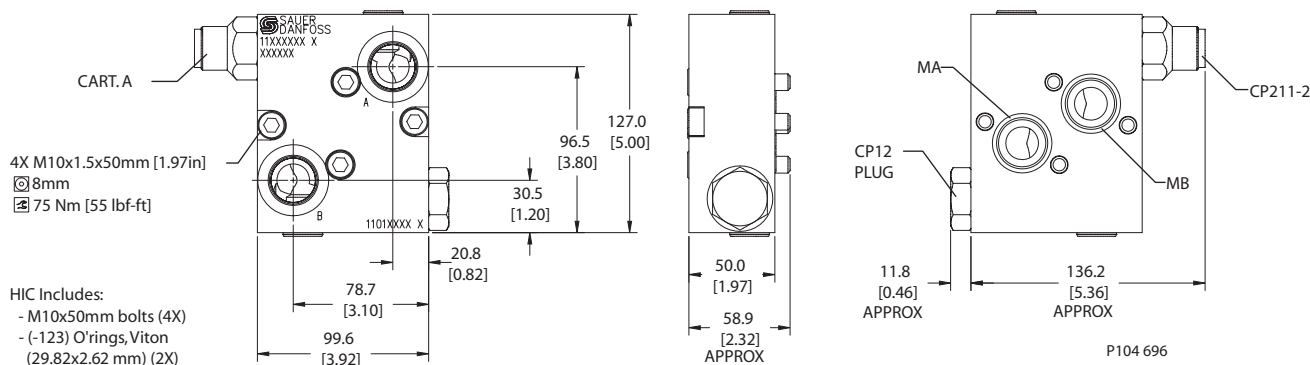
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.85 kg [4.08 lb]
Cartridge	CP211-2
Plug	CP12-V-2-B
Service mount kit	11023870
Motor	OMT

Motor mount HICs
 MM-OMT-00-ACP211-2

DIMENSIONS

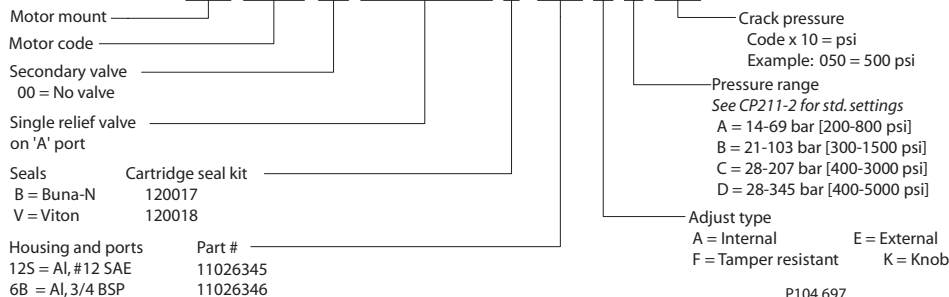
Cross-sectional view

mm [in]



ORDERING INFORMATION

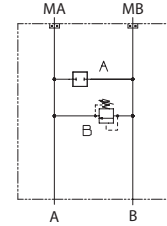
MM-OMT-00-ACP211-2-B-12S-E-C-254



OPERATION

This is a single cross-port relief (B to A) HIC that mounts to DH motors with manifold mount porting.

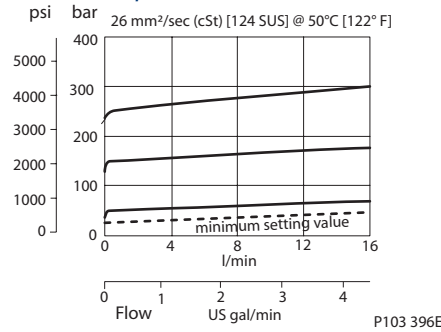
Schematic



P104 907

SPECIFICATIONS

Theoretical performance



P103 396E

Specifications

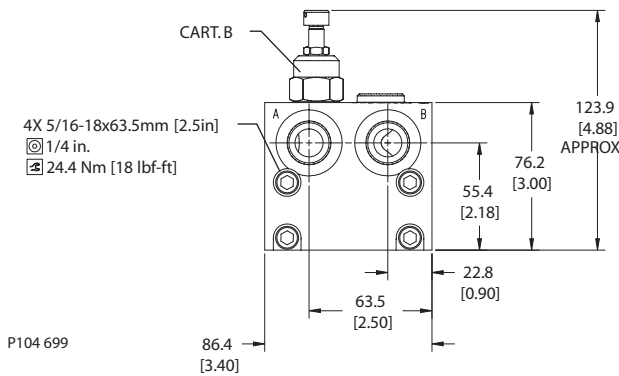
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.28 kg [2.82 lb]
Cartridge	VME 06
Plug	11026074
Service mount kit	11023864
Motor	DH

Motor mount HICs
MM-DH-00-BVME06

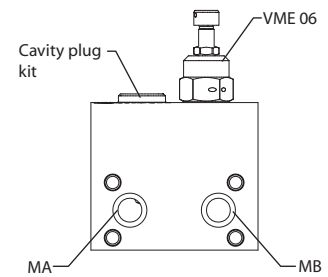
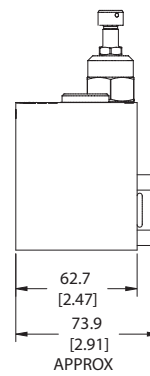
DIMENSIONS

Cross-sectional view

mm [in]



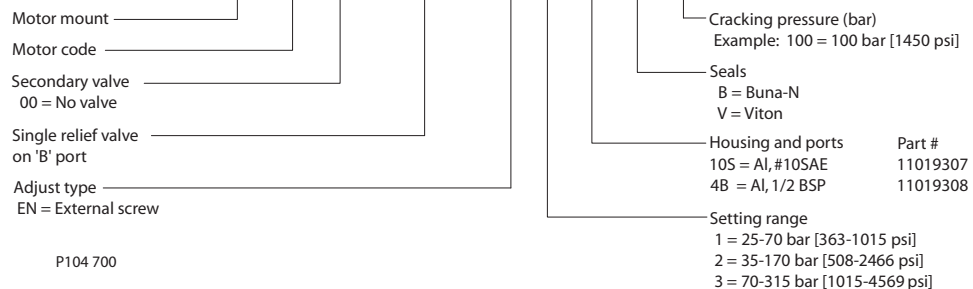
P104 699



HIC Includes:
- 5/16-18 x 2.5" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (2X)

ORDERING INFORMATION

MM-DH-00-BVME06-EN-2-10S-B-100

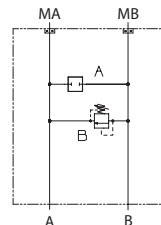


P104 700

OPERATION

This is a single cross-port relief (B to A) HIC that mounts to DS motors with manifold mount porting.

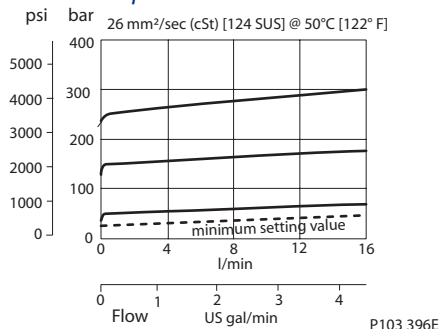
Schematic



P104 907

SPECIFICATIONS

Theoretical performance



P103 396E

Specifications

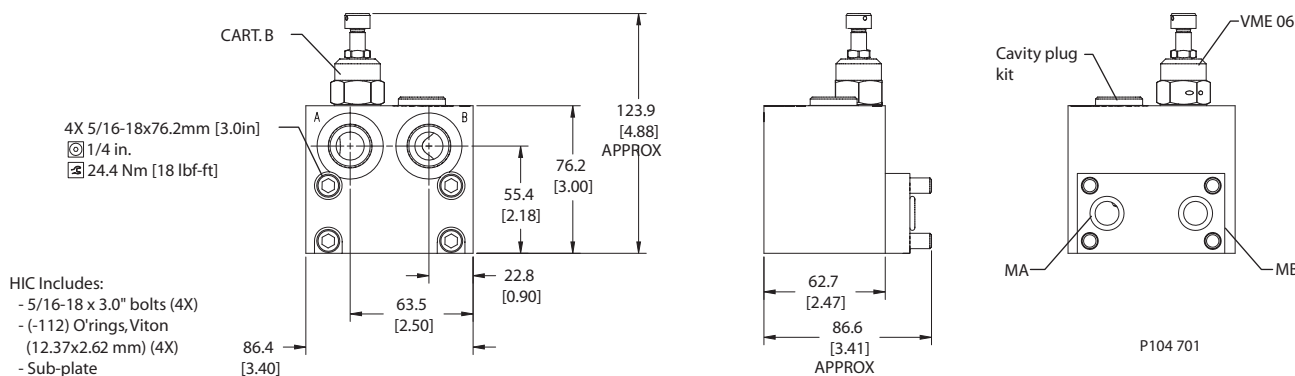
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.39 kg [3.06 lb]
Cartridge	VME 06
Plug	11026074
Service mount kit	11023865
Motor	DS

Motor mount HICs
 MM-DS-00-BVME06

DIMENSIONS

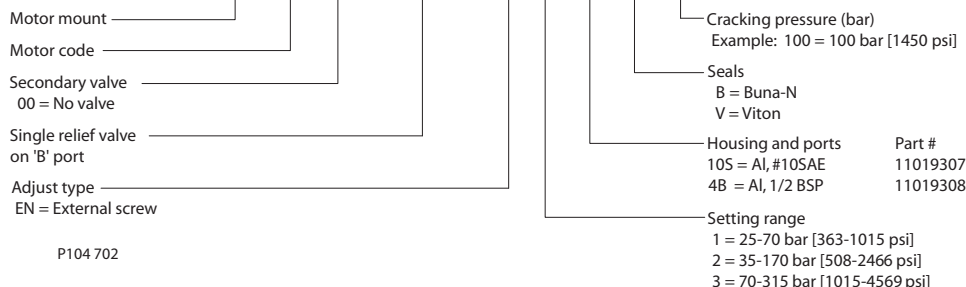
Cross-sectional view

mm [in]



ORDERING INFORMATION

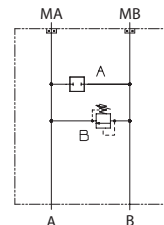
MM-DS-00-BVME06-EN-2-10S-B-100



OPERATION

This is a single cross-port relief (B to A) HIC that mounts to OMP/OMR motors with BSP porting.

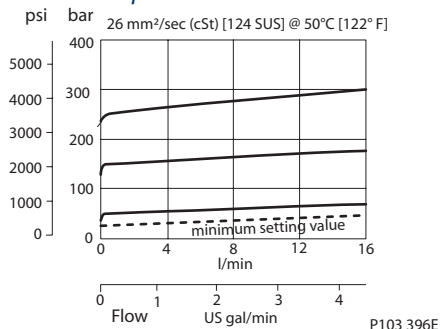
Schematic



P104 907

SPECIFICATIONS

Theoretical performance



P103 396E

Specifications

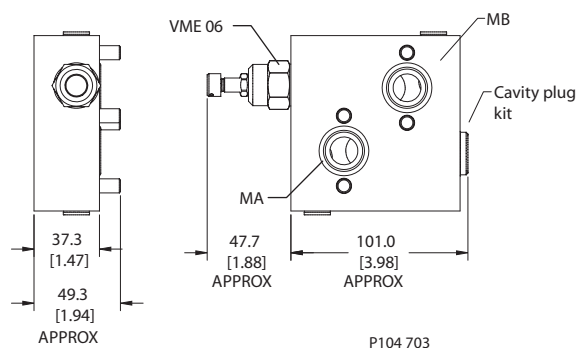
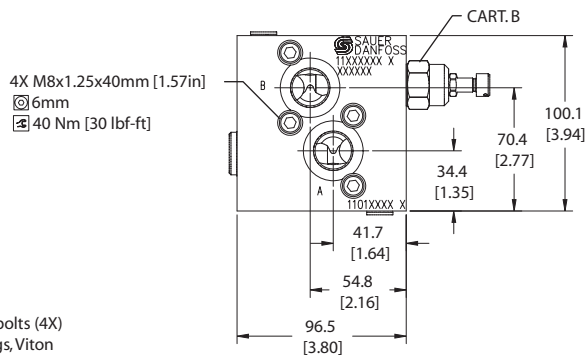
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.14 kg [2.51 lb]
Cartridge	VME 06
Plug	11026074
Service mount kit	11023868
Motor	OMP/OMR

Motor mount HICs
MM-OMP/OMR-00-BVME06

DIMENSIONS

Cross-sectional view

mm [in]



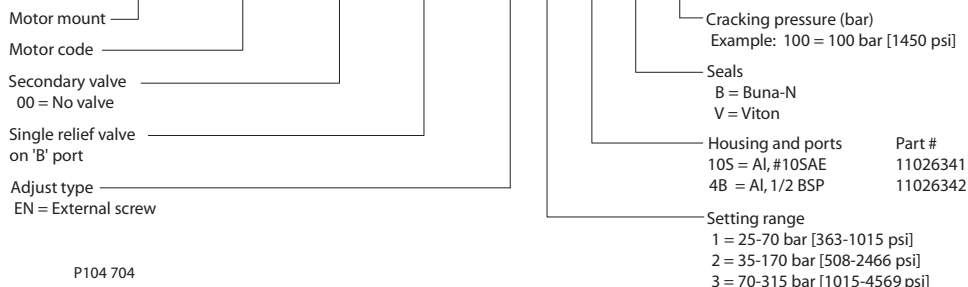
P104 703

HIC Includes:

- M8x40mm bolts (4X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

ORDERING INFORMATION

MM-OMP/OMR-00-BVME06-EN-2-10S-B-100

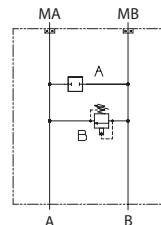


P104 704

OPERATION

This is a single cross-port relief (B to A) HIC that mounts to OMH motors with BSP porting.

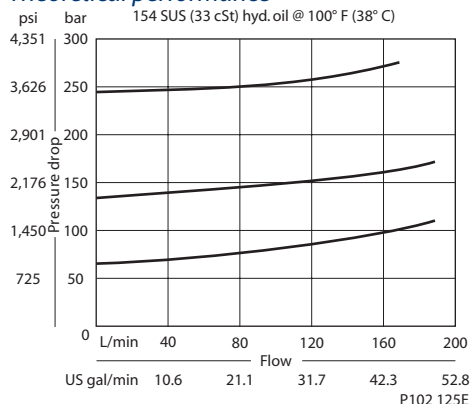
Schematic



P104 698

SPECIFICATIONS

Theoretical performance



Specifications

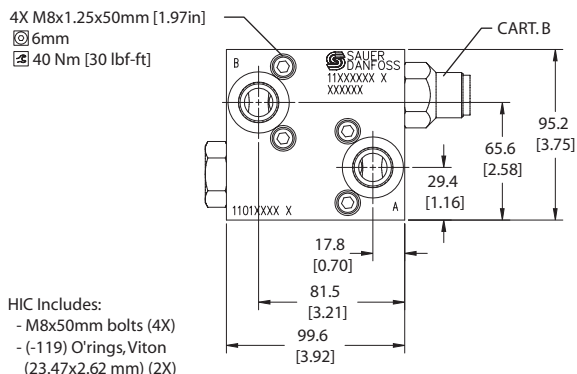
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.42 kg [3.13 lb]
Cartridge	CP211-2
Plug	CP12-V-2-B
Service mount kit	11023162
Motor	OMH

Motor mount HICs
 MM-OMH-00-BCP211-2

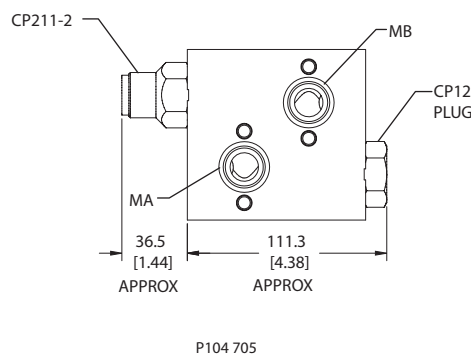
DIMENSIONS

Cross-sectional view

mm [in]



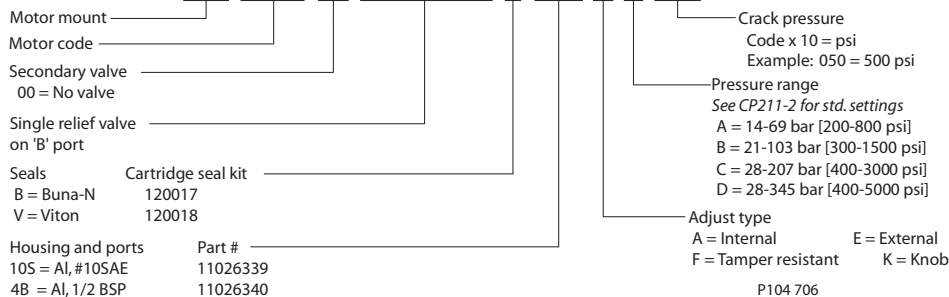
HIC Includes:
 - M8x50mm bolts (4X)
 - (-119) O'rings, Viton (23.47x2.62 mm) (2X)



P104 705

ORDERING INFORMATION

MM-OMH-00-BCP211-2-B-10S-E-C-254

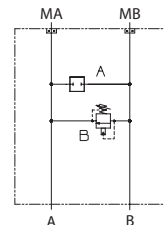


P104 706

OPERATION

This is a single cross-port relief (B to A) HIC that mounts to OMS motors with BSP porting.

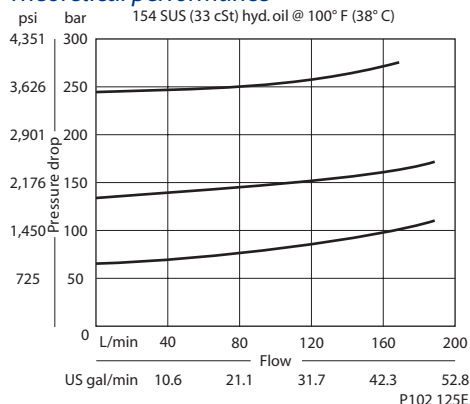
Schematic



P104 698

SPECIFICATIONS

Theoretical performance



Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.60 kg [3.53 lb]
Cartridge	CP211-2
Plug	CP12-V-2-B
Service mount kit	11023866
Motor	OMS

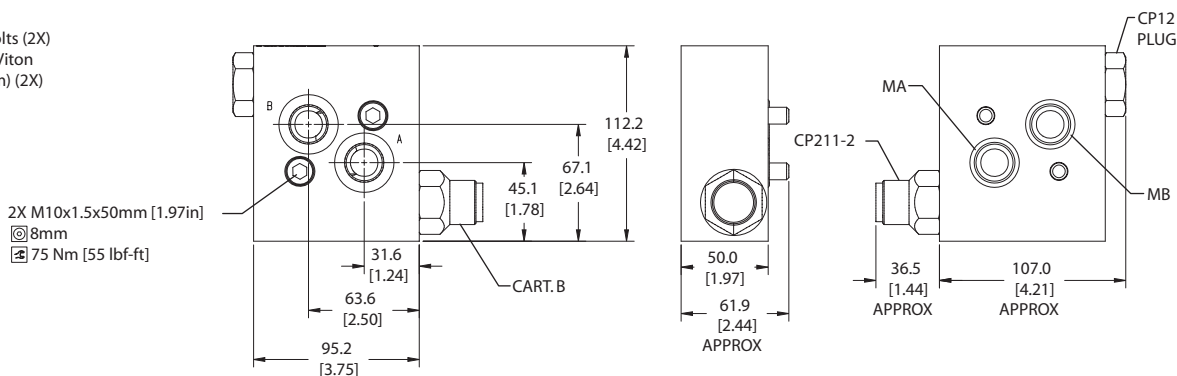
Motor mount HICs
MM-OMS-00-BCP211-2

DIMENSIONS

Cross-sectional view

mm [in]

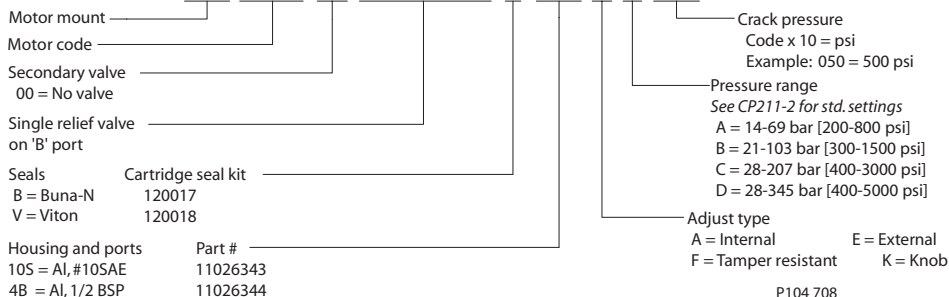
- HIC Includes:
- M10x50mm bolts (2X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)



P104 707

ORDERING INFORMATION

MM-OMS-00-BCP211-2-B-10S-E-C-254

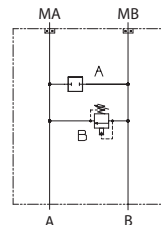


P104 708

OPERATION

This is a single cross-port relief (B to A) HIC that mounts to OMT motors with BSP porting.

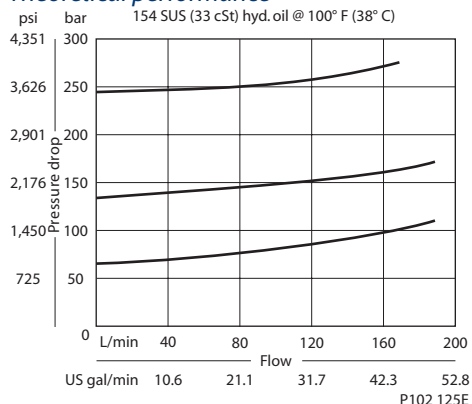
Schematic



P104 698

SPECIFICATIONS

Theoretical performance



Specifications

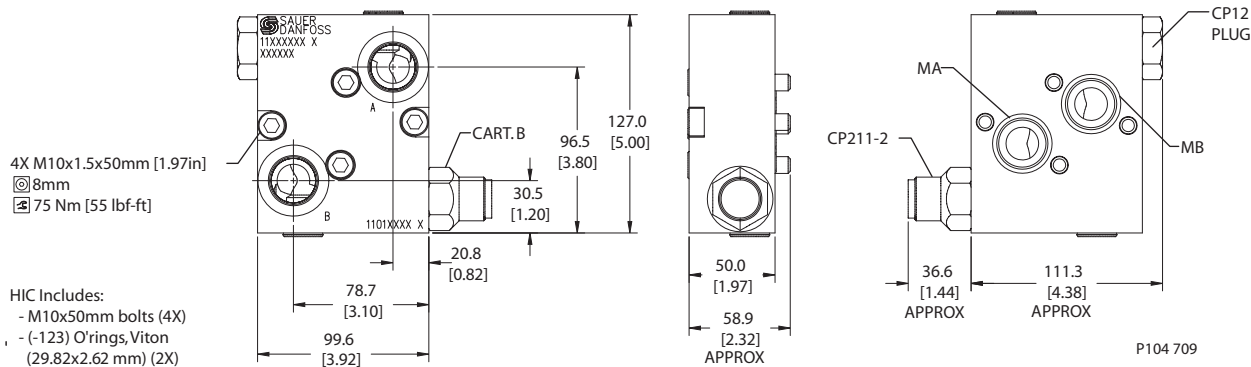
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.85 kg [4.08 lb]
Cartridge	CP211-2
Plug	CP12-V-2-B
Service mount kit	11023870
Motor	OMT

Motor mount HICs
MM-OMT-00-BCP211-2

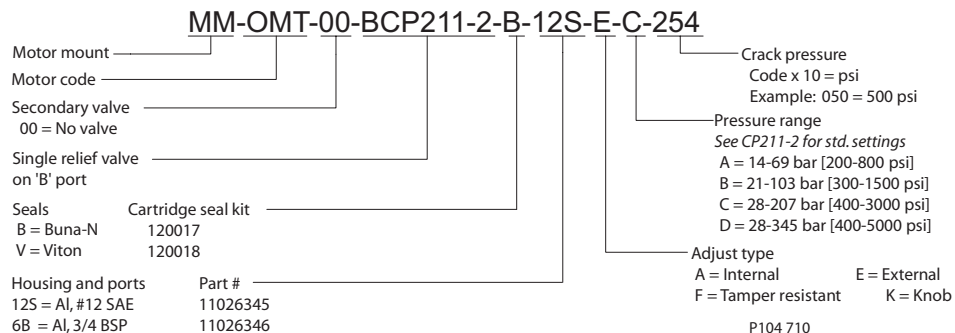
DIMENSIONS

Cross-sectional view

mm [in]



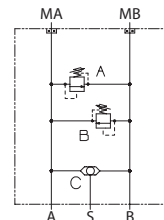
ORDERING INFORMATION



OPERATION

This is a dual cross-port relief HIC with shuttle that mounts to DH motors with manifold mount porting.

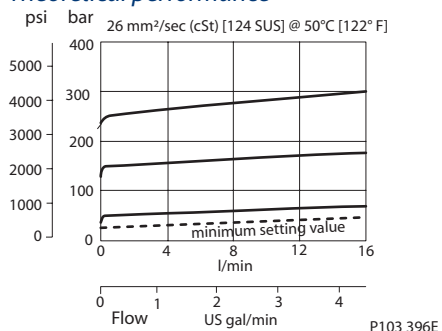
Schematic



P104 908

SPECIFICATIONS

Theoretical performance



Specifications

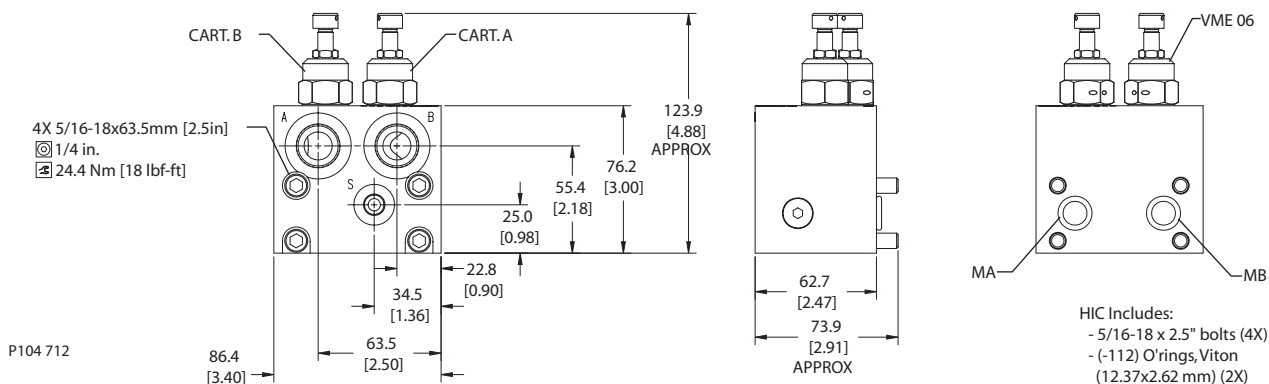
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.28 kg [2.82 lb]
Cartridge	VME 06
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023864
Motor	DH

Motor mount HICs
MM-DH-LS-DVME06

DIMENSIONS

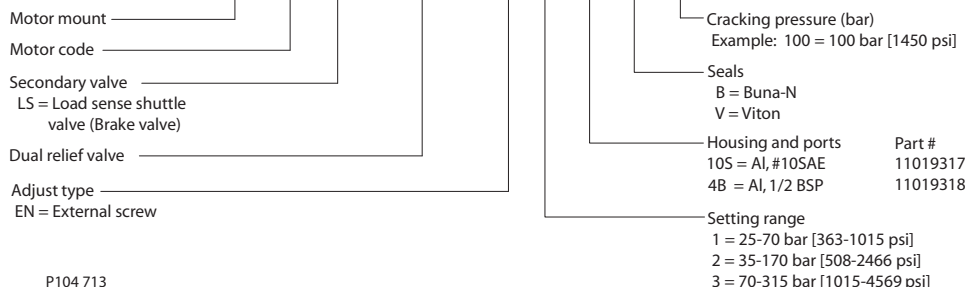
Cross-sectional view

mm [in]



ORDERING INFORMATION

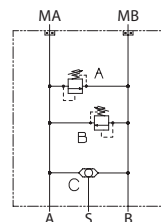
MM-DH-LS-DVME06-EN-2-10S-B-100



OPERATION

This is a dual cross-port relief HIC with shuttle that mounts to DS motors with manifold mount porting.

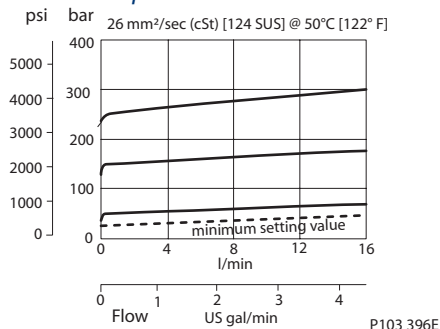
Schematic



P104 908

SPECIFICATIONS

Theoretical performance



Specifications

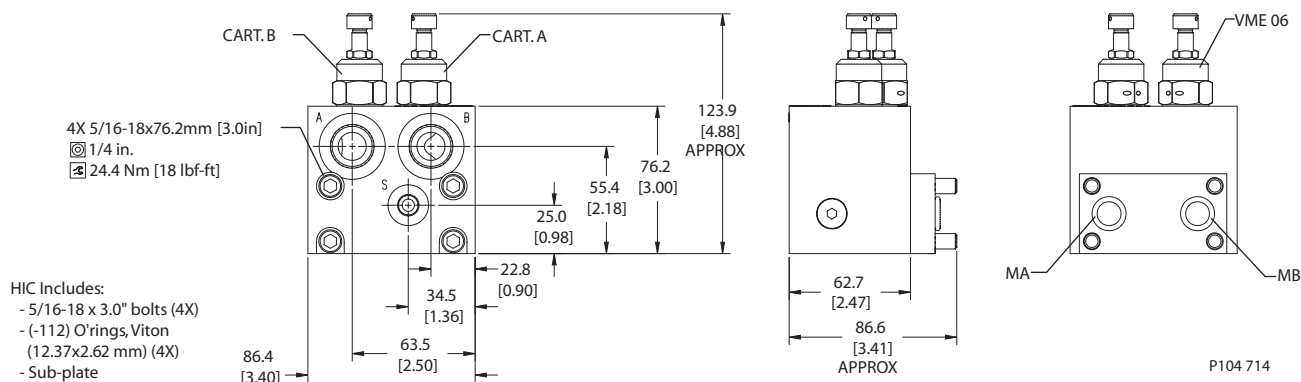
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.39 kg [3.06 lb]
Cartridge	VME 06
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023865
Motor	DS

Motor mount HICs
MM-DS-LS-DVME06

DIMENSIONS

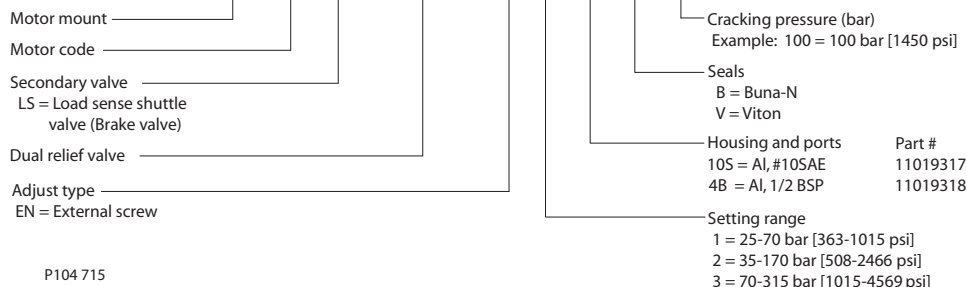
Cross-sectional view

mm [in]



ORDERING INFORMATION

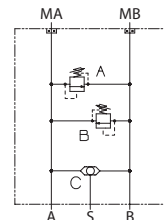
MM-DS-LS-DVME06-EN-2-10S-B-100



OPERATION

This is a dual cross-port relief HIC with shuttle that mounts to OMP/OMR motors with BSP porting.

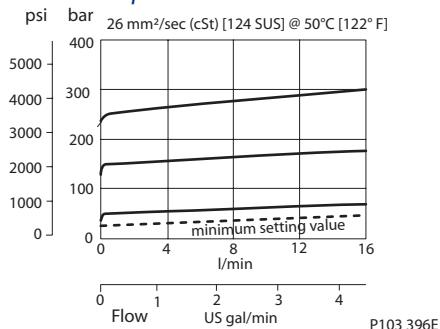
Schematic



P104 908

SPECIFICATIONS

Theoretical performance



P103 396E

Specifications

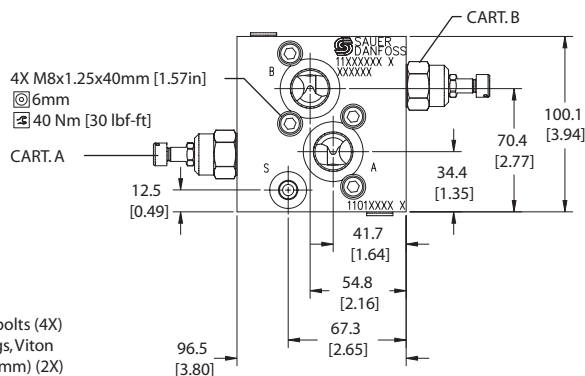
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.13 kg [2.49 lb]
Cartridge	VME 06
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023868
Motor	OMP/OMR

Motor mount HICs
MM-OMP/OMR-LS-DVME06

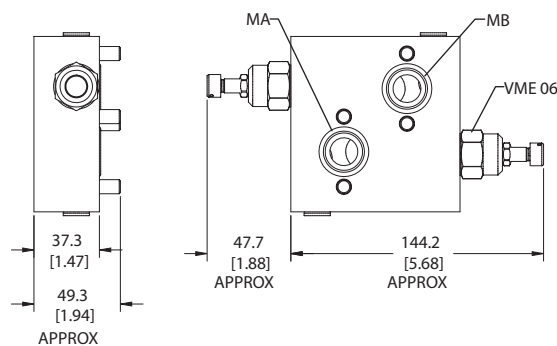
DIMENSIONS

Cross-sectional view

mm [in]



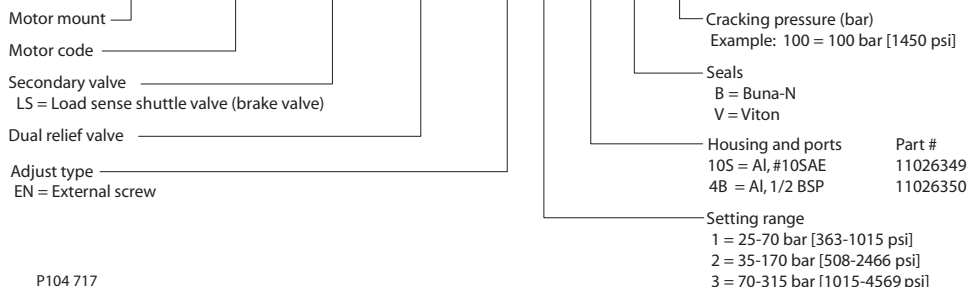
HIC Includes:
- M8x40mm bolts (4X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)



P104 716

ORDERING INFORMATION

MM-OMP/OMR-LS-DVME06-EN-2-10S-B-100

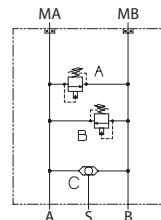


P104 717

OPERATION

This is a dual cross-port relief HIC with shuttle that mounts to OMH motors with BSP porting.

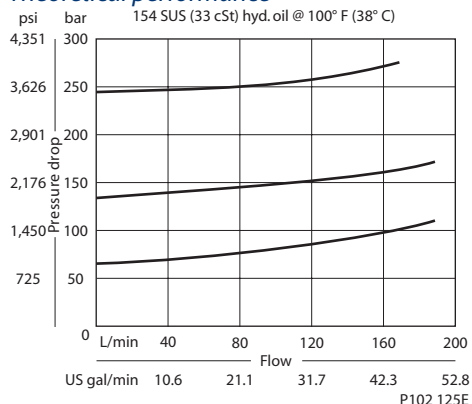
Schematic



P104 711

SPECIFICATIONS

Theoretical performance



Specifications

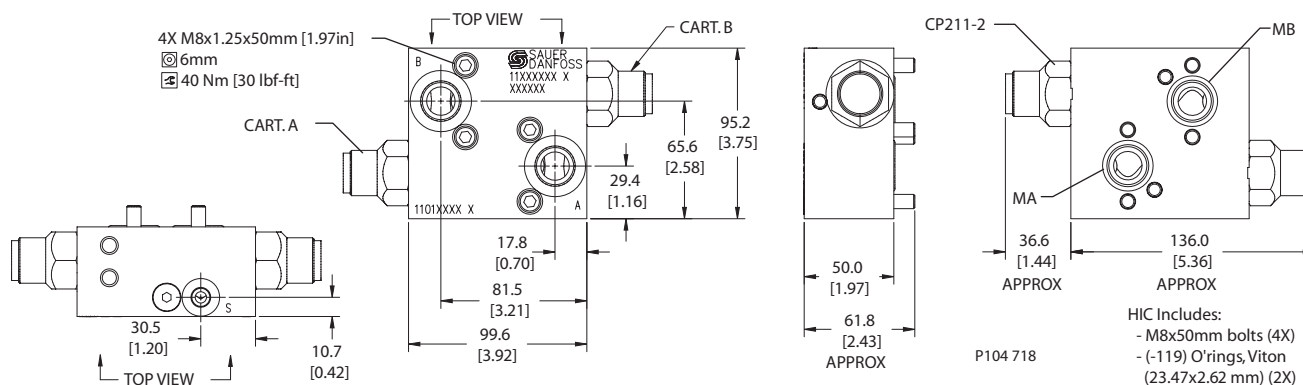
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.41 kg [3.11 lb]
Cartridge	CP211-2
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023162
Motor	OMH

Motor mount HICs
MM-OMH-LS-DCP211-2

DIMENSIONS

Cross-sectional view

mm [in]



ORDERING INFORMATION

MM-OMH-LS-DCP211-2-B-10S-E-C-254

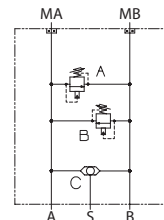
- Motor mount
- Motor code
- Secondary valve
LS = Load sense shuttle valve (Brake valve)
- Dual relief valve
- Seals
B = Buna-N
V = Viton
- Housing and ports
10S = Al, #10SAE
4B = Al, 1/2 BSP
- Cartridge seal kit
120017
120018
- Part #
11026347
11026348
- Crack pressure
Code x 10 = psi
Example: 050 = 500 psi
- Pressure range
See CP211-2 for std. settings
A = 14-69 bar [200-800 psi]
B = 21-103 bar [300-1500 psi]
C = 28-207 bar [400-3000 psi]
D = 28-345 bar [400-5000 psi]
- Adjust type
A = Internal
F = Tamper resistant
E = External
K = Knob

P104 719

OPERATION

This is a dual cross-port relief HIC with shuttle that mounts to OMS motors with BSP porting.

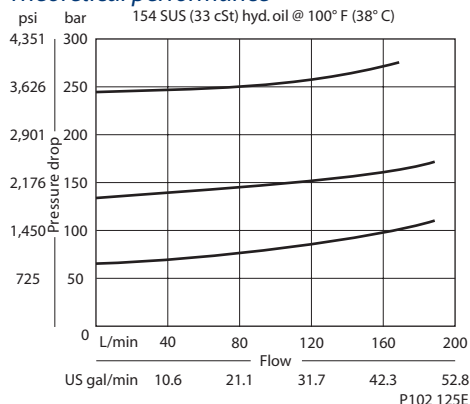
Schematic



P104 711

SPECIFICATIONS

Theoretical performance



Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.60 kg [3.53 lb]
Cartridge	CP211-2
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023866
Motor	OMS

Motor mount HICs
MM-OMS-LS-DCP211-2

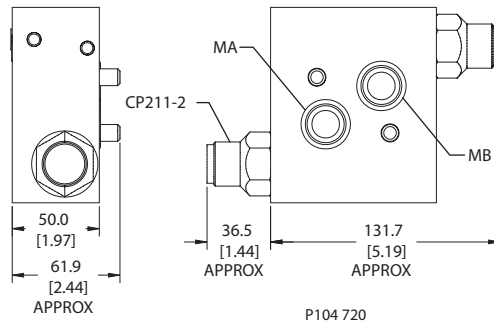
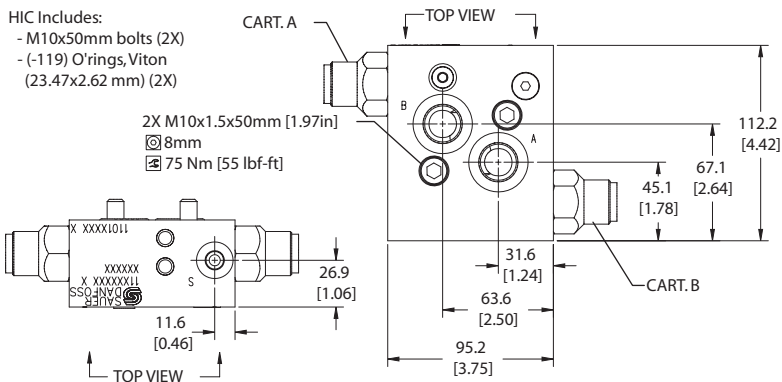
DIMENSIONS

Cross-sectional view

mm [in]

HIC Includes:
- M10x50mm bolts (2X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

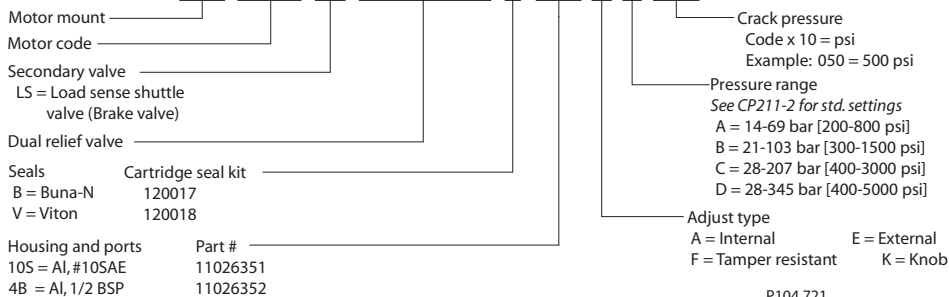
2X M10x1.5x50mm [1.97in]
8mm
75 Nm [55 lbf-ft]



P104 720

ORDERING INFORMATION

MM-OMS-LS-DCP211-2-B-10S-E-C-254

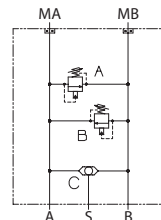


P104 721

OPERATION

This is a dual cross-port relief HIC with shuttle that mounts to OMT motors with BSP porting.

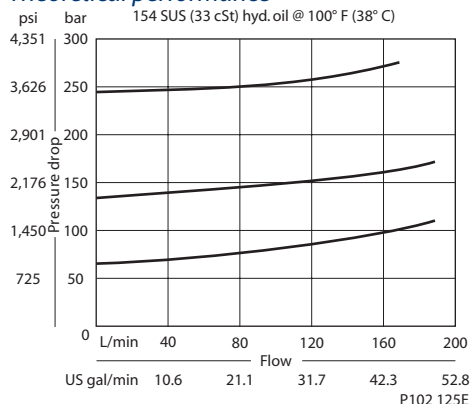
Schematic



P104 711

SPECIFICATIONS

Theoretical performance



Specifications

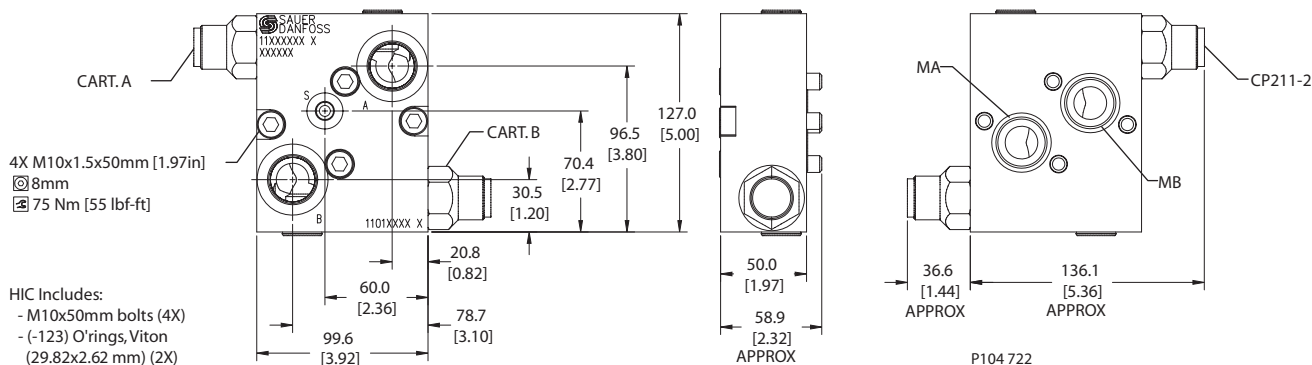
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.84 kg [4.06 lb]
Cartridge	CP211-2
Shuttle	CP124-1
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023870
Motor	OMT

Motor mount HICs
MM-OMT-LS-DCP211-2

DIMENSIONS

Cross-sectional view

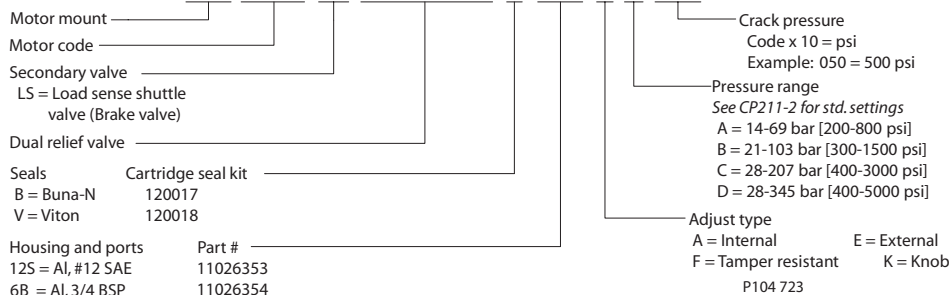
mm [in]



HIC Includes:
- M10x50mm bolts (4X)
- (-123) O'rings, Viton (29.82x2.62 mm) (2X)

ORDERING INFORMATION

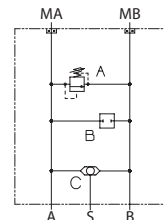
MM-OMT-LS-DCP211-2-B-12S-E-C-254



OPERATION

Single cross-port relief (A to B) HIC with shuttle that mounts to DH motors with manifold mount porting.

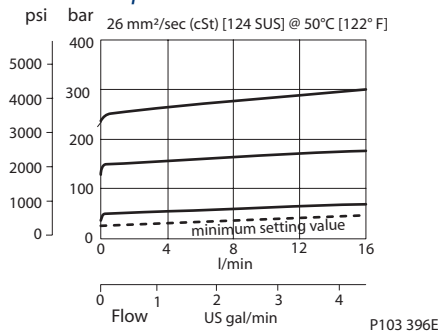
Schematic



P104 909

SPECIFICATIONS

Theoretical performance



Specifications

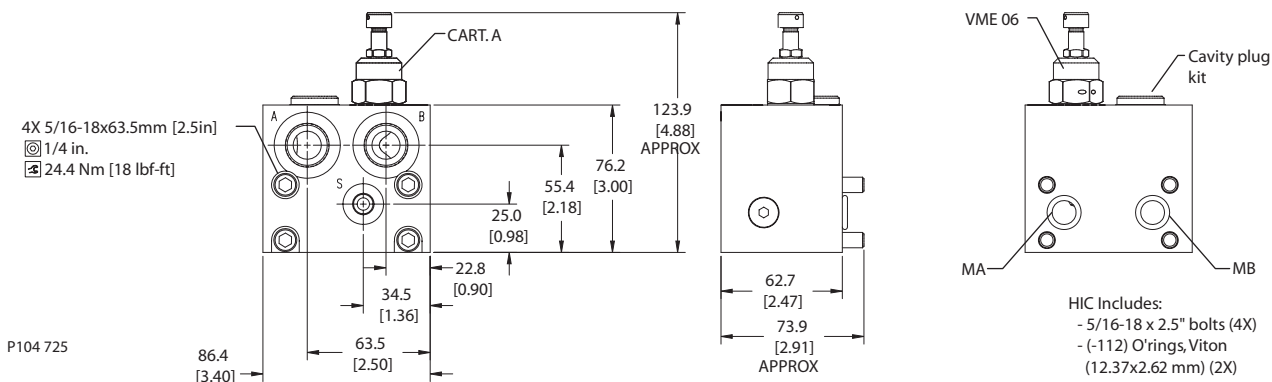
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.28 kg [2.82 lb]
Cartridge	VME 06
Shuttle	CP124-1
Plug	11026074
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023864
Motor	DH

Motor mount HICs
MM-DH-LS-AVME06

DIMENSIONS

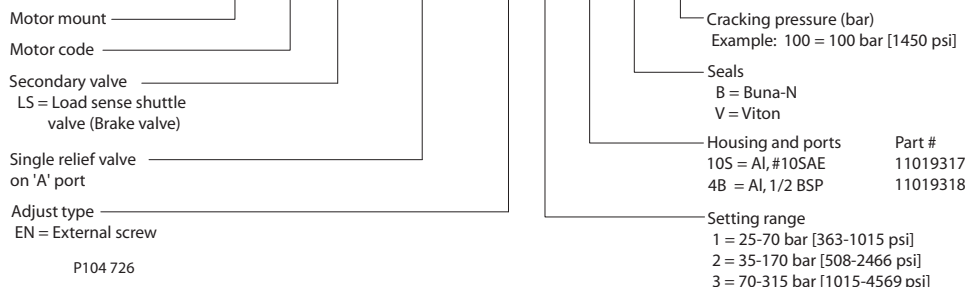
Cross-sectional view

mm [in]



ORDERING INFORMATION

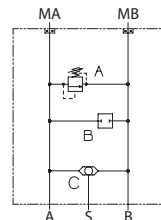
MM-DH-LS-AVME06-EN-2-10S-B-100



OPERATION

Single cross-port relief (A to B) HIC with shuttle that mounts to DS motors with manifold mount porting.

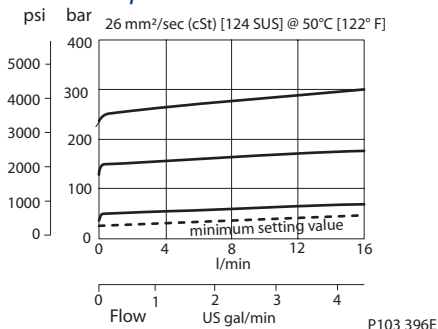
Schematic



P104 909

SPECIFICATIONS

Theoretical performance



Specifications

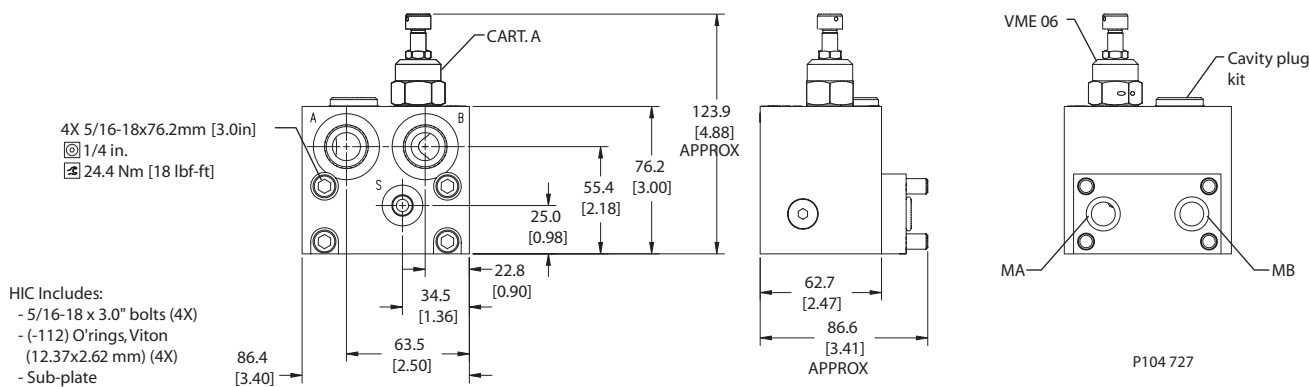
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.39 kg [3.06 lb]
Cartridge	VME 06
Shuttle	CP124-1
Plug	11026074
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023865
Motor	DS

Motor mount HICs
 MM-DS-LS-AVME06

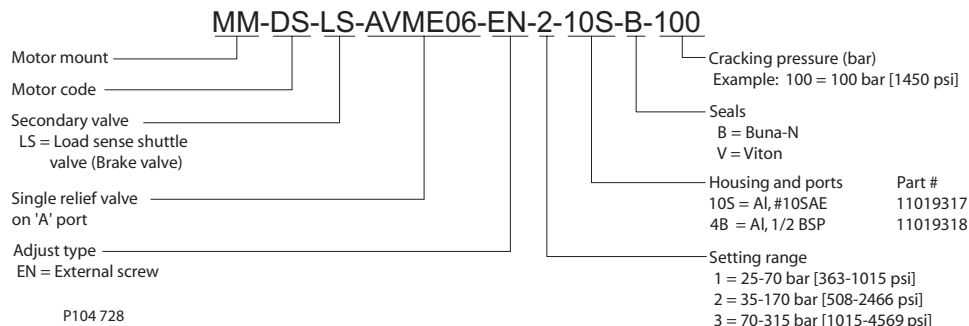
DIMENSIONS

Cross-sectional view

mm [in]



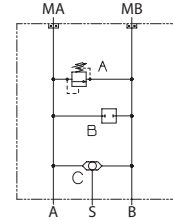
ORDERING INFORMATION



OPERATION

Single cross-port relief (A to B) HIC with shuttle that mounts to OMP/OMR motors with BSP porting.

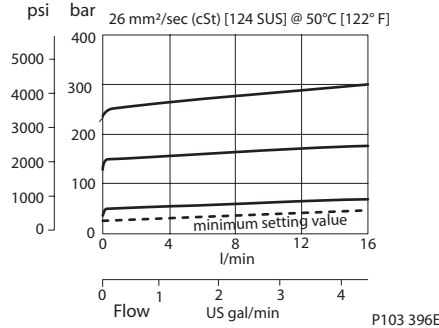
Schematic



P104 909

SPECIFICATIONS

Theoretical performance



P103 396E

Specifications

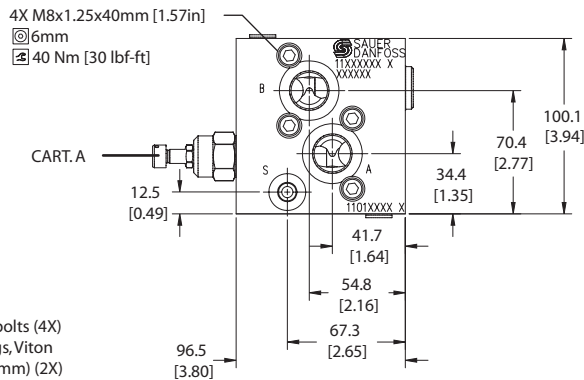
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.13 kg [2.49 lb]
Cartridge	VME 06
Shuttle	CP124-1
Plug	11026074
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023868
Motor	OMP/OMR

Motor mount HICs
 MM-OMP/OMR-LS-AVME06

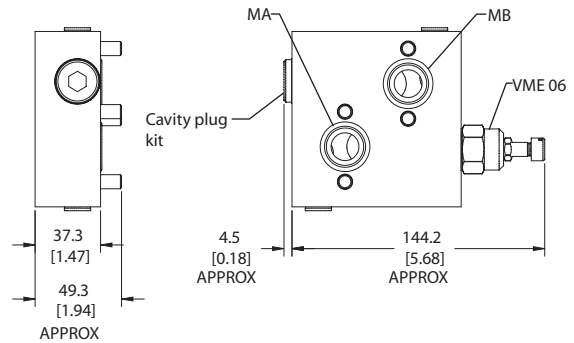
DIMENSIONS

Cross-sectional view

mm [in]



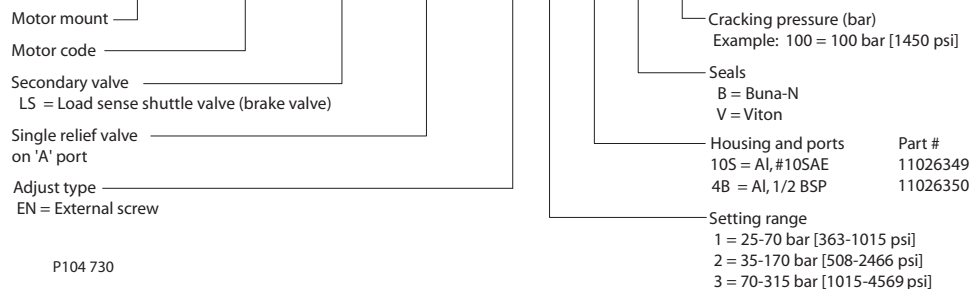
HIC Includes:
 - M8x40mm bolts (4X)
 - (-119) O'rings, Viton (23.47x2.62 mm) (2X)



P104 729

ORDERING INFORMATION

MM-OMP/OMR-LS-AVME06-EN-2-10S-B-100

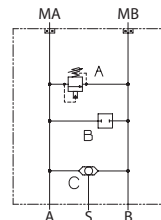


P104 730

OPERATION

Single cross-port relief (A to B) HIC with shuttle that mounts to OMH motors with BSP porting.

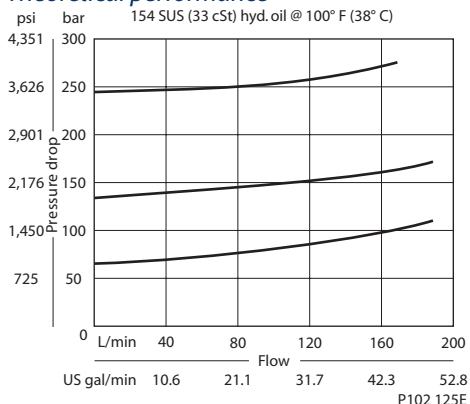
Schematic



P104 724

SPECIFICATIONS

Theoretical performance



Specifications

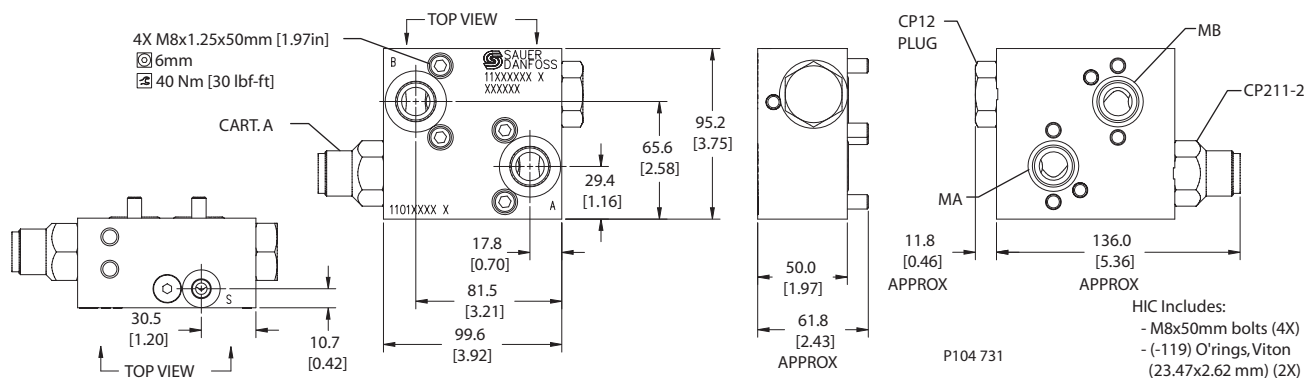
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.41 kg [3.11 lb]
Cartridge	CP211-2
Shuttle	CP124-1
Plug	CP12-V-2-B
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023162
Motor	OMH

Motor mount HICs
MM-OMH-LS-ACP211-2

DIMENSIONS

Cross-sectional view

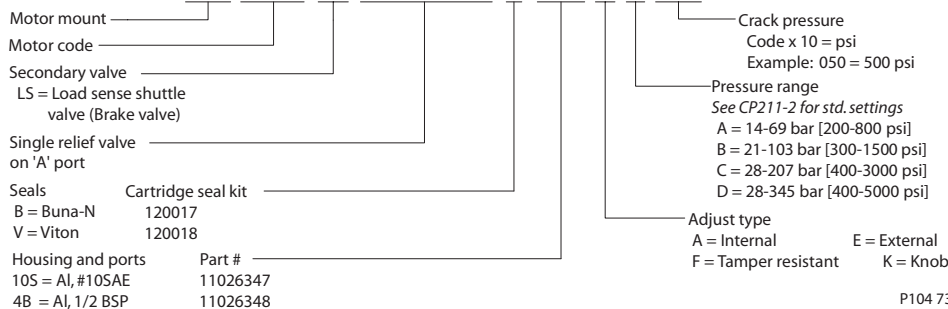
mm [in]



HIC Includes:
- M8x50mm bolts (4X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

ORDERING INFORMATION

MM-OMH-LS-ACP211-2-B-10S-E-C-254

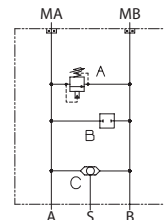


P104 732

OPERATION

This is a single cross-port relief (A to B) HIC with shuttle that mounts to OMS motors with BSP porting.

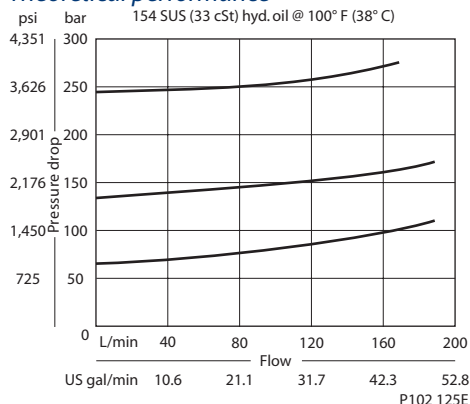
Schematic



P104 724

SPECIFICATIONS

Theoretical performance



Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.60 kg [3.53 lb]
Cartridge	CP211-2
Shuttle	CP124-1
Plug	CP12-V-2-B
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023866
Motor	OMS

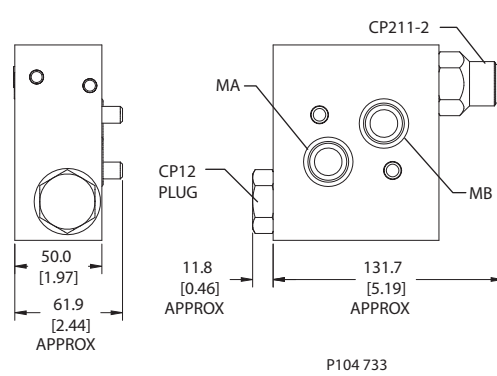
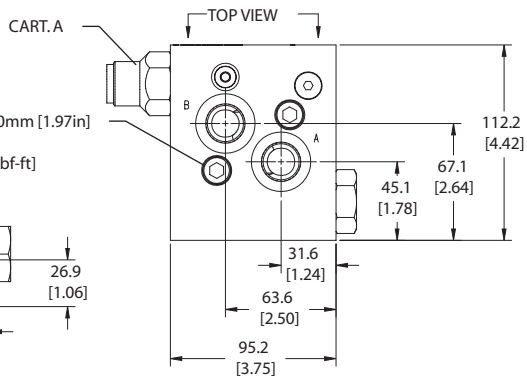
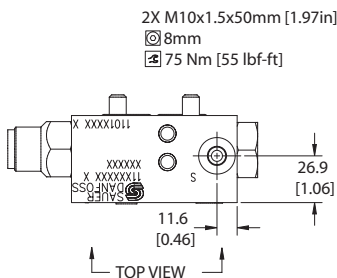
Motor mount HICs
 MM-OMS-LS-ACP211-2

DIMENSIONS

Cross-sectional view

mm [in]

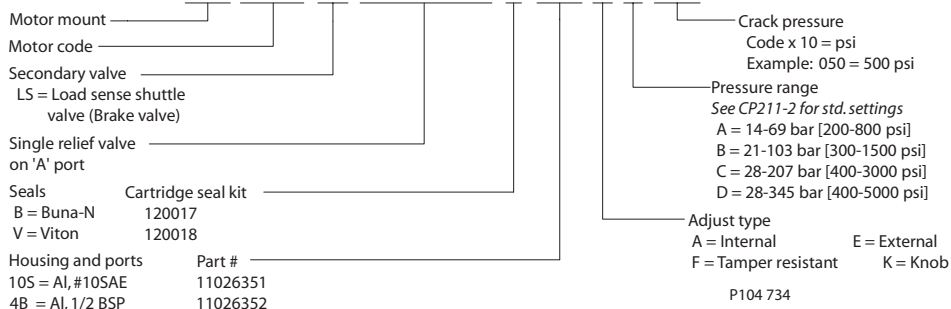
HIC Includes:
 - M10x50mm bolts (2X)
 - (-119) O'rings, Viton (23.47x2.62 mm) (2X)



P104 733

ORDERING INFORMATION

MM-OMS-LS-ACP211-2-B-10S-E-C-254

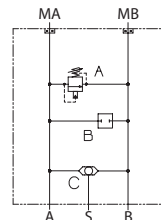


P104 734

OPERATION

This is a single cross-port relief (A to B) HIC with shuttle that mounts to OMT motors with BSP porting.

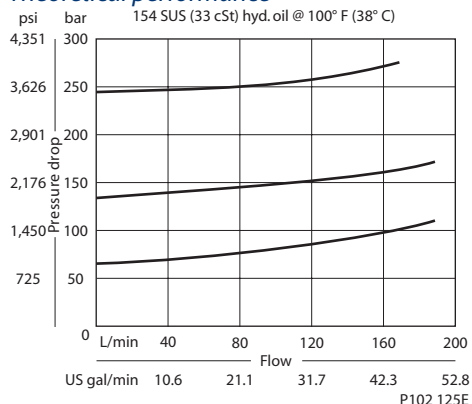
Schematic



P104 724

SPECIFICATIONS

Theoretical performance



Specifications

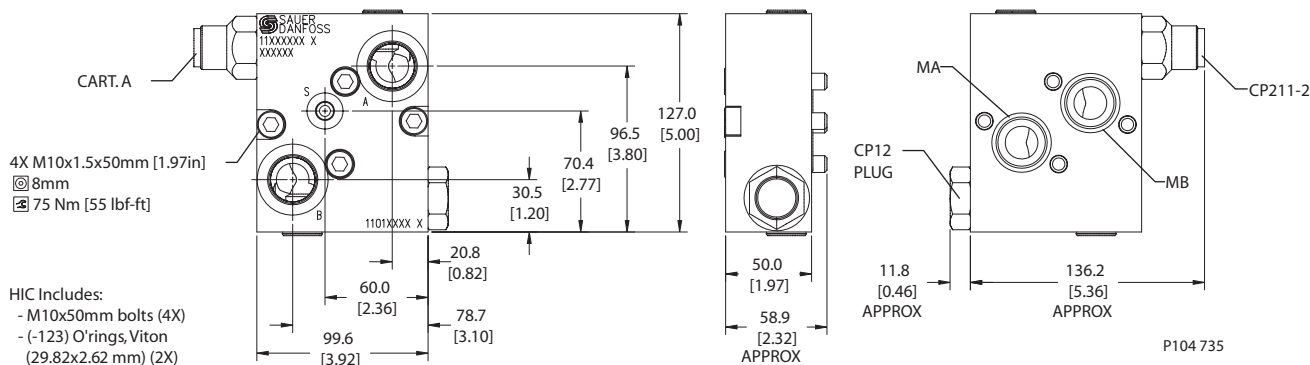
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.84 kg [4.06 lb]
Cartridge	CP211-2
Shuttle	CP124-1
Plug	CP12-V-2-B
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023870
Motor	OMT

Motor mount HICs
MM-OMT-LS-ACP211-2

DIMENSIONS

Cross-sectional view

mm [in]

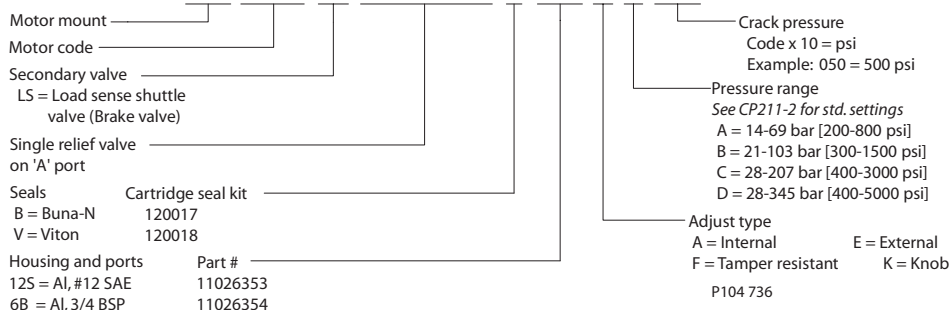


4X M10x1.5x50mm [1.97in]
⊘ 8mm
75 Nm [55 lbf-ft]

HIC Includes:
- M10x50mm bolts (4X)
- (-123) O'rings, Viton (29.82x2.62 mm) (2X)

ORDERING INFORMATION

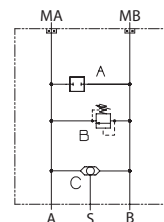
MM-OMT-LS-ACP211-2-B-12S-E-C-254



OPERATION

This is a single cross-port relief (B to A) HIC with shuttle that mounts to DH motors with manifold mount porting.

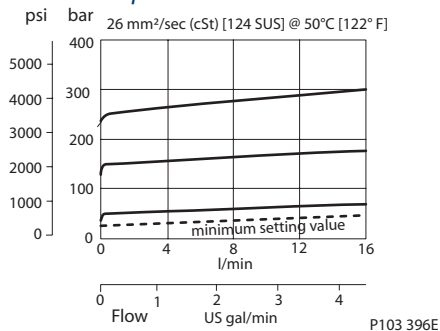
Schematic



P104 910

SPECIFICATIONS

Theoretical performance



Specifications

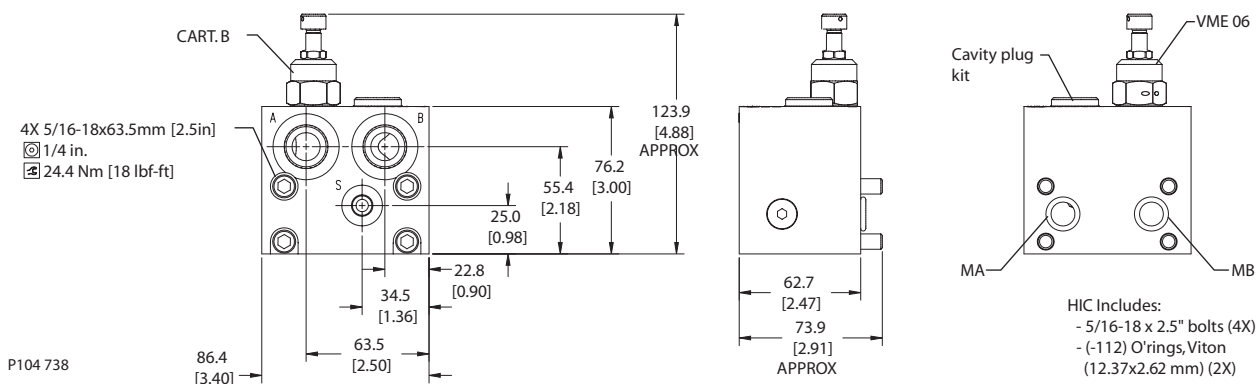
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.28 kg [2.82 lb]
Cartridge	VME 06
Shuttle	CP124-1
Plug	11026074
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023864
Motor	DH

Motor mount HICs
MM-DH-LS-BVME06

DIMENSIONS

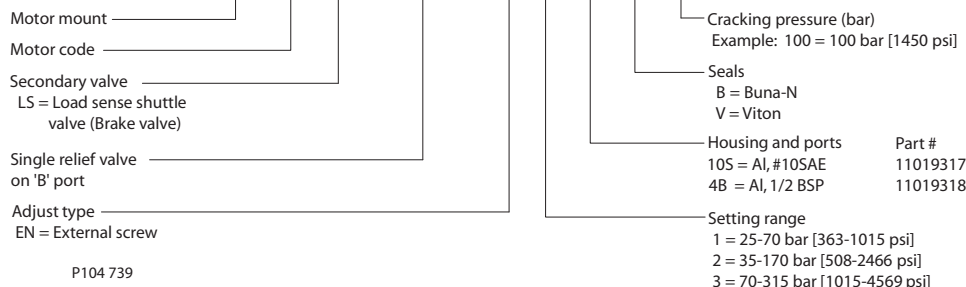
Cross-sectional view

mm [in]



ORDERING INFORMATION

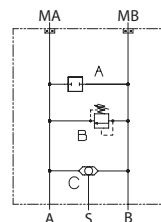
MM-DH-LS-BVME06-EN-2-10S-B-100



OPERATION

This is a single cross-port relief (B to A) HIC with shuttle that mounts to DS motors with manifold mount porting.

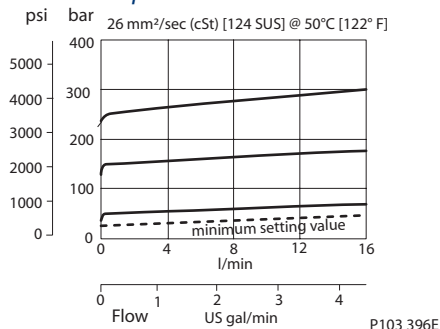
Schematic



P104 910

SPECIFICATIONS

Theoretical performance



P103 396E

Specifications

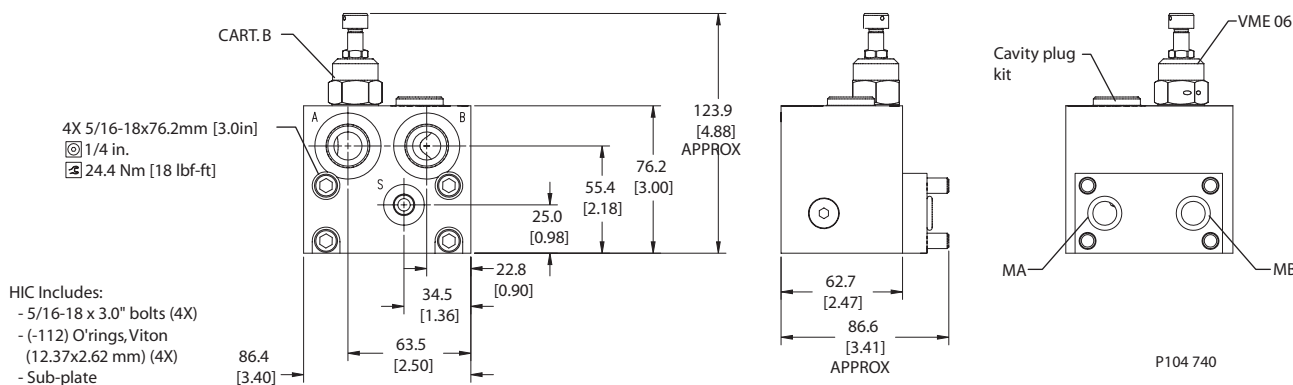
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.39 kg [3.06 lb]
Cartridge	VME 06
Shuttle	CP124-1
Plug	11026074
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023865
Motor	DS

Motor mount HICs
 MM-DS-LS-BVME06

DIMENSIONS

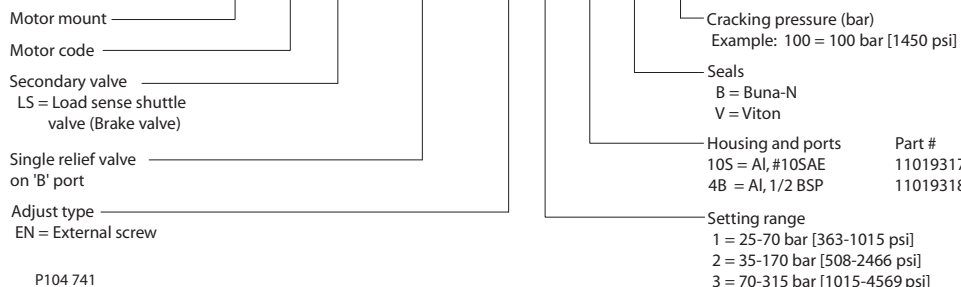
Cross-sectional view

mm [in]



ORDERING INFORMATION

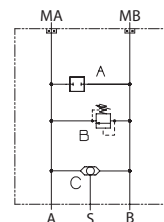
MM-DS-LS-BVME06-EN-2-10S-B-100



OPERATION

This is a single cross-port relief (B to A) HIC with shuttle that mounts to OMP/OMR motors with BSP porting.

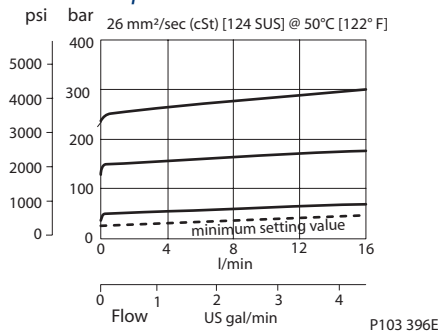
Schematic



P104 910

SPECIFICATIONS

Theoretical performance



Specifications

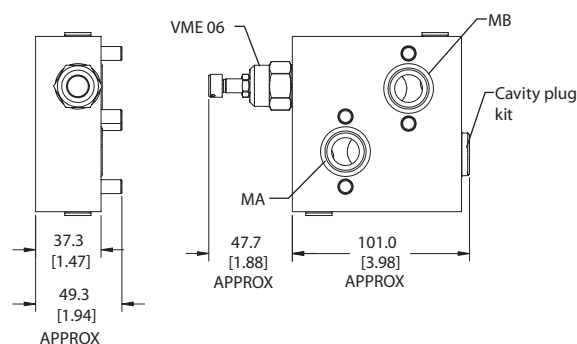
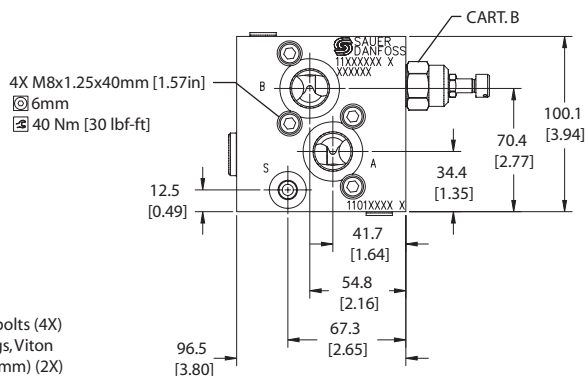
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	40 l/min [11 US gal/min]
Weight	1.13 kg [2.49 lb]
Cartridge	VME 06
Shuttle	CP124-1
Plug	11026074
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023868
Motor	OMP/OMR

Motor mount HICs
MM-OMP/OMR-LS-BVME06

DIMENSIONS

Cross-sectional view

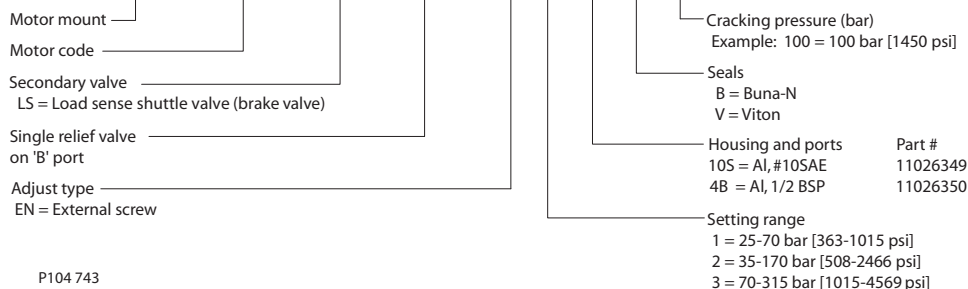
mm [in]



P104 742

ORDERING INFORMATION

MM-OMP/OMR-LS-BVME06-EN-2-10S-B-100

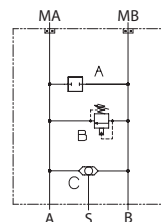


P104 743

OPERATION

This is a single cross-port relief (B to A) HIC with shuttle that mounts to OMH motors with BSP porting.

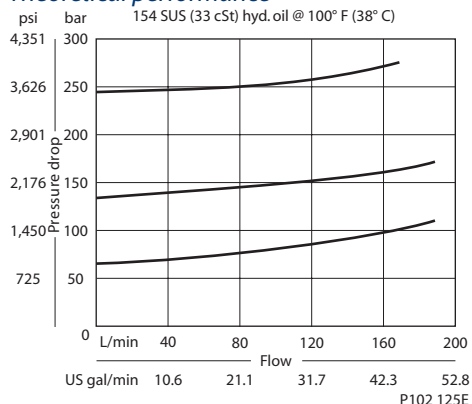
Schematic



P104 737

SPECIFICATIONS

Theoretical performance



Specifications

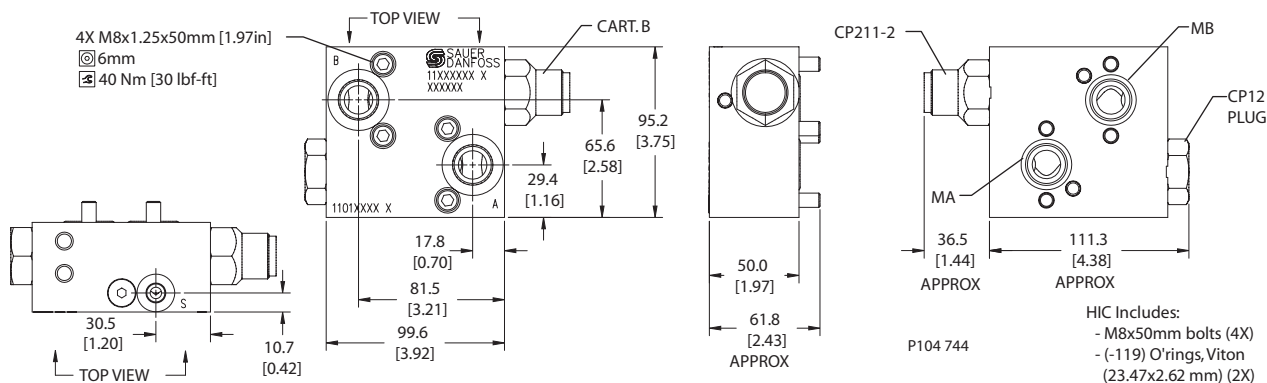
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.41 kg [3.11 lb]
Cartridge	CP211-2
Shuttle	CP124-1
Plug	CP12-V-2-B
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023162
Motor	OMH

Motor mount HICs
MM-OMH-LS-BCP211-2

DIMENSIONS

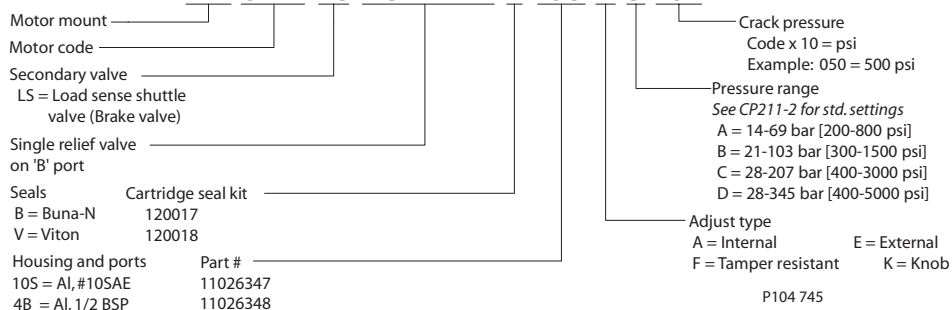
Cross-sectional view

mm [in]



ORDERING INFORMATION

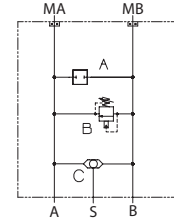
MM-OMH-LS-BCP211-2-B-10S-E-C-254



OPERATION

This is a single cross-port relief (B to A) HIC with shuttle that mounts to OMS motors with BSP porting.

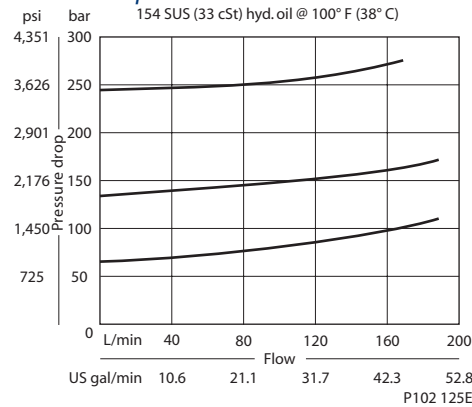
Schematic



P104 737

SPECIFICATIONS

Theoretical performance



Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.60 kg [3.53 lb]
Cartridge	CP211-2
Shuttle	CP124-1
Plug	CP12-V-2-B
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023866
Motor	OMS

Motor mount HICs
MM-OMS-LS-BCP211-2

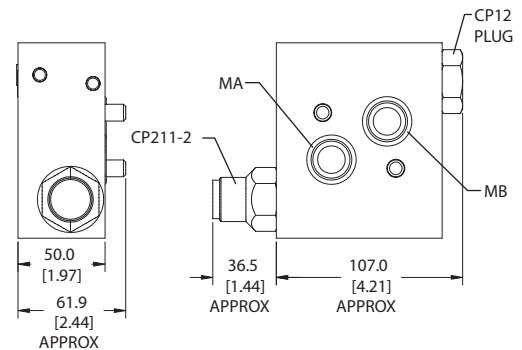
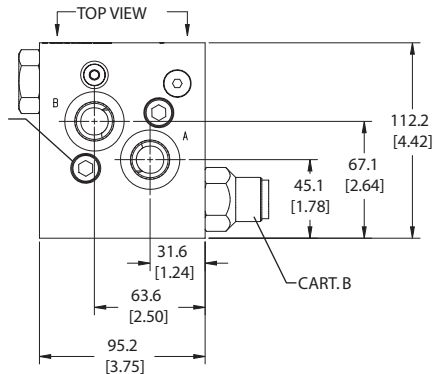
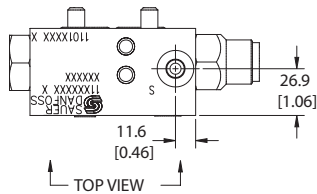
DIMENSIONS

Cross-sectional view

mm [in]

HIC Includes:
- M10x50mm bolts (2X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

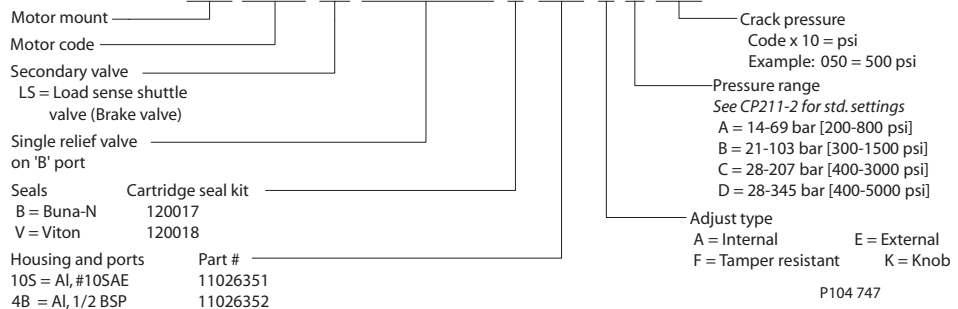
2X M10x1.5x50mm [1.97in]
8mm
75 Nm [55 lbf-ft]



P104 746

ORDERING INFORMATION

MM-OMS-LS-BCP211-2-B-10S-E-C-254

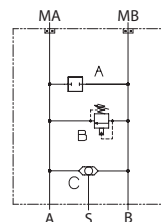


P104 747

OPERATION

This is a single cross-port relief (B to A) HIC with shuttle that mounts to OMT motors with BSP porting.

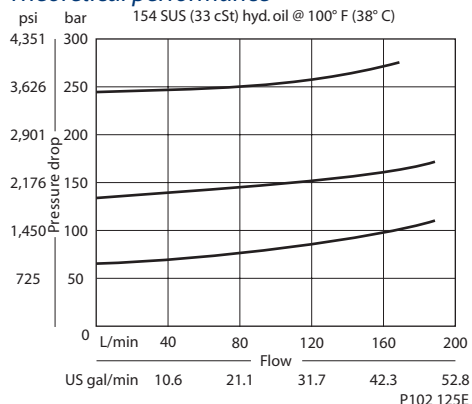
Schematic



P104 737

SPECIFICATIONS

Theoretical performance



Specifications

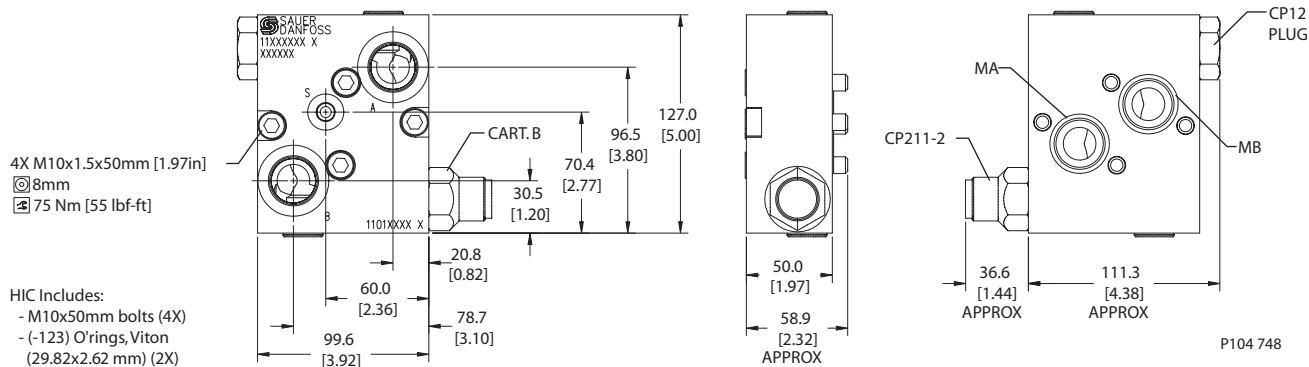
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	190 l/min [50 US gal/min]
Leakage	82 cm ³ /min [5 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.84 kg [4.06 lb]
Cartridge	CP211-2
Shuttle	CP124-1
Plug	CP12-V-2-B
Shuttle/drain port	#4 SAE (1/8 BSP)
Service mount kit	11023870
Motor	OMT

Motor mount HICs
 MM-OMT-LS-BCP211-2

DIMENSIONS

Cross-sectional view

mm [in]



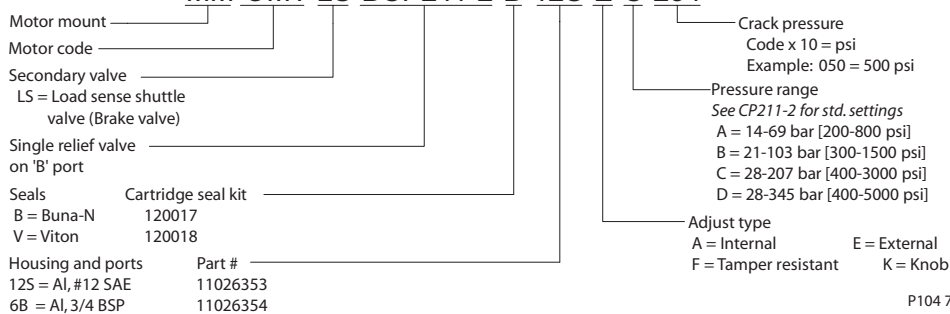
4X M10x1.5x50mm [1.97in]
 8mm
 75 Nm [55 lbf-ft]

HIC Includes:
 - M10x50mm bolts (4X)
 - (-123) O'rings, Viton (29.82x2.62 mm) (2X)

P104 748

ORDERING INFORMATION

MM-OMT-LS-BCP211-2-B-12S-E-C-254

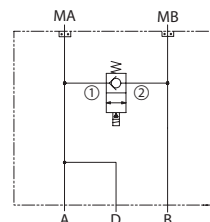


P104 749

OPERATION

This is a bypass solenoid HIC with drain that mounts to DH motors with manifold mount porting. When energized, the valve connects ports A and B. Drain connects to port A.

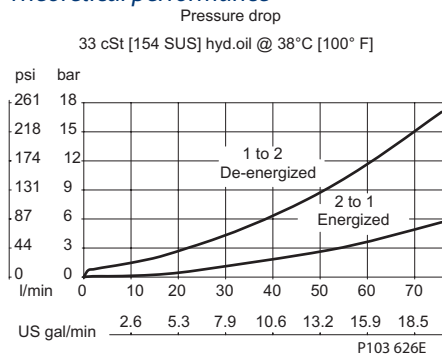
Schematic



P104 750

SPECIFICATIONS

Theoretical performance



Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	80 l/min [21 US gal/min]
Leakage	6 drops/min @ at rated pressure
Weight	1.36 kg [3.00 lb]
Cartridge	SVP10-NCR
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023864
Motor	DH

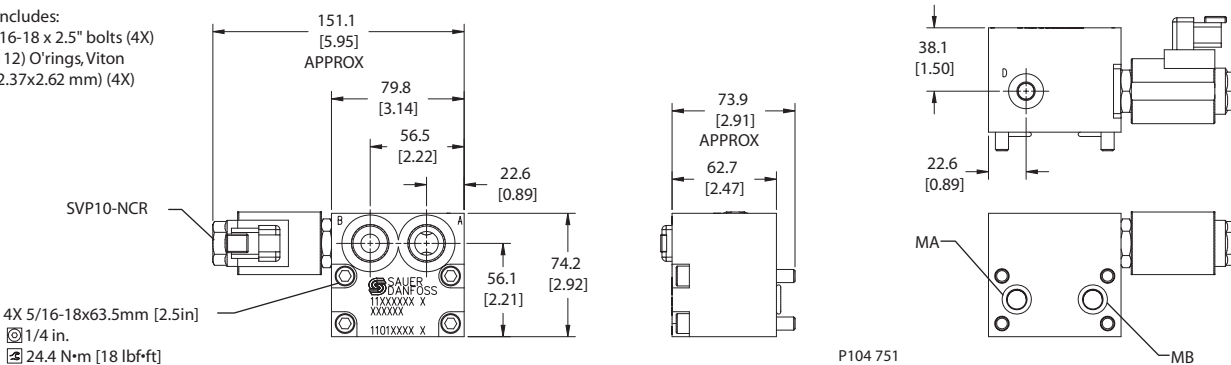
Motor mount HICs
MM-DH-00-SVP10-NCR

DIMENSIONS

Cross-sectional view

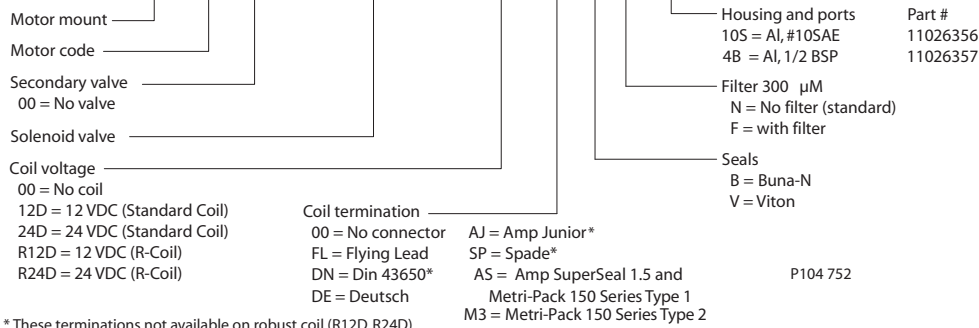
mm [in]

HIC Includes:
- 5/16-18 x 2.5" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (4X)



ORDERING INFORMATION

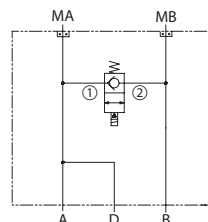
MM-DH-00-BSVP10-NCR-12D-DE-B-N-10S



OPERATION

This is a bypass solenoid HIC with drain that mounts to DH motors with manifold mount porting. When energized, the valve connects ports A and B. Drain connects to port A.

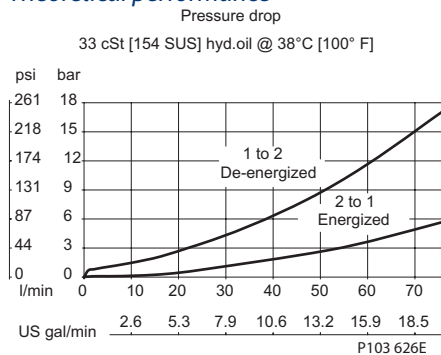
Schematic



P104 750

SPECIFICATIONS

Theoretical performance



Specifications

Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	80 l/min [21 US gal/min]
Leakage	6 drops/min @ at rated pressure
Weight	1.47 kg [3.24 lb]
Cartridge	SVP10-NCR
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023865
Motor	DS

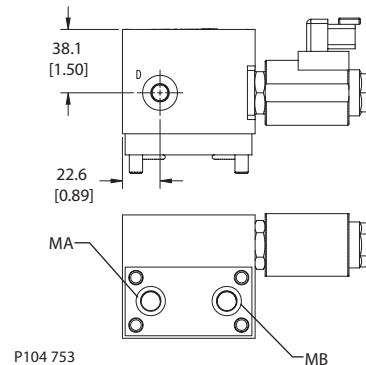
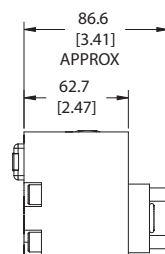
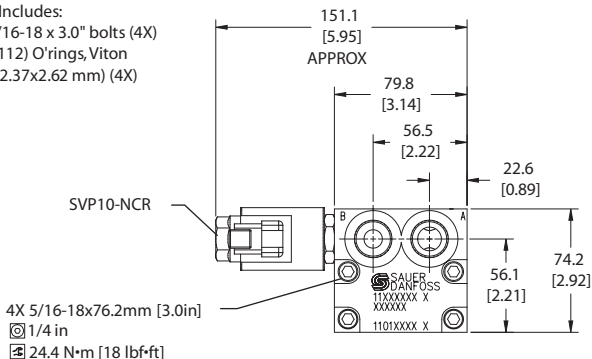
Motor mount HICs
MM-DS-00-SVP10-NCR

DIMENSIONS

Cross-sectional view

mm [in]

HIC Includes:
- 5/16-18 x 3.0" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (4X)



P104 753

ORDERING INFORMATION

MM-DS-00-BSVP10-NCR-12D-DE-B-N-10S

Motor mount	Motor code	Secondary valve 00 = No valve	Solenoid valve	Coil voltage 00 = No coil 12D = 12 VDC (Standard Coil) 24D = 24 VDC (Standard Coil) R12D = 12 VDC (R-Coil) R24D = 24 VDC (R-Coil)	Coil termination 00 = No connector FL = Flying Lead DN = Din 43650* DE = Deutsch	AJ = Amp Junior* SP = Spade* AS = Amp SuperSeal 1.5 and Metri-Pack 150 Series Type 1 M3 = Metri-Pack 150 Series Type 2	Housing and ports 10S = Al, #10SAE 4B = Al, 1/2 BSP	Filter 300 μm N = No filter (standard) F = with filter	Seals B = Buna-N V = Viton	Part # 11026356 11026357
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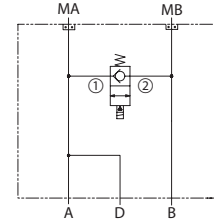
*These terminations not available on robust coil (R12D, R24D)

P104 754

OPERATION

This is a bypass solenoid HIC with drain that mounts to DH motors with manifold mount porting. When energized, the valve connects ports A and B. Drain connects to port A.

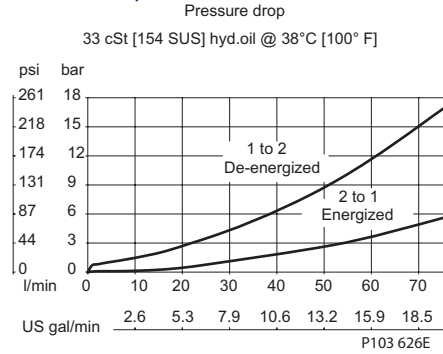
Schematic



P104 750

SPECIFICATIONS

Theoretical performance



Specifications

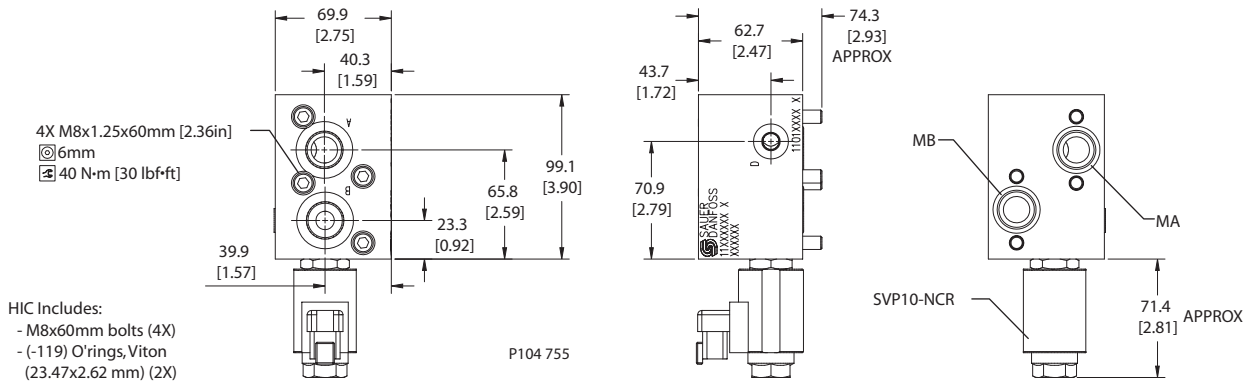
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	80 l/min [21 US gal/min]
Leakage	6 drops/min @ at rated pressure
Weight	1.51 kg [3.33 lb]
Cartridge	SVP10-NCR
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023869
Motor	OMP/OMR

Motor mount HICs
MM-OMP/OMR-00-SVP10-NCR

DIMENSIONS

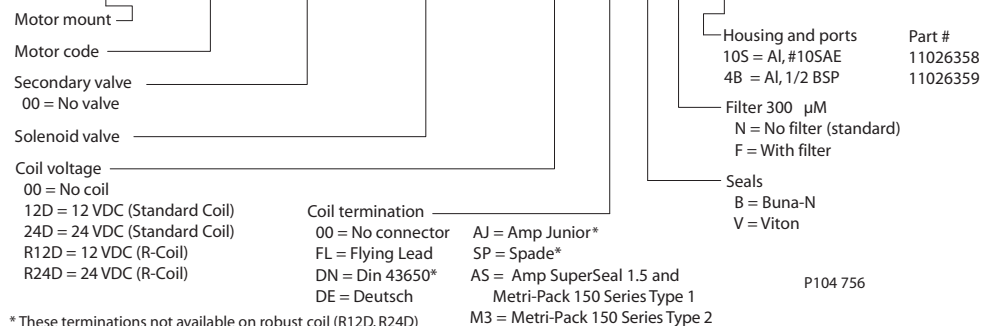
Cross-sectional view

mm [in]



ORDERING INFORMATION

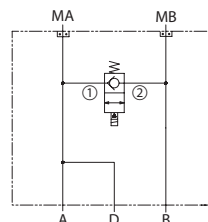
MM-OMP/OMR-00-BSVP10-NCR-12D-DE-B-N-10S



OPERATION

This is a bypass solenoid HIC with drain that mounts to DH motors with manifold mount porting. When energized, the valve connects ports A and B. Drain connects to port A.

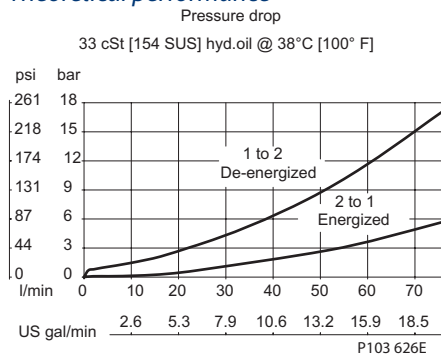
Schematic



P104 750

SPECIFICATIONS

Theoretical performance



Specifications

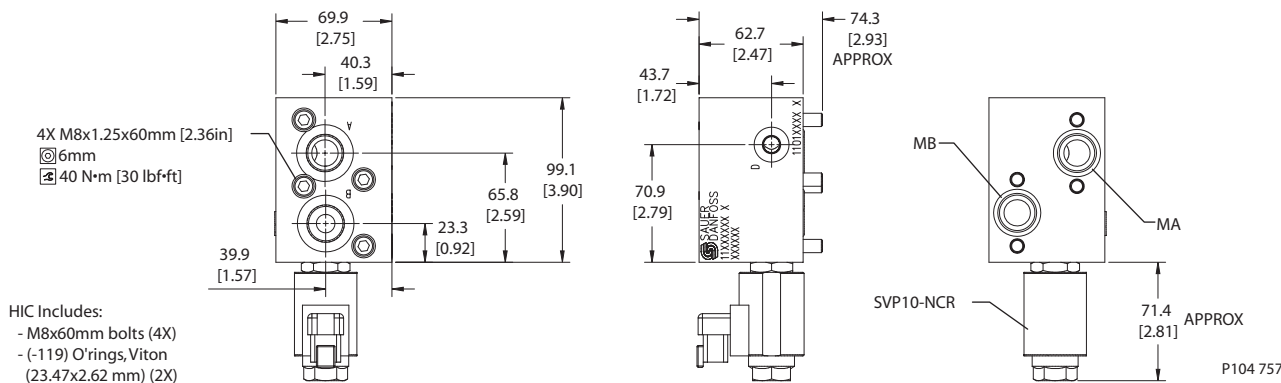
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	80 l/min [21 US gal/min]
Leakage	6 drops/min @ at rated pressure
Weight	1.51 kg [3.33 lb]
Cartridge	SVP10-NCR
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023869
Motor	OMH

Motor mount HICs
 MM-OMH-00-SVP10-NCR

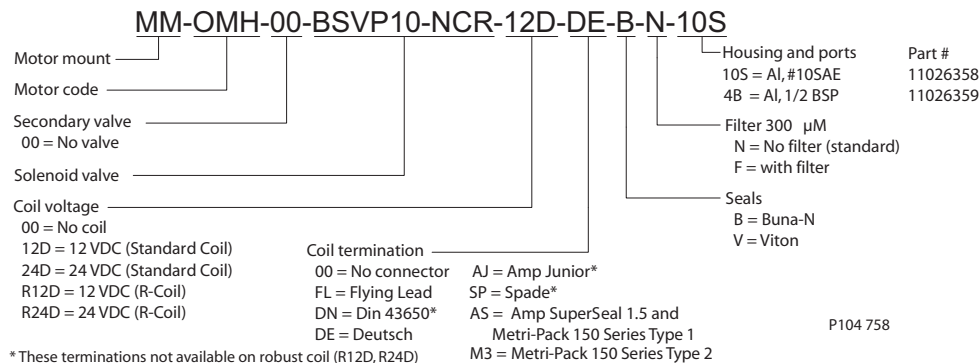
DIMENSIONS

Cross-sectional view

mm [in]



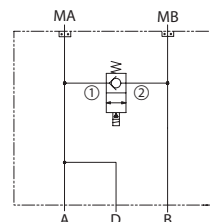
ORDERING INFORMATION



OPERATION

This is a bypass solenoid HIC with drain that mounts to DH motors with manifold mount porting. When energized, the valve connects ports A and B. Drain connects to port A.

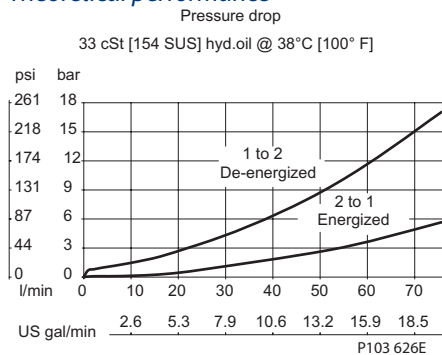
Schematic



P104 750

SPECIFICATIONS

Theoretical performance



Specifications

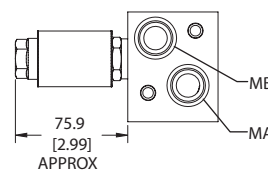
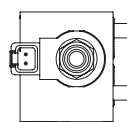
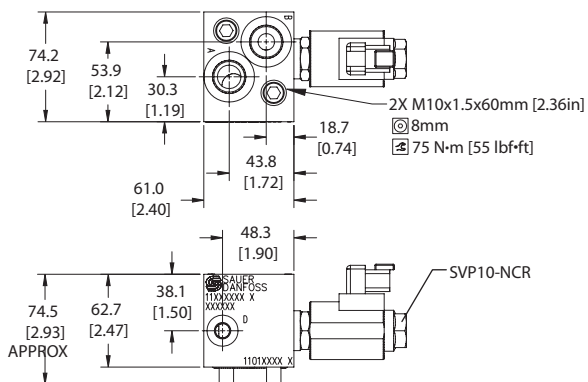
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	80 l/min [21 US gal/min]
Leakage	6 drops/min @ at rated pressure
Weight	1.03 kg [2.27 lb]
Cartridge	SVP10-NCR
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023867
Motor	OMS

Motor mount HICs
MM-OMS-00-SVP10-NCR

DIMENSIONS

Cross-sectional view

mm [in]

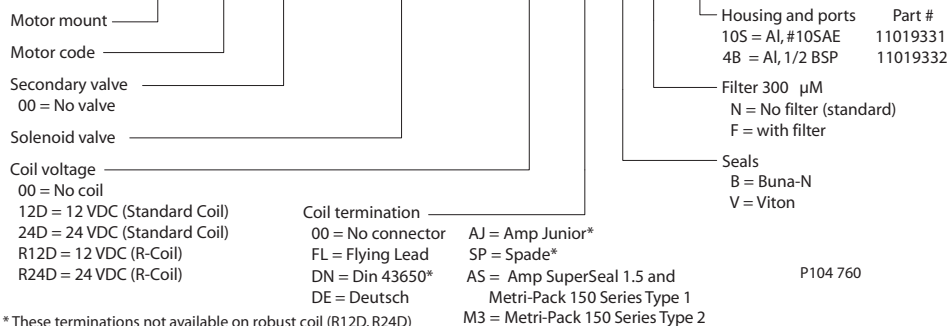


P104 759

HIC Includes:
- M10x60mm bolts (2X)
- (-119) O'rings, Viton
(23.47x2.62 mm) (2X)

ORDERING INFORMATION

MM-OMS-00-BSVP10-NCR-12D-DE-B-N-10S

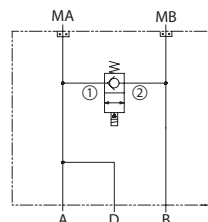


P104 760

OPERATION

This is a bypass solenoid HIC with drain that mounts to DH motors with manifold mount porting. When energized, the valve connects ports A and B. Drain connects to port A.

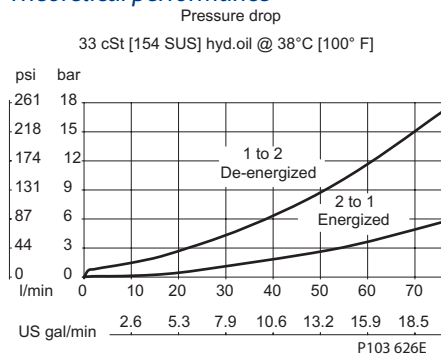
Schematic



P104 750

SPECIFICATIONS

Theoretical performance



Specifications

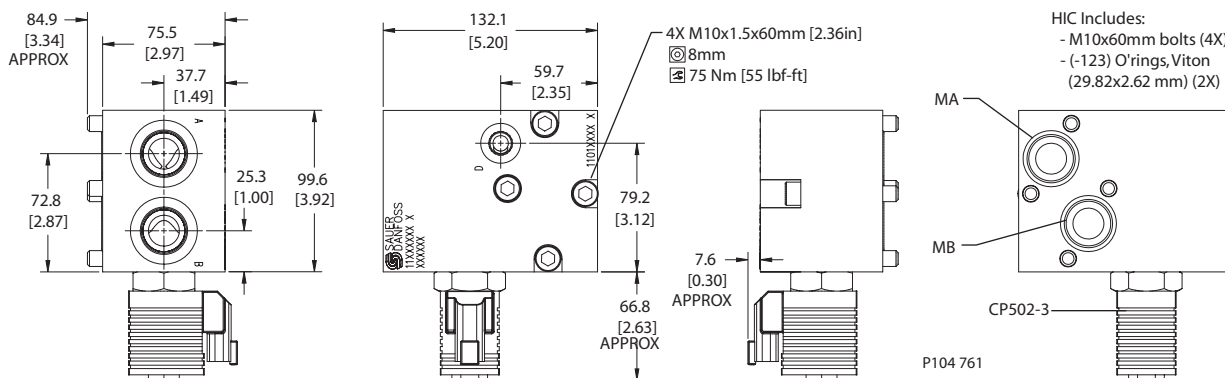
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [102 psi]	80 l/min [21 US gal/min]
Leakage	6 drops/min @ at rated pressure
Weight	2.18 kg [4.81 lb]
Cartridge	CP502-3
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023871
Motor	OMS

Motor mount HICs
MM-OMT-00-CP502-3

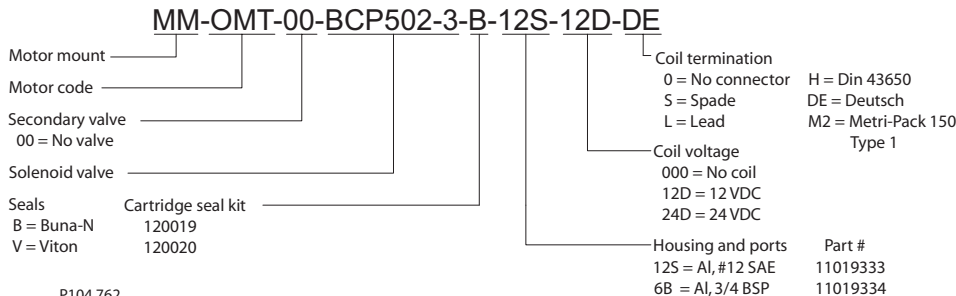
DIMENSIONS

Cross-sectional view

mm [in]



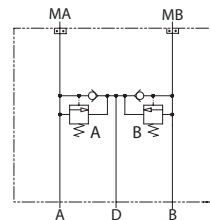
ORDERING INFORMATION



OPERATION

This is a dual shock valve with anticavitation checks that mounts to DH motors with manifold mount porting. The PVLV shock valve absorbs short-duration pressure spikes. Do not use it as a full-flow pressure relief valve. For anticavitation protection, connect drain port to reservoir with adequate piping.

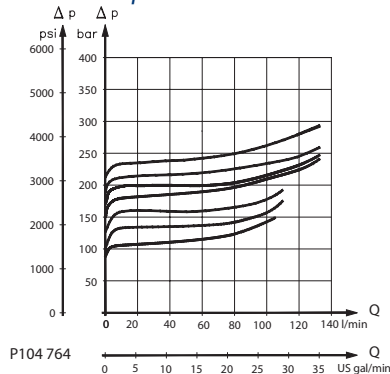
Schematic



P104 763

SPECIFICATIONS

Theoretical performance



P104 764

Specifications

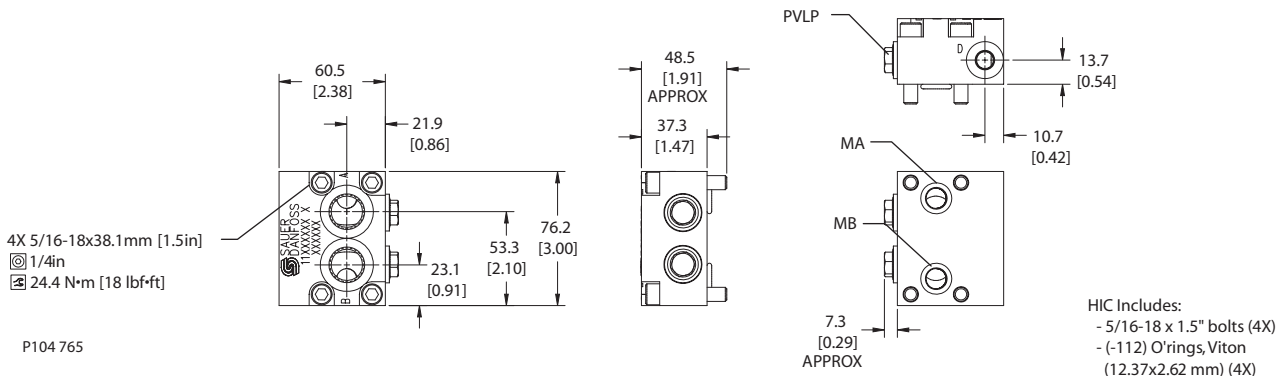
Rated pressure	345 bar [5003 psi]
Rated flow at 7 bar [102 psi]	57 l/min [15 US gal/min]
Crack pressure	0.5 bar [7 psi]
Leakage	5 cm ³ /min [0.3 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.20 kg [2.65 lb]
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023862
Motor	DH

Motor mount HICs
MM-DH-00-DPVLV

DIMENSIONS

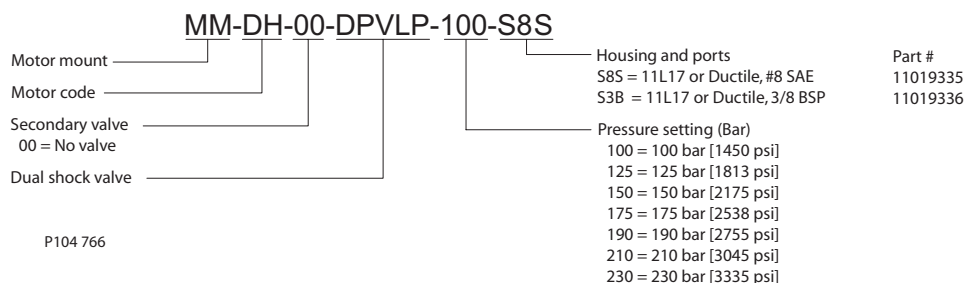
Cross-sectional view

mm [in]



P104 765

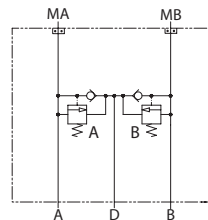
ORDERING INFORMATION



OPERATION

This is a dual shock valve with anticavitation checks that mounts to DS motors with manifold mount porting. The PVLP shock valve absorbs short-duration pressure spikes. Do not use it as a full-flow pressure relief valve. For anticavitation protection, connect drain port to reservoir with adequate piping.

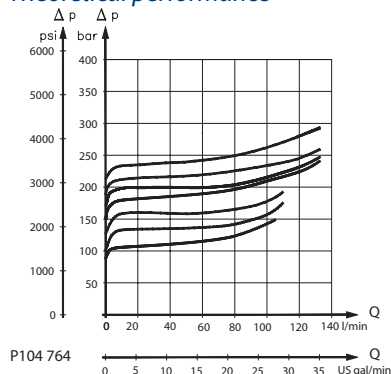
Schematic



P104 763

SPECIFICATIONS

Theoretical performance



P104 764

Specifications

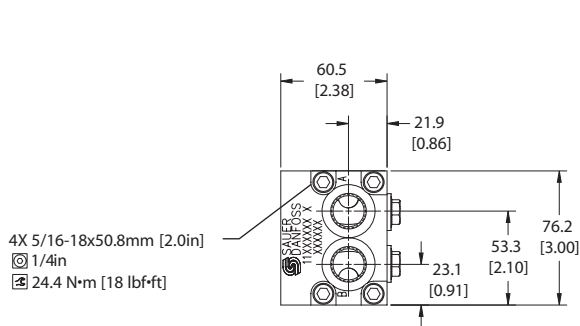
Rated pressure	345 bar [5003 psi]
Rated flow at 7 bar [102 psi]	57 l/min [15 US gal/min]
Crack pressure	0.5 bar [7 psi]
Leakage	5 cm ³ /min [0.3 in ³ /min] @ at 207 bar [3000 psi]
Weight	1.31 kg [2.89 lb]
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023863
Motor	DS

Motor mount HICs
MM-DS-00-DPVLP

DIMENSIONS

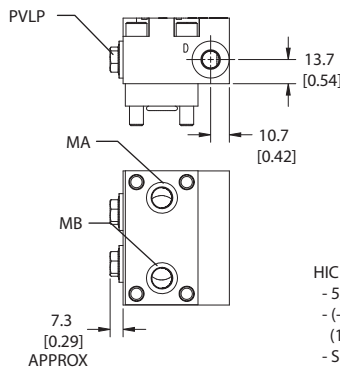
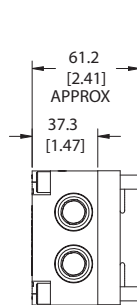
Cross-sectional view

mm [in]



4X 5/16-18x50.8mm [2.0in]
⊗ 1/4in
⊗ 24.4 N•m [18 lbf•ft]

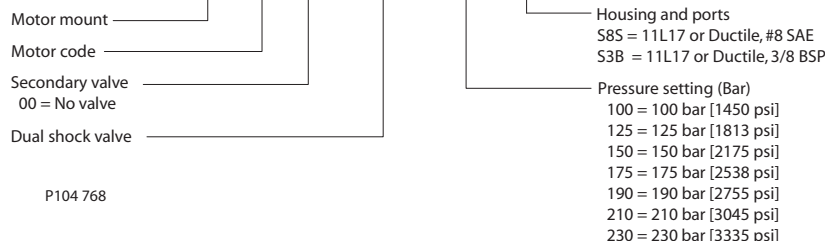
P104 767



HIC Includes:
- 5/16-18 x 2.0" bolts (4X)
- (-112) O'rings, Viton (12.37x2.62 mm) (4X)
- Sub-plate

ORDERING INFORMATION

MM-DS-00-DPVLP-100-S8S



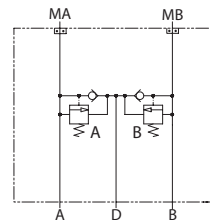
Part #
11019335
11019336

P104 768

OPERATION

This is a dual shock valve with anticavitation checks that mounts to OMP/OMR motors with BSP porting. The PVLP shock valve absorbs short-duration pressure spikes. Do not use it as a full-flow pressure relief valve. For anticavitation protection, connect drain port to reservoir with adequate piping.

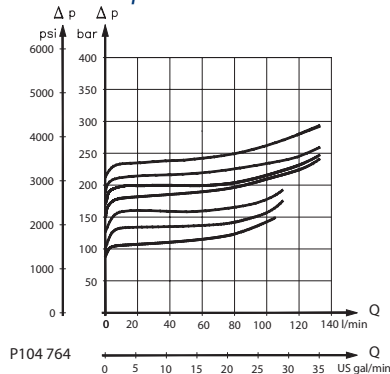
Schematic



P104 763

SPECIFICATIONS

Theoretical performance



P104 764

Specifications

Rated pressure	345 bar [5003 psi]
Rated flow at 7 bar [102 psi]	57 l/min [15 US gal/min]
Crack pressure	0.5 bar [7 psi]
Leakage	5 cm ³ /min [0.3 in ³ /min] @ at 207 bar [3000 psi]
Weight	2.12 kg [4.67 lb]
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023162
Motor	OMP/OMR

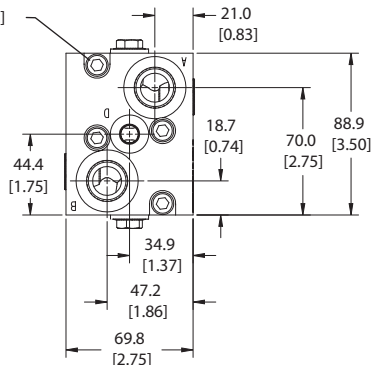
Motor mount HICs
MM-OMP/OMR-00-DPVLP

DIMENSIONS

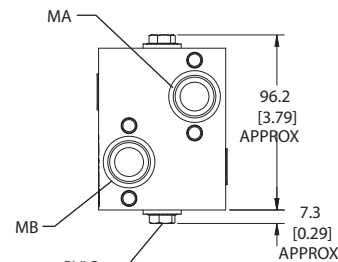
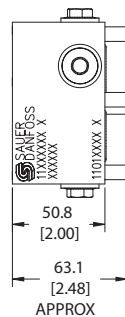
Cross-sectional view

mm [in]

4X M8x1.25x50mm [1.97in]
⊙6mm
⊕40 N•m [30 lbf-ft]



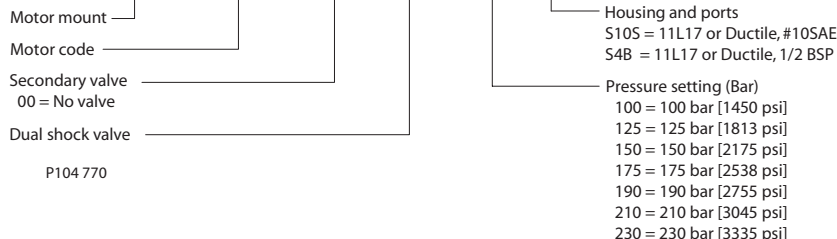
P104 769



HIC Includes:
- M8x50mm bolts (4X)
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

ORDERING INFORMATION

MM-OMP/OMR-00-DPVLP-100-S4B



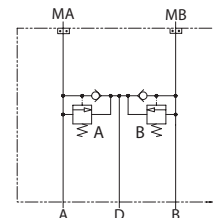
Part #
11026360
11026361

P104 770

OPERATION

This is a dual shock valve with anticavitation checks that mounts to OMH motors with BSP porting. The PVLP shock valve absorbs short-duration pressure spikes. Do not use it as a full-flow pressure relief valve. For anticavitation protection, connect drain port to reservoir with adequate piping.

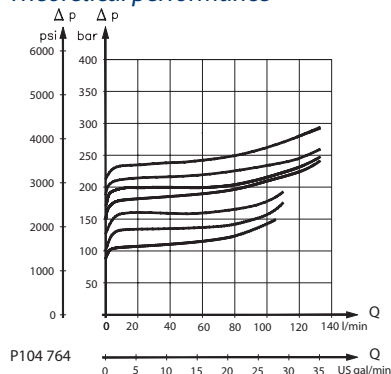
Schematic



P104 763

SPECIFICATIONS

Theoretical performance



P104 764

Specifications

Rated pressure	345 bar [5003 psi]
Rated flow at 7 bar [102 psi]	57 l/min [15 US gal/min]
Crack pressure	0.5 bar [7 psi]
Leakage	5 cm ³ /min [0.3 in ³ /min] @ 207 bar [3000 psi]
Weight	2.12 kg [4.67 lb]
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023162
Motor	OMH

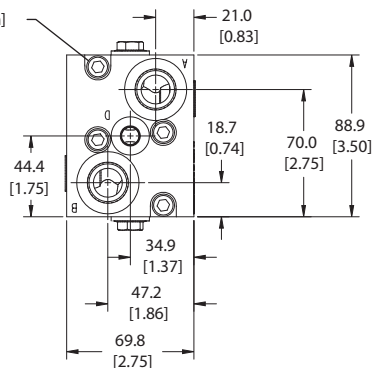
Motor mount HICs
 MM-OMH-00-DPVLP

DIMENSIONS

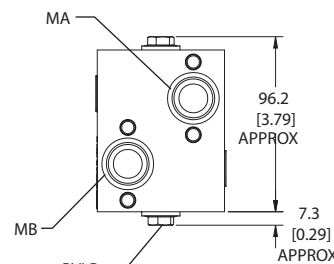
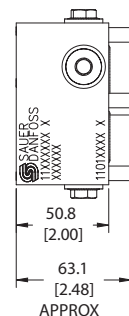
Cross-sectional view

mm [in]

- 4X M8x1.25x50mm [1.97in]
- ⊙6mm
- ⊠40 N·m [30 lbf·ft]



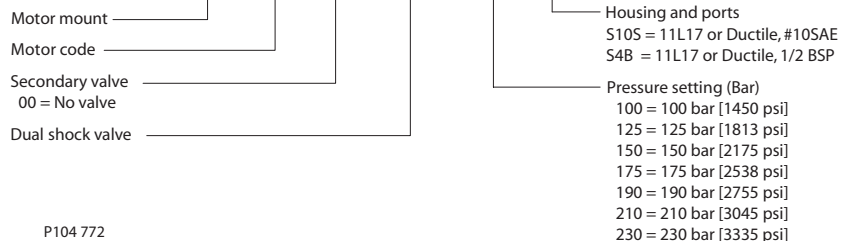
P104 771



- HIC Includes:
- M8x50mm bolts (4X)
 - (-119) O'rings, Viton (23.47x2.62 mm) (2X)

ORDERING INFORMATION

MM-OMH-00-DPVLP-175-S4B



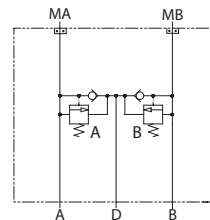
Part #
 11026360
 11026361

P104 772

OPERATION

This is a dual shock valve with anticavitation checks that mounts to OMS motors with BSP porting. The PVLP shock valve absorbs short-duration pressure spikes. Do not use it as a full-flow pressure relief valve. For anticavitation protection, connect drain port to reservoir with adequate piping.

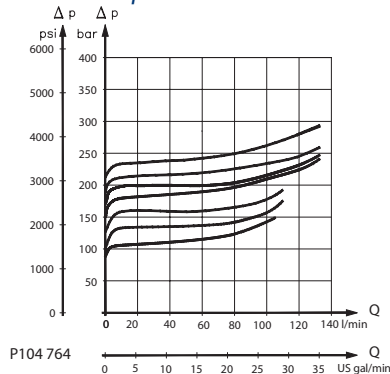
Schematic



P104 763

SPECIFICATIONS

Theoretical performance



P104 764

Specifications

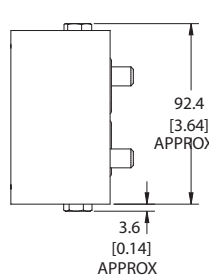
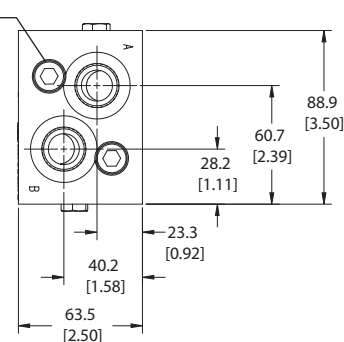
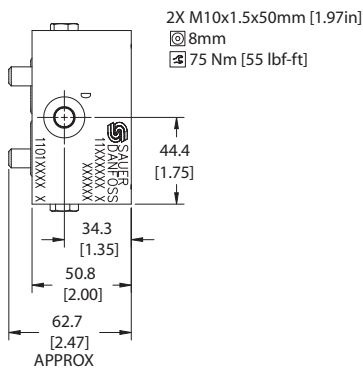
Rated pressure	345 bar [5003 psi]
Rated flow at 7 bar [102 psi]	57 l/min [15 US gal/min]
Crack pressure	0.5 bar [7 psi]
Leakage	5 cm ³ /min [0.3 in ³ /min] @ at 207 bar [3000 psi]
Weight	2.02 kg [4.45 lb]
Shuttle/drain port	#4 SAE (1/4 BSP)
Service mount kit	11023866
Motor	OMS

Motor mount HICs
MM-OMS-00-DPVLV

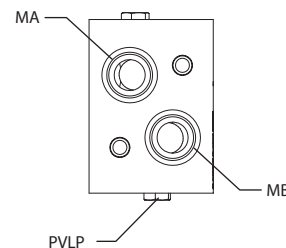
DIMENSIONS

Cross-sectional view

mm [in]



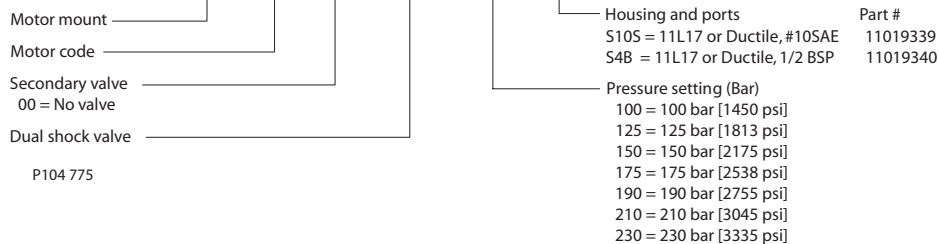
P104 774



HIC includes:
- M10x50mm bolts (2X)
- (-119) O-rings, Viton (23.47x2.62 mm) (2X)

ORDERING INFORMATION

MM-OMS-00-DPVLV-175-S10S

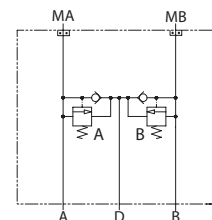


P104 775

OPERATION

This is a dual shock valve with anticavitation checks that mounts to OMT motors with BSP porting. The PVLP shock valve absorbs short-duration pressure spikes. Do not use it as a full-flow pressure relief valve. For anticavitation protection, connect drain port to reservoir with adequate piping.

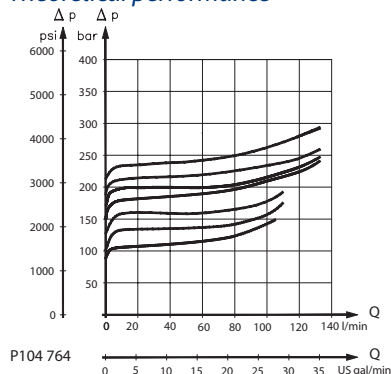
Schematic



P104 763

SPECIFICATIONS

Theoretical performance



P104 764

Specifications

Rated pressure	345 bar [5003 psi]
Rated flow at 7 bar [102 psi]	57 l/min [15 US gal/min]
Crack pressure	0.5 bar [7 psi]
Leakage	5 cm ³ /min [0.3 in ³ /min] @ at 207 bar [3000 psi]
Weight	2.94 kg [6.48 lb]
Shuttle/drain port	#6 SAE (1/4 BSP)
Service mount kit	11023870
Motor	OMT

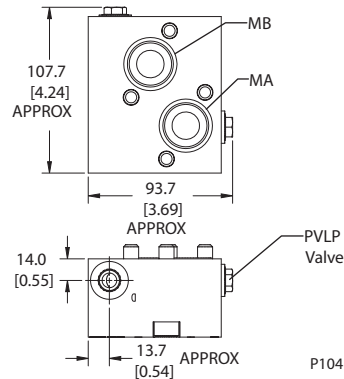
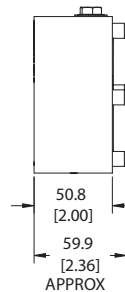
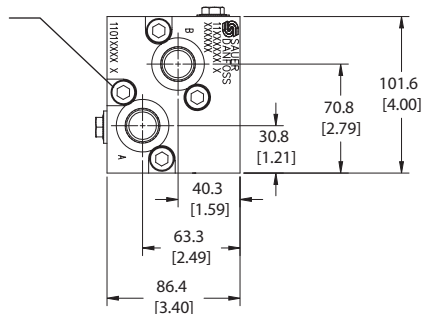
Motor mount HICs
 MM-OMT-00-DPVLP

DIMENSIONS

Cross-sectional view

mm [in]

- 4X M10x1.5x50mm [1.97in]
- 8mm
- 75 N·m [55 lbf·ft]

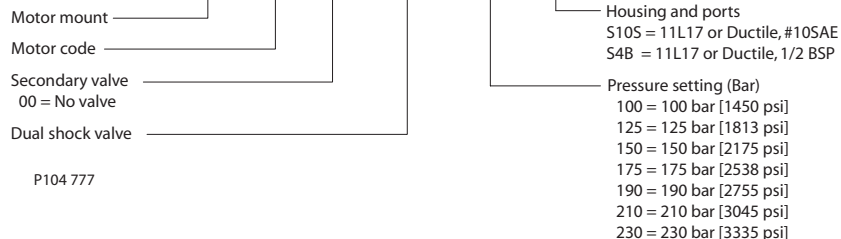


P104 776

- HIC Includes:
- M10x50mm bolts (4X)
 - (-123) O'rings, Viton (29.82x2.62 mm) (2X)

ORDERING INFORMATION

MM-OMT-00-DPVLP-175-S10S



Part #
 11026364
 11026365

P104 777

