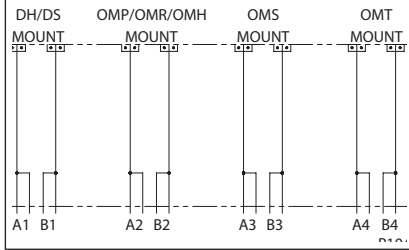
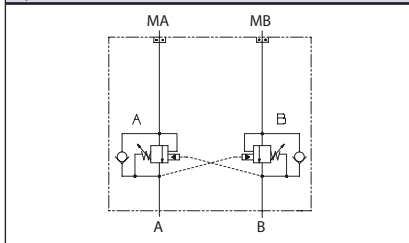
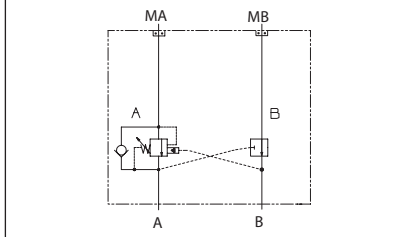
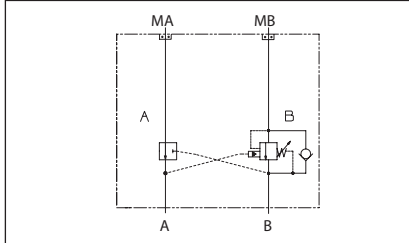


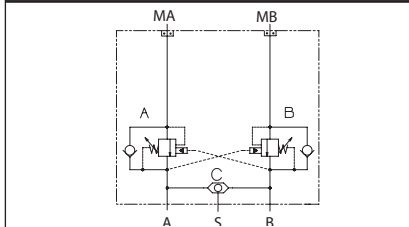
Cartridge Valves Technical Information  
Motor Mount HICs  
Quick Reference

| 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

Cartridge Valves Technical Information  
 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 |

Motor mount HICs  
 Quick reference



# Cartridge Valves Technical Information

## Motor Mount HICs

### Quick Reference

| Symbol | Description                             | Motor   | Model No.                            | Page  |
|--------|---|---------|--------------------------------------|-------|
|        | Single cross-port relief valve (A port) | DH      | <a href="#">MM-DH-00-AVME06</a>      | 15.64 |
|        |   | DS      | <a href="#">MM-DS-00-AVME06</a>      | 15.65 |
|        |   | OMP/OMR | <a href="#">MM-OMP/OMR-00-AVME06</a> | 15.66 |

| Symbol | Description                             | Motor | Model No.                          | Page  |
|--------|---|-------|------------------------------------|-------|
|        | Single cross-port relief valve (A port) | OMH   | <a href="#">MM-OMH-00-ACP211-2</a> | 15.67 |
|        |   | OMS   | <a href="#">MM-OMS-00-ACP211-2</a> | 15.68 |
|        |   | OMT   | <a href="#">MM-OMT-00-ACP211-2</a> | 15.69 |

| Symbol | Description                             | Motor   | Model No.                            | Page  |
|--------|---|---------|--------------------------------------|-------|
|        | Single cross-port relief valve (B port) | DH      | <a href="#">MM-DH-00-BVME06</a>      | 15.70 |
|        |   | DS      | <a href="#">MM-DS-00-BVME06</a>      | 15.71 |
|        |   | OMP/OMR | <a href="#">MM-OMP/OMR-00-BVME06</a> | 15.72 |

| Symbol | Description                             | Motor | Model No.                          | Page  |
|--------|---|-------|------------------------------------|-------|
|        | Single cross-port relief valve (B port) | OMH   | <a href="#">MM-OMH-00-BCP211-2</a> | 15.73 |
|        |   | OMS   | <a href="#">MM-OMS-00-BCP211-2</a> | 15.74 |
|        |   | OMT   | <a href="#">MM-OMT-00-BCP211-2</a> | 15.75 |

Motor mount HICs  
Quick reference

Cartridge Valves Technical Information  
 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 |

Motor mount HICs  
 Quick reference



# Cartridge Valves Technical Information

## Motor Mount HICs

### Quick Reference

| 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 |

Motor mount HICs  
Quick reference

## Cartridge Valves Technical Information

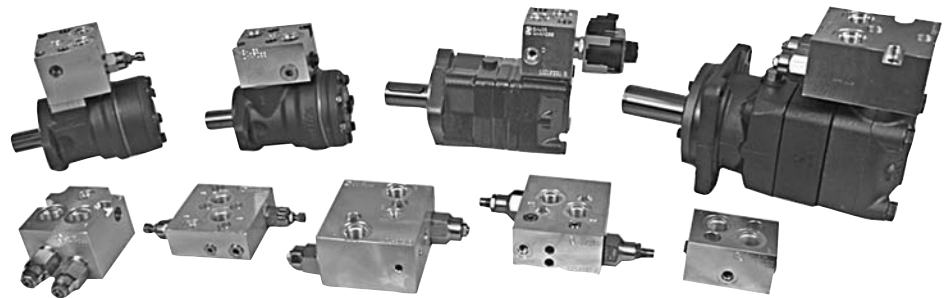
### Motor Mount HICs

#### Application notes

#### 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*



F102 240

#### 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 PVLP (shock valve from PVG line)
  - Dual only
  - Ductile iron manifold only

#### ADVANTAGES

There are advantages to using Sauer-Danfoss 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



# Cartridge Valves Technical Information

## Motor Mount HICs

### Application notes

#### 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 <sup>3</sup>  | 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 <sup>3</sup>  | 124 bar                         | 166 bar                           | 60 l/min               | 75 l/min                 |                          |  |             |  |
| DS         | US     | 3.16 - 23.91 in <sup>3</sup>  | 2000 psi                        | 2500 psi                          | 15.9 US gal/min        | 19.8 US gal/min          |                          |  | G 1/2 (BSP) | 520L0262 [OMP, OMR, OMH and OMEW Orbital Motors] |
|            | Metric | 51.6 - 390.7 cm <sup>3</sup>  | 138 bar                         | 172 bar                           | 60                     | 75 l/min                 |                          |  |             |  |
| OMP        | US     | 1.53 - 23.82 in <sup>3</sup>  | 2030                            | 2540                              | 15.9 US gal/min        | 19.8 US gal/min          | G 1/2 (BSP)              | 520L0407 [OMS, OMT and OMV Orbital Motors] |             |  |
|            | Metric | 36.0 - 389.2 cm <sup>3</sup>  | 140 bar                         | 175 bar                           | 60 l/min.              | 75 l/min                 |                          |  |             |  |
| OMR        | US     | 3.16 - 22.8 in <sup>3</sup>   | 2540 psi                        | 2900 psi                          | 15.9 US gal/min        | 19.8 US gal/min          |                          |  | G 3/4 (BSP) | 520L0407 [OMS, OMT and OMV Orbital Motors]       |
|            | Metric | 51.6 - 372.6 cm <sup>3</sup>  | 175 bar                         | 200 bar                           | 60 l/min.              | 75 l/min                 |                          |  |             |  |
| OMH        | US     | 12.32 - 28.80 in <sup>3</sup> | 2540 psi                        | 2900 psi                          | 19.8 US gal/min        | 23.8 US gal/min          | G 3/4 (BSP)              | 520L0407 [OMS, OMT and OMV Orbital Motors] |             |  |
|            | Metric | 201.3 - 470.6 cm <sup>3</sup> | 175 bar                         | 200 bar                           | 75 l/min.              | 90 l/min.                |                          |  |             |  |
| OMS        | US     | 4.91 - 29.78 in <sup>3</sup>  | 3050 psi                        | 3990 psi                          | 19.8 US gal/min        | 23.8 US gal/min          |                          |  | G 3/4 (BSP) | 520L0407 [OMS, OMT and OMV Orbital Motors]       |
|            | Metric | 80.5 - 488.0 cm <sup>3</sup>  | 210 bar                         | 275 bar                           | 75 l/min.              | 90 l/min.                |                          |  |             |  |
| OMT        | US     | 9.83 - 31.95 in <sup>3</sup>  | 2900 psi                        | 3480 psi                          | 33.0 US gal/min        | 39.6 US gal/min          | G 3/4 (BSP)              | 520L0407 [OMS, OMT and OMV Orbital Motors] |             |  |
|            | Metric | 161.1 - 523.6 cm <sup>3</sup> | 200 bar                         | 240 bar                           | 125 l/min.             | 150 l/min.               |                          |  |             |  |

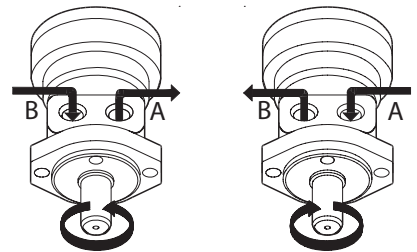
\* Pressures and flows are displacement and shaft size dependent. Refer to motor catalog for more specific motor technical details.

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 | Motor code | Secondary valve | Dual counterbalance valve | Type              | Pressure range  | Pilot ratio                      | Housing and ports                    | Seals                   | Cracking pressure (bar)  | Adjust type                                     | Check crack pressure | Part #   |
|             |            | 00 = No valve   |                           | HV=Hydraulic Vent | For pilot ratio A (3:1)<br>1 = 35-110 bar [507-1595 psi]<br>2 = 60-150 bar [870-2176 psi]<br>3 = 80-230 bar [1160-3336 psi] | A = 3:1<br>B = 4.5:1<br>C = 10:1 | 10S = Al, #10SAE<br>4B = Al, 1/2 BSP | B = Buna-N<br>V = Viton | Example: 100 = 100 bar [1450 psi]<br>See CB10-HV for std. settings | E = External adjustment<br>F = Tamper resistant | 1 = 1 bar (14.5 psi) | 11019287<br>11019288<br>354001419<br>354001519 |

P104 595

## Cartridge Valves Technical Information

### Motor Mount HICs

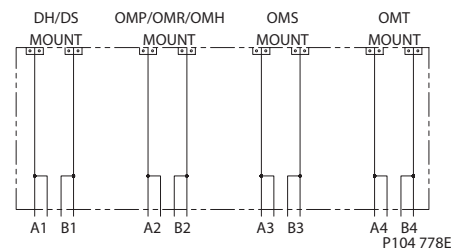
#### Application notes

#### 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 Sauer-Danfoss 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







# Cartridge Valves Technical Information

## Motor Mount HICs

### Application notes

#### COUNTERBALANCE VALVES

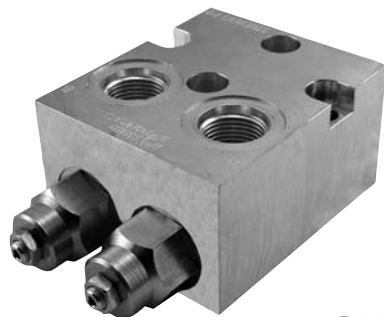
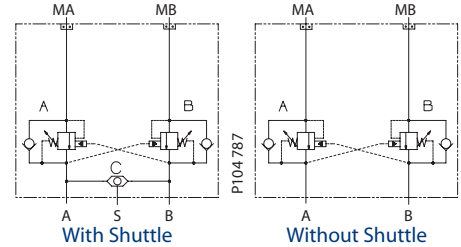
Counterbalance valves prevent motors from drifting excessively due to control valve leakage. They can hold the load in the event of hose/tube failure, or limit overrun when a load is in a lowering or runaway mode (vehicle going downhill). They provide a smooth, cushioned stop when the control valve is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



F102 243



F102 246

Motor mount HICs  
Application notes

**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.

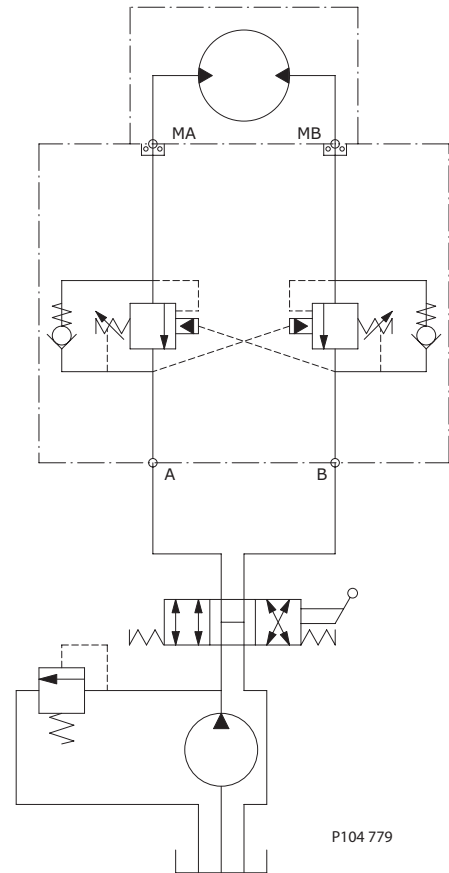
A counterbalance valve controls motion. It also provides protection against hose or tube failure. In this circuit, a dual counterbalance HIC is mounted to a standard motor, providing functionality in both directions.

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*



**Typical application of dual counterbalance valve in a motor circuit.**

**Motor mount HICs**  
 Application notes



## Cartridge Valves Technical Information

### Motor Mount HICs

#### Application notes

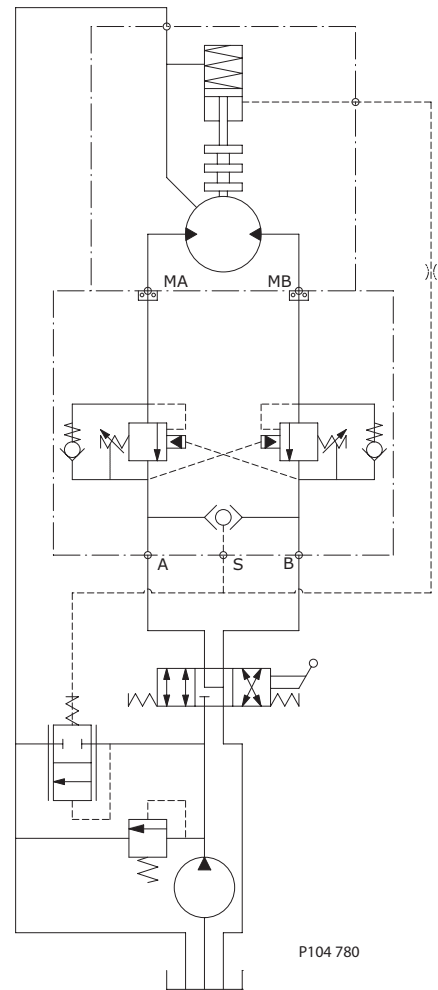
#### COUNTERBALANCE VALVES (continued)

*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



P104 780

**Motor with integral brake, system includes pump unloading valve.**

Motor mount HICs  
Application notes



# Cartridge Valves Technical Information

## Motor Mount HICs

### Application notes

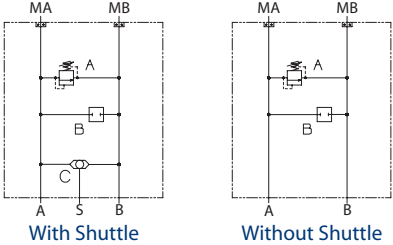
#### CROSS-PORT RELIEF VALVES

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.

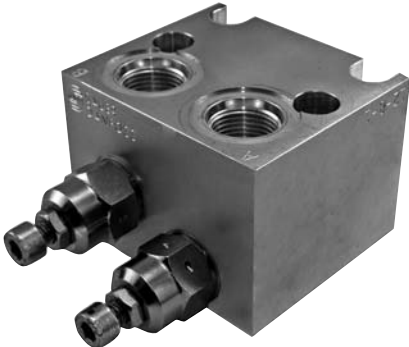
Typical applications for cross-port relief valves include vehicle propulsion, auger drives, conveyer drives, and slew drive. Any rotary application requiring pressure limiting can benefit from a motor-mounted cross-port relief valve. For more information on relief valves, see *Relief Valves*, section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

Dual cross-port relief with shuttle



P104 788

Cross-port relief valve



F102 238



F102 239

Motor mount HICs  
Application notes

**CROSS-PORT RELIEF VALVES (continued)**

**Sample system circuits**

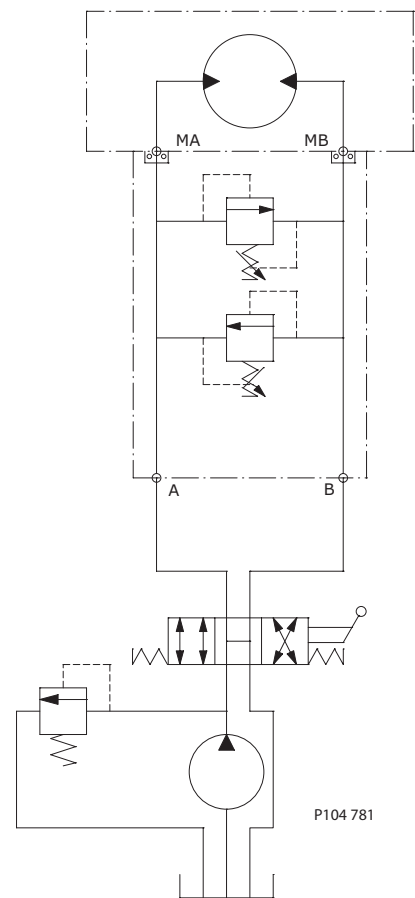
*Motor with dual cross-port relief*

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.**

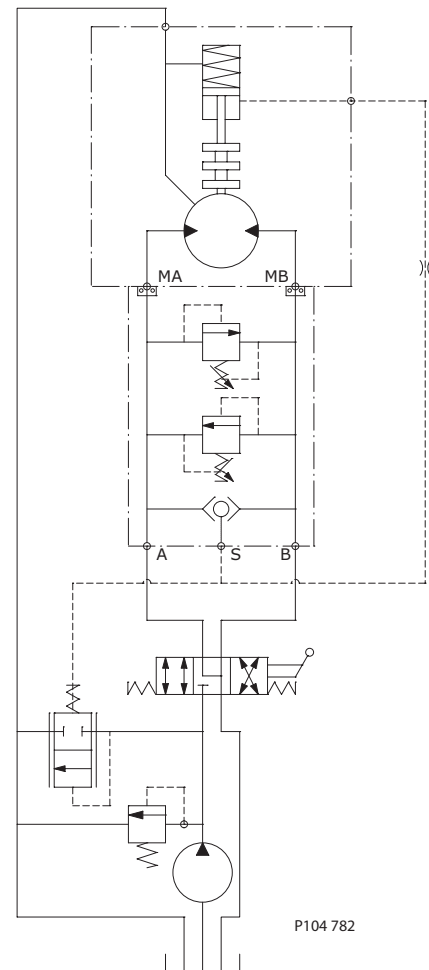
Motor mount HICs  
 Application notes

**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*


**Motor with integral brake, system includes pump unloading valve.**



# Cartridge Valves Technical Information

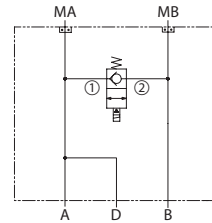
## Motor Mount HICs

### Application notes

#### 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 Sauer-Danfoss representative if you require reverse logic.

#### Bypass solenoid

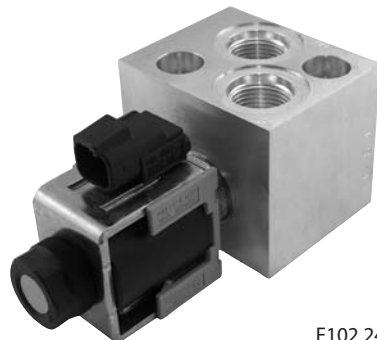


P104 750

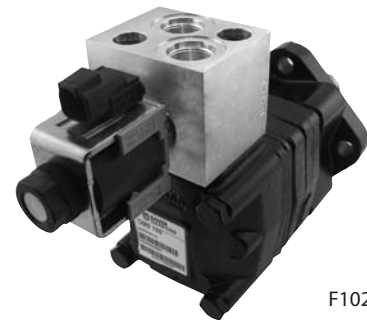
The manifold includes a drain port connected to port A to simplify circuit plumbing. Depending on motor drain pressure capabilities, you may connect the motor drain directly to port D on the HIC instead of routing it back to the reservoir.

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*

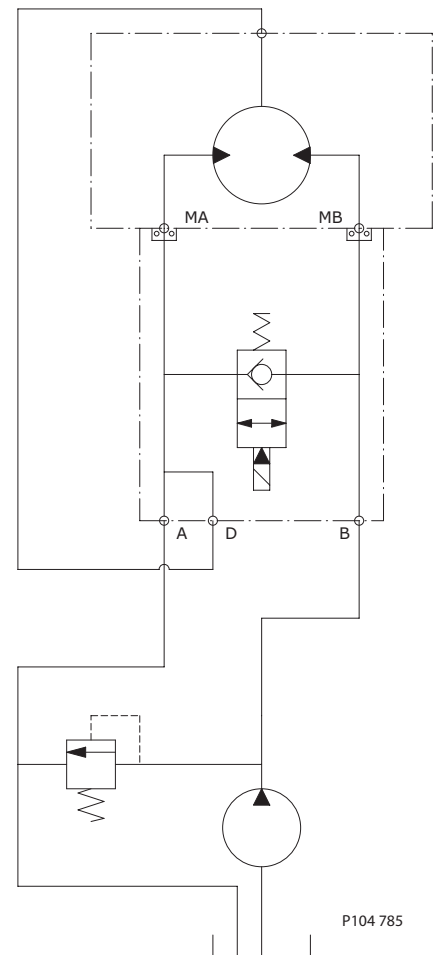
A typical rotary circuit application for a bypass solenoid valve contains a pump, system relief valve, motor, and in most cases, a directional control valve. The bypass solenoid valve allows an electrically-actuated method of bypassing flow at the motor.

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 the pump flow continues.

*Bypass solenoid with drain port*


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



**BYPASS SOLENOID VALVES (continued)**

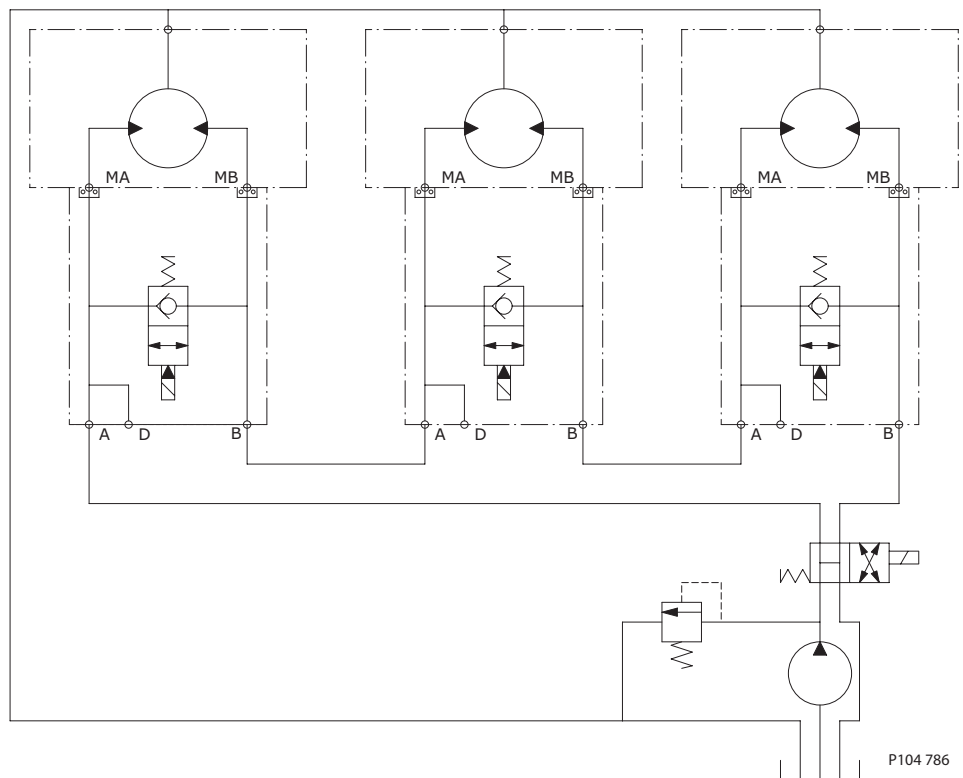
*Motors in series*

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*



P104 786

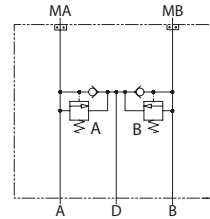
**This circuit uses three motors in series with a solenoid operated directional valve and pump relief.**

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*

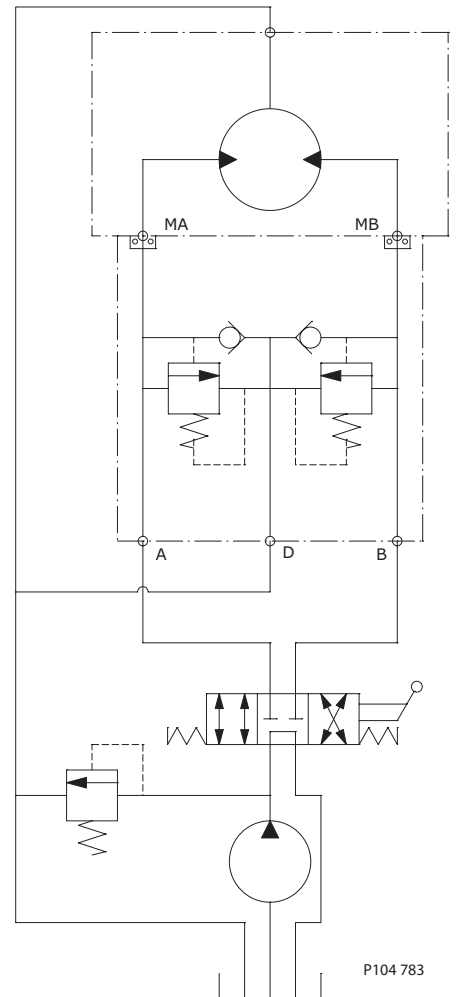
A typical rotary circuit application for a shock valve with anticavitation contains a pump, directional control valve, system relief valve, and motor. Without this valve there is no over-pressure protection at the motor work ports and no protection against cavitation during overrun.

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 shown in the circuit.

*Dual shock valve with anticavitation checks*



P104 783

**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



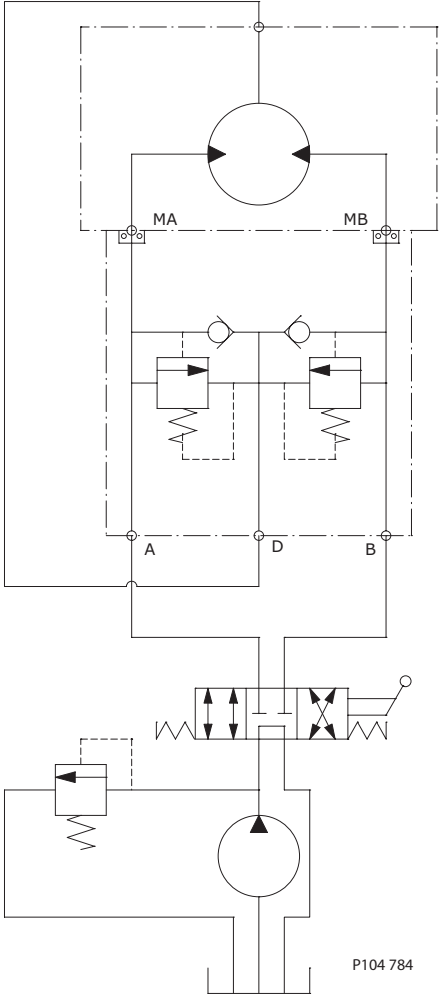
Cartridge Valves Technical Information  
 Motor Mount HICs  
 Application notes

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

*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.**

Motor mount HICs  
 Application notes



# Cartridge Valves Technical Information

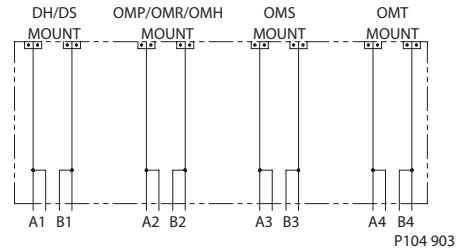
## Motor Mount HICs

### MMHIC Test Block - 11025000

### 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.

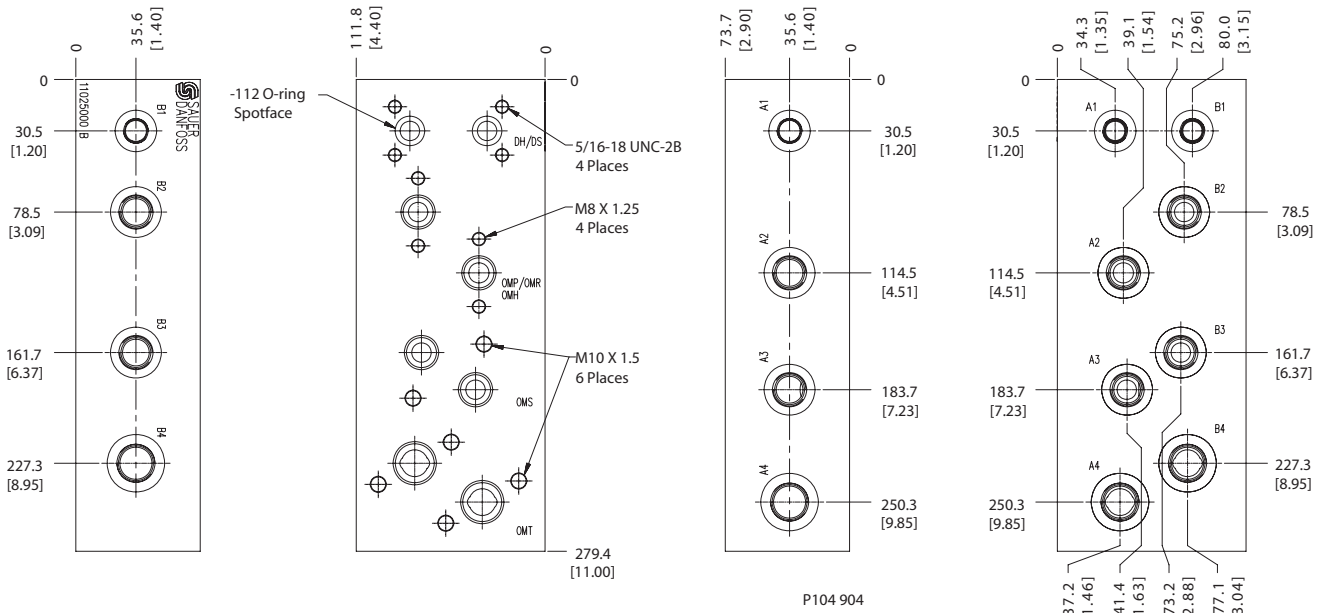
### Schematic Diagram



### SPECIFICATIONS

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

### DIMENSIONS



### ORDERING INFORMATION

Order Number - **11025000**

Motor mount HICs  
MMHIC Test Block - 11025000



# Cartridge Valves Technical Information

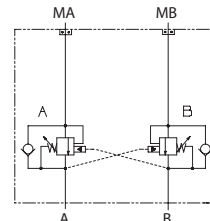
## Motor Mount HICs

### MM-DH-00-DCB10-HV

### OPERATION

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

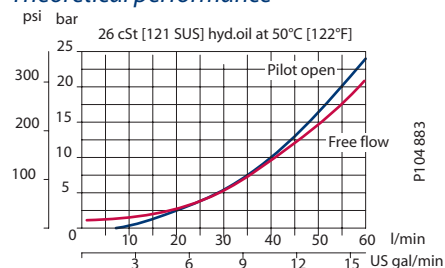
### Schematic



P104 593

### SPECIFICATIONS

#### Theoretical performance



P104 883

#### Specifications

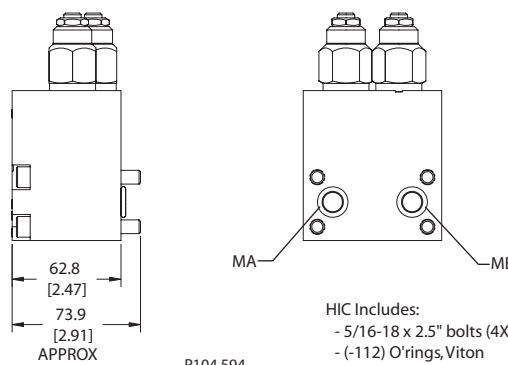
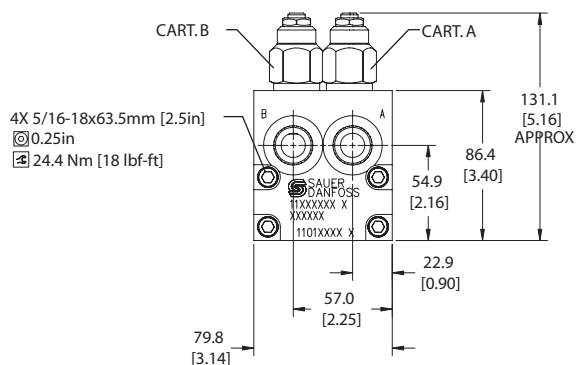
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure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

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

### DIMENSIONS

#### Cross-sectional view

mm [in]

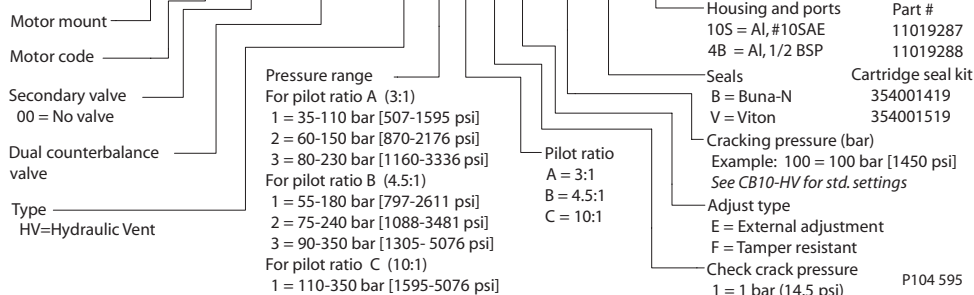


P104 594

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

### ORDERING INFORMATION

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



P104 595



# Cartridge Valves Technical Information

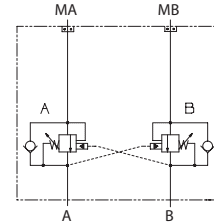
## Motor Mount HICs

### MM-DS-00-DCB10-HV

### OPERATION

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

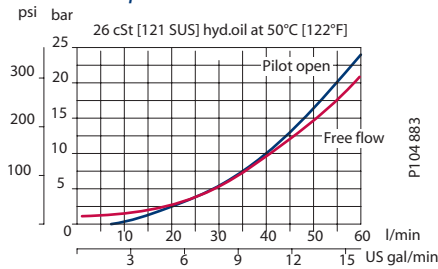
### Schematic



P104 593

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

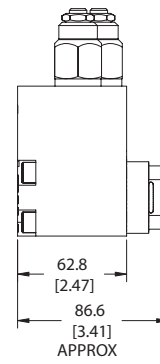
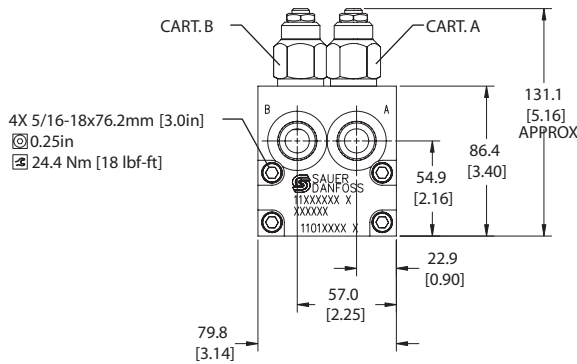
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure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

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

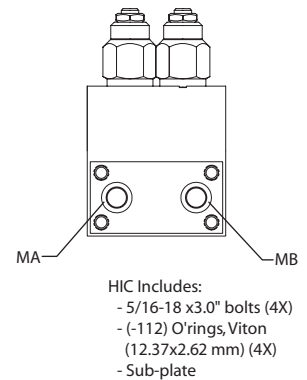
### DIMENSIONS

#### Cross-sectional view

mm [in]

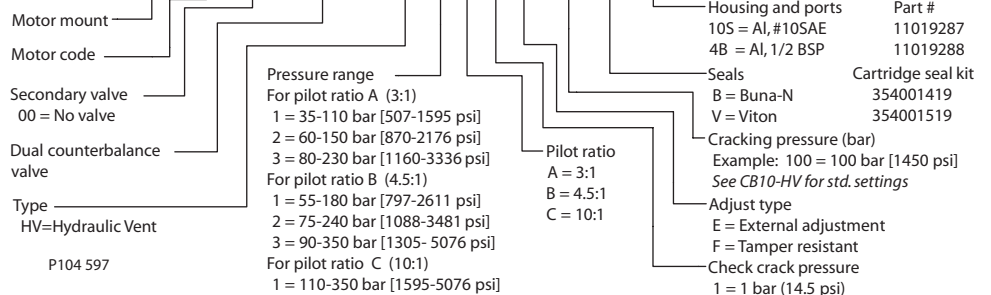


P104 596



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

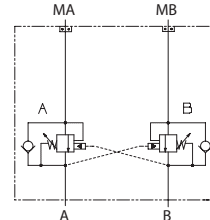
## Motor Mount HICs

### MM-OMP/OMR-00-DCB10-HV

### OPERATION

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

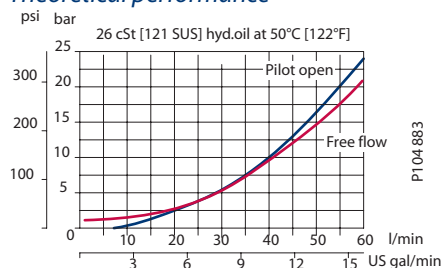
### Schematic



P104 593

### SPECIFICATIONS

#### Theoretical performance



P104 883

#### Specifications

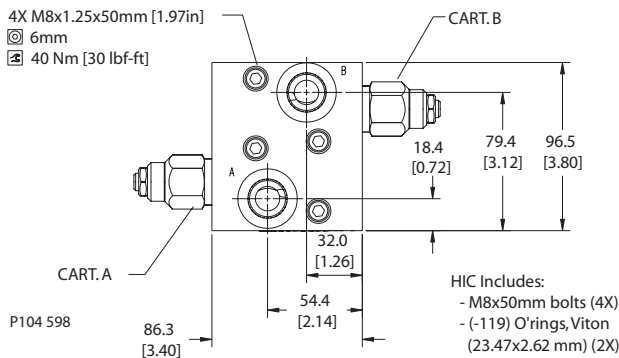
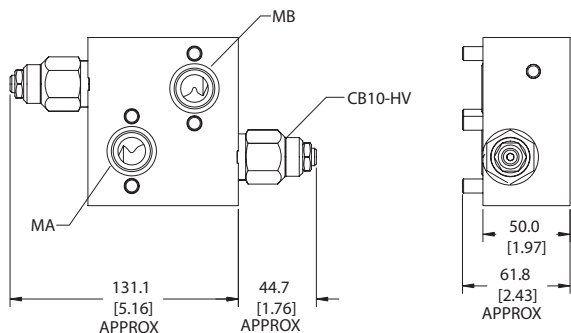
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure |
| 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

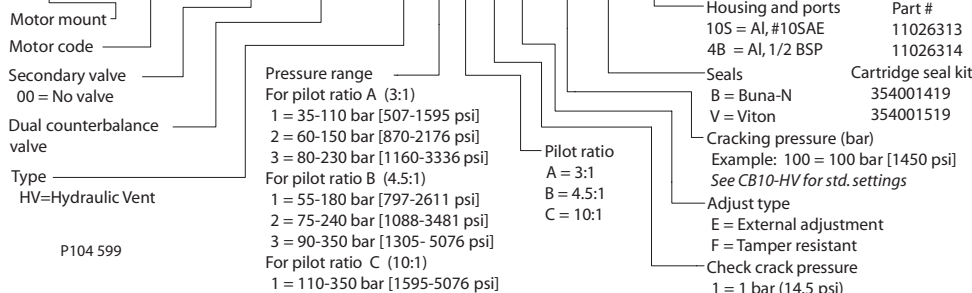
mm [in]



P104 598

### ORDERING INFORMATION

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



P104 599





# Cartridge Valves Technical Information

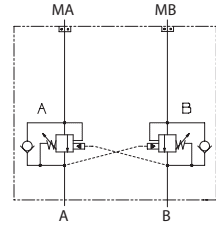
## Motor Mount HICs

### MM-OMH-00-DCP441-1

### OPERATION

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

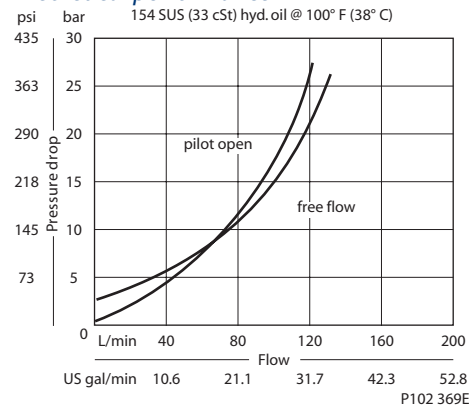
### Schematic



P104 593

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

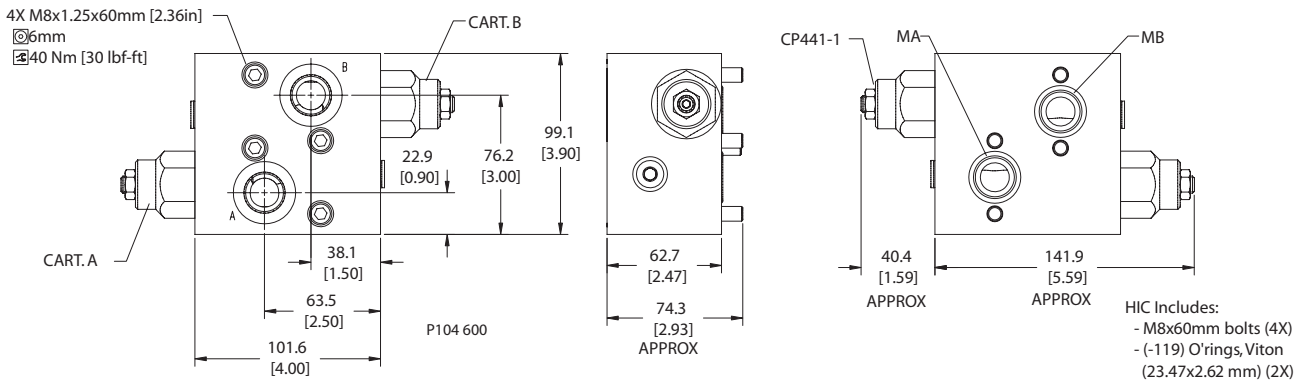
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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

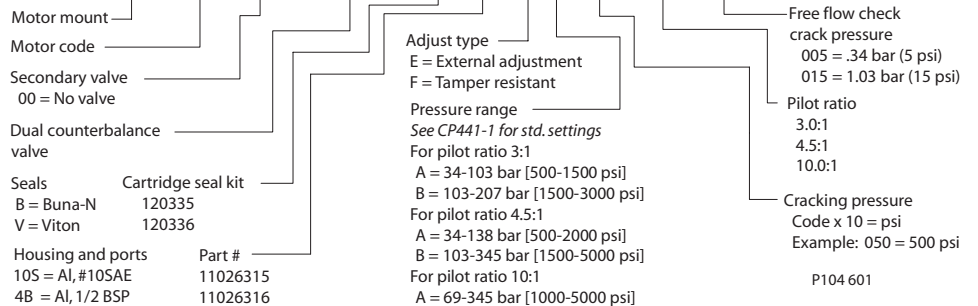
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

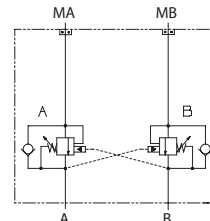
## Motor Mount HICs

### MM-OMS-00-DCP441-1

### OPERATION

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

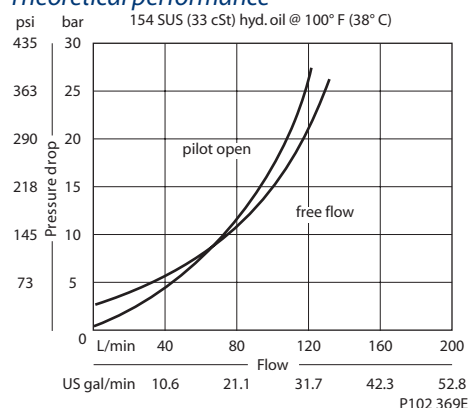
### Schematic



P104 593

### SPECIFICATIONS

#### Theoretical performance



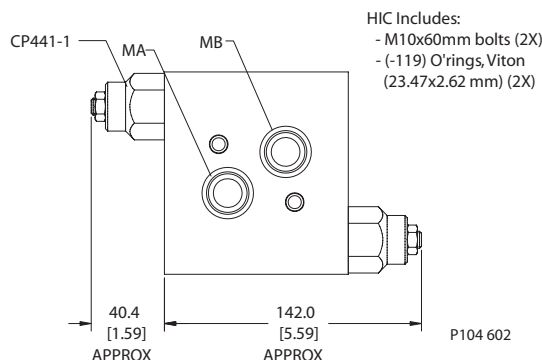
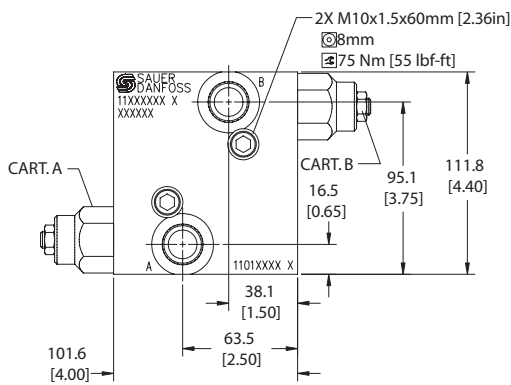
#### Specifications

|                                |   |
|--------------------------------|---|
| 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                                     |

### DIMENSIONS

#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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

|                           |                                 |                                |
|---------------------------|---------------------------------|--------------------------------|
| Motor mount               | Adjust type                     | Free flow check crack pressure |
| Motor code                | E = External adjustment         | 005 = .34 bar (5 psi)          |
| Secondary valve           | F = Tamper resistant            | 015 = 1.03 bar (15 psi)        |
| 00 = No valve             | Pressure range                  | Pilot ratio                    |
| Dual counterbalance valve | See CP441-1 for std. settings   | 3.0:1                          |
| Seals                     | For pilot ratio 3:1             | 4.5:1                          |
| Cartridge seal kit        | A = 34-103 bar [500-1500 psi]   | 10.0:1                         |
| B = Buna-N 120335         | B = 103-207 bar [1500-3000 psi] | Cracking pressure              |
| V = Viton 120336          | For pilot ratio 4.5:1           | Code x 10 = psi                |
| Housing and ports         | A = 34-138 bar [500-2000 psi]   | Example: 050 = 500 psi         |
| Part #                    | B = 103-345 bar [1500-5000 psi] |                                |
| 10S = Al, #10SAE 11026317 | For pilot ratio 10:1            |                                |
| 4B = Al, 1/2 BSP 11026318 | A = 69-345 bar [1000-5000 psi]  |                                |

P104 603



# Cartridge Valves Technical Information

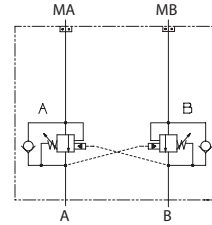
## Motor Mount HICs

### MM-OMT-00-DCP441-1

### OPERATION

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

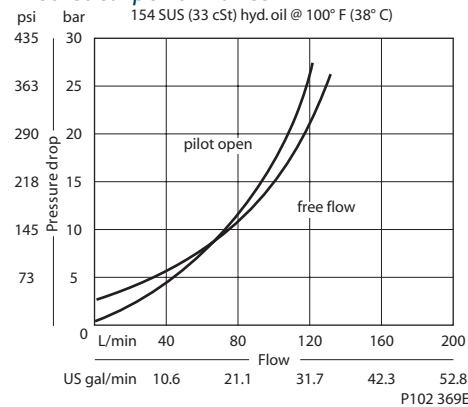
### Schematic



P104 593

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

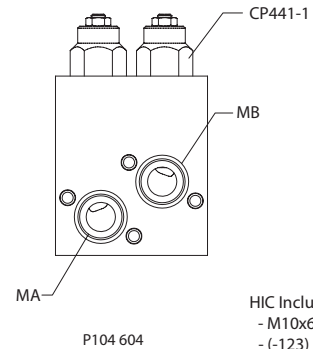
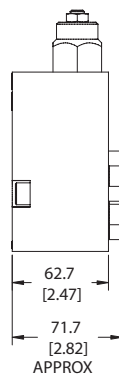
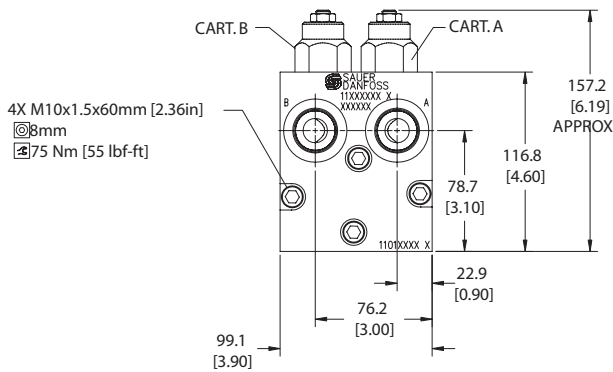
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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

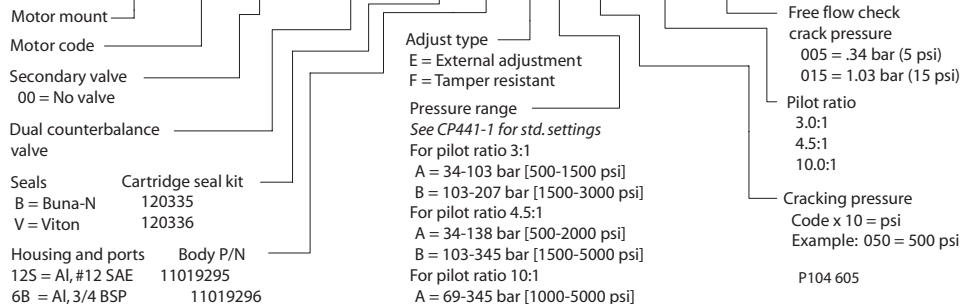
mm [in]



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





# Cartridge Valves Technical Information

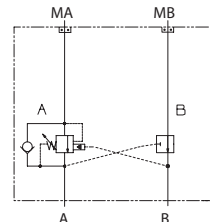
## Motor Mount HICs

### MM-DH-00-ACB10-HV

### OPERATION

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

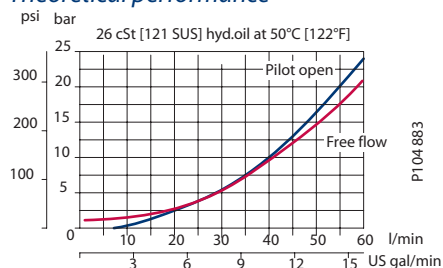
### Schematic



P104 606

### SPECIFICATIONS

#### Theoretical performance



P104 883

#### Specifications

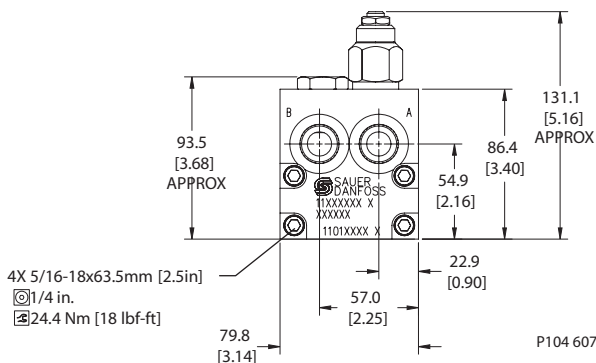
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure |
| 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-ACB10-HV

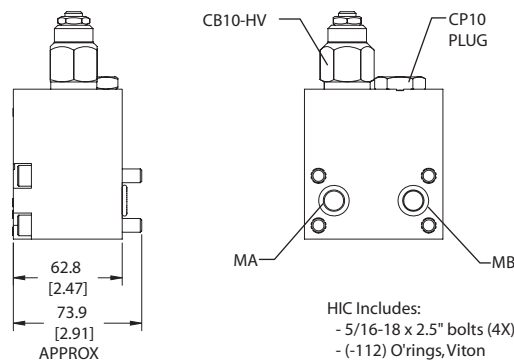
### DIMENSIONS

#### 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

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

|             |            |                                  |   |                           |   |   |   |                                  |   |  |  |  |
|-------------|------------|----------------------------------|---|---------------------------|---|---|---|----------------------------------|---|--|--|--|
| Motor mount | Motor code | Secondary valve<br>00 = No valve | Single counterbalance valve on 'A' port | Type<br>HV=Hydraulic Vent | Pressure range<br>For pilot ratio A (3:1)<br>1 = 35-110 bar [507-1595 psi]<br>2 = 60-150 bar [870-2176 psi]<br>3 = 80-230 bar [1160-3336 psi]<br>For pilot ratio B (4.5:1)<br>1 = 55-180 bar [797-2611 psi]<br>2 = 75-240 bar [1088-3481 psi]<br>3 = 90-350 bar [1305- 5076 psi]<br>For pilot ratio C (10:1)<br>1 = 110-350 bar [1595-5076 psi] | Pilot ratio<br>A = 3:1<br>B = 4.5:1<br>C = 10:1 | Housing and ports<br>10S = Al, #10SAE<br>4B = Al, 1/2 BSP | Seals<br>B = Buna-N<br>V = Viton | Cracking pressure (bar)<br>Example: 100 = 100 bar [1450 psi]<br>See CB10-HV for std. settings | Adjust type<br>E = External adjustment<br>F = Tamper resistant | Check crack pressure<br>1 = 1 bar (14.5 psi) | Part #<br>11019287<br>11019288<br>Cartridge seal kit<br>354001419<br>354001519 |
|-------------|------------|----------------------------------|---|---------------------------|---|---|---|----------------------------------|---|--|--|--|

P104 609



# Cartridge Valves Technical Information

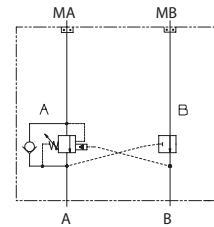
## Motor Mount HICs

### MM-DS-00-ACB10-HV

### OPERATION

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

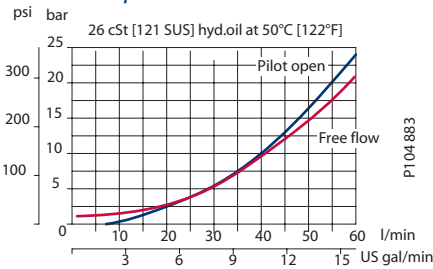
### Schematic



P104 606

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

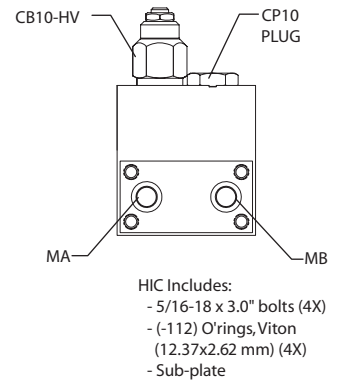
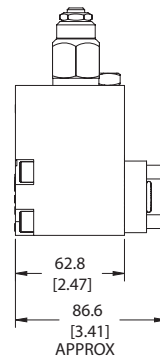
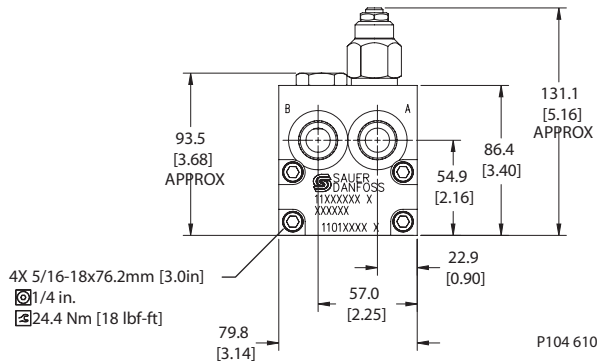
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure |
| 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

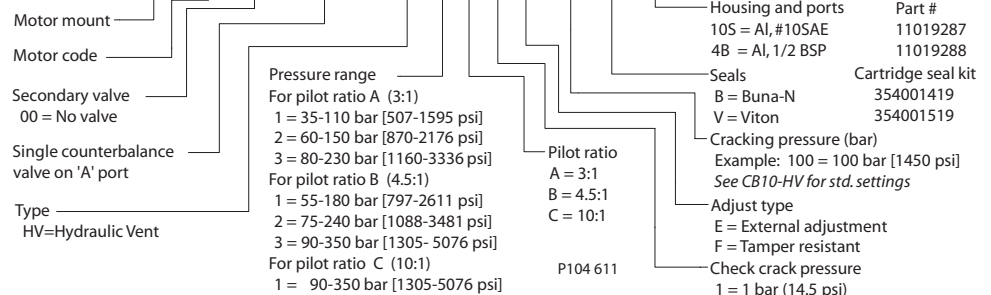
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

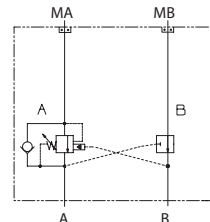
## Motor Mount HICs

### MM-OMP/OMR-00-ACB10-HV

### OPERATION

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

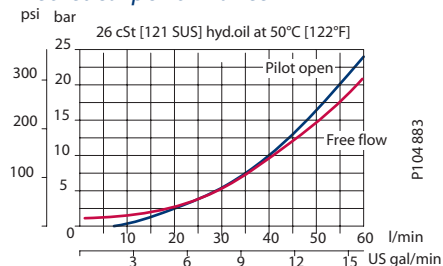
### Schematic



P104 606

### SPECIFICATIONS

#### Theoretical performance



P104 883

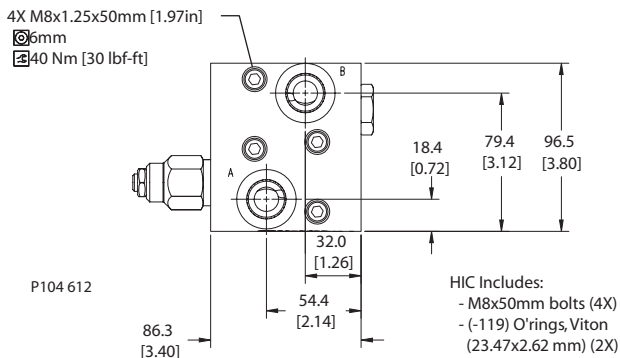
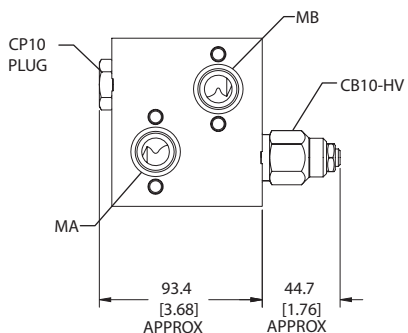
#### Specifications

|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ 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              | 11023162                               |
| Motor                          | OMP/OMR                                |

### DIMENSIONS

#### Cross-sectional view

mm [in]

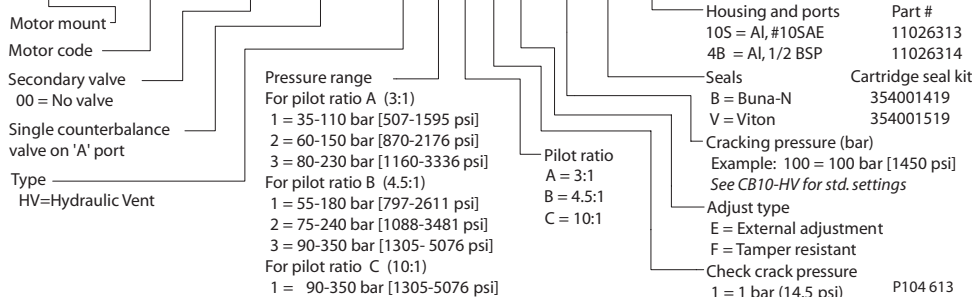


P104 612

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

### ORDERING INFORMATION

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



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



# Cartridge Valves Technical Information

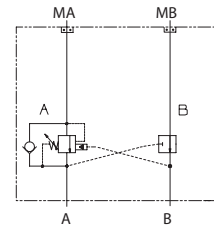
## Motor Mount HICs

### MM-OMH-00-ACP441-1

### OPERATION

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

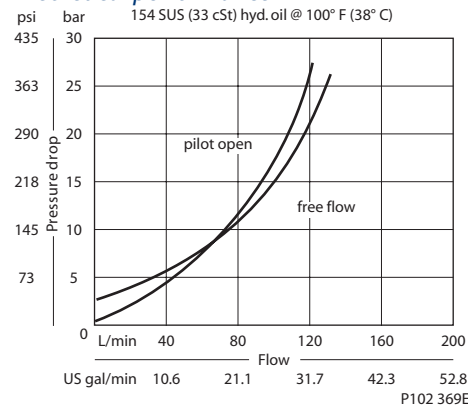
### Schematic



P104 606

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

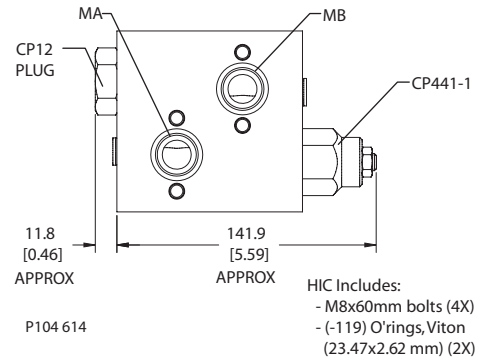
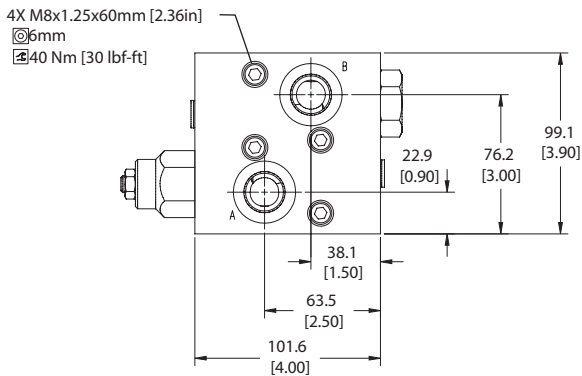
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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

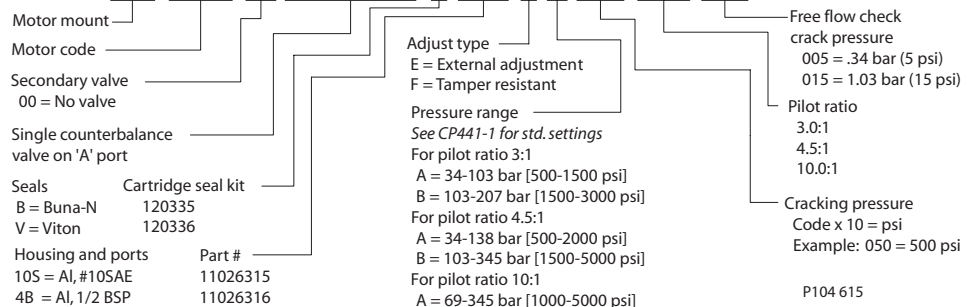
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

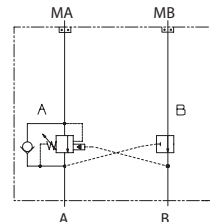
## Motor Mount HICs

### MM-OMS-00-ACP441-1

### OPERATION

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

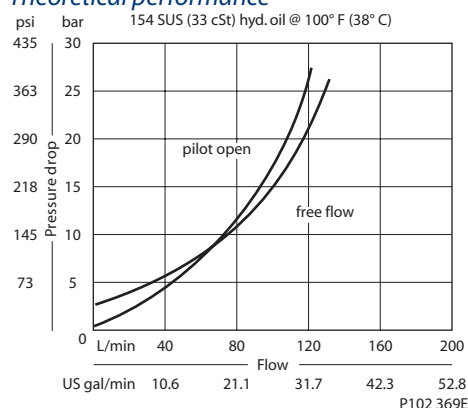
### Schematic



P104 606

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

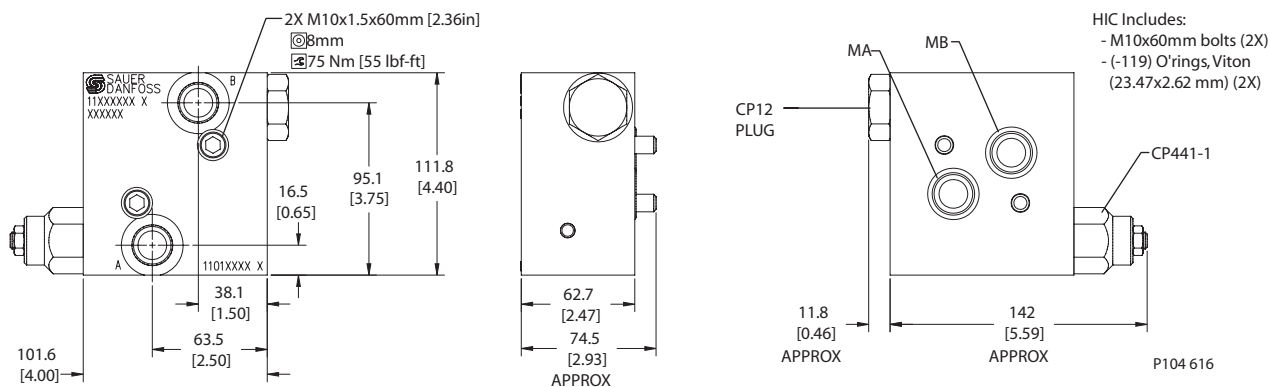
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| Weight                         | 2.13 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

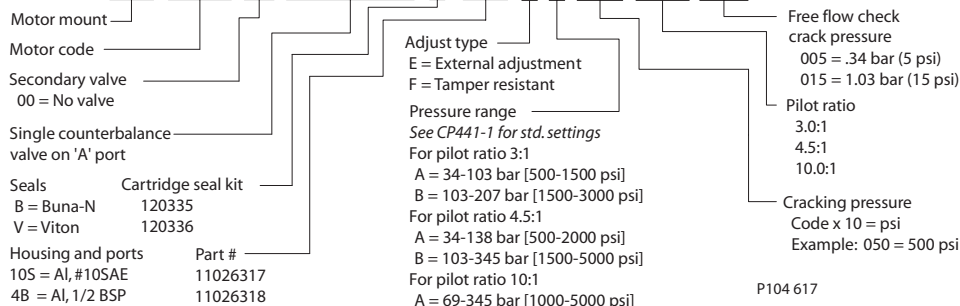
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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







# Cartridge Valves Technical Information

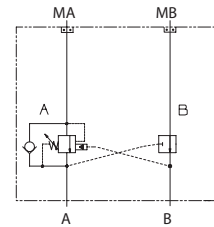
## Motor Mount HICs

### MM-OMT-00-ACP441-1

### OPERATION

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

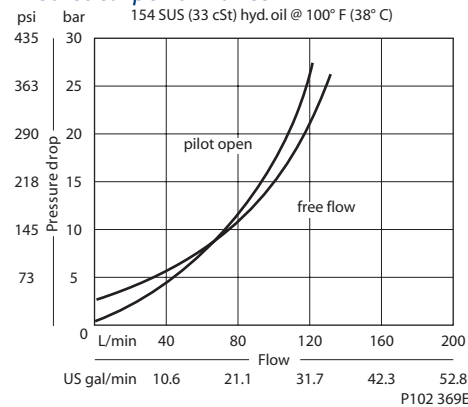
### Schematic



P104 606

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

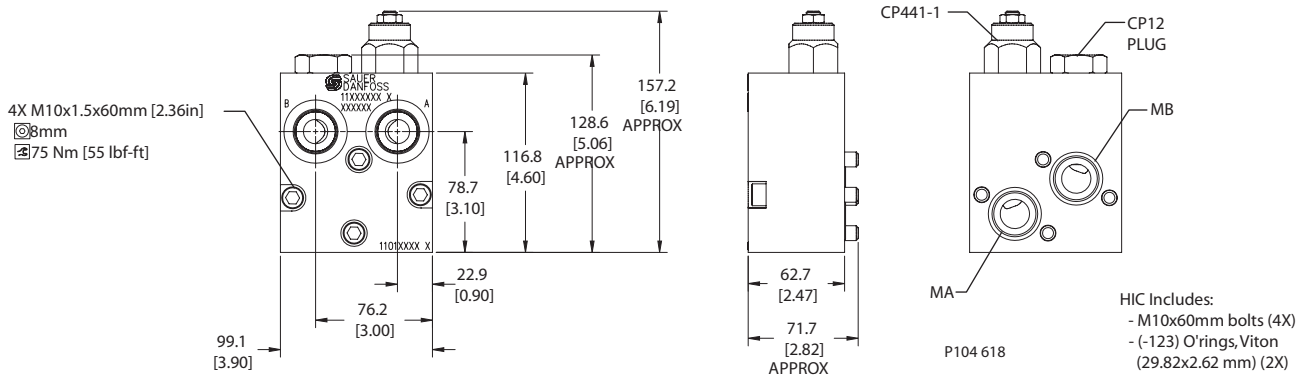
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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

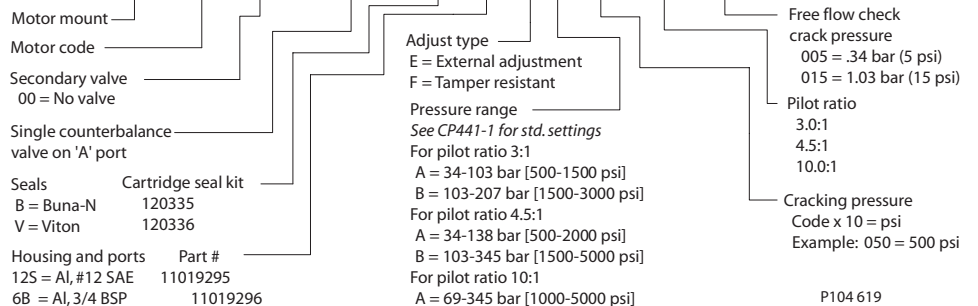
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

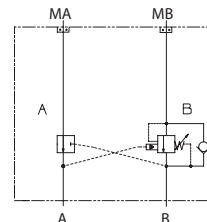
## Motor Mount HICs

### MM-DH-00-BCB10-HV

### OPERATION

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

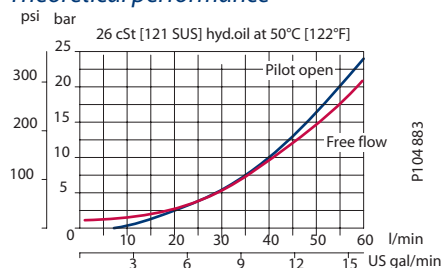
### Schematic



P104 620

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

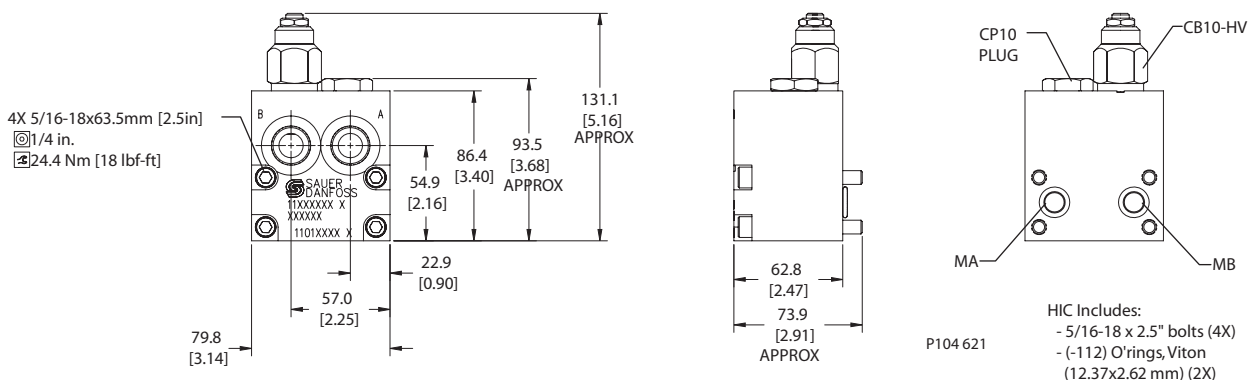
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure |
| 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

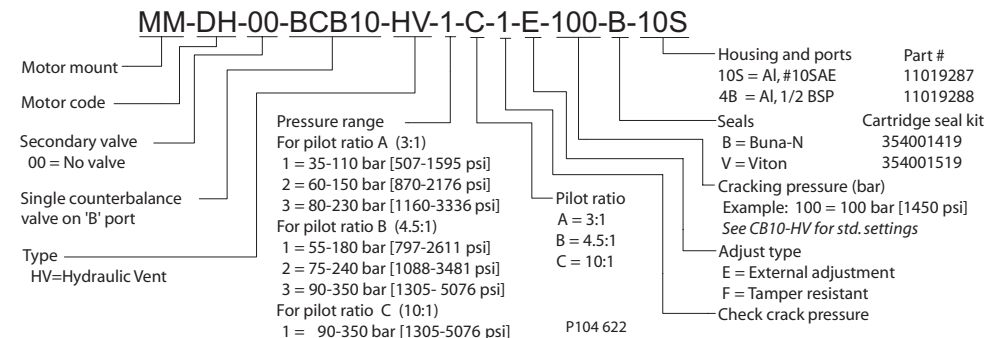
### DIMENSIONS

#### Cross-sectional view

mm [in]



### ORDERING INFORMATION





# Cartridge Valves Technical Information

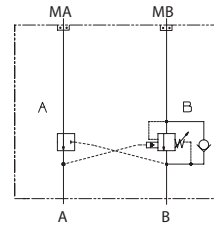
## Motor Mount HICs

### MM-DS-00-BCB10-HV

### OPERATION

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

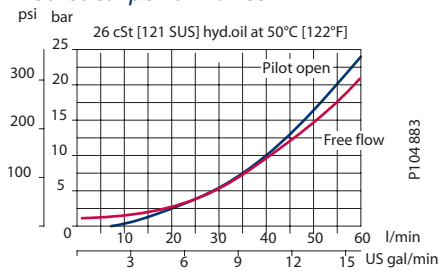
### Schematic



P104 620

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

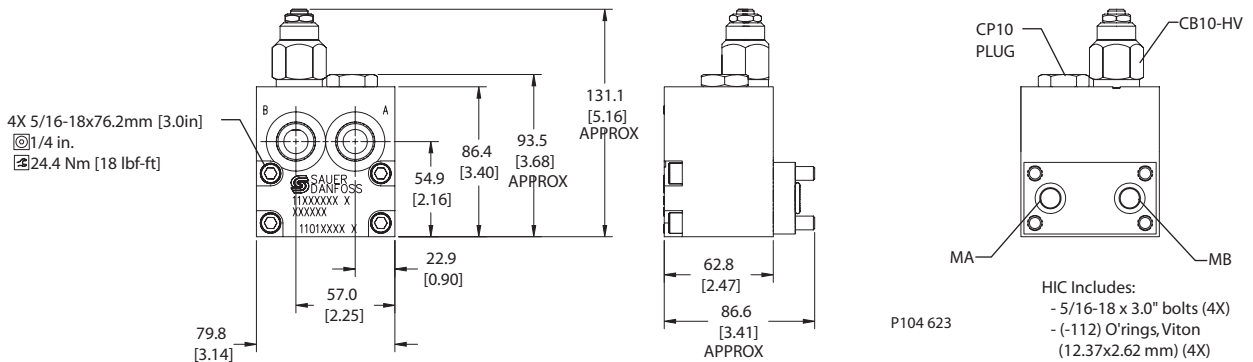
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure |
| 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

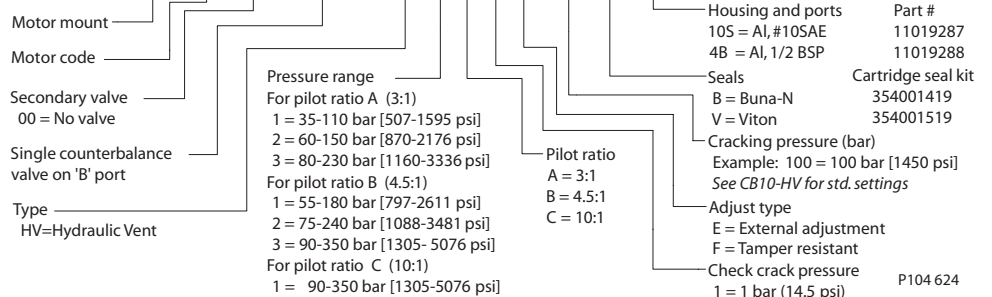
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

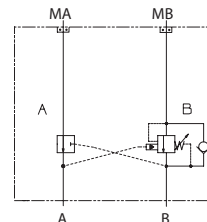
## Motor Mount HICs

### MM-OMP/OMR-00-BCB10-HV

### OPERATION

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

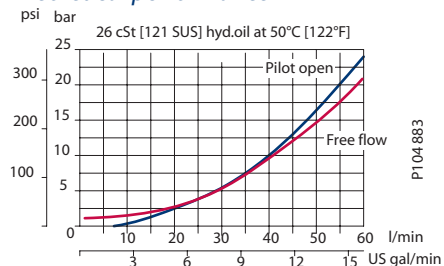
### Schematic



P104 620

### SPECIFICATIONS

#### Theoretical performance



P104 883

#### Specifications

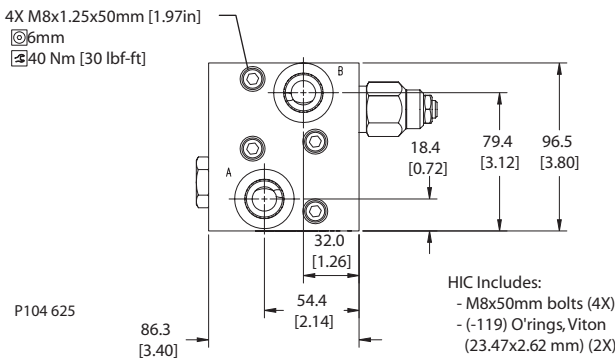
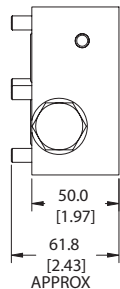
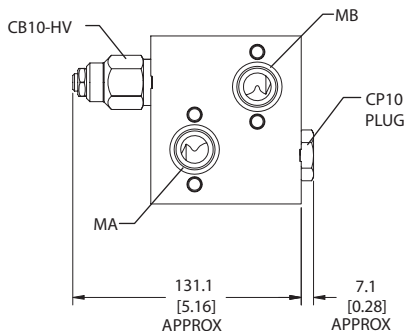
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure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

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

### DIMENSIONS

#### Cross-sectional view

mm [in]

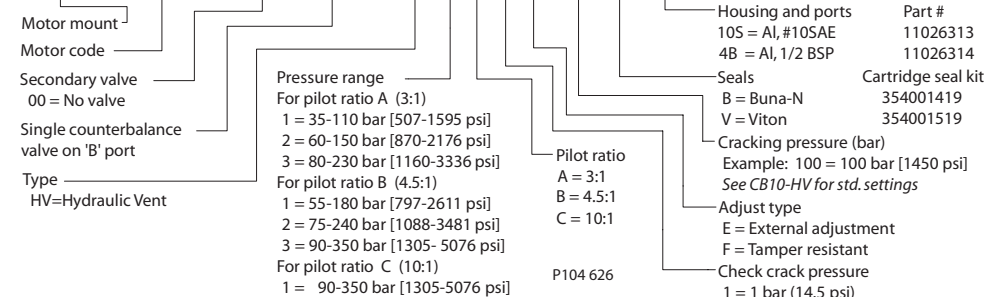


HIC Includes:  
- M8x50mm bolts (4X)  
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

P104 625

### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

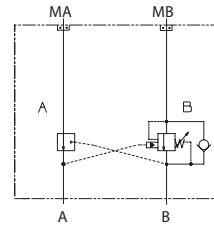
## Motor Mount HICs

### MM-OMH-00-BCP441-1

### OPERATION

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

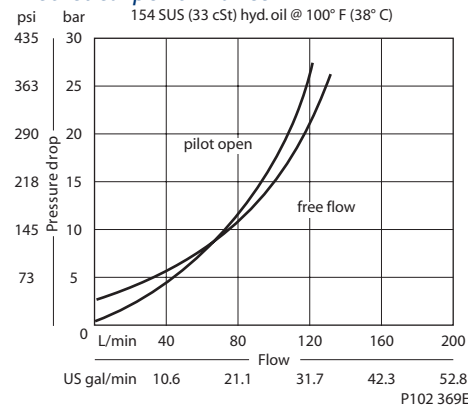
### Schematic



P104 620

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

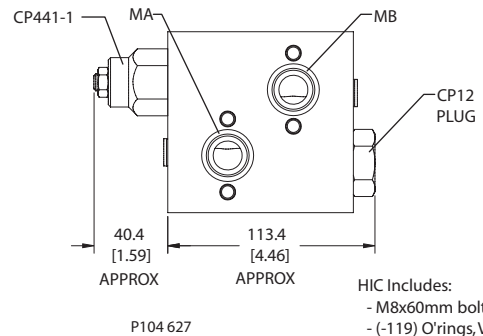
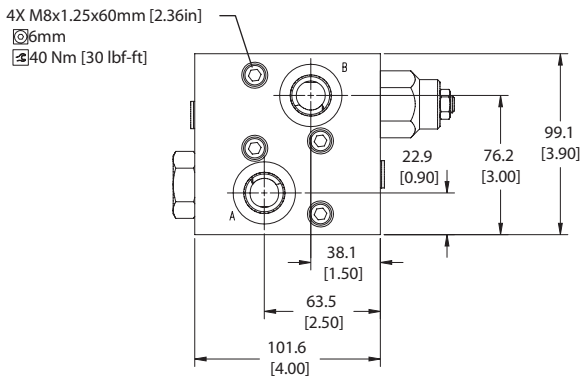
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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]

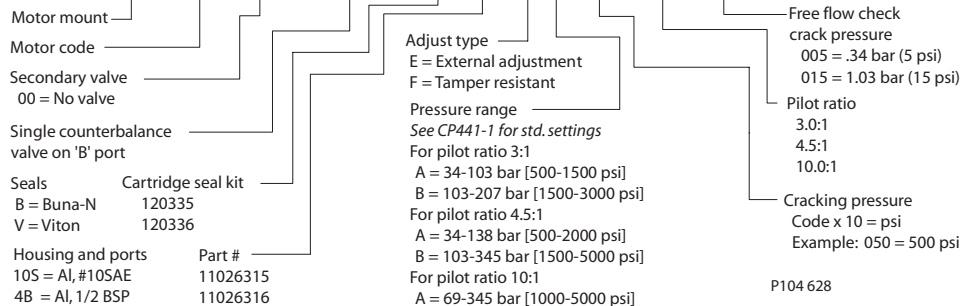


P104 627

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



# Cartridge Valves Technical Information

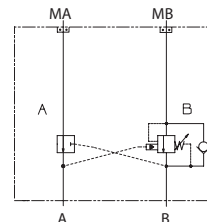
## Motor Mount HICs

### MM-OMS-00-BCP441-1

### OPERATION

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

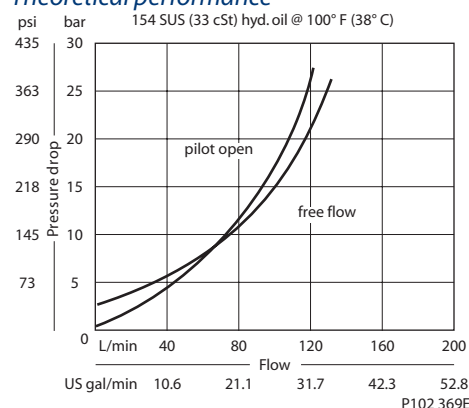
### Schematic



P104 620

### SPECIFICATIONS

#### Theoretical performance



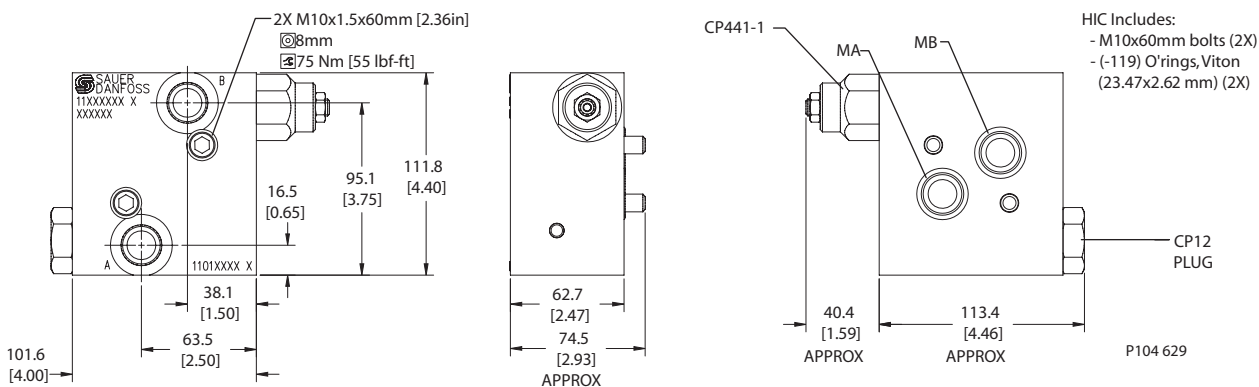
#### Specifications

|                                |   |
|--------------------------------|---|
| 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                                     |

### DIMENSIONS

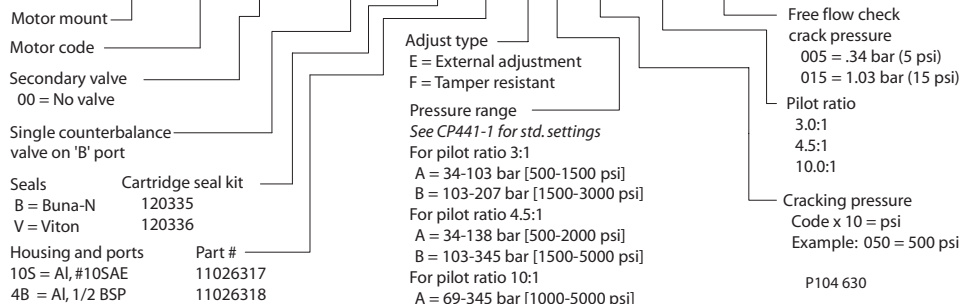
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

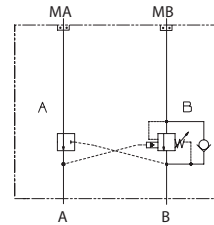
## Motor Mount HICs

### MM-OMT-00-BCP441-1

### OPERATION

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

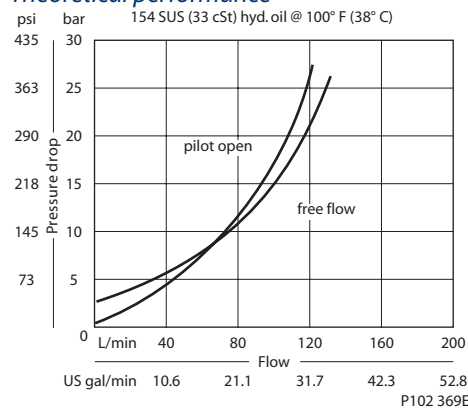
### Schematic



P104 620

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

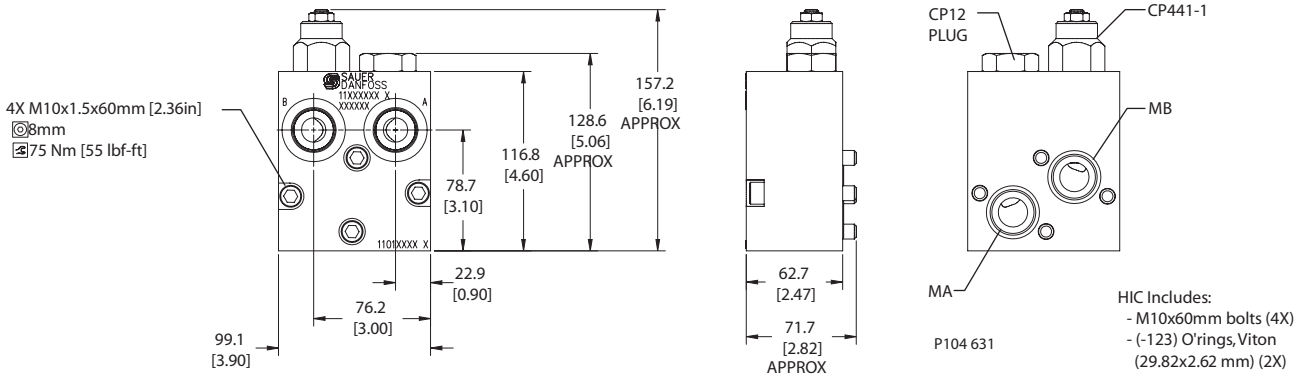
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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

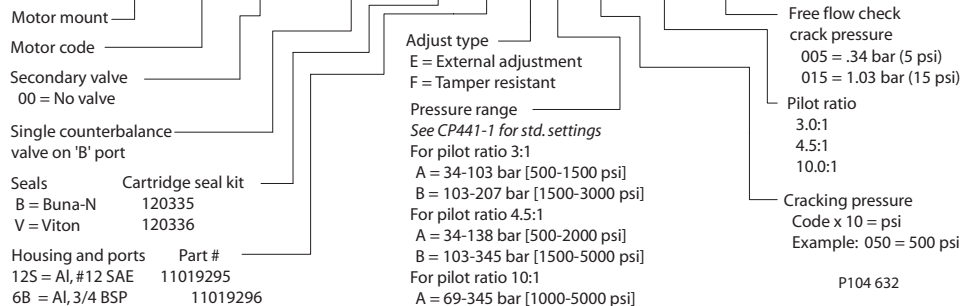
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

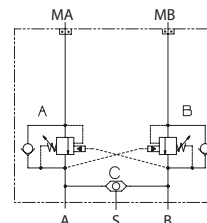
## Motor Mount HICs

### MM-DH-LS-DCB10-HV

### OPERATION

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

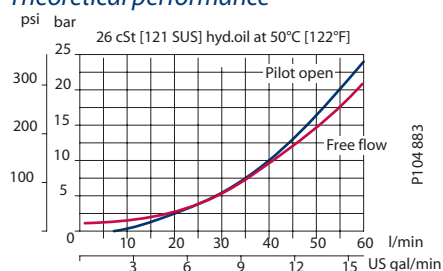
### Schematic



P104 633

### SPECIFICATIONS

#### Theoretical performance



P104 883

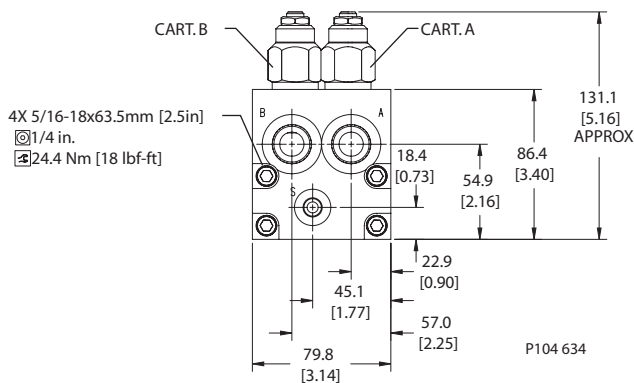
#### Specifications

|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ 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                                |
| Shuttle/drain port             | #4 SAE (1/8 BSP)                       |
| Service mount kit              | 11023864                               |
| Motor                          | DH                                     |

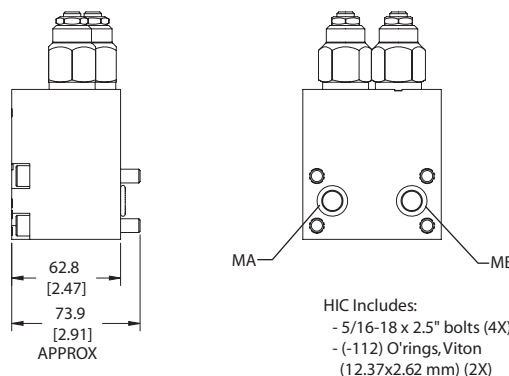
### DIMENSIONS

#### Cross-sectional view

mm [in]

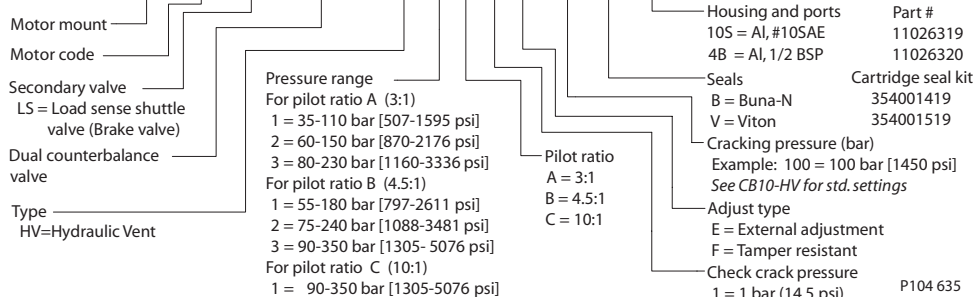


P104 634



### ORDERING INFORMATION

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



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





# Cartridge Valves Technical Information

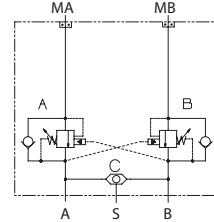
## Motor Mount HICs

### MM-DS-LS-DCB10-HV

### OPERATION

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

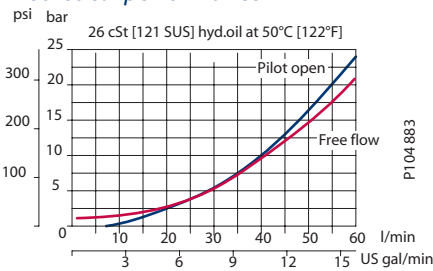
### Schematic



P104 633

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

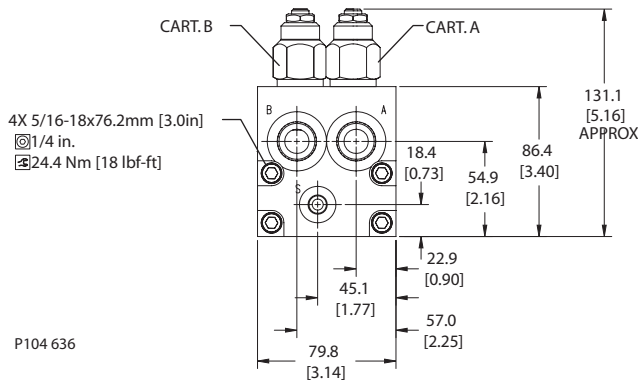
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure |
| 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

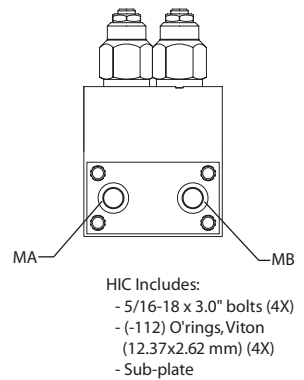
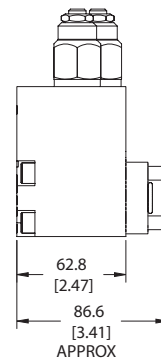
### DIMENSIONS

#### Cross-sectional view

mm [in]

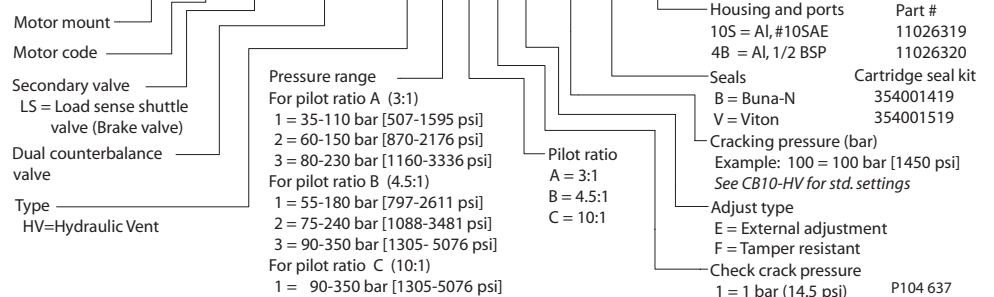


P104 636



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

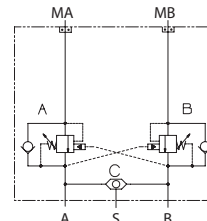
## Motor Mount HICs

### MM-OMP/OMR-LS-DCB10-HV

### OPERATION

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

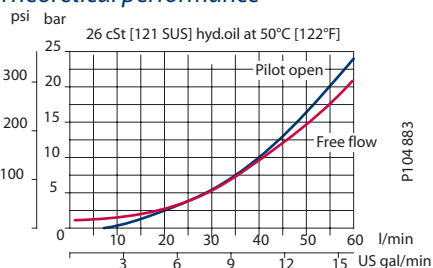
### Schematic



P104 633

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

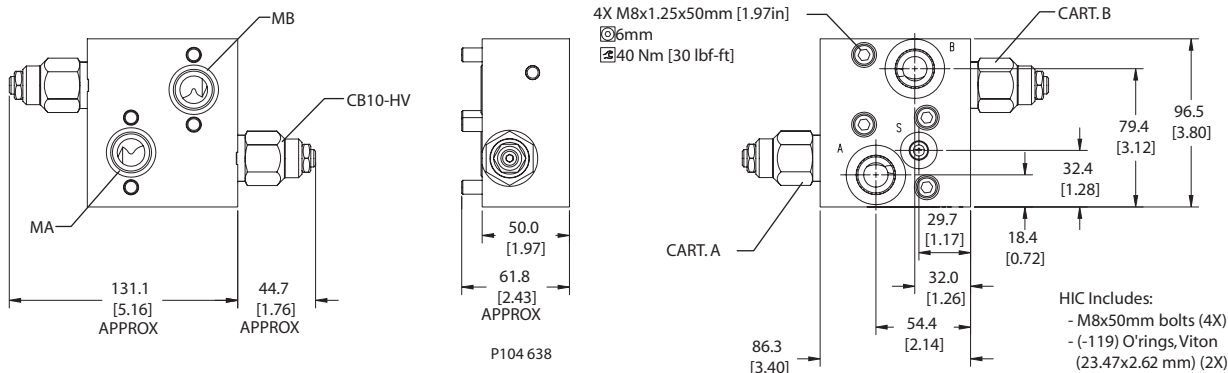
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure |
| Weight                         | 1.44 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

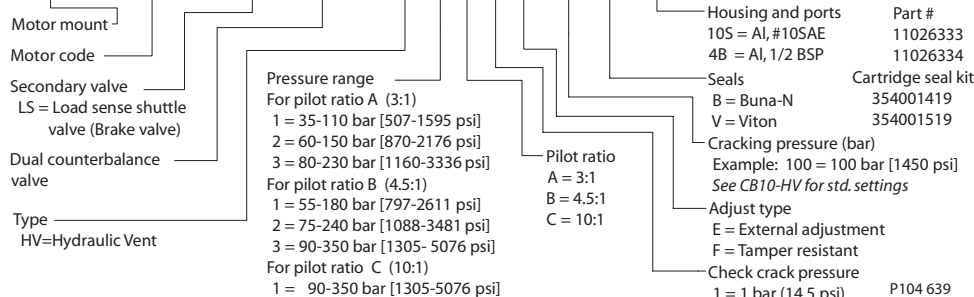
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

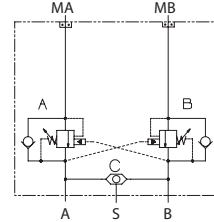
## Motor Mount HICs

### MM-OMH-LS-DCP441-1

### OPERATION

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

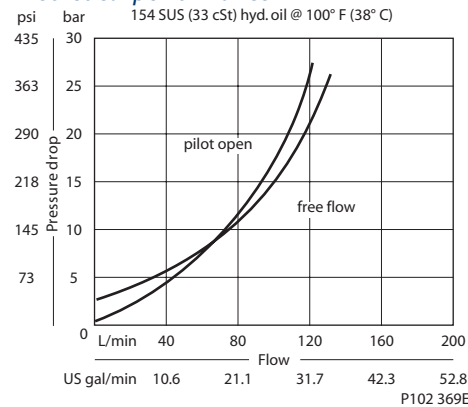
### Schematic



P104 633

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

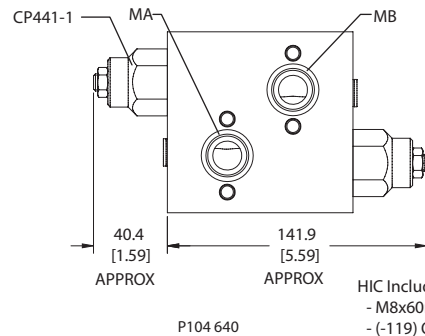
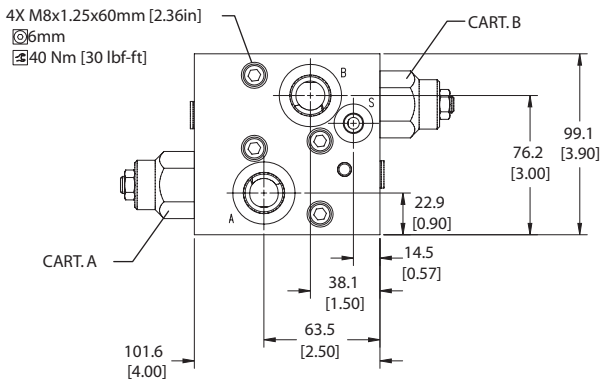
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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]

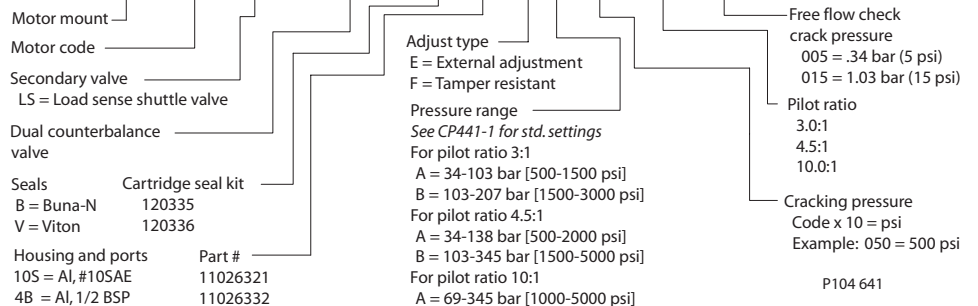


HIC Includes:  
- M8x60mm bolts (4X)  
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

P104 640

### ORDERING INFORMATION

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



P104 641



# Cartridge Valves Technical Information

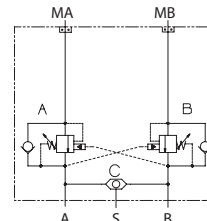
## Motor Mount HICs

### MM-OMS-LS-DCP441-1

### OPERATION

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

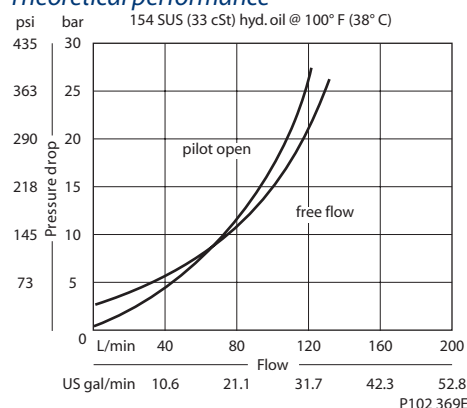
### Schematic



P104 633

### SPECIFICATIONS

#### Theoretical performance



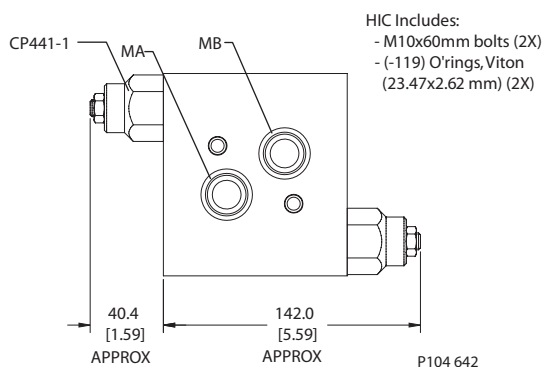
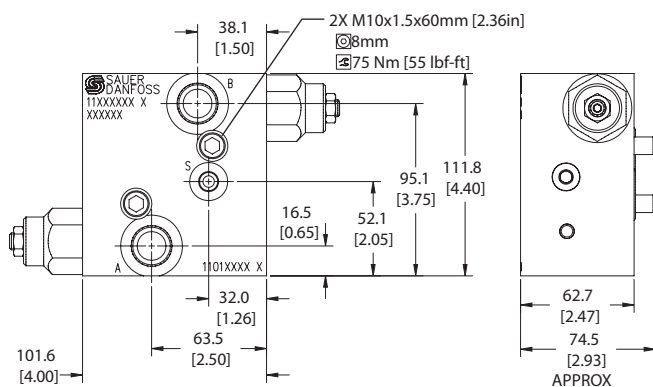
#### Specifications

|                                |   |
|--------------------------------|---|
| 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                                     |

### DIMENSIONS

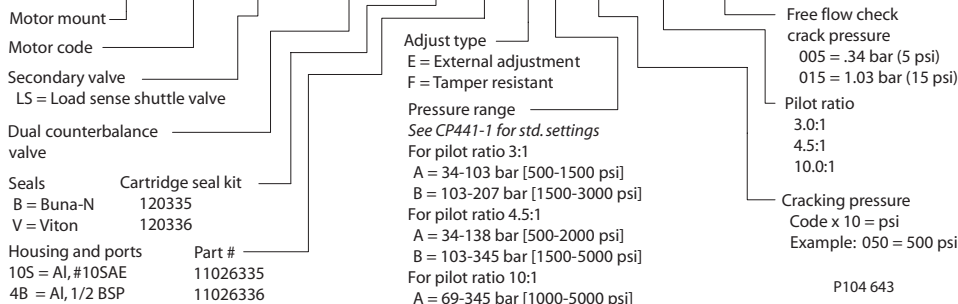
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

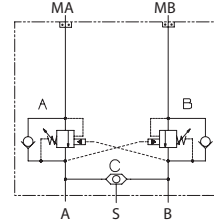
## Motor Mount HICs

### MM-OMT-LS-DCP441-1

### OPERATION

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

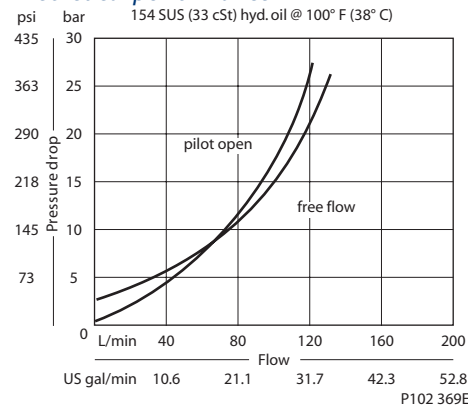
### Schematic



P104 633

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

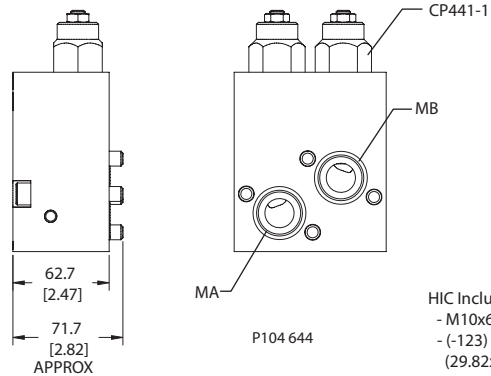
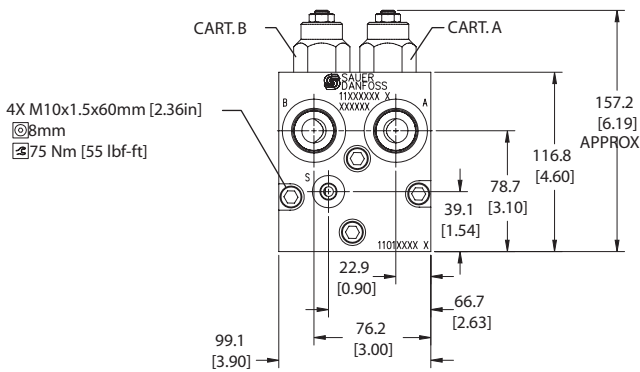
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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]

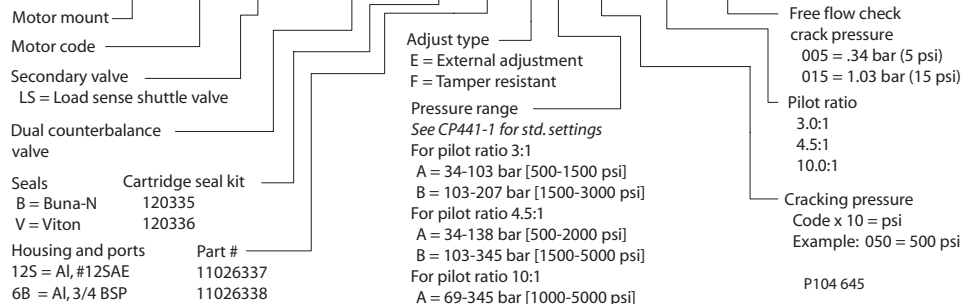


HIC Includes:  
- M10x60mm bolts (4X)  
- (-123) O'rings, Viton (29.82x2.62 mm) (2X)

P104 644

### ORDERING INFORMATION

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



P104 645



# Cartridge Valves Technical Information

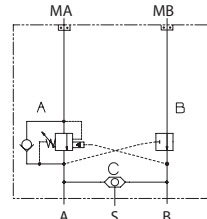
## Motor Mount HICs

### MM-DH-LS-ACB10-HV

### OPERATION

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

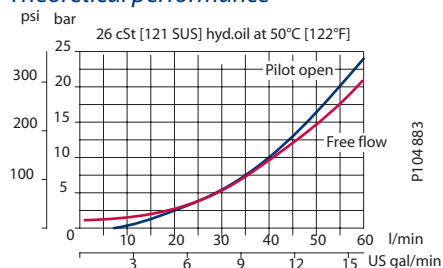
### Schematic



P104 646

### SPECIFICATIONS

#### Theoretical performance



P104 883

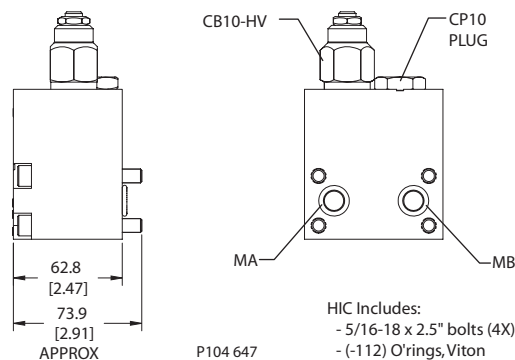
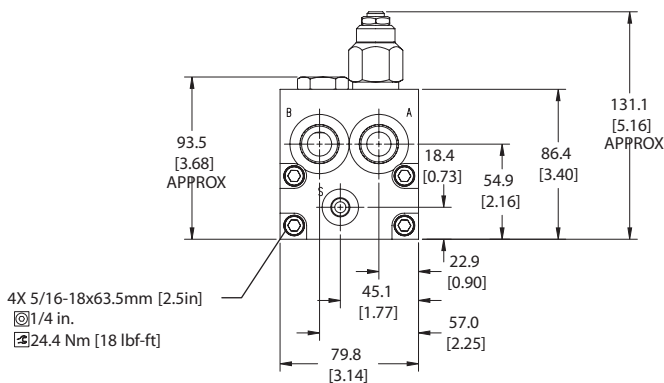
#### Specifications

|                                |  |
|--------------------------------|--|
| 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                         | 1.49 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]

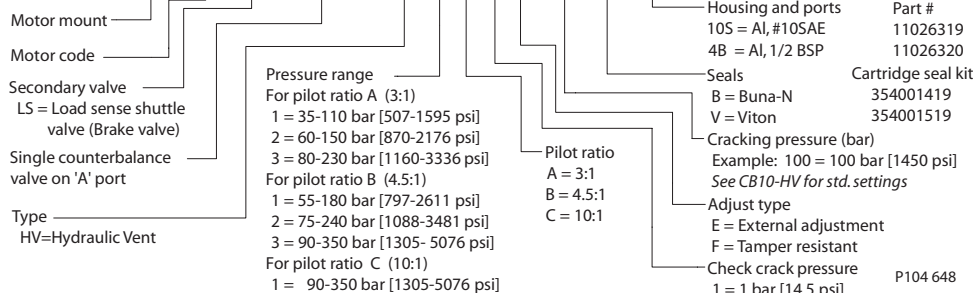


P104 647

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

### ORDERING INFORMATION

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



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



# Cartridge Valves Technical Information

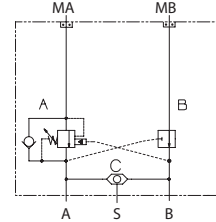
## Motor Mount HICs

### MM-DS-LS-ACB10-HV

### OPERATION

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

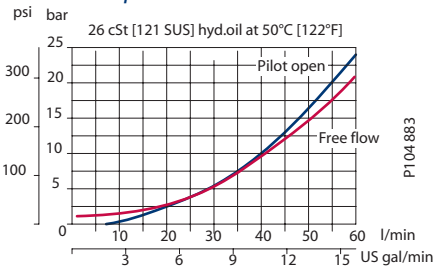
### Schematic



P104 646

### SPECIFICATIONS

#### Theoretical performance



P104-883

#### Specifications

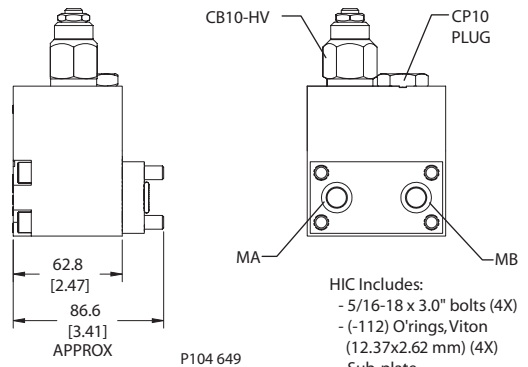
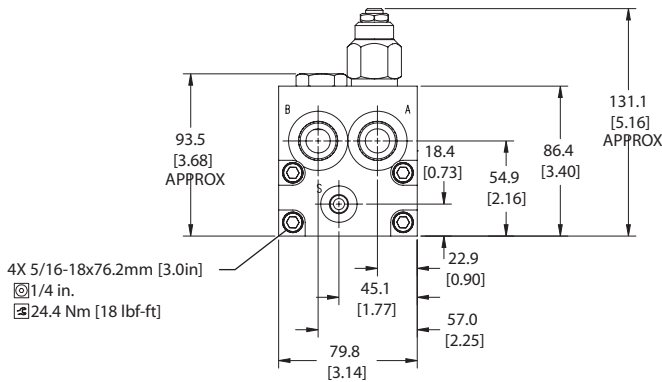
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure |
| 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

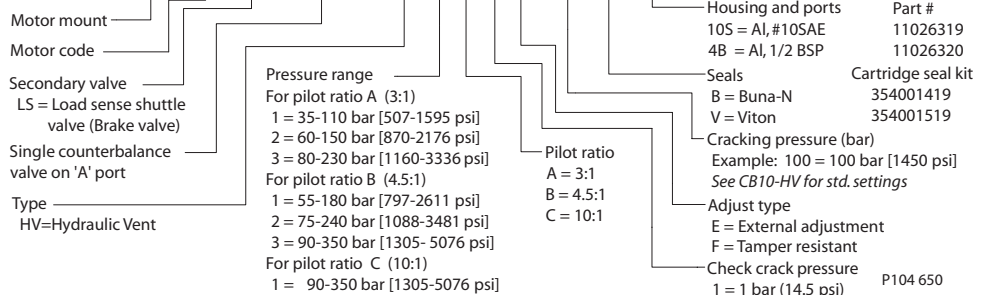
mm [in]



P104 649

### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

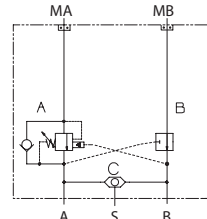
## Motor Mount HICs

### MM-OMP/OMR-LS-ACB10-HV

### OPERATION

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

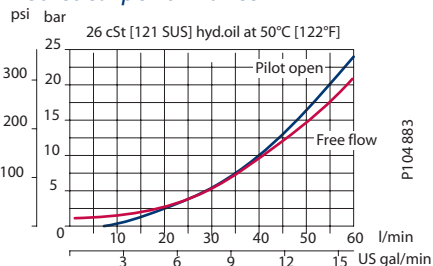
### Schematic



P104 646

### SPECIFICATIONS

#### Theoretical performance



P104 883

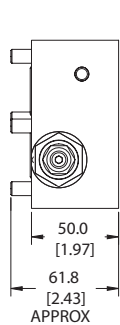
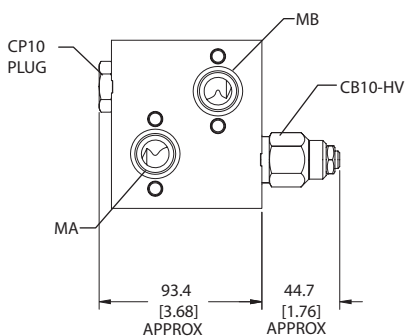
#### Specifications

|                                |  |
|--------------------------------|--|
| 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

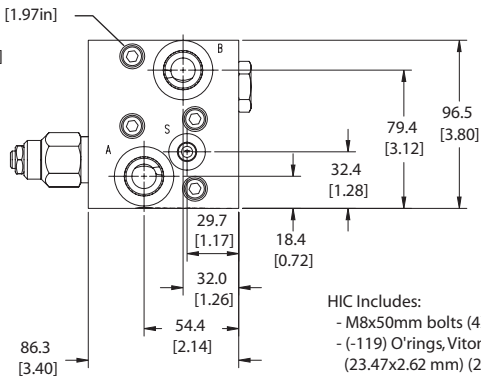
#### Cross-sectional view

mm [in]



P104 651

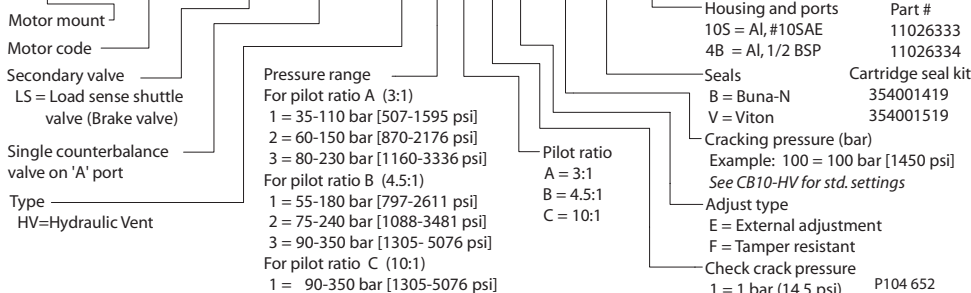
4X M8x1.25x50mm [1.97in]  
 ⌀6mm  
 ⌘40 Nm [30 lbf-ft]



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



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





# Cartridge Valves Technical Information

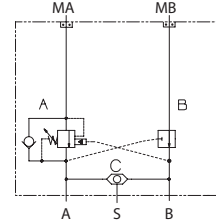
## Motor Mount HICs

### MM-OMH-LS-ACP441-1

### OPERATION

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

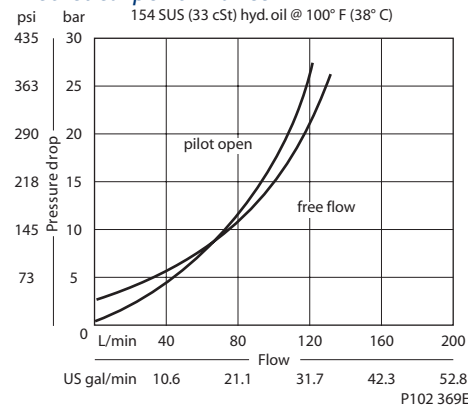
### Schematic



P104 646

### SPECIFICATIONS

#### Theoretical performance



P102 369E

#### Specifications

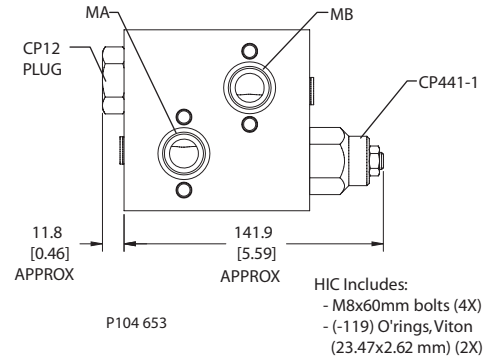
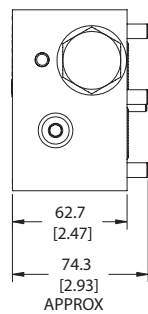
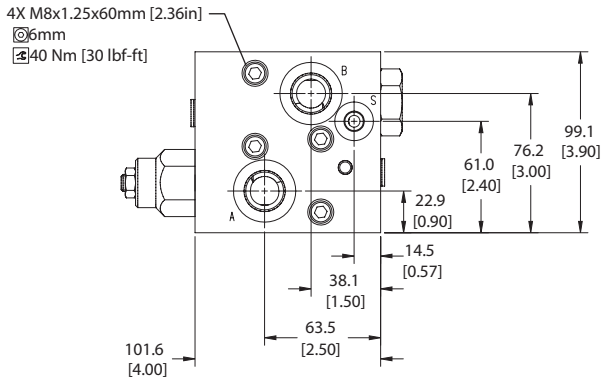
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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]

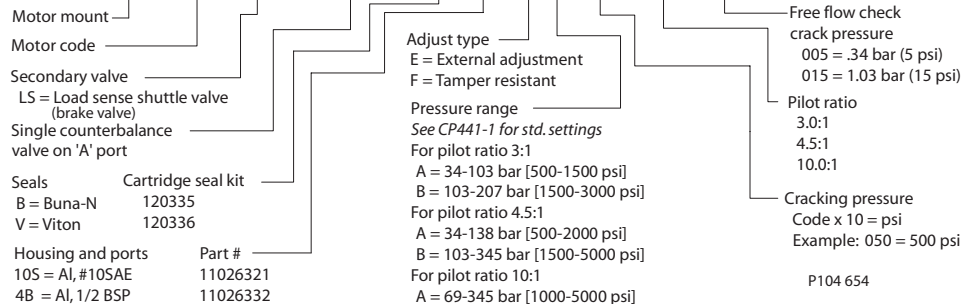


HIC Includes:  
- M8x60mm bolts (4X)  
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)

P104 653

### ORDERING INFORMATION

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



P104 654



# Cartridge Valves Technical Information

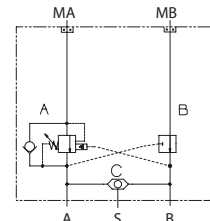
## Motor Mount HICs

### MM-OMS-LS-ACP441-1

### OPERATION

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

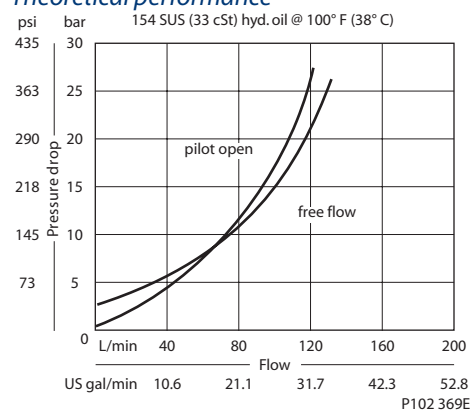
### Schematic



P104 646

### SPECIFICATIONS

#### Theoretical performance



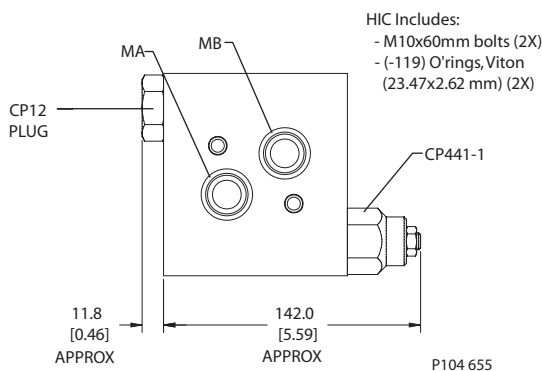
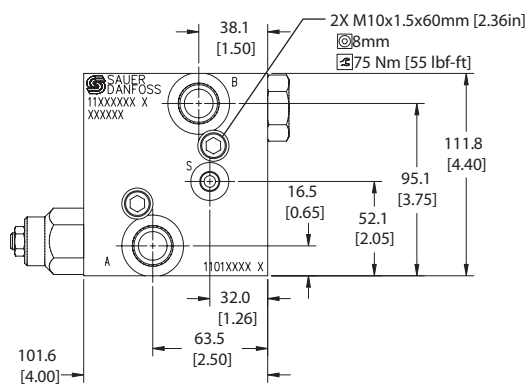
#### Specifications

|                                |   |
|--------------------------------|---|
| 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]

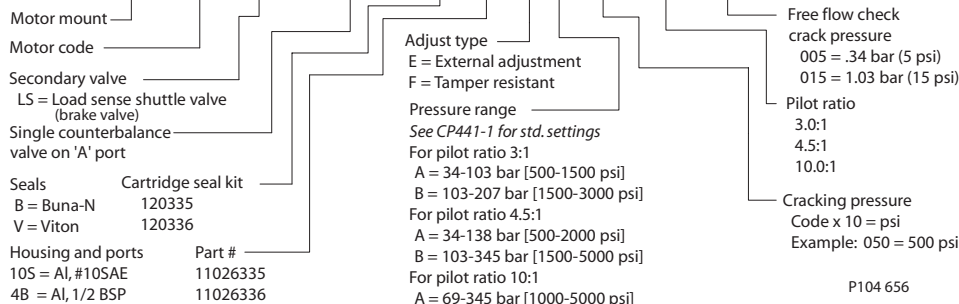


HIC Includes:  
 - M10x60mm bolts (2X)  
 - (-119) O'rings, Viton (23.47x2.62 mm) (2X)

P104 655

### ORDERING INFORMATION

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



P104 656



# Cartridge Valves Technical Information

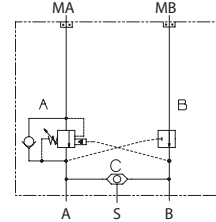
## Motor Mount HICs

### MM-OMT-LS-ACP441-1

### OPERATION

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

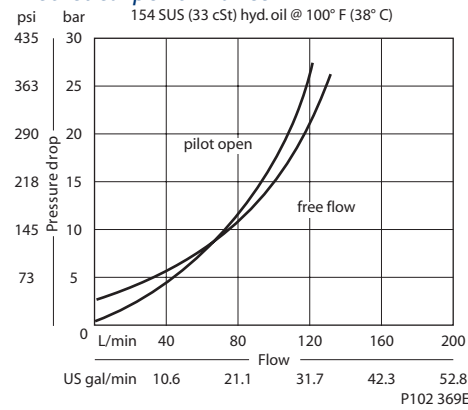
### Schematic



P104 646

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

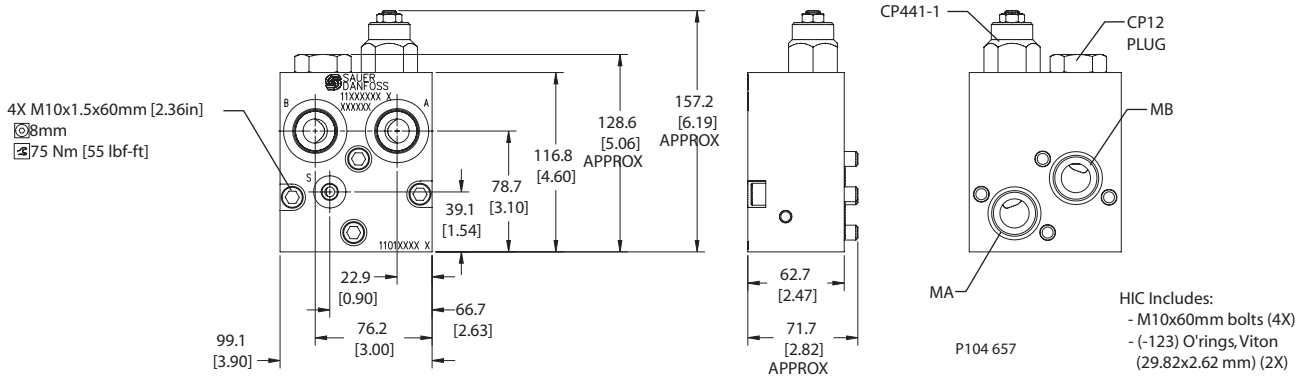
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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

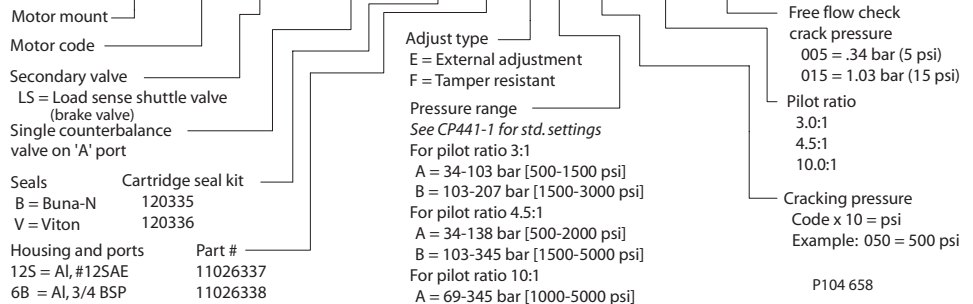
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

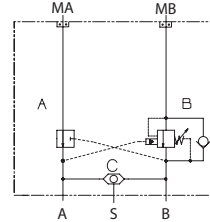
## Motor Mount HICs

### MM-DH-LS-BCB10-HV

### OPERATION

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

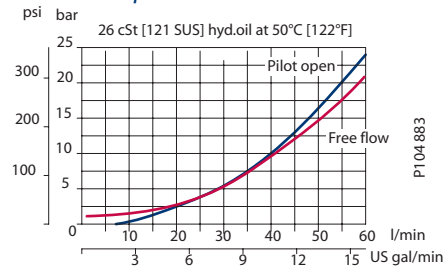
### Schematic



P104 659

### SPECIFICATIONS

#### Theoretical performance



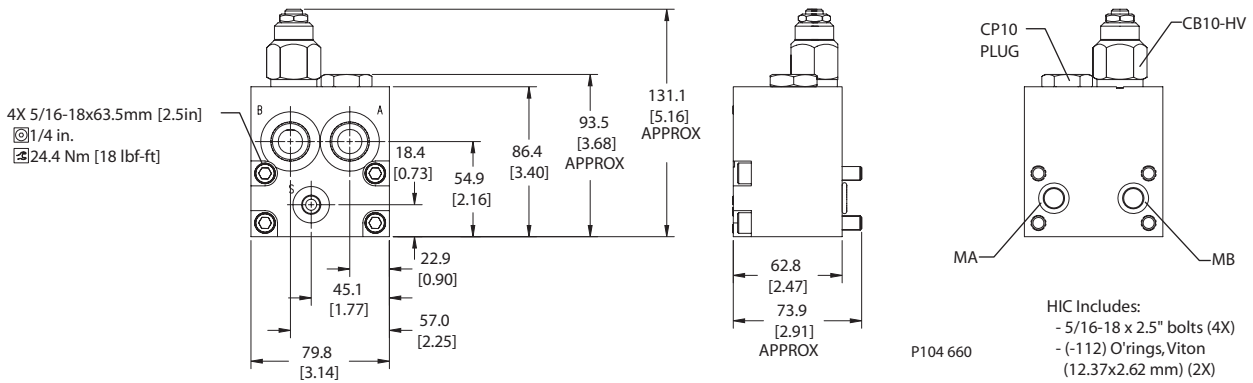
#### Specifications

|                                |  |
|--------------------------------|--|
| 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                                     |

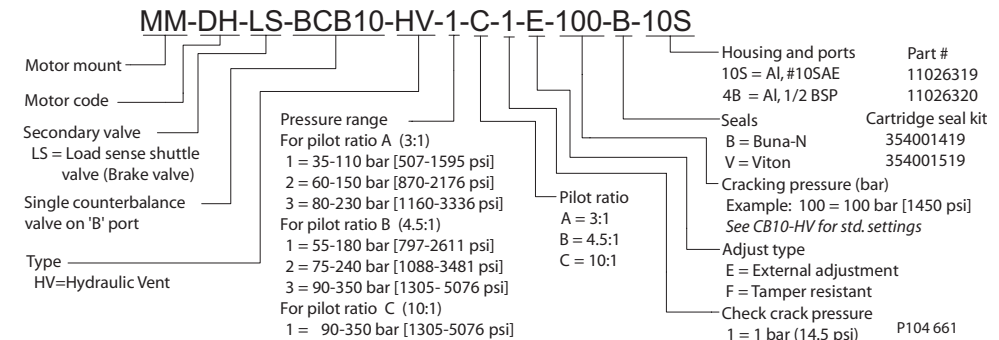
### DIMENSIONS

#### Cross-sectional view

mm [in]



### ORDERING INFORMATION





# Cartridge Valves Technical Information

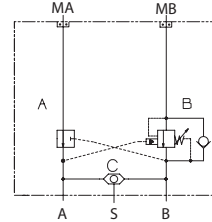
## Motor Mount HICs

### MM-DS-LS-BCB10-HV

### OPERATION

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

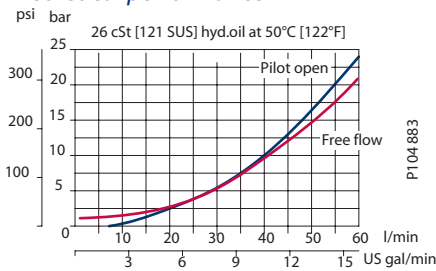
### Schematic



P104 659

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

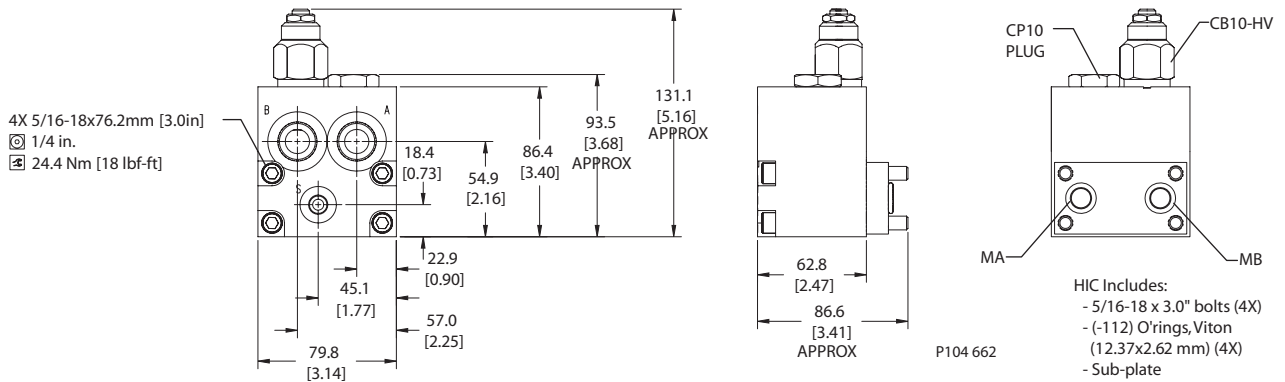
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure |
| 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]

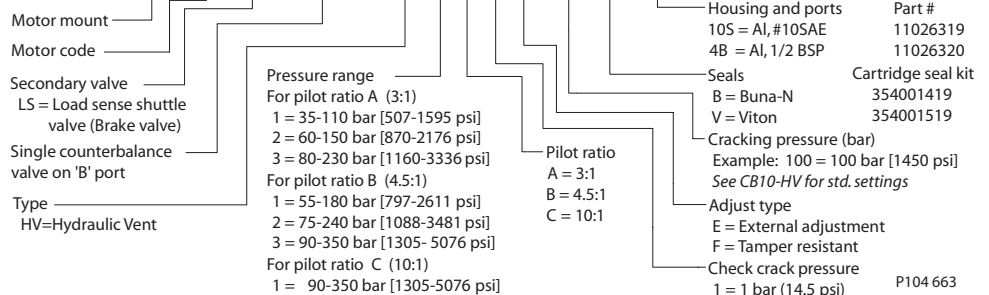


P104 662

- 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-BCB10-HV-1-C-1-E-100-B-10S





# Cartridge Valves Technical Information

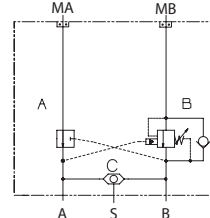
## Motor Mount HICs

### MM-OMP/OMR-LS-BCB10-HV

#### OPERATION

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

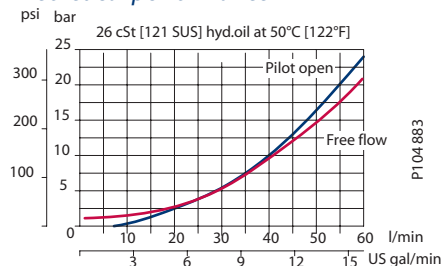
#### Schematic



P104 659

#### SPECIFICATIONS

#### Theoretical performance



#### Specifications

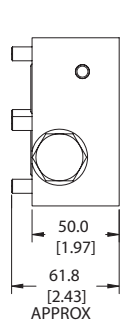
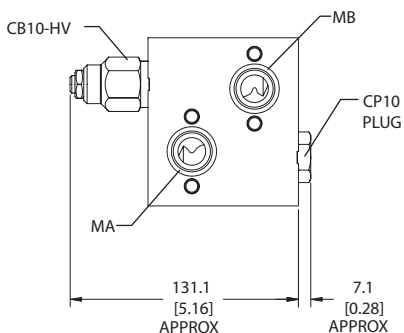
|                                |  |
|--------------------------------|--|
| Rated pressure                 | 210 bar [3045 psi]                     |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min]               |
| Leakage                        | 6 drops/min @ at 70% of crack pressure |
| 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                                |

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

#### DIMENSIONS

#### Cross-sectional view

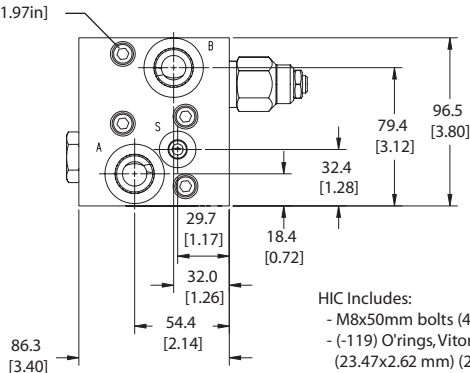
mm [in]



4X M8x1.25x50mm [1.97in]

⊙6mm  
⊚40 Nm [30 lbf-ft]

P104 664



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

#### ORDERING INFORMATION

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

Motor mount  
Motor code  
Secondary valve  
LS = Load sense shuttle valve (Brake 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]

Housing and ports Part #  
10S = Al, #10SAE 11026333  
4B = Al, 1/2 BSP 11026334  
Seals Cartridge seal kit  
B = Buna-N 354001419  
V = Viton 354001519  
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  
1 = 1 bar (14.5 psi)

P104 665



# Cartridge Valves Technical Information

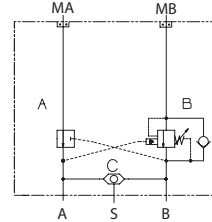
## Motor Mount HICs

### MM-OMH-LS-BCP441-1

### OPERATION

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

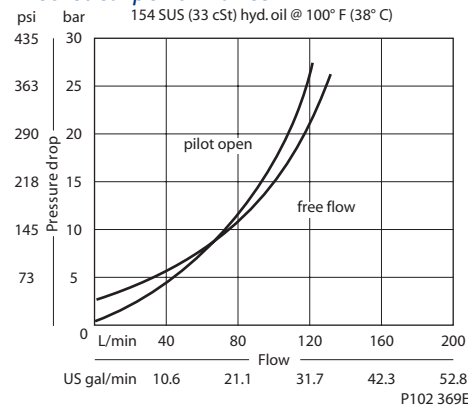
### Schematic



P104 659

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

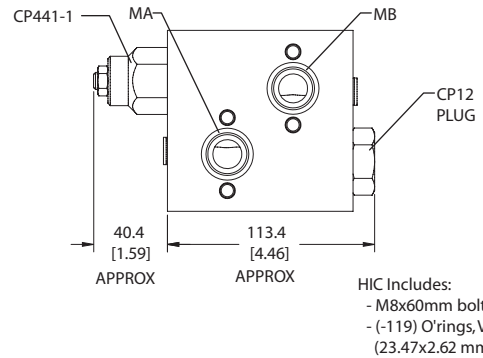
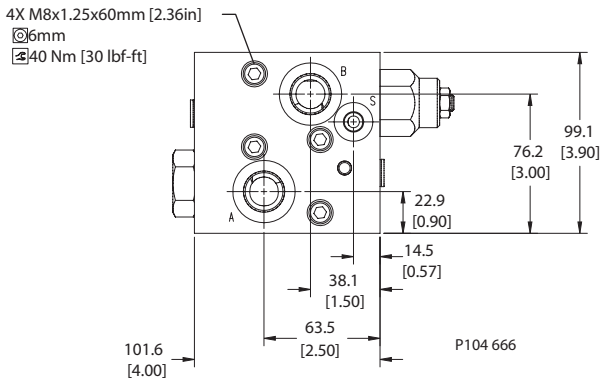
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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

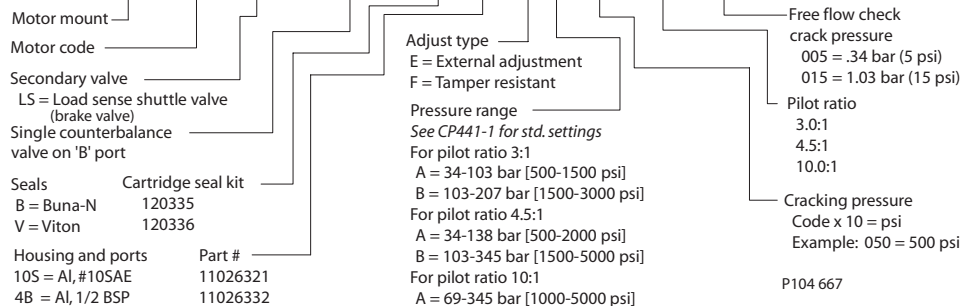
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

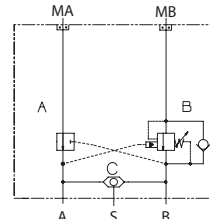
## Motor Mount HICs

### MM-OMS-LS-BCP441-1

### OPERATION

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

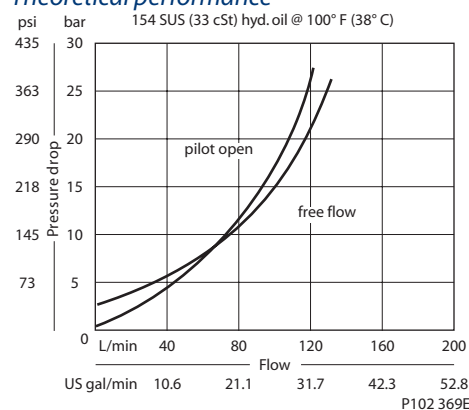
### Schematic



P104 659

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

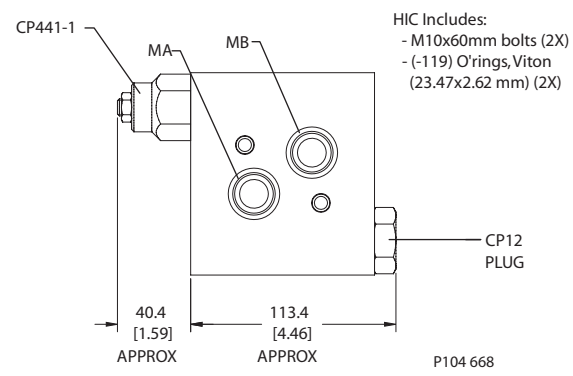
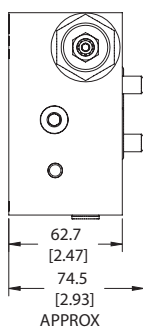
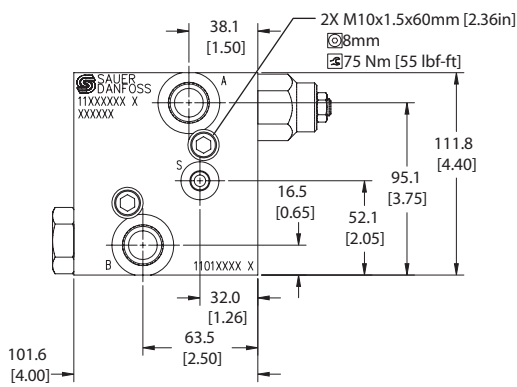
|                                |                                      |
|--------------------------------|--------------------------------------|
| Rated pressure                 | 210 bar [3045 psi]                   |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]            |
| Leakage                        | 10 drops/min @ 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                                  |

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

### DIMENSIONS

#### Cross-sectional view

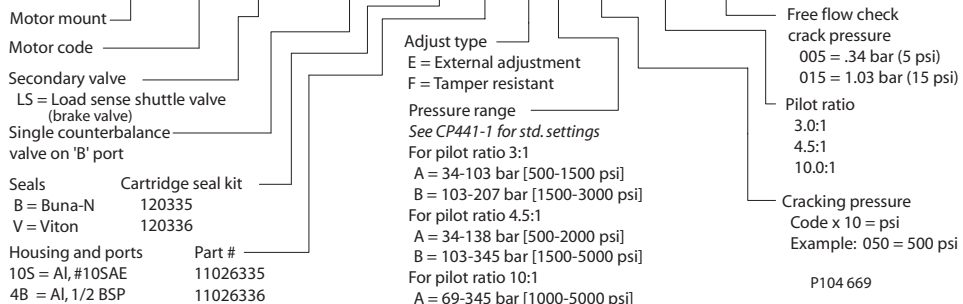
mm [in]



P104 668

### ORDERING INFORMATION

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







# Cartridge Valves Technical Information

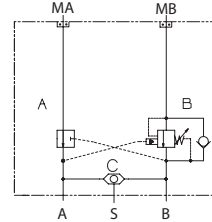
## Motor Mount HICs

### MM-OMT-LS-BCP441-1

### OPERATION

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

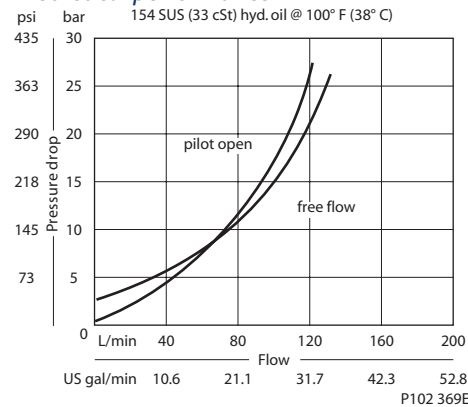
### Schematic



P104 659

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

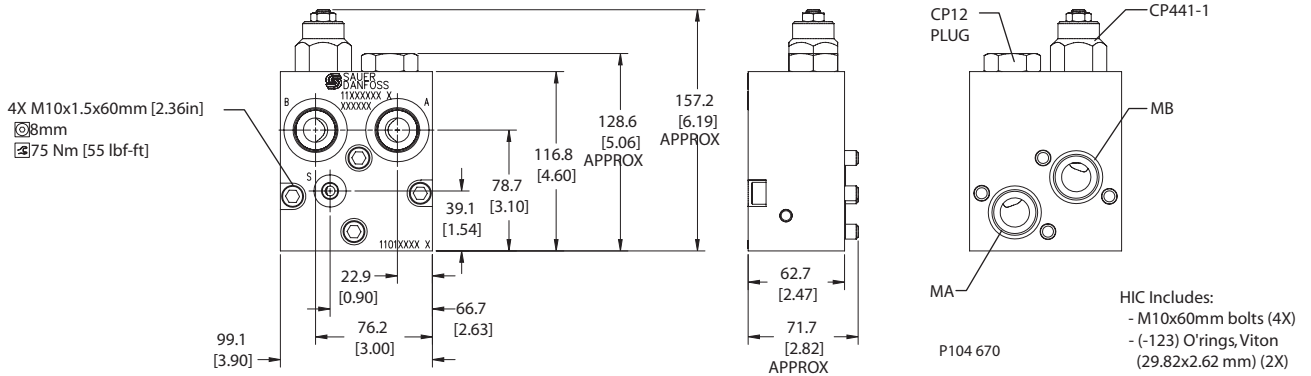
|                                |   |
|--------------------------------|---|
| Rated pressure                 | 210 bar [3045 psi]                      |
| Rated flow at 22 bar [319 psi] | 115 l/min [30 US gal/min]               |
| Leakage                        | 10 drops/min @ at 70% of crack pressure |
| 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

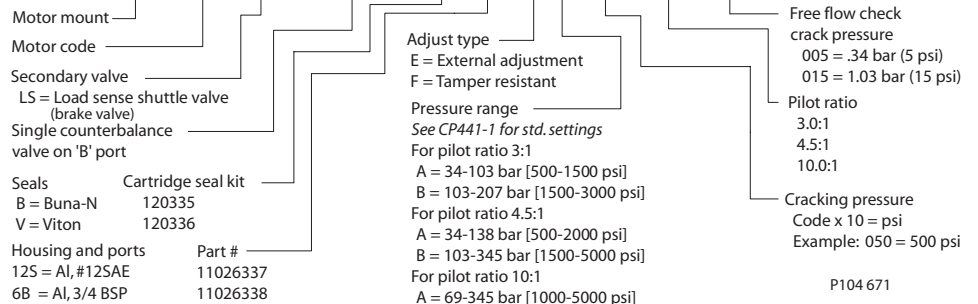
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

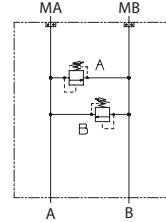
## Motor Mount HICs

### MM-DH-00-DVME06

### OPERATION

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

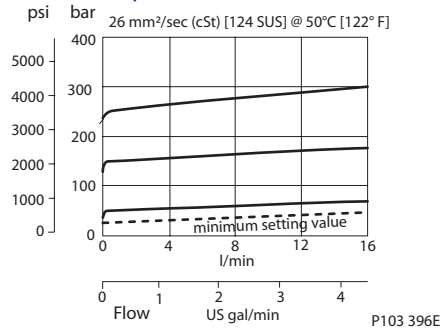
### Schematic



P104 905

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

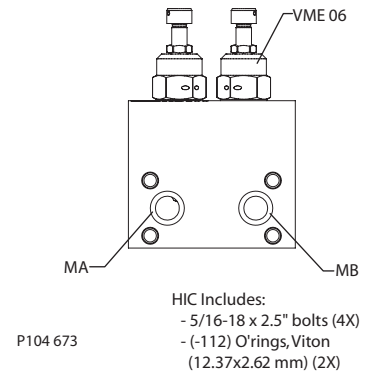
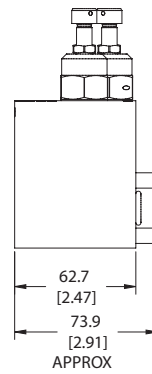
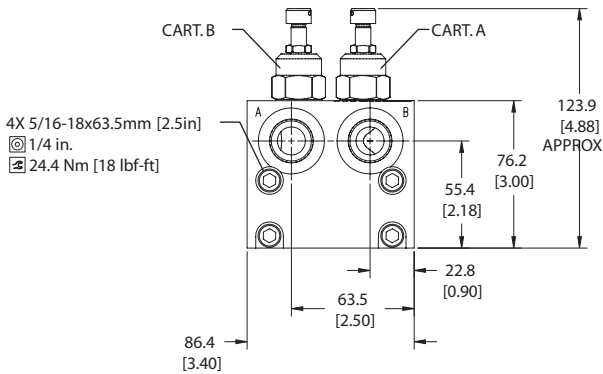
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.28 kg [2.82 lb]     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

Motor mount HICs  
MM-DH-00-DVME06

### DIMENSIONS

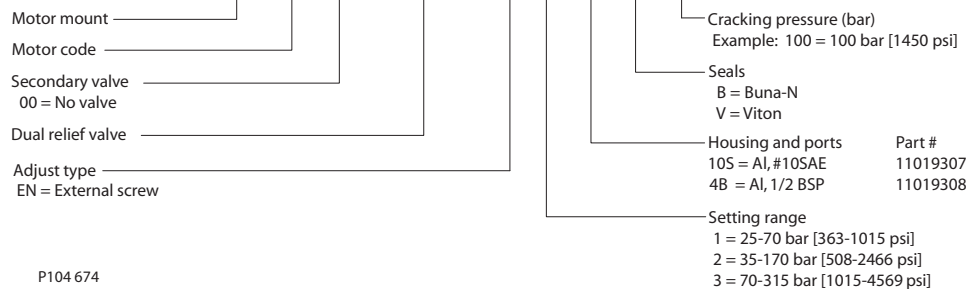
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

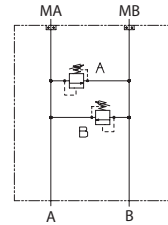
## Motor Mount HICs

### MM-DS-00-DVME06

### OPERATION

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

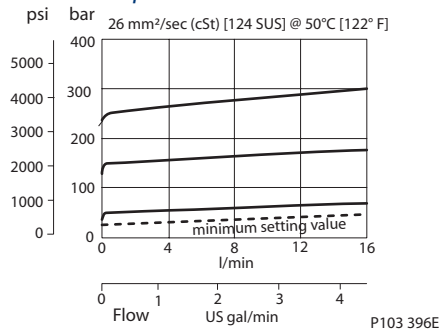
### Schematic



P104 905

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

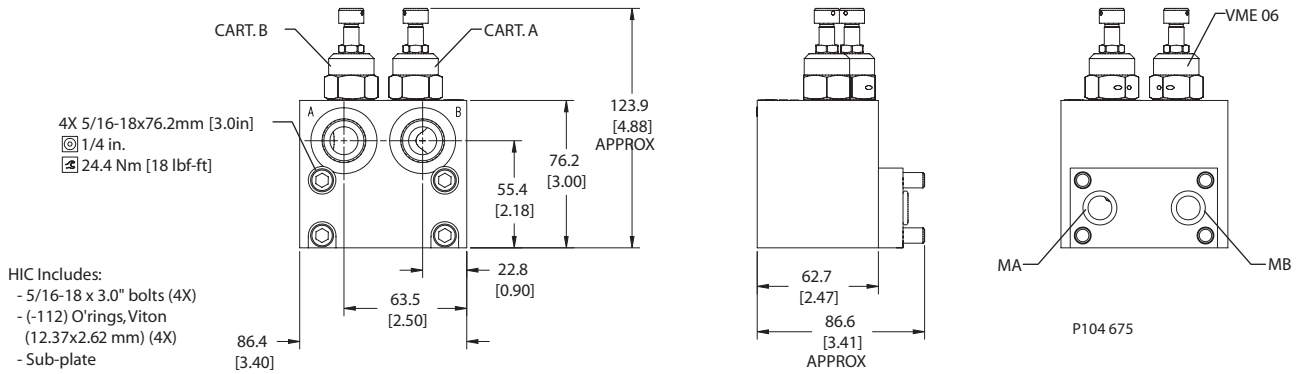
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.39 kg [3.06 lb]     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

Motor mount HICs  
MM-DS-00-DVME06

### DIMENSIONS

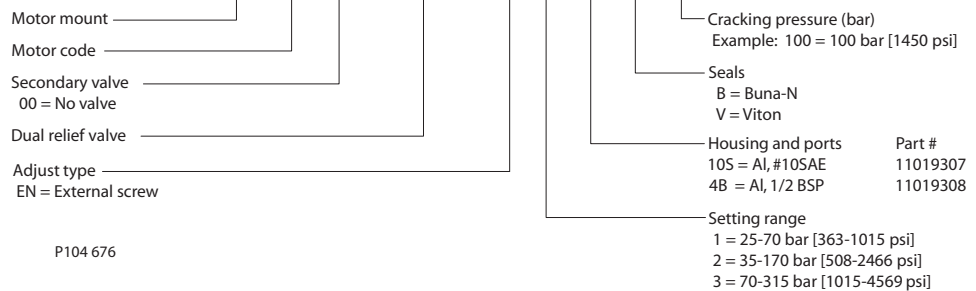
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

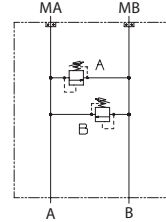
## Motor Mount HICs

### MM-OMP/OMR-00-DVME06

### OPERATION

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

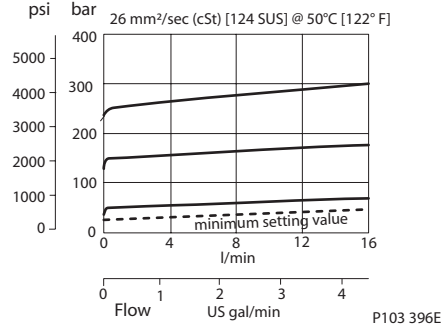
### Schematic



P104 905

### SPECIFICATIONS

#### Theoretical performance



P103 396E

#### Specifications

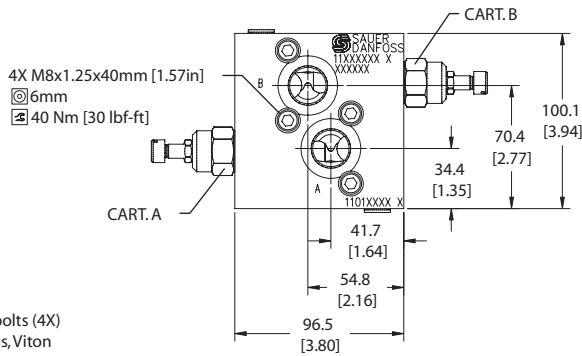
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.14 kg [2.51 lb]     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

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

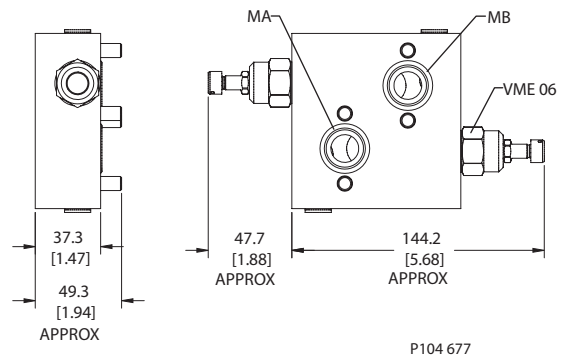
### DIMENSIONS

#### Cross-sectional view

mm [in]



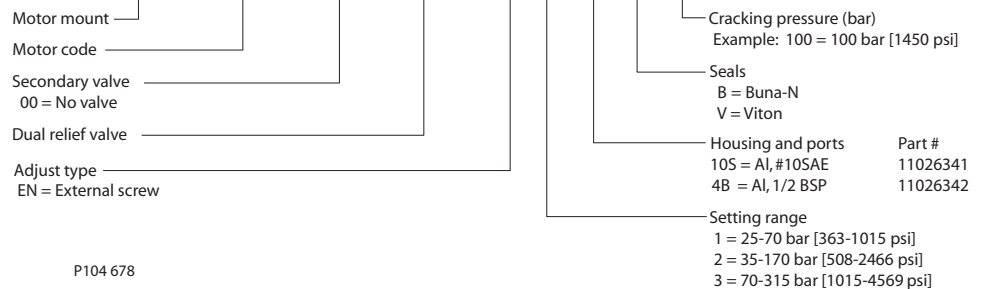
HIC Includes:  
- M8x40mm bolts (4X)  
- (-119) O-rings, Viton (23.47x2.62 mm) (2X)



P104 677

### ORDERING INFORMATION

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



P104 678



# Cartridge Valves Technical Information

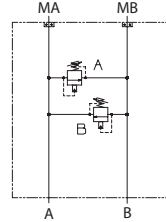
## Motor Mount HICs

### MM-OMH-00-DCP211-2

### OPERATION

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

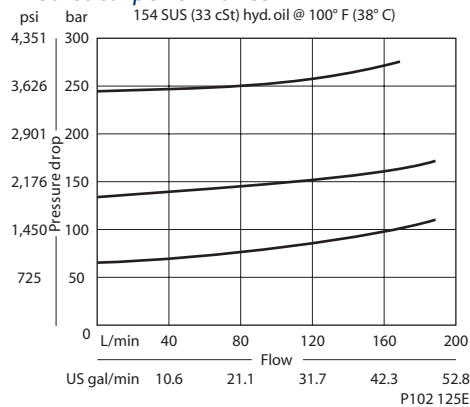
### Schematic



P104 672

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

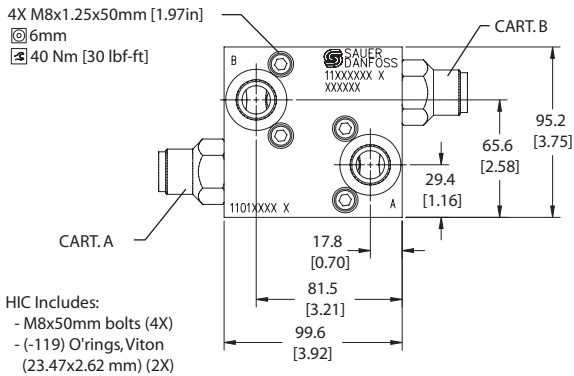
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi]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

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

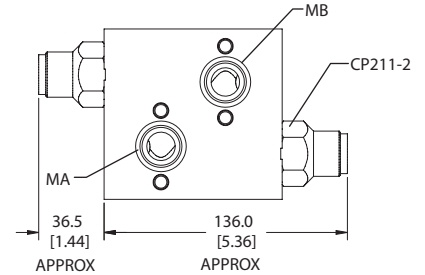
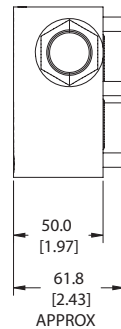
### DIMENSIONS

#### Cross-sectional view

mm [in]



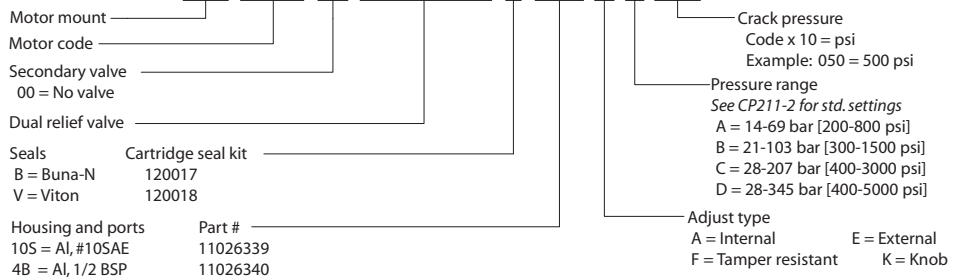
HIC Includes:  
- M8x50mm bolts (4X)  
- (-119) O-rings, Viton (23.47x2.62 mm) (2X)



P104 679

### ORDERING INFORMATION

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



P104 680



# Cartridge Valves Technical Information

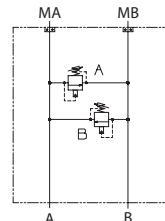
## Motor Mount HICs

### MM-OMS-00-DCP211-2

### OPERATION

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

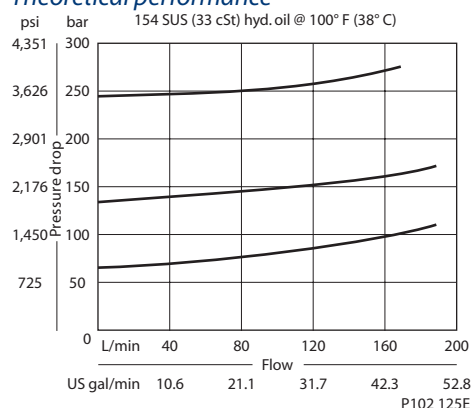
### Schematic



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 <sup>3</sup> /min [5 in <sup>3</sup> /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

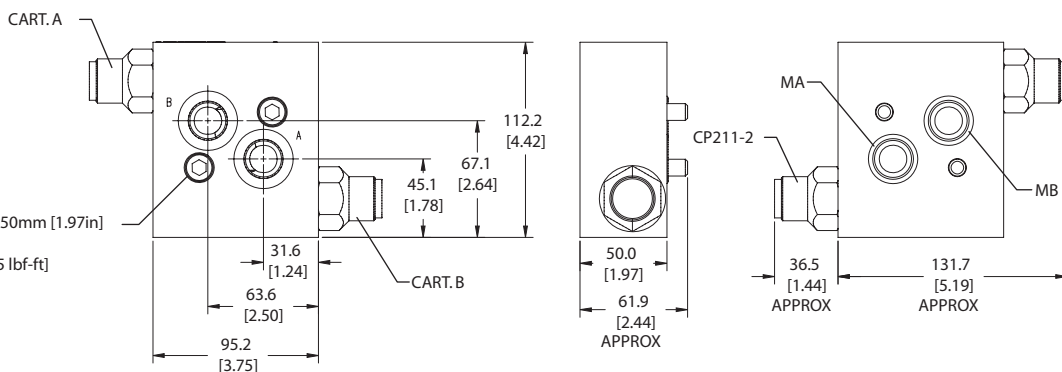
### DIMENSIONS

#### Cross-sectional view

mm [in]

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

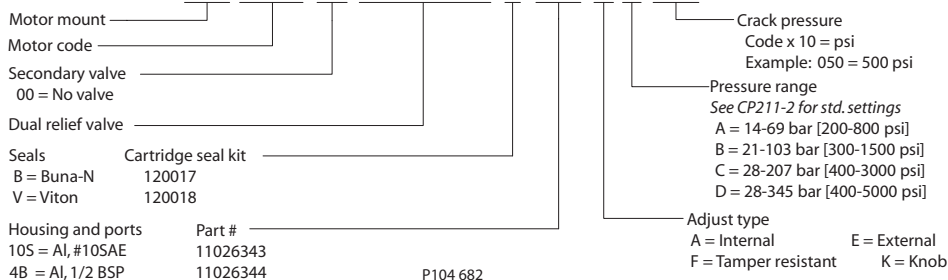
2X M10x1.5x50mm [1.97in]  
⊙8mm  
⊗75 Nm [55 lbf-ft]



P104 681

### ORDERING INFORMATION

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



P104 682



# Cartridge Valves Technical Information

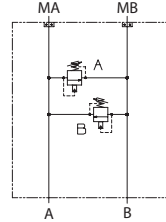
## Motor Mount HICs

### MM-OMT-00-DCP211-2

### OPERATION

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

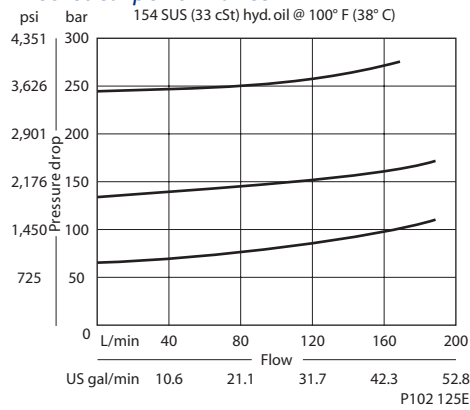
### Schematic



P104 672

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

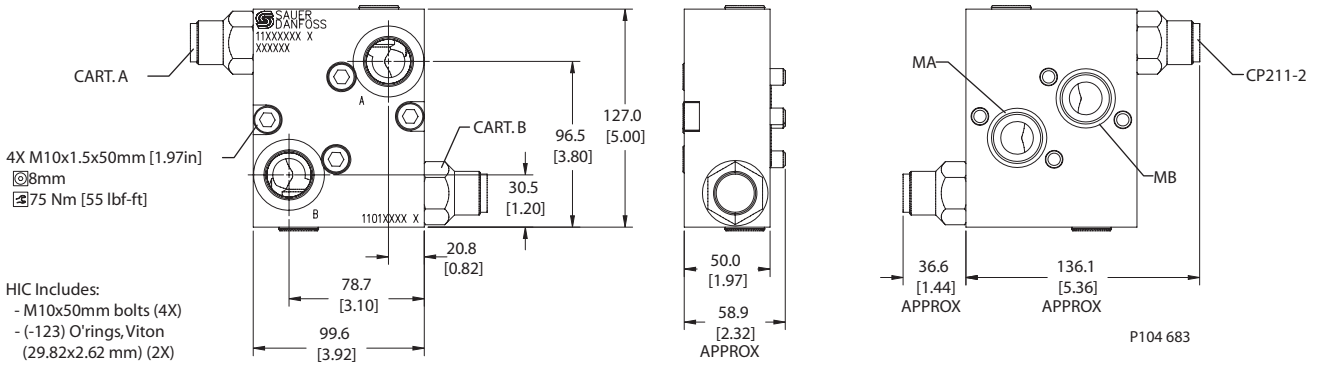
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi] |
| 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

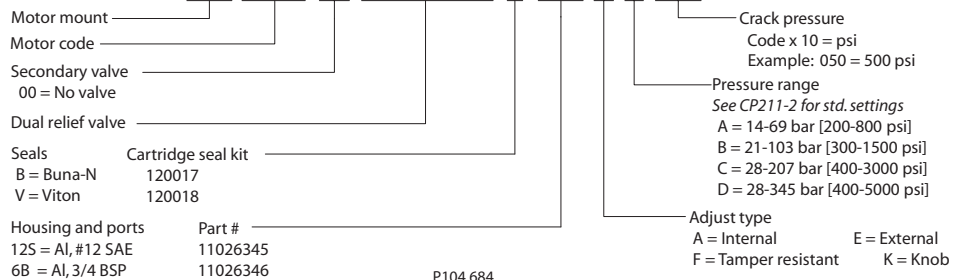
mm [in]



P104 683

### ORDERING INFORMATION

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



P104 684



# Cartridge Valves Technical Information

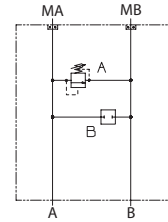
## Motor Mount HICs

### MM-DH-00-AVME06

### OPERATION

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

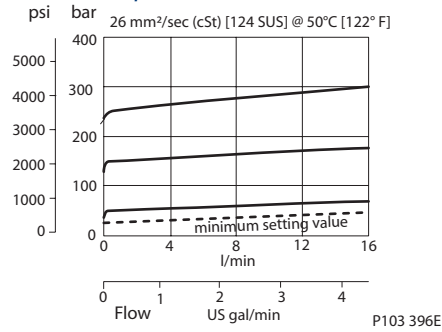
### Schematic



P104 906

### SPECIFICATIONS

#### Theoretical performance



P103 396E

#### Specifications

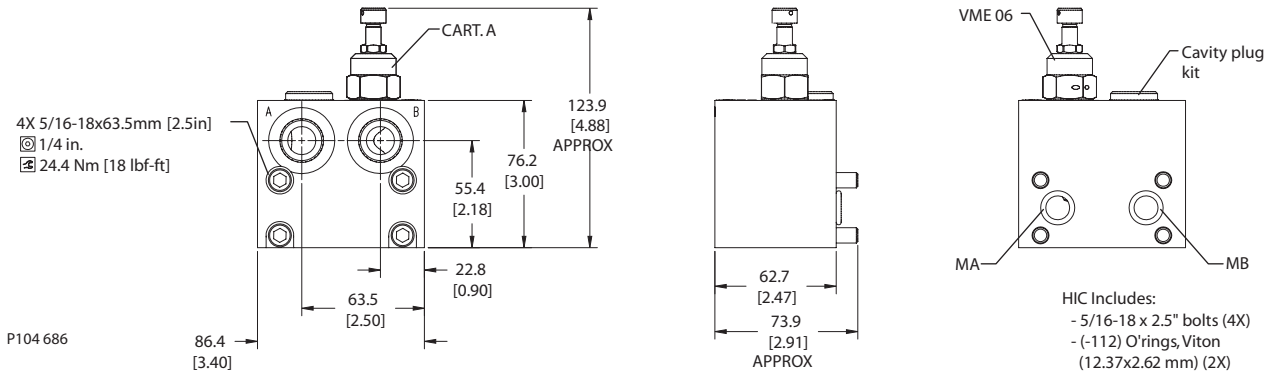
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.28 kg [2.82 lb]     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

Motor mount HICs  
MM-DH-00-AVME06

### DIMENSIONS

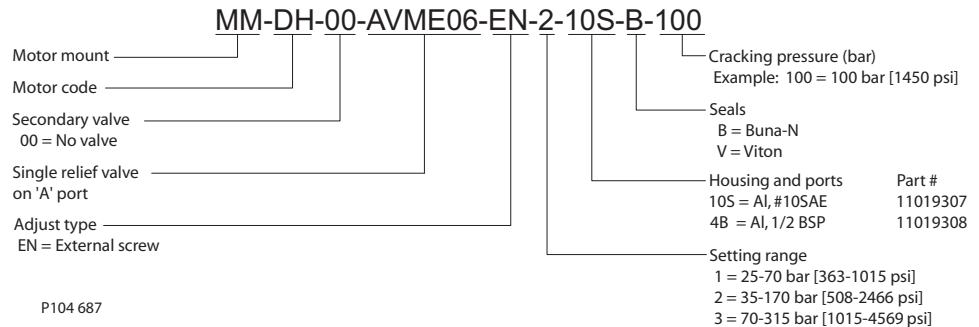
#### Cross-sectional view

mm [in]



P104 686

### ORDERING INFORMATION







# Cartridge Valves Technical Information

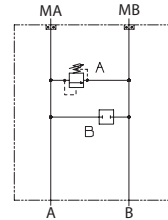
## Motor Mount HICs

### MM-DS-00-AVME06

### OPERATION

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

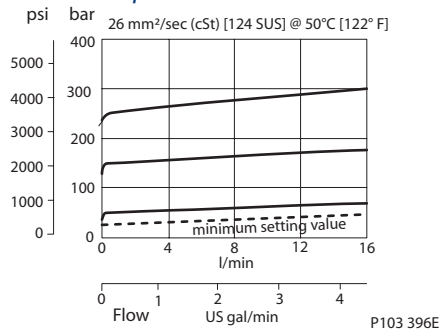
### Schematic



P104 906

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

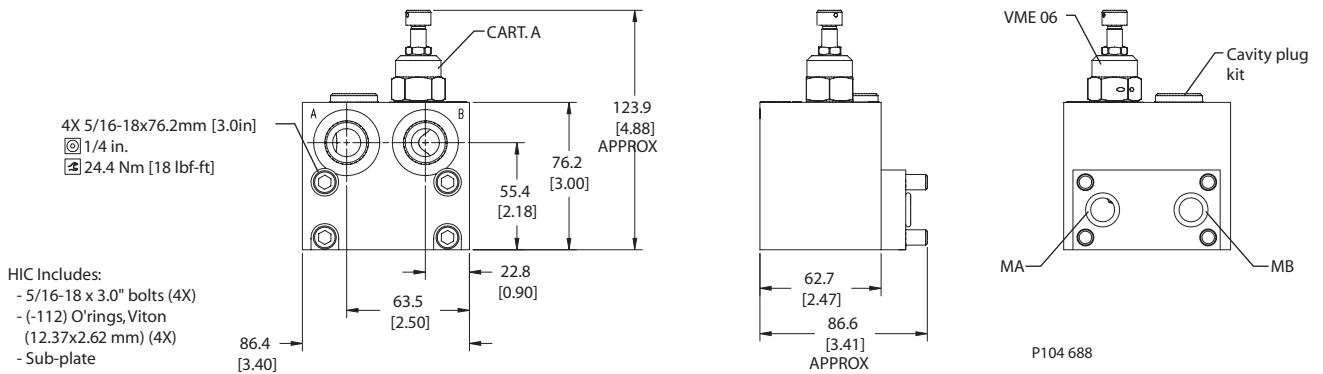
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.39 kg [3.06 lb]     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

Motor mount HICs  
MM-DS-00-AVME06

### DIMENSIONS

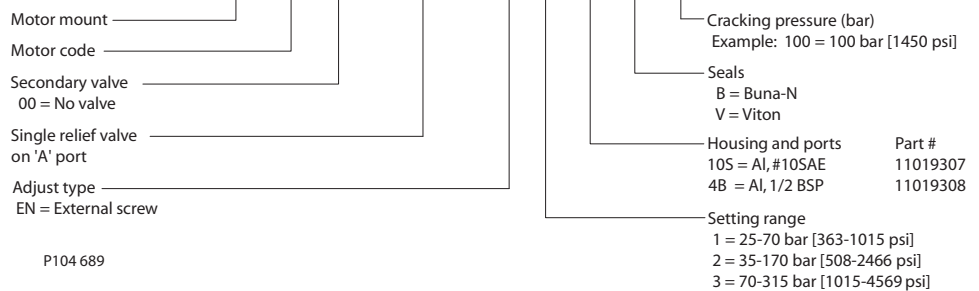
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

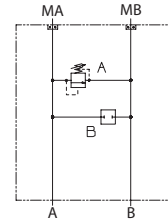
## Motor Mount HICs

### MM-OMP/OMR-00-AVME06

### OPERATION

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

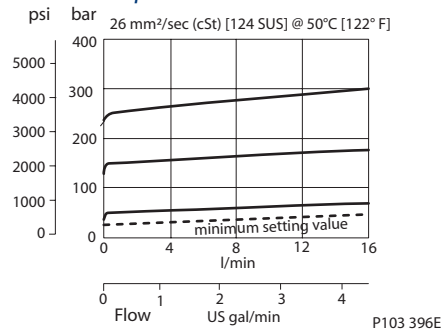
### Schematic



P104 906

### SPECIFICATIONS

#### Theoretical performance



P103 396E

#### Specifications

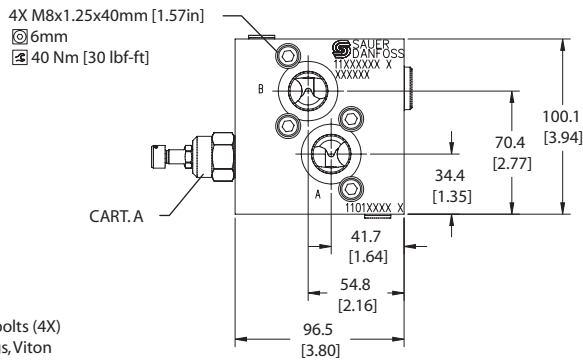
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.14 kg [2.51 lb]     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

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

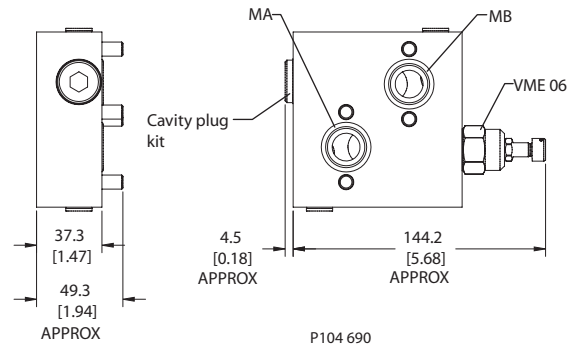
### DIMENSIONS

#### Cross-sectional view

mm [in]



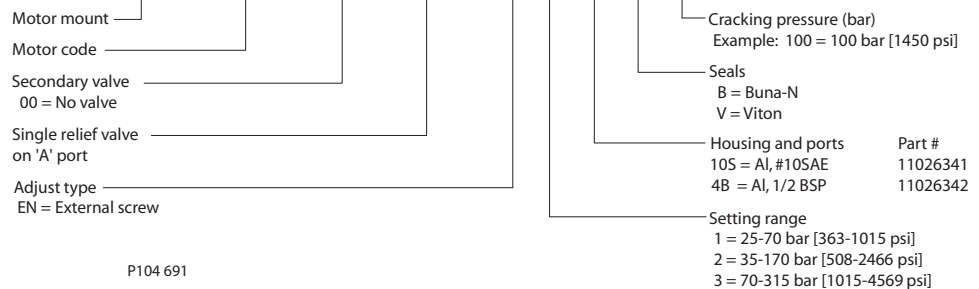
HIC Includes:  
- M8x40mm bolts (4X)  
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)



P104 690

### ORDERING INFORMATION

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



P104 691



# Cartridge Valves Technical Information

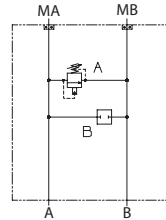
## Motor Mount HICs

### MM-OMH-00-ACP211-2

### OPERATION

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

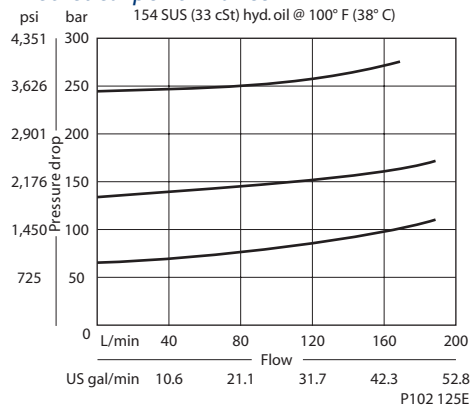
### Schematic



P104 685

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

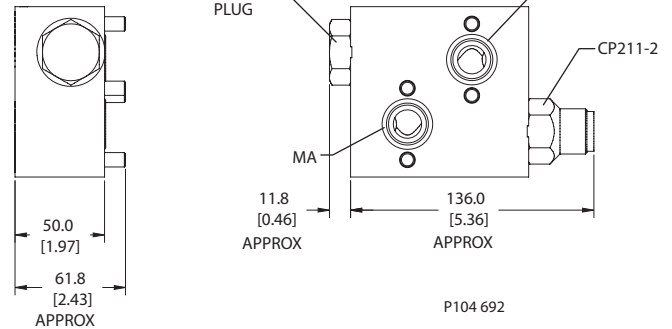
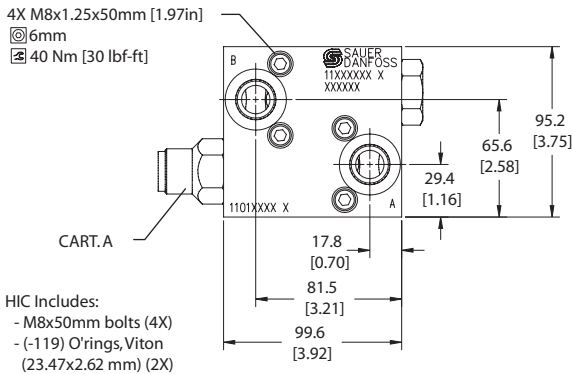
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi] |
| 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

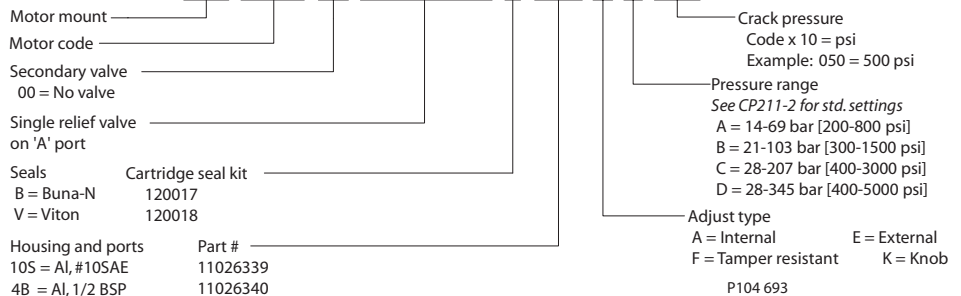
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

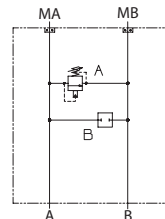
## Motor Mount HICs

### MM-OMS-00-ACP211-2

### OPERATION

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

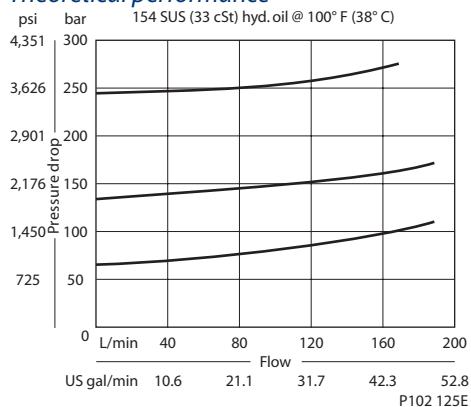
### Schematic



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 <sup>3</sup> /min [5 in <sup>3</sup> /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  |

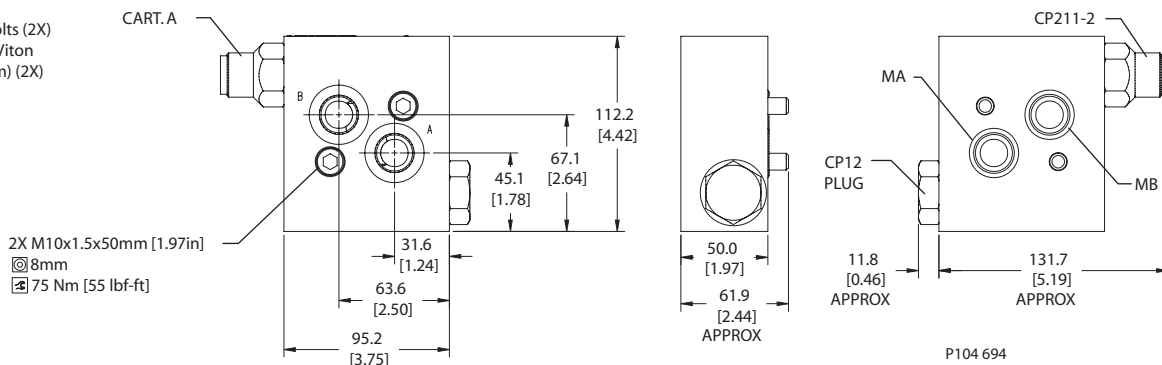
Motor mount HICs  
MM-OMS-00-ACP211-2

### DIMENSIONS

#### Cross-sectional view

mm [in]

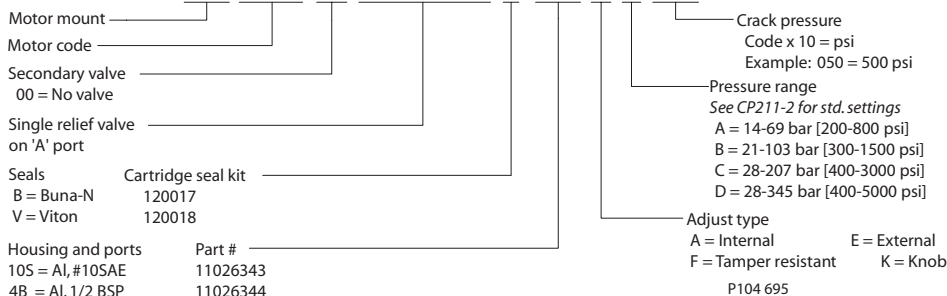
HIC Includes:  
- M10x50mm bolts (2X)  
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)



P104 694

### ORDERING INFORMATION

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



P104 695



# Cartridge Valves Technical Information

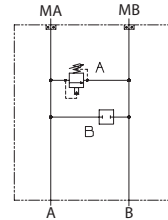
## Motor Mount HICs

### MM-OMT-00-ACP211-2

### OPERATION

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

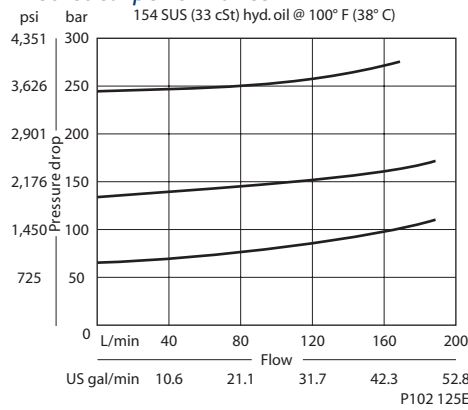
### Schematic



P104 685

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

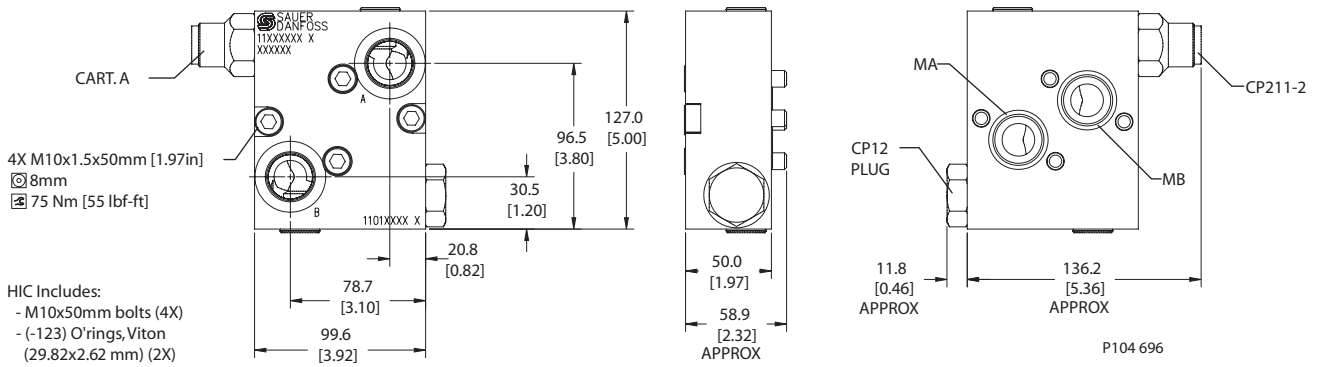
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi] |
| 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

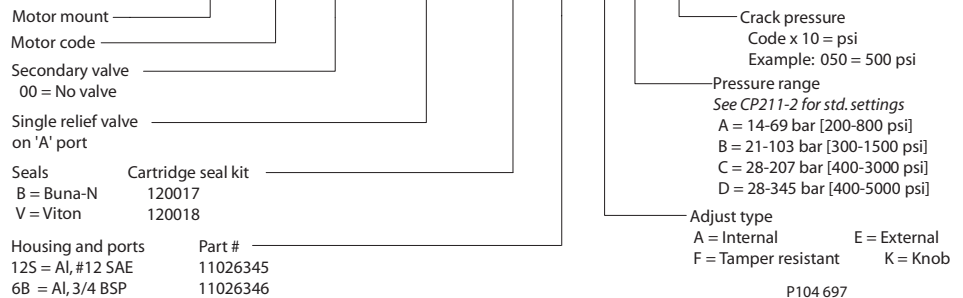
mm [in]



P104 696

### ORDERING INFORMATION

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



P104 697



# Cartridge Valves Technical Information

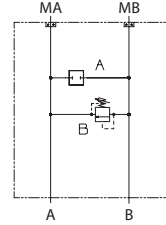
## Motor Mount HICs

### MM-DH-00-BVME06

### OPERATION

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

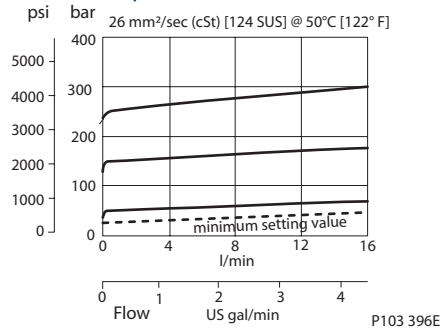
### Schematic



P104 907

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

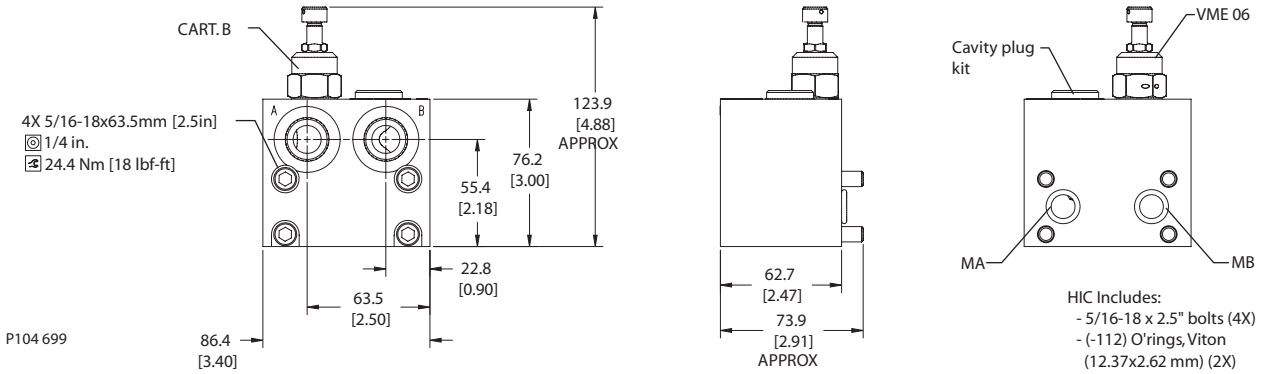
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.28 kg [2.82 lb]     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

Motor mount HICs  
MM-DH-00-BVME06

### DIMENSIONS

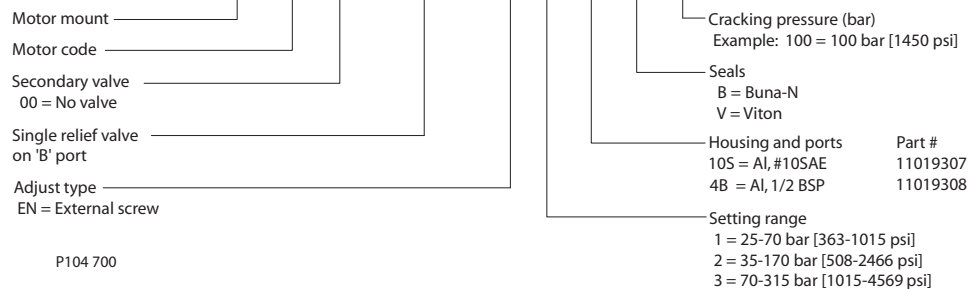
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

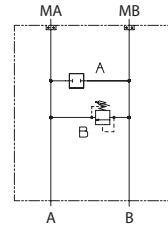
## Motor Mount HICs

### MM-DS-00-BVME06

### OPERATION

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

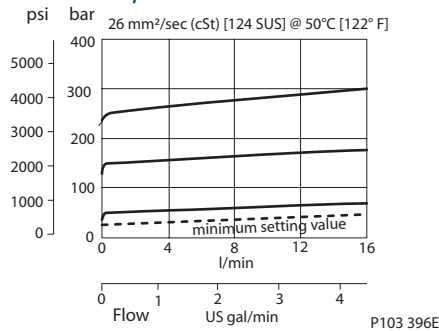
### Schematic



P104 907

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

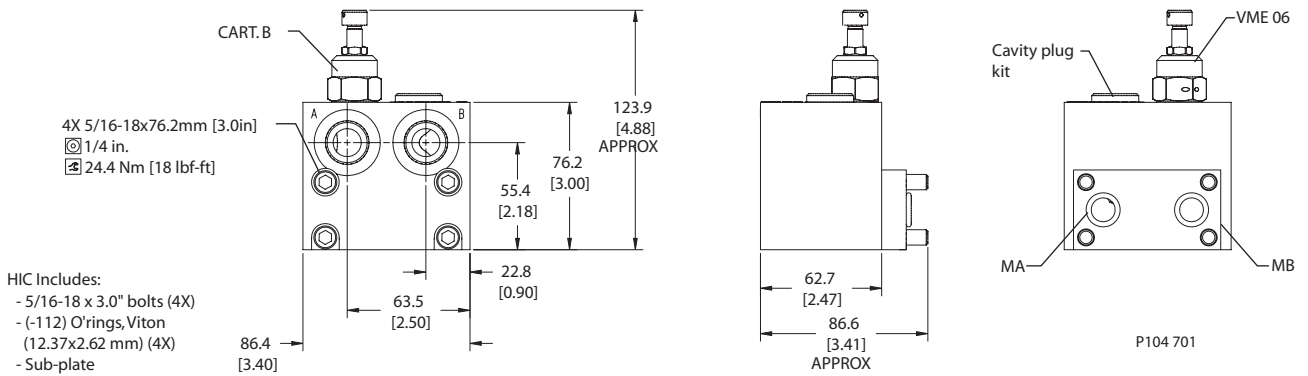
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.39 kg [3.06 lb]     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

Motor mount HICs  
MM-DS-00-BVME06

### DIMENSIONS

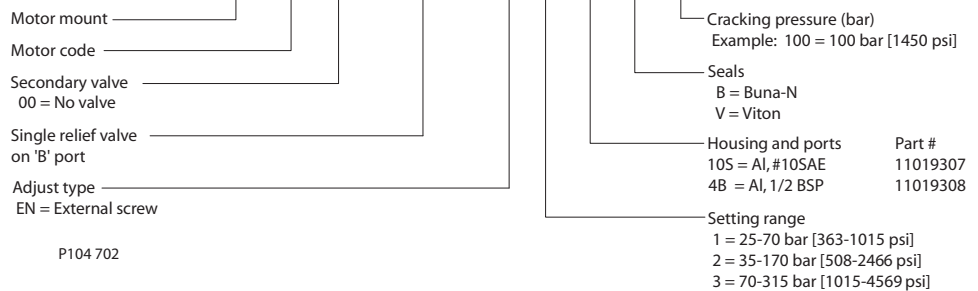
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

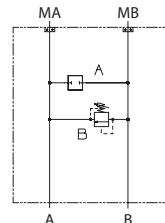
## Motor Mount HICs

### MM-OMP/OMR-00-BVME06

### OPERATION

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

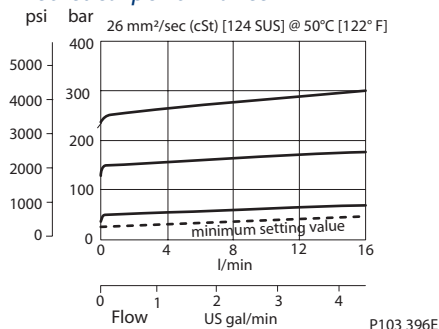
### Schematic



P104 907

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

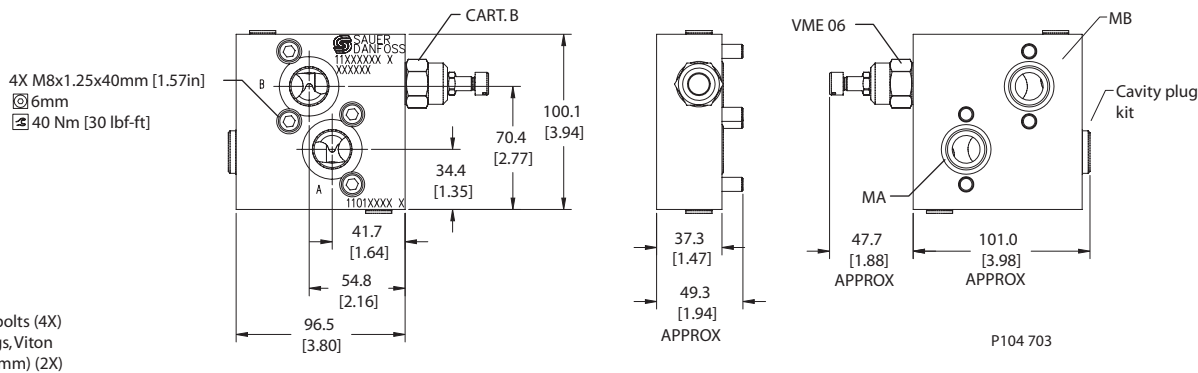
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.14 kg [2.51 lb]     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

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

### DIMENSIONS

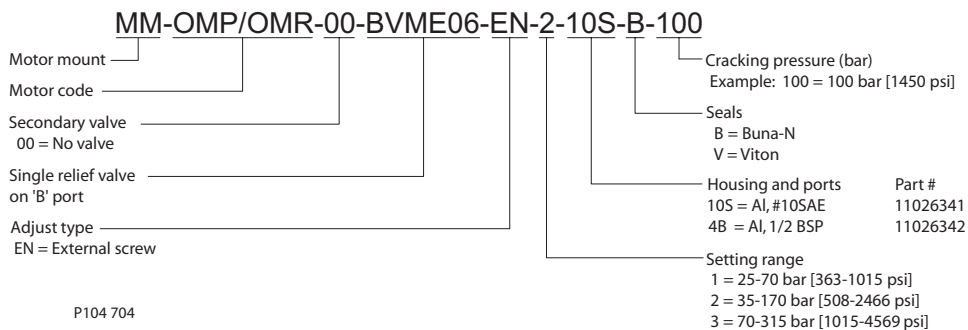
#### Cross-sectional view

mm [in]



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

### ORDERING INFORMATION







# Cartridge Valves Technical Information

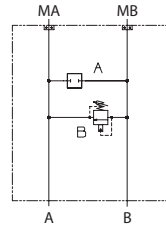
## Motor Mount HICs

### MM-OMH-00-BCP211-2

### OPERATION

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

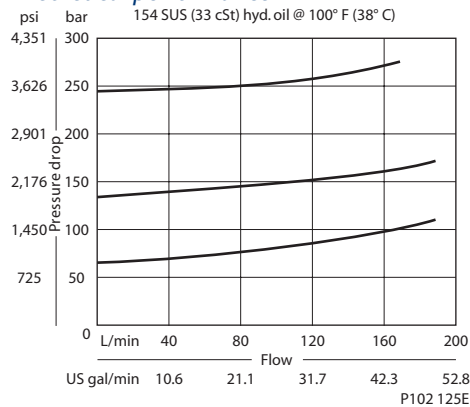
### Schematic



P104 698

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

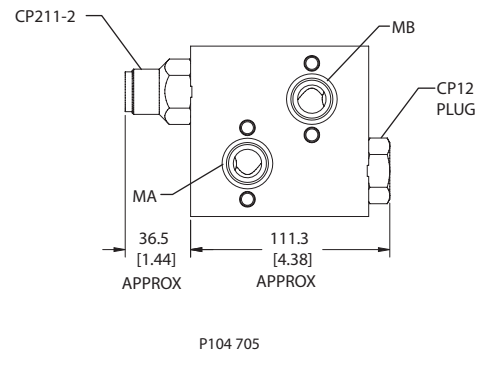
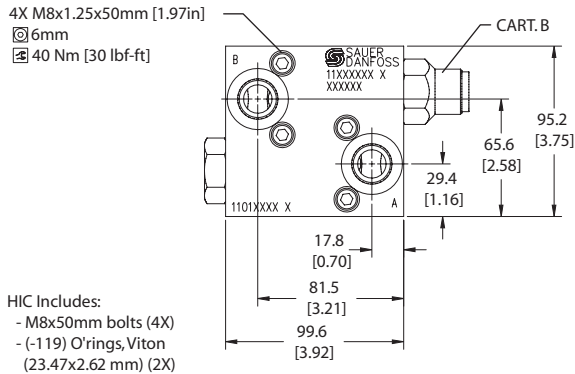
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi] |
| 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

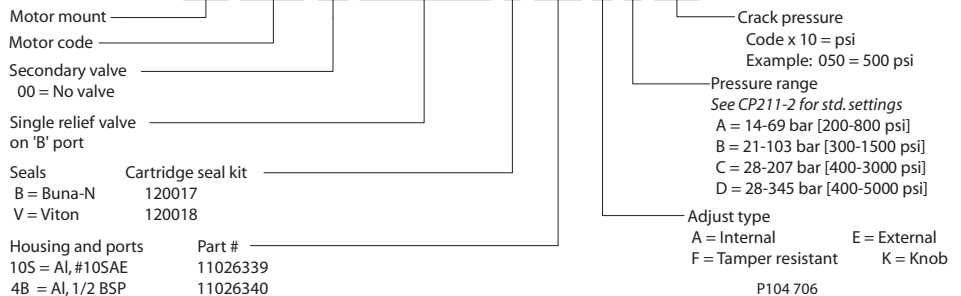
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

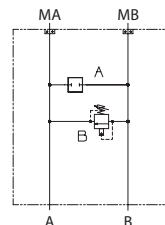
## Motor Mount HICs

### MM-OMS-00-BCP211-2

### OPERATION

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

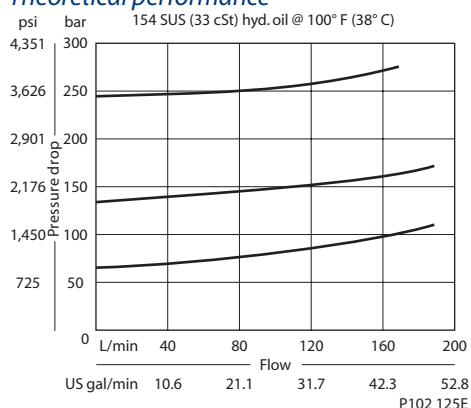
### Schematic



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 <sup>3</sup> /min [5 in <sup>3</sup> /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

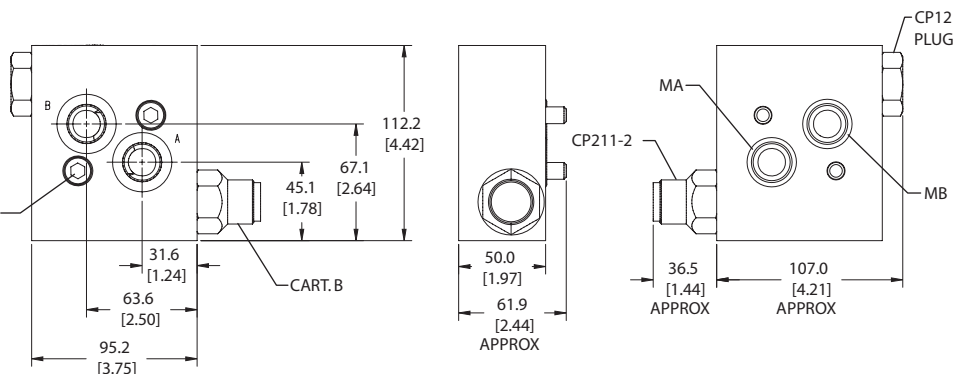
#### Cross-sectional view

mm [in]

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

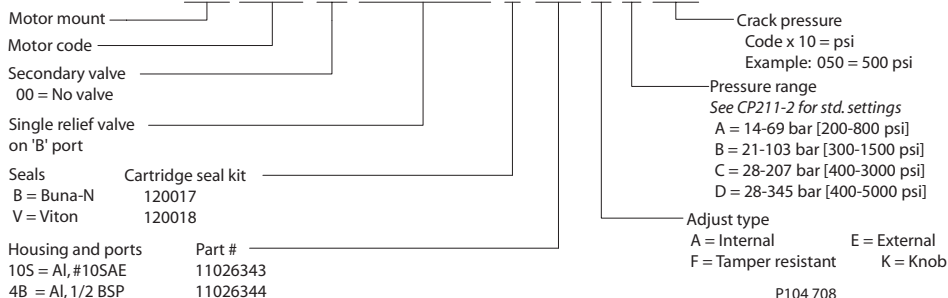
2X M10x1.5x50mm [1.97in]  
⊗ 8mm  
⊗ 75 Nm [55 lbf-ft]

P104 707



### ORDERING INFORMATION

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



P104 708



# Cartridge Valves Technical Information

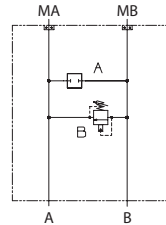
## Motor Mount HICs

### MM-OMT-00-BCP211-2

### OPERATION

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

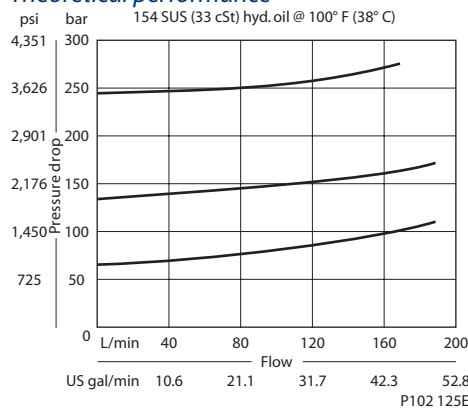
### Schematic



P104 698

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

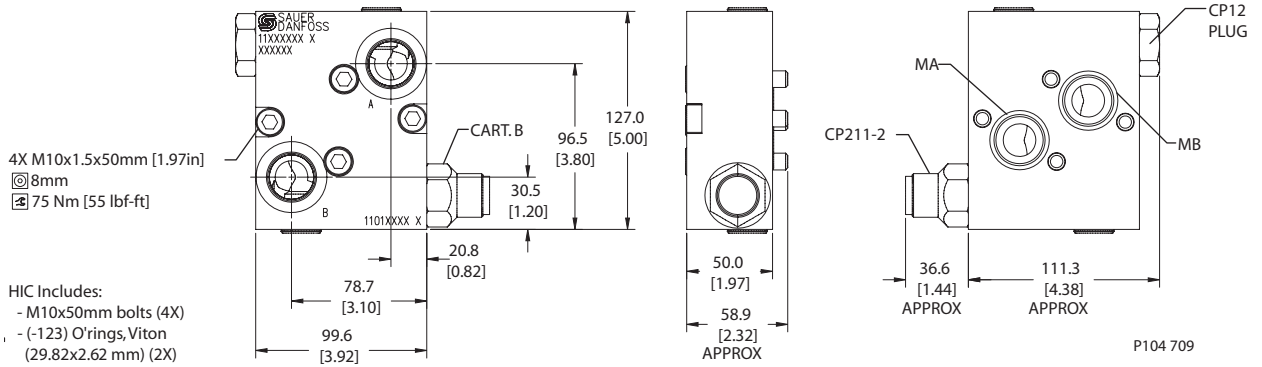
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi] |
| 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

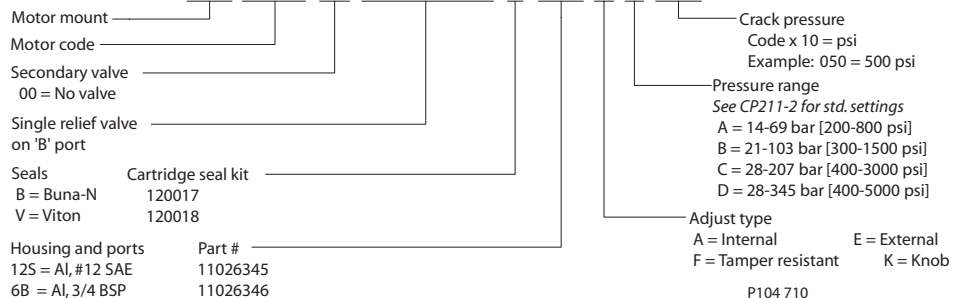
mm [in]



P104 709

### ORDERING INFORMATION

#### MM-OMT-00-BCP211-2-B-12S-E-C-254



P104 710



# Cartridge Valves Technical Information

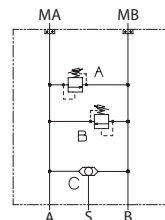
## Motor Mount HICs

### MM-DH-LS-DVME06

### OPERATION

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

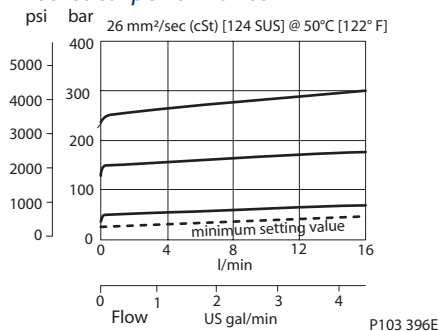
### Schematic



P104 908

### SPECIFICATIONS

#### Theoretical performance



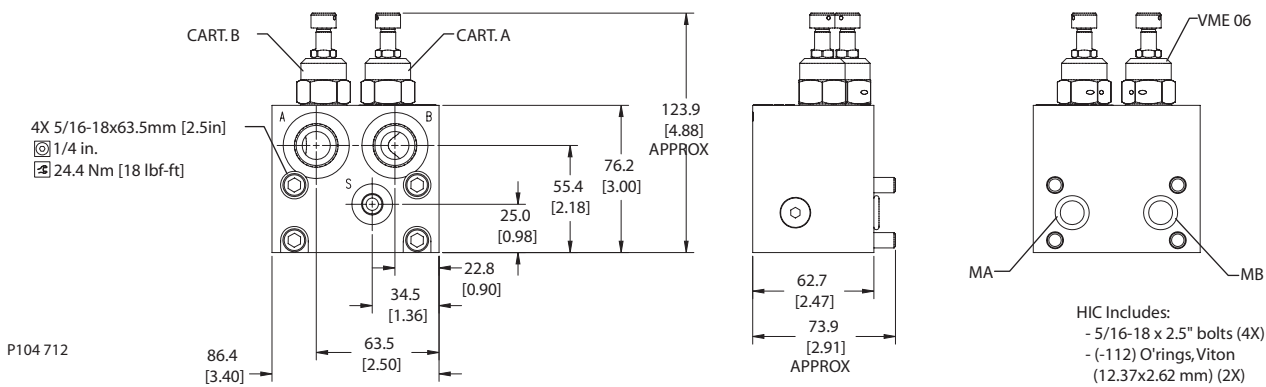
#### Specifications

|                               |                          |
|-------------------------------|--------------------------|
| 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                       |

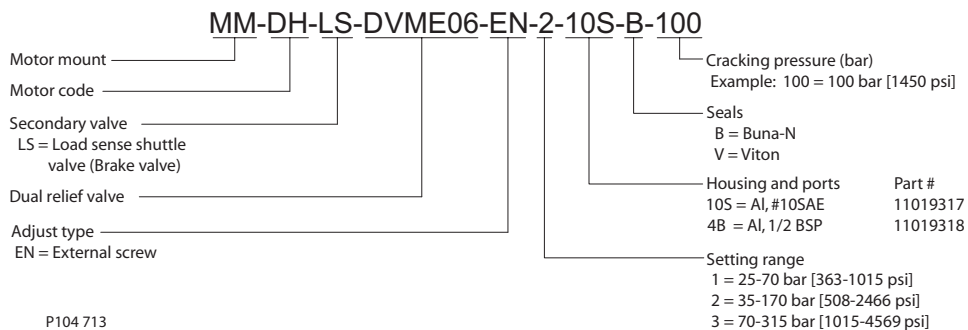
Motor mount HICs  
MM-DH-LS-DVME06

### DIMENSIONS

#### Cross-sectional view mm [in]



### ORDERING INFORMATION





# Cartridge Valves Technical Information

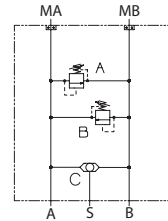
## Motor Mount HICs

### MM-DS-LS-DVME06

### OPERATION

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

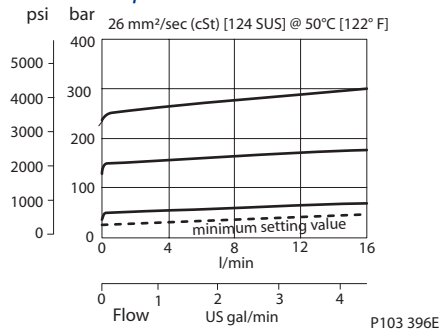
### Schematic



P104 908

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

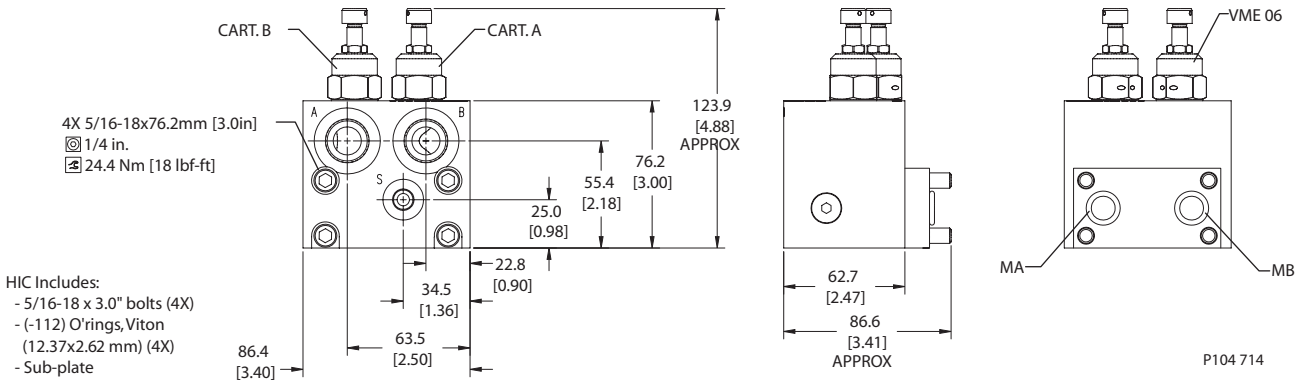
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.39 kg [3.06 lb]        |
| 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

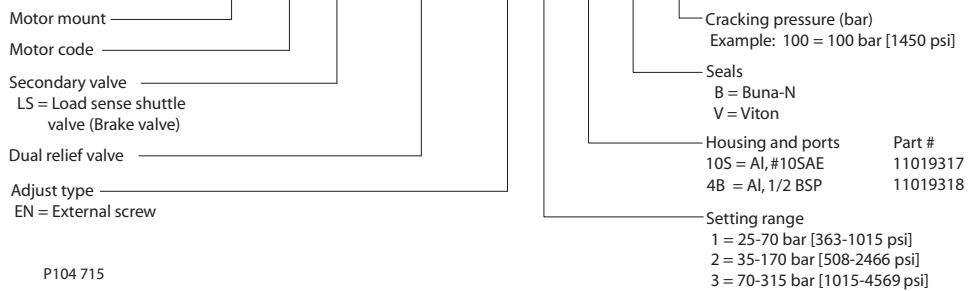
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





## Cartridge Valves Technical Information

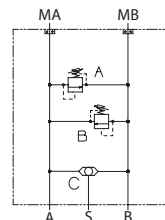
### Motor Mount HICs

### MM-OMP/OMR-LS-DVME06

#### OPERATION

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

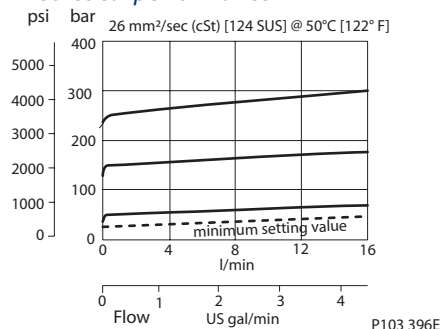
#### Schematic



P104 908

#### SPECIFICATIONS

#### Theoretical performance



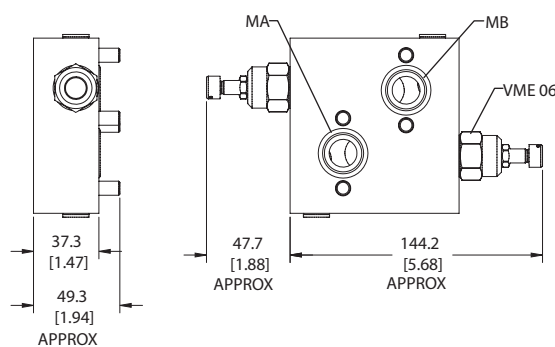
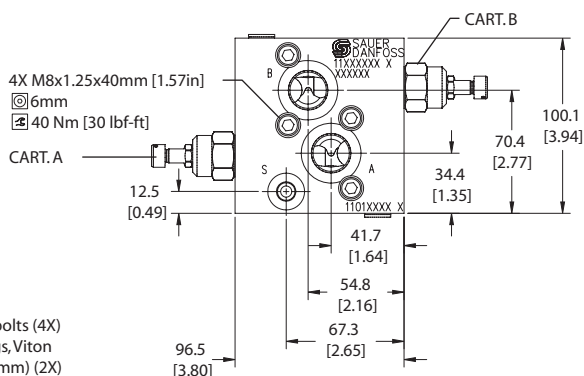
#### Specifications

|                               |                          |
|-------------------------------|--------------------------|
| 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                  |

#### DIMENSIONS

#### Cross-sectional view

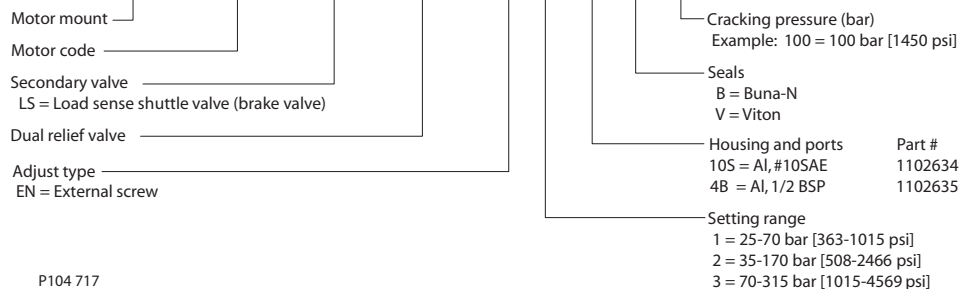
mm [in]



P104 716

#### ORDERING INFORMATION

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



P104 717

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



# Cartridge Valves Technical Information

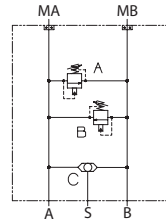
## Motor Mount HICs

### MM-OMH-LS-DCP211-2

### OPERATION

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

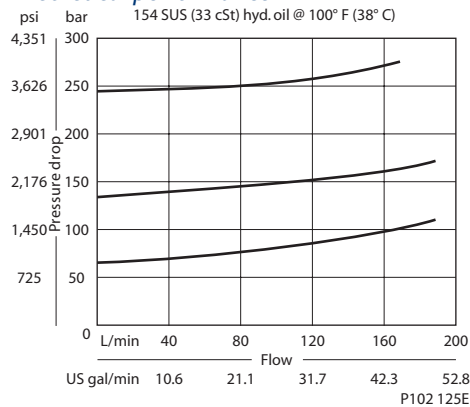
### Schematic



P104711

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

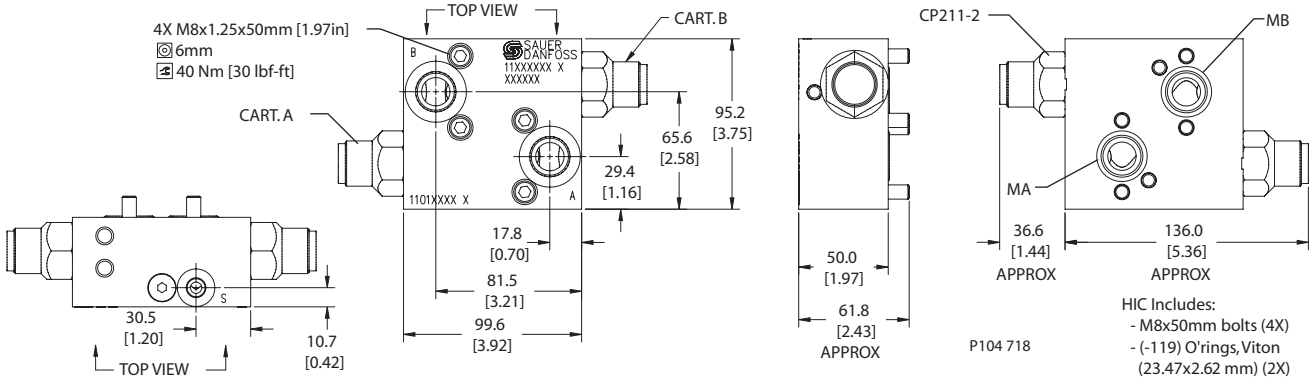
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi] |
| 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                             | Dual relief valve | Seals                   | Cartridge seal kit       | Housing and ports                    | Part #               | Crack pressure                            | Pressure range  | Adjust type  |
|             |            | LS = Load sense shuttle valve (Brake valve) |                   | B = Buna-N<br>V = Viton | B = 120017<br>V = 120018 | 10S = Al, #10SAE<br>4B = Al, 1/2 BSP | 11026347<br>11026348 | Code x 10 = psi<br>Example: 050 = 500 psi | See CP211-2 for std. settings<br>A = 14-69 bar [200-800 psi]<br>B = 21-103 bar [300-1500 psi]<br>C = 28-207 bar [400-3000 psi]<br>D = 28-345 bar [400-5000 psi] | A = Internal<br>E = External<br>F = Tamper resistant<br>K = Knob |

P104719



# Cartridge Valves Technical Information

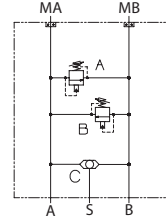
## Motor Mount HICs

### MM-OMS-LS-DCP211-2

### OPERATION

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

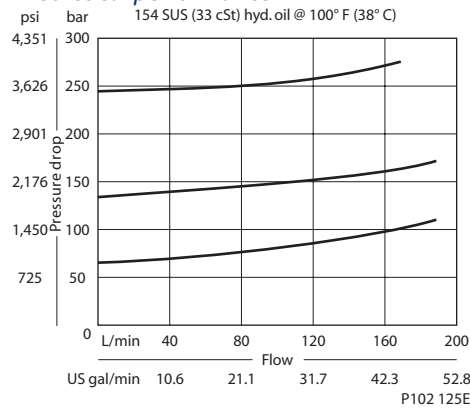
### Schematic



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 <sup>3</sup> /min [5 in <sup>3</sup> /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  |

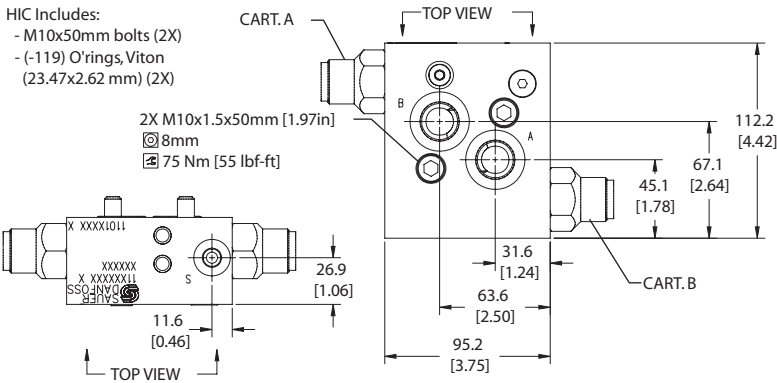
### DIMENSIONS

#### Cross-sectional view

mm [in]

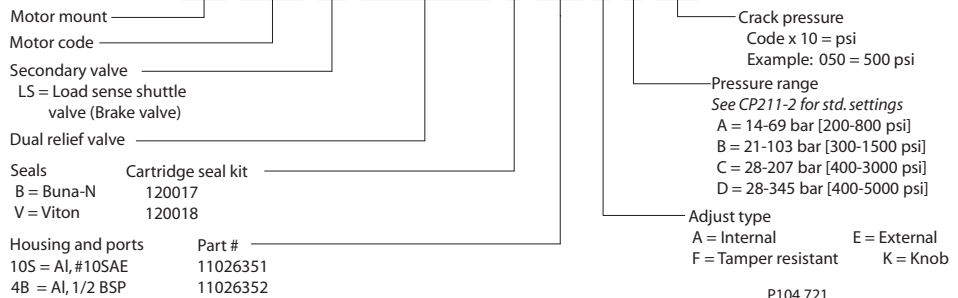
HIC Includes:  
 - M10x50mm bolts (2X)  
 - (-119) O'rings, Viton (23.47x2.62 mm) (2X)

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



### ORDERING INFORMATION

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







# Cartridge Valves Technical Information

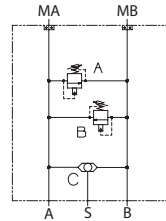
## Motor Mount HICs

### MM-OMT-LS-DCP211-2

### OPERATION

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

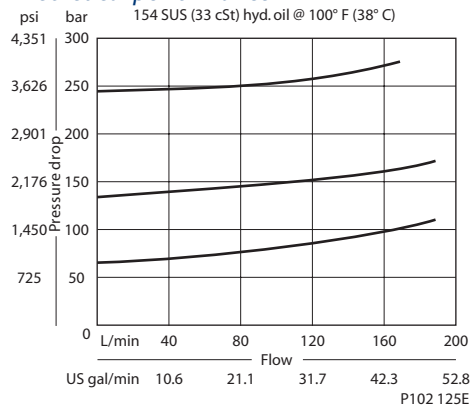
### Schematic



P104711

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

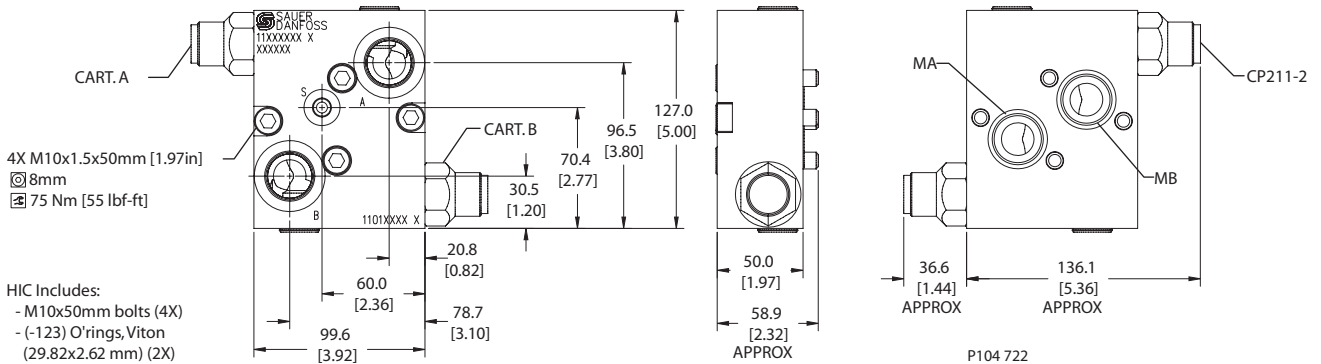
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi] |
| 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

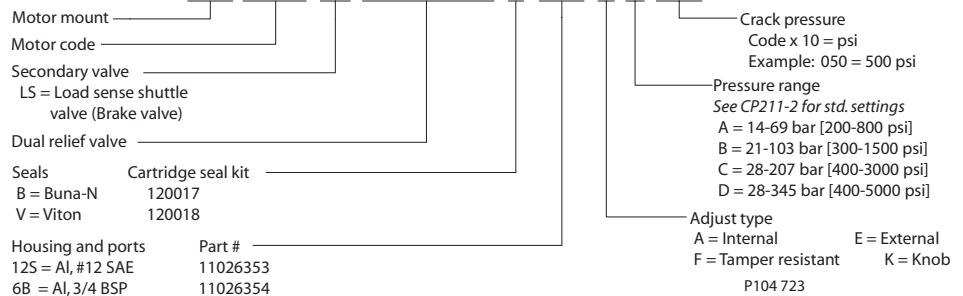
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

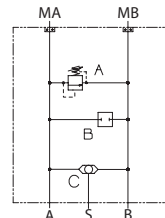
## Motor Mount HICs

### MM-DH-LS-AVME06

### OPERATION

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

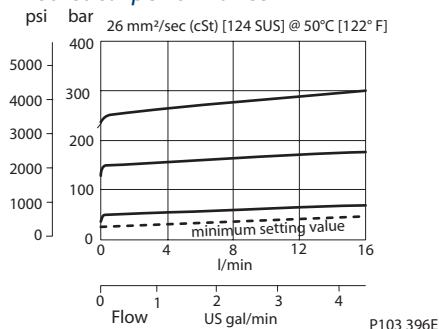
### Schematic



P104 909

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

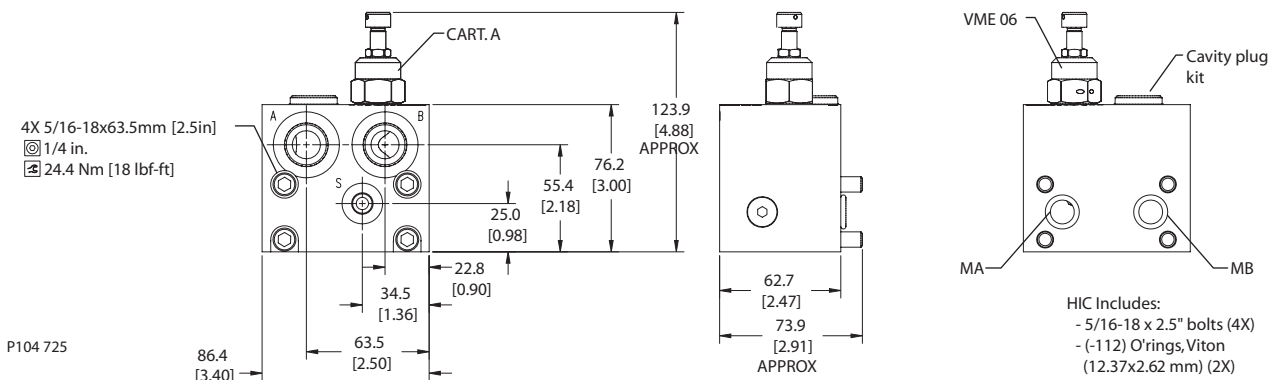
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.28 kg [2.82 lb]        |
| 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

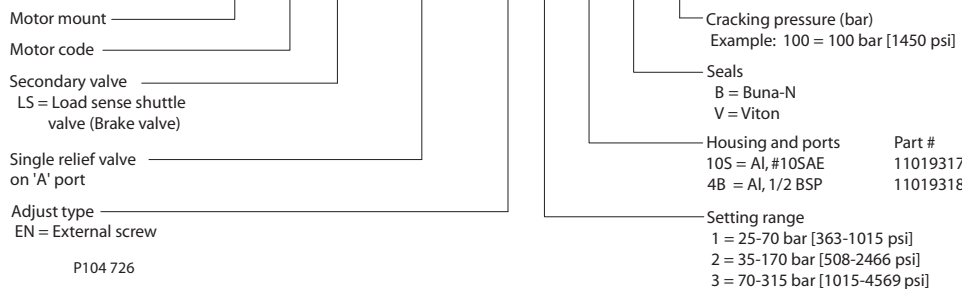
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

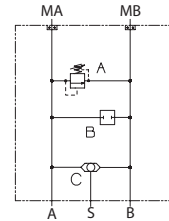
## Motor Mount HICs

### MM-DS-LS-AVME06

### OPERATION

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

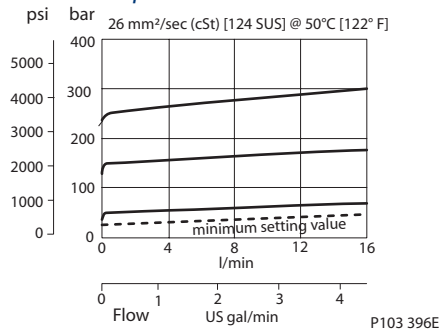
### Schematic



P104 909

### SPECIFICATIONS

#### Theoretical performance



P103 396E

#### Specifications

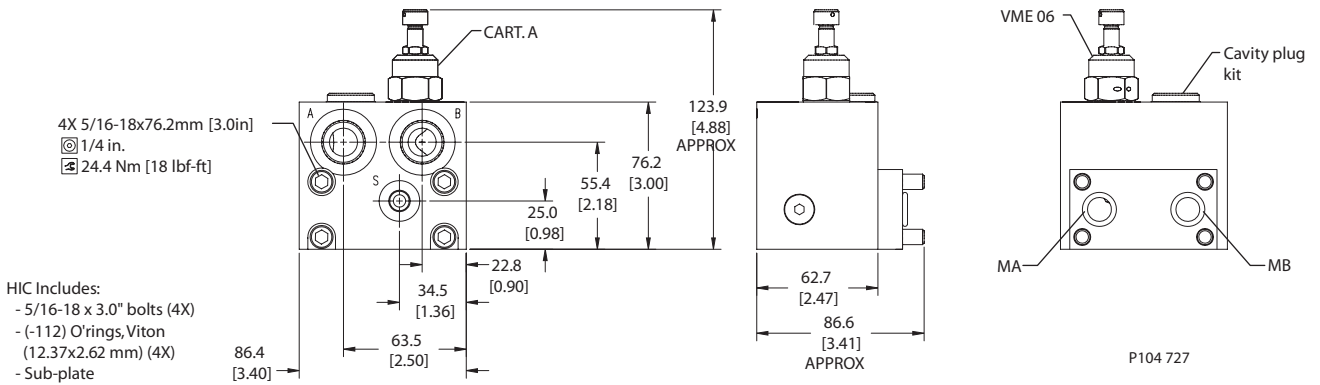
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.39 kg [3.06 lb]        |
| 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-AVME06

### DIMENSIONS

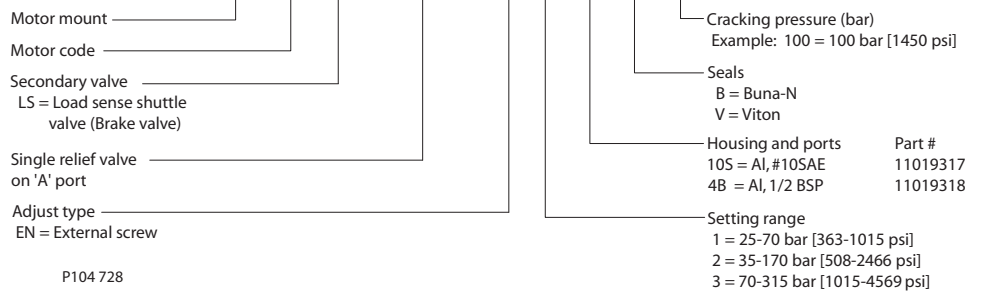
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

#### MM-DS-LS-AVME06-EN-2-10S-B-100





# Cartridge Valves Technical Information

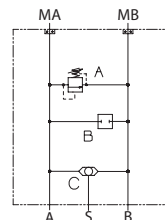
## Motor Mount HICs

### MM-OMP/OMR-LS-AVME06

### OPERATION

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

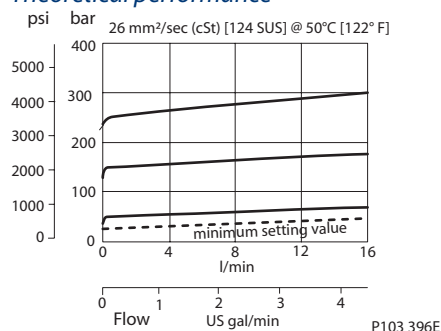
### Schematic



P104 909

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

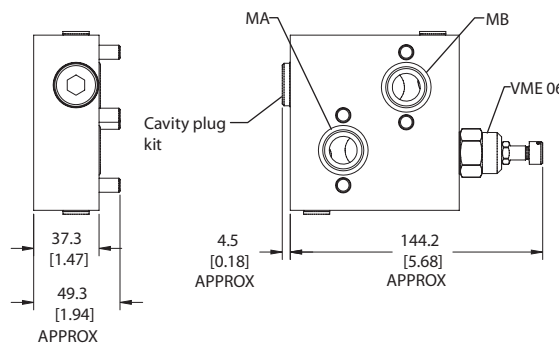
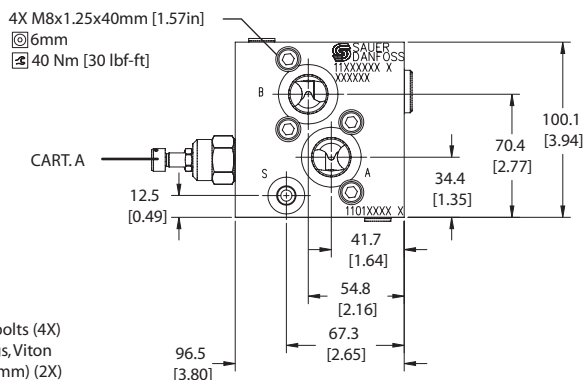
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.13 kg [2.49 lb]        |
| 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

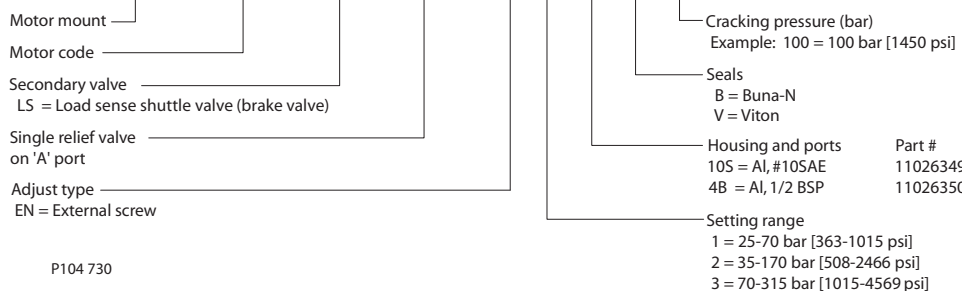
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

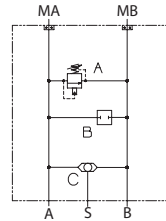
## Motor Mount HICs

### MM-OMH-LS-ACP211-2

### OPERATION

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

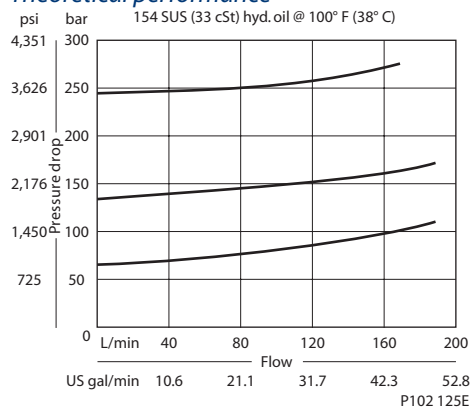
### Schematic



P104 724

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

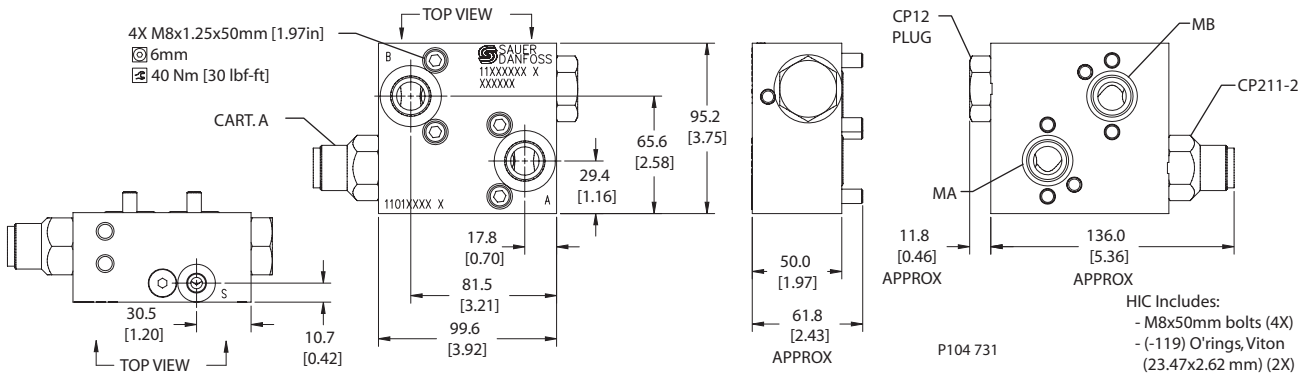
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi] |
| 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

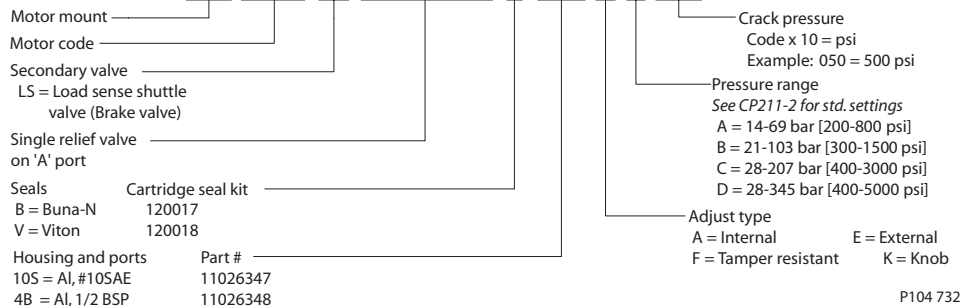
mm [in]



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



# Cartridge Valves Technical Information

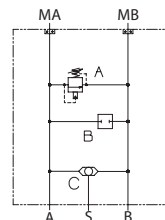
## Motor Mount HICs

### MM-OMS-LS-ACP211-2

### OPERATION

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

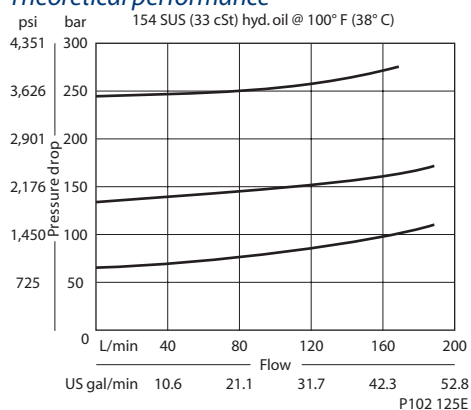
### Schematic



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 <sup>3</sup> /min [5 in <sup>3</sup> /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  |

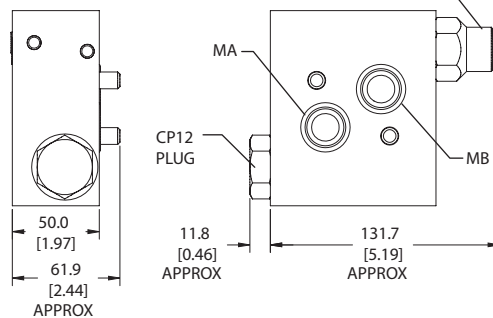
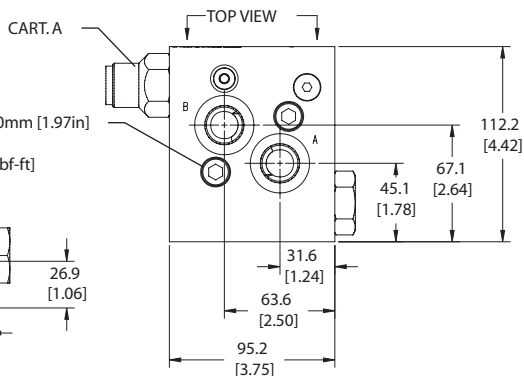
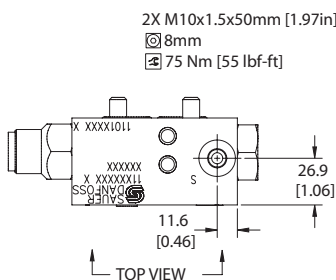
Motor mount HICs  
MM-OMS-LS-ACP211-2

### DIMENSIONS

#### Cross-sectional view

mm [in]

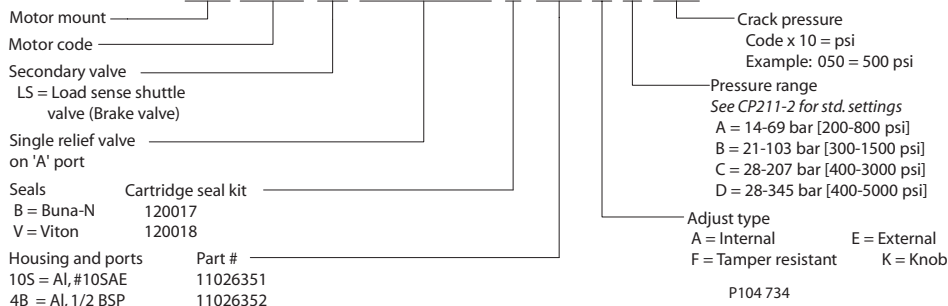
HIC Includes:  
- M10x50mm bolts (2X)  
- (-119) O'rings, Viton (23.47x2.62 mm) (2X)



P104 733

### ORDERING INFORMATION

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



P104 734



# Cartridge Valves Technical Information

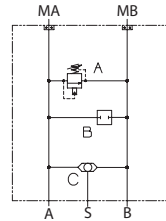
## Motor Mount HICs

### MM-OMT-LS-ACP211-2

### OPERATION

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

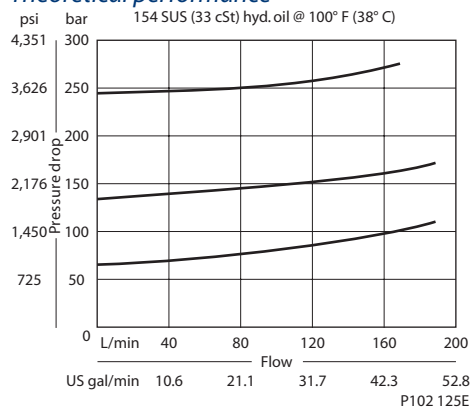
### Schematic



P104 724

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

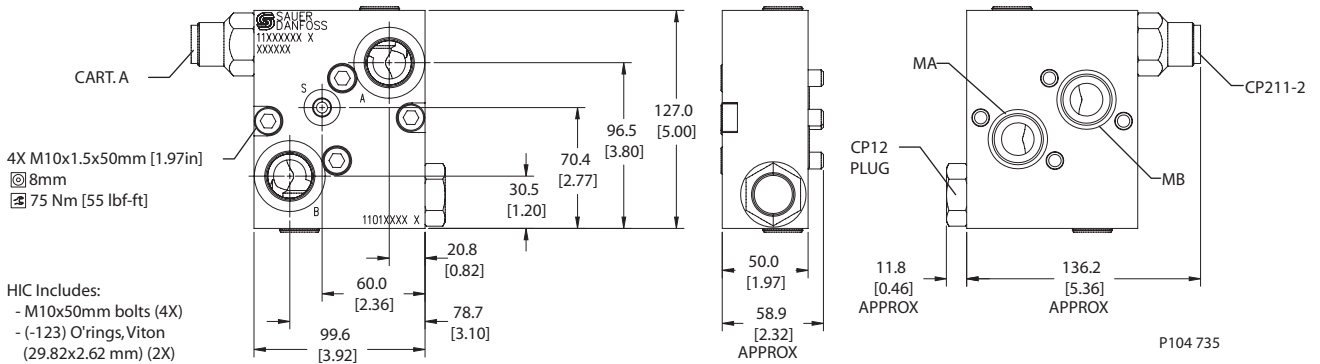
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi] |
| 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

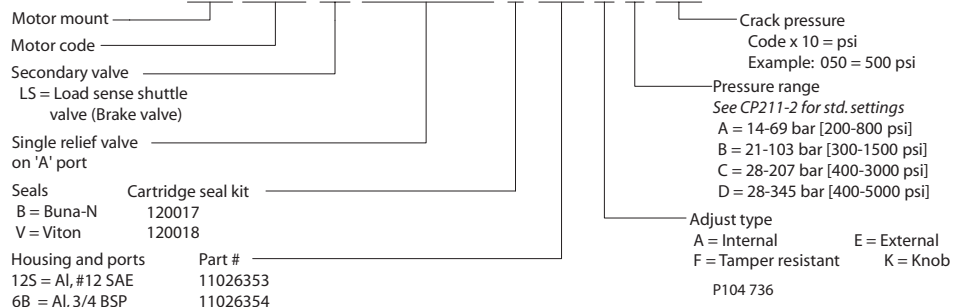
mm [in]



P104 735

### ORDERING INFORMATION

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



P104 736



# Cartridge Valves Technical Information

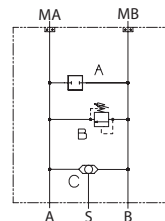
## Motor Mount HICs

### MM-DH-LS-BVME06

### OPERATION

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

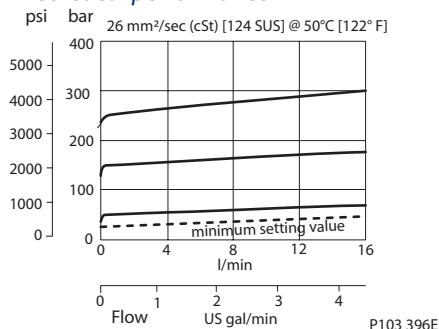
### Schematic



P104 910

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

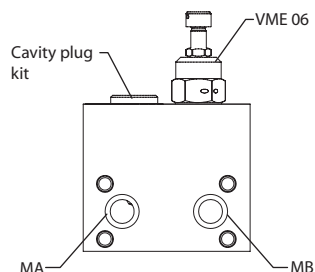
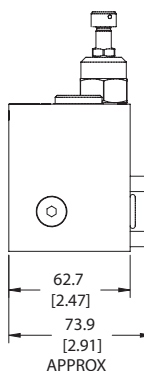
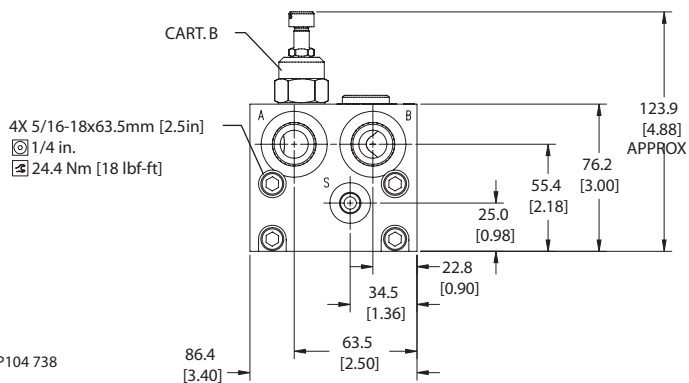
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.28 kg [2.82 lb]        |
| 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

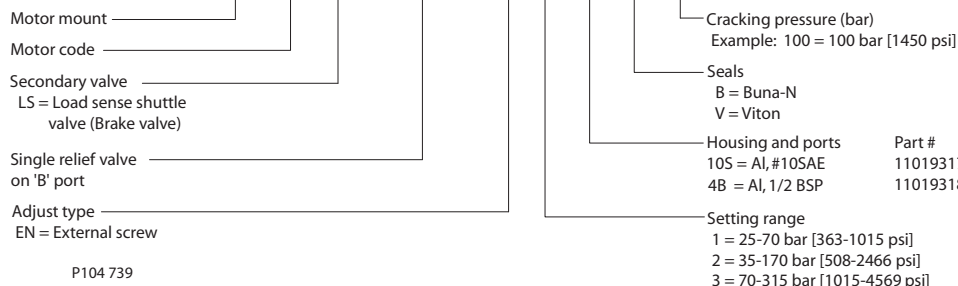
mm [in]



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

### ORDERING INFORMATION

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







# Cartridge Valves Technical Information

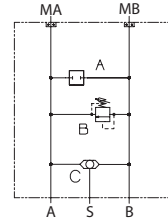
## Motor Mount HICs

### MM-DS-LS-BVME06

### OPERATION

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

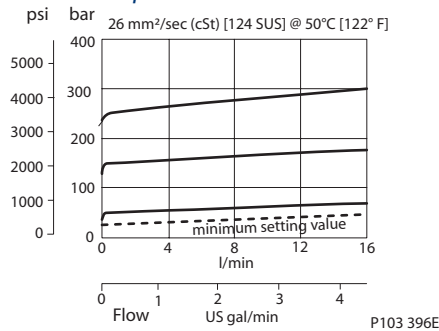
### Schematic



P104 910

### SPECIFICATIONS

#### Theoretical performance



P103 396E

#### Specifications

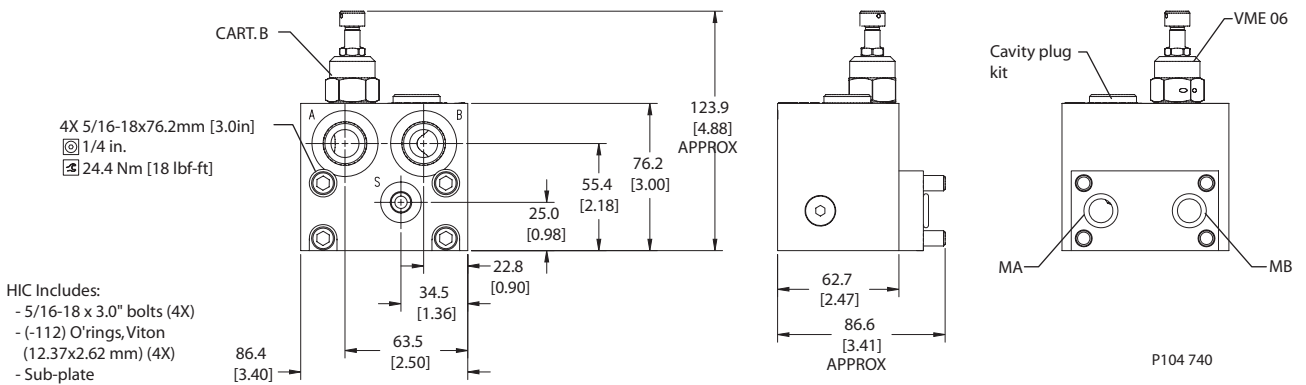
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.39 kg [3.06 lb]        |
| 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

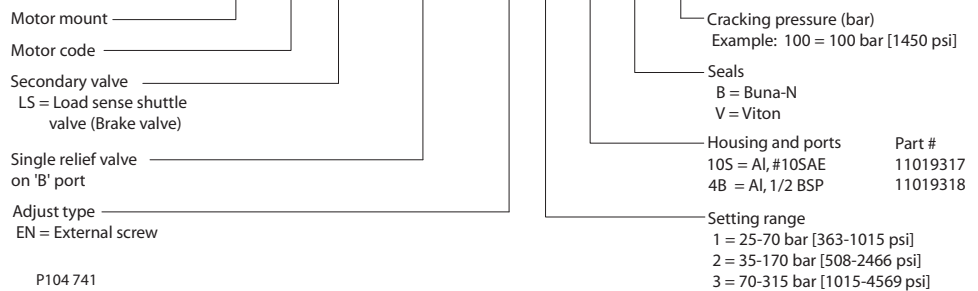
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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



P104 741



# Cartridge Valves Technical Information

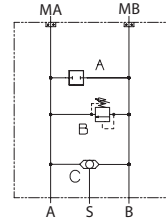
## Motor Mount HICs

### MM-OMP/OMR-LS-BVME06

### OPERATION

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

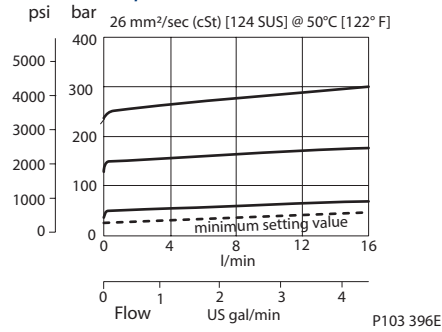
### Schematic



P104 910

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

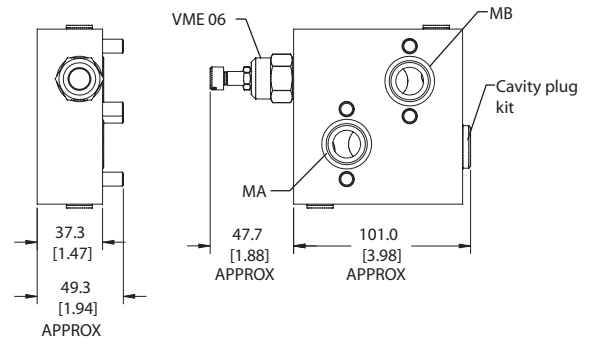
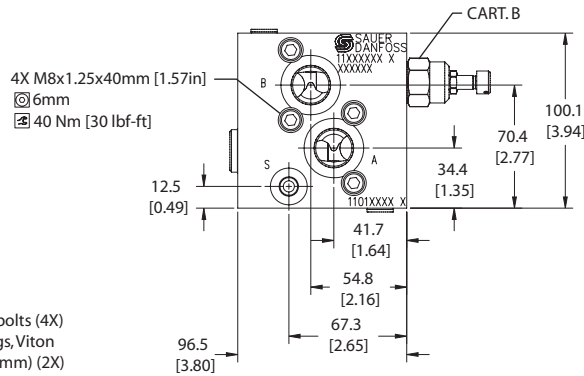
|                               |                          |
|-------------------------------|--------------------------|
| Rated pressure                | 210 bar [3045 psi]       |
| Rated flow at 7 bar [102 psi] | 40 l/min [11 US gal/min] |
| Weight                        | 1.13 kg [2.49 lb]        |
| 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

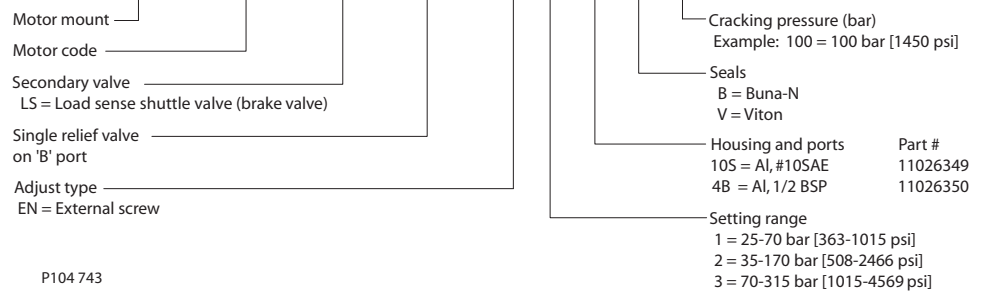
mm [in]



P104 742

### ORDERING INFORMATION

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



P104 743



# Cartridge Valves Technical Information

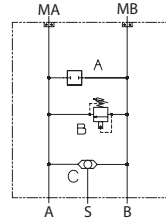
## Motor Mount HICs

### MM-OMH-LS-BCP211-2

### OPERATION

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

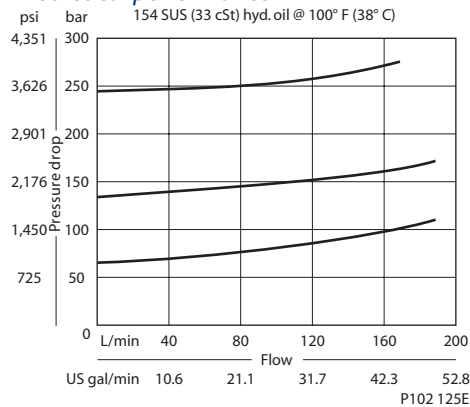
### Schematic



P104 737

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

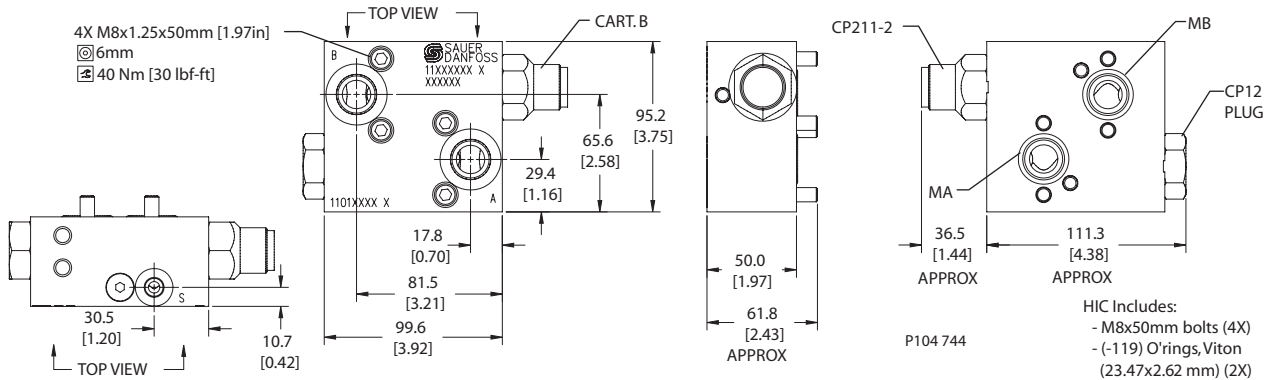
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi] |
| 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

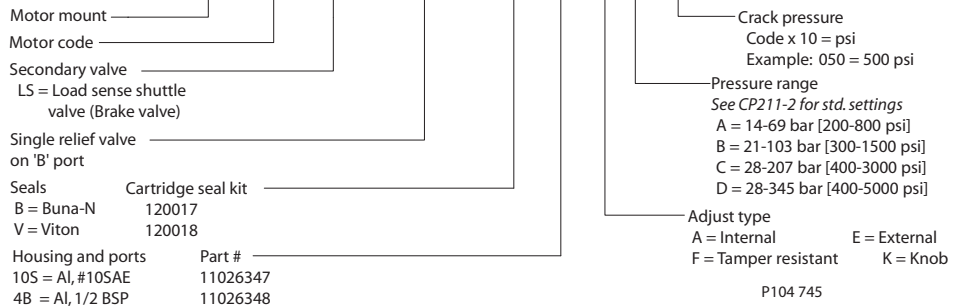
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

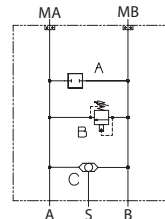
## Motor Mount HICs

### MM-OMS-LS-BCP211-2

### OPERATION

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

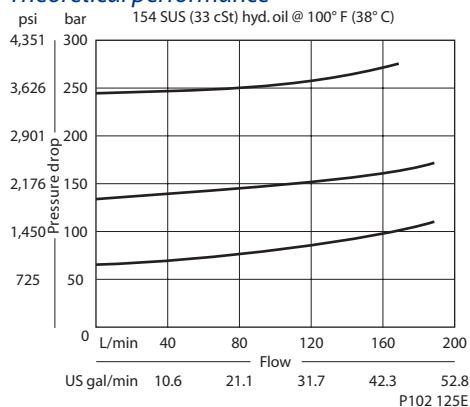
### Schematic



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 <sup>3</sup> /min [5 in <sup>3</sup> /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  |

### DIMENSIONS

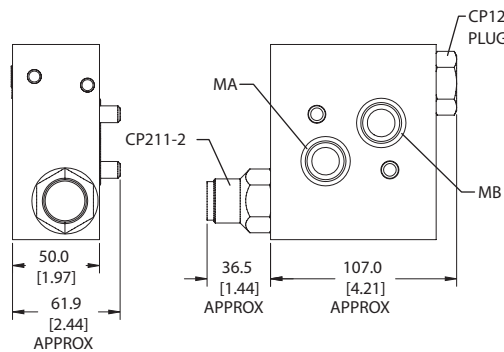
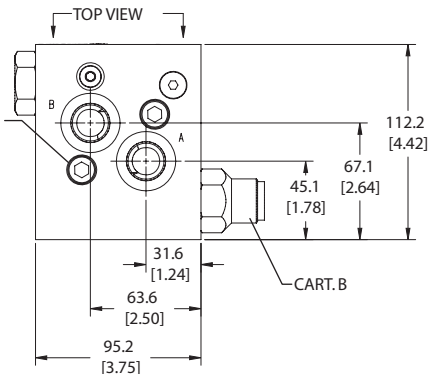
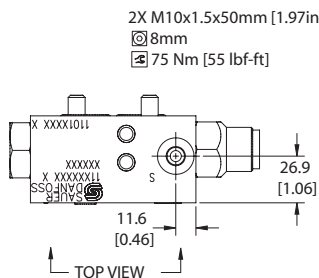
#### Cross-sectional view

mm [in]

HIC Includes:

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

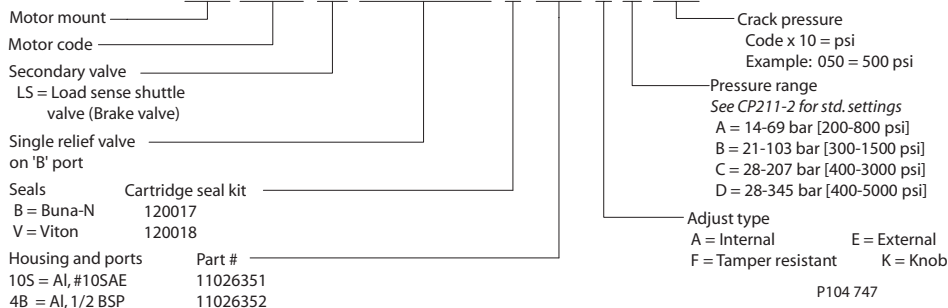
- 2X M10x1.5x50mm [1.97in]
- ⊘ 8mm
- ⊞ 75 Nm [55 lbf-ft]



P104 746

### ORDERING INFORMATION

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



P104 747



# Cartridge Valves Technical Information

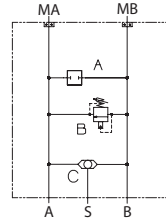
## Motor Mount HICs

### MM-OMT-LS-BCP211-2

### OPERATION

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

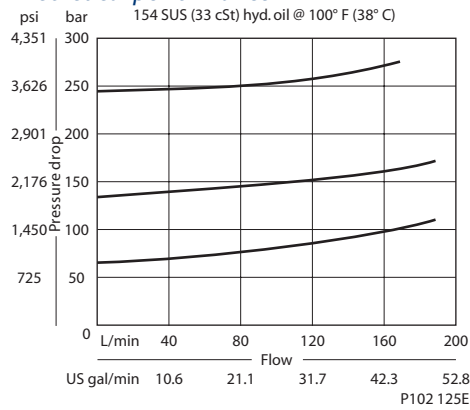
### Schematic



P104 737

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

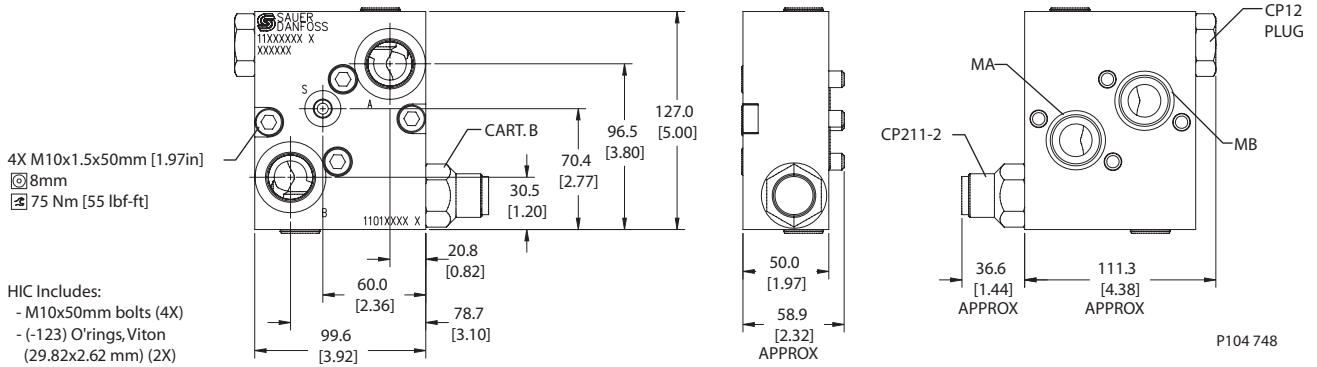
|                               |  |
|-------------------------------|--|
| Rated pressure                | 210 bar [3045 psi]   |
| Rated flow at 7 bar [102 psi] | 190 l/min [50 US gal/min]  |
| Leakage                       | 82 cm <sup>3</sup> /min [5 in <sup>3</sup> /min] @ at 207 bar [3000 psi] |
| 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

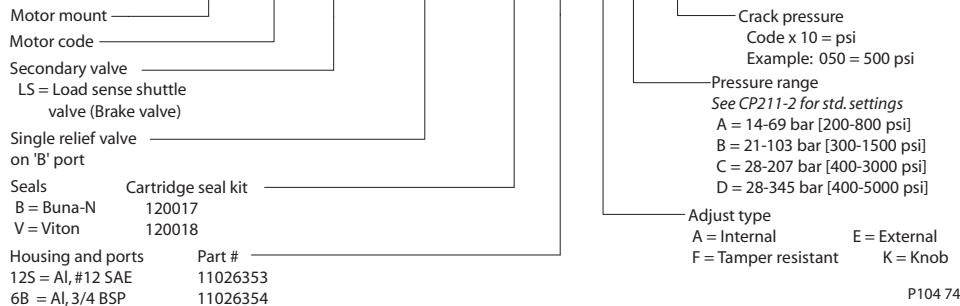
mm [in]



P104 748

### ORDERING INFORMATION

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



P104 749



# Cartridge Valves Technical Information

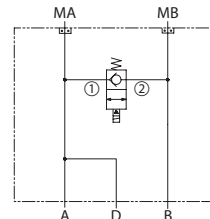
## Motor Mount HICs

### MM-DH-00-SVP10-NCR

### 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.

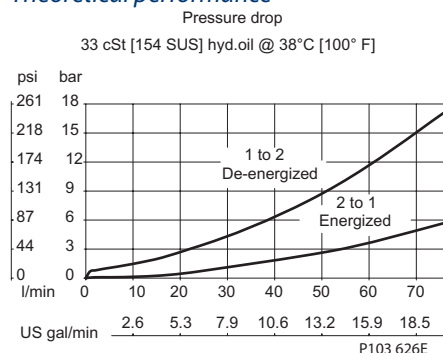
### Schematic



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                              |

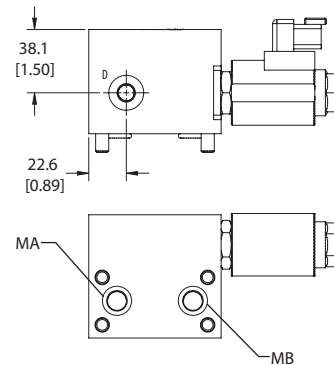
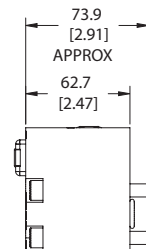
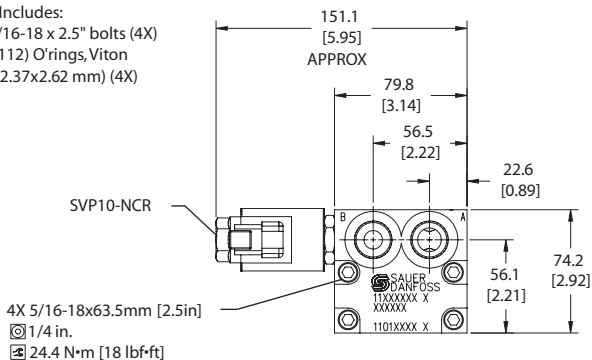
Motor mount HICs  
MM-DH-00-SVP10-NCR

### 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)



P104 751

### ORDERING INFORMATION

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

|                  |                                   |                          |          |
|------------------|-----------------------------------|--------------------------|----------|
| Motor mount      |                                   | Housing and ports        | Part #   |
| Motor code       |                                   | 10S = Al, #10SAE         | 11026356 |
| Secondary valve  | 00 = No valve                     | 4B = Al, 1/2 BSP         | 11026357 |
| Solenoid valve   |                                   | Filter 300 μm            |          |
| Coil voltage     | 00 = No coil                      | N = No filter (standard) |          |
|                  | 12D = 12 VDC (Standard Coil)      | F = with filter          |          |
|                  | 24D = 24 VDC (Standard Coil)      | Seals                    |          |
|                  | R12D = 12 VDC (R-Coil)            | B = Buna-N               |          |
|                  | R24D = 24 VDC (R-Coil)            | V = Viton                |          |
| 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 |                          |          |

\* These terminations not available on robust coil (R12D, R24D)

P104 752



# Cartridge Valves Technical Information

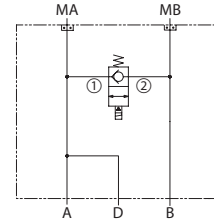
## Motor Mount HICs

### MM-DS-00-SVP10-NCR

### 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.

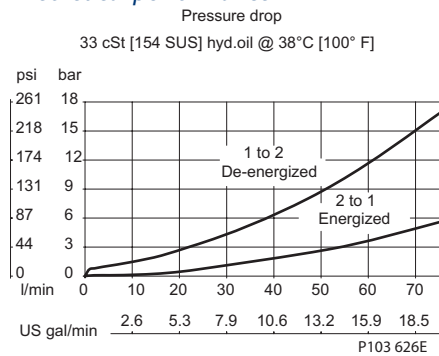
### Schematic



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                              |

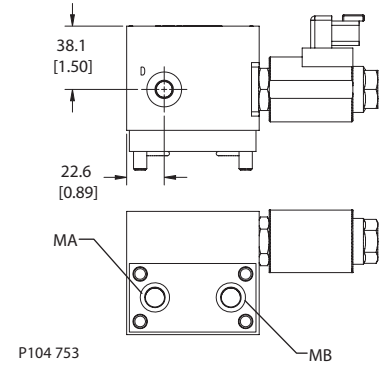
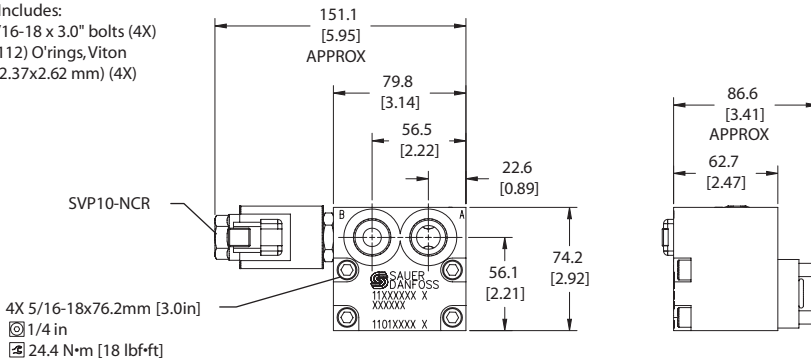
Motor mount HICs  
MM-DS-00-SVP10-NCR

### DIMENSIONS

#### Cross-sectional view

mm [in]

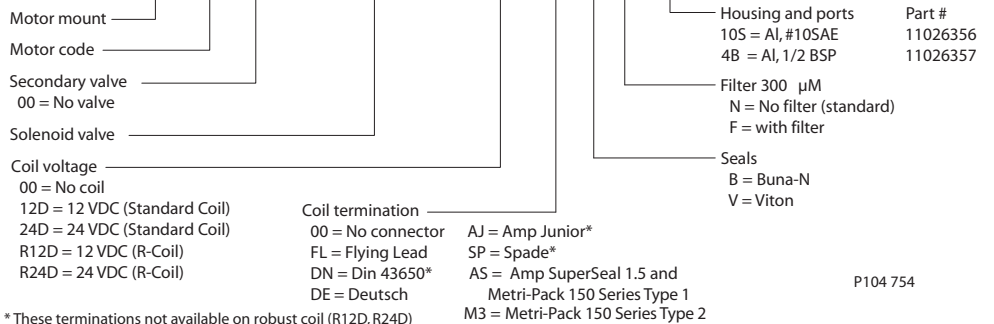
HIC Includes:  
- 5/16-18 x 3.0" bolts (4X)  
- (-112) O'rings, Viton (12.37x2.62 mm) (4X)



P104 753

### ORDERING INFORMATION

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



P104 754

\* These terminations not available on robust coil (R12D, R24D)



# Cartridge Valves Technical Information

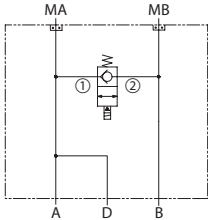
## Motor Mount HICs

### MM-OMP/OMR-00-SVP10-NCR

### 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.

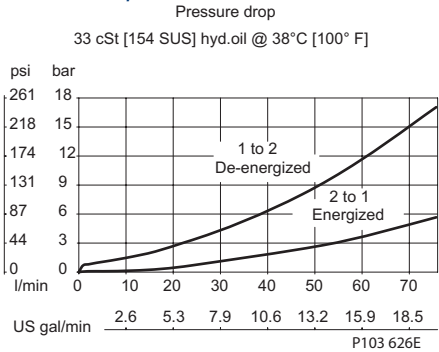
### Schematic



P104 750

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

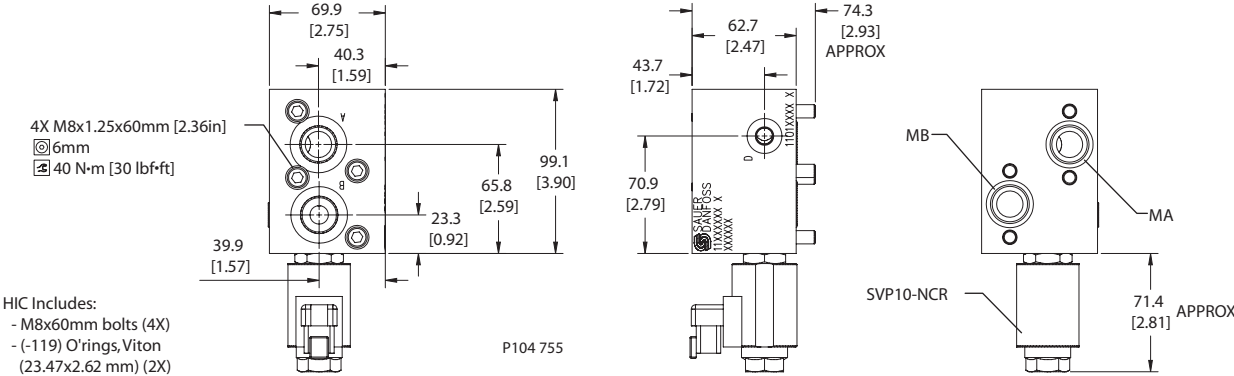
|                               |                                 |
|-------------------------------|---------------------------------|
| Rated pressure                | 210 bar [3045 psi]              |
| Rated flow at 7 bar [102 psi] | 80 l/min [21 US gal/min]        |
| Leakage                       | 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]

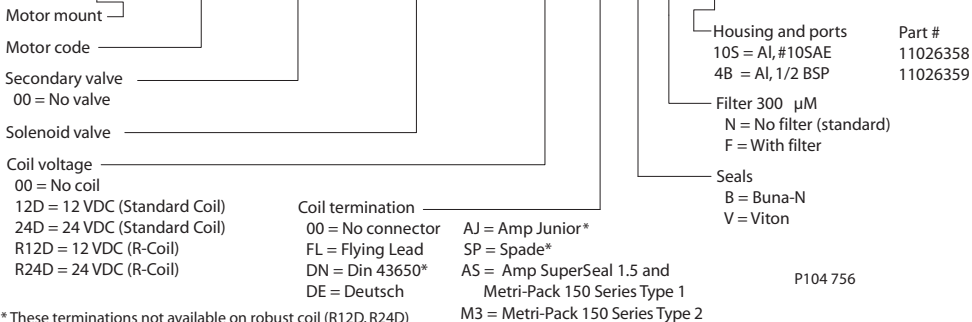


HIC Includes:  
- M8x60mm bolts (4X)  
- (-119) O-rings, Viton (23.47x2.62 mm) (2X)

P104 755

### ORDERING INFORMATION

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



P104 756

\* These terminations not available on robust coil (R12D, R24D)





# Cartridge Valves Technical Information

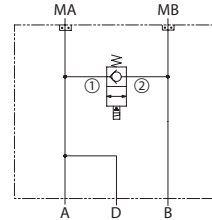
## Motor Mount HICs

### MM-OMH-00-SVP10-NCR

### 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.

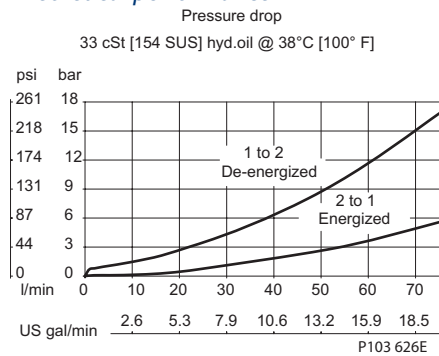
### Schematic



P104 750

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

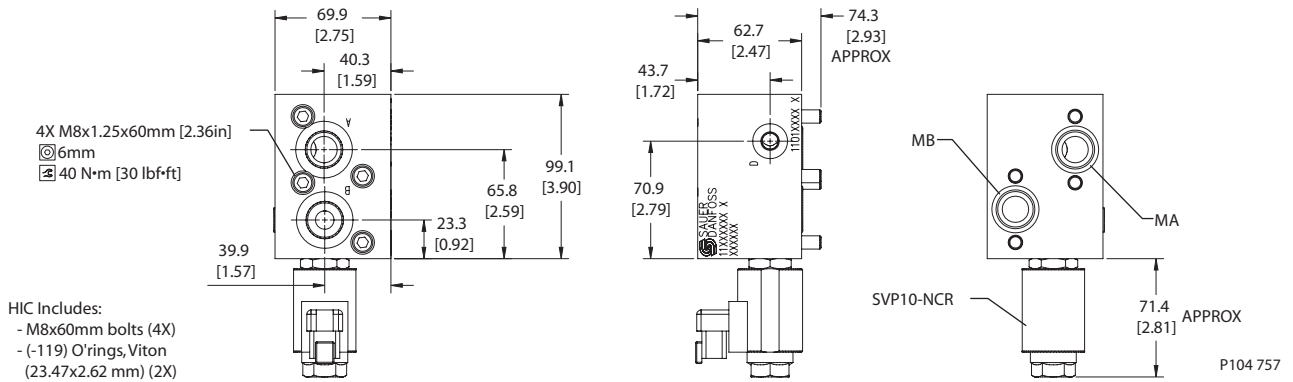
|                               |                                 |
|-------------------------------|---------------------------------|
| Rated pressure                | 210 bar [3045 psi]              |
| Rated flow at 7 bar [102 psi] | 80 l/min [21 US gal/min]        |
| Leakage                       | 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

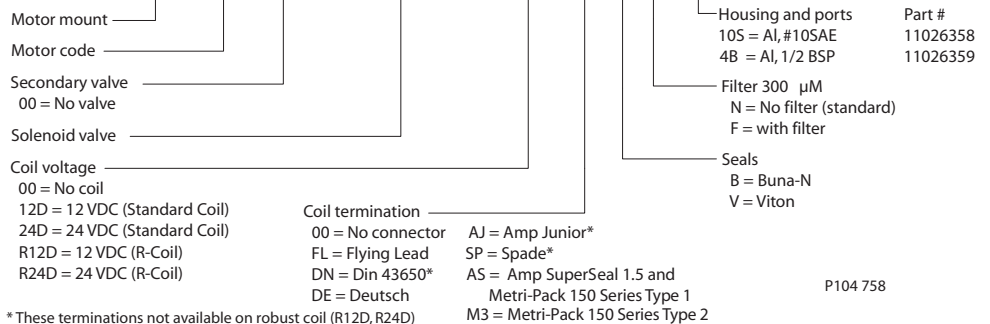
#### Cross-sectional view

mm [in]



### ORDERING INFORMATION

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





# Cartridge Valves Technical Information

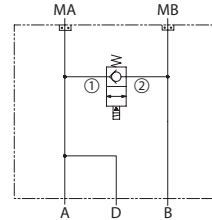
## Motor Mount HICs

### MM-OMS-00-SVP10-NCR

### 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.

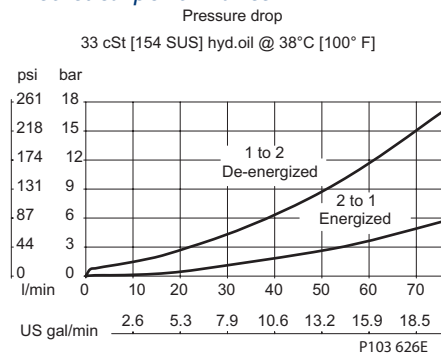
### Schematic



P104 750

### SPECIFICATIONS

#### Theoretical performance



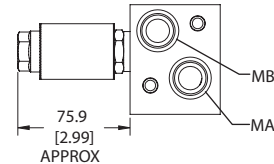
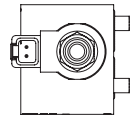
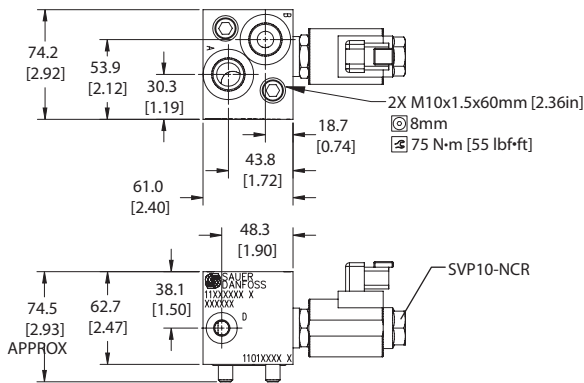
#### Specifications

|                               |                                 |
|-------------------------------|---------------------------------|
| 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                             |

### DIMENSIONS

#### Cross-sectional view

mm [in]

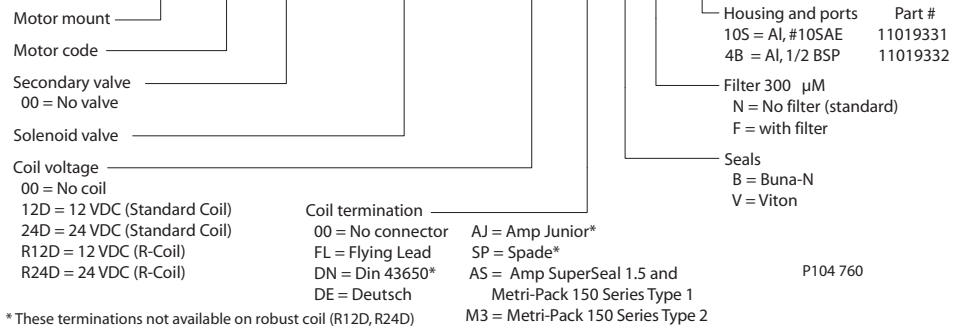


P104 759

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





# Cartridge Valves Technical Information

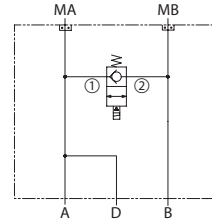
## Motor Mount HICs

### MM-OMT-00-CP502-3

### 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.

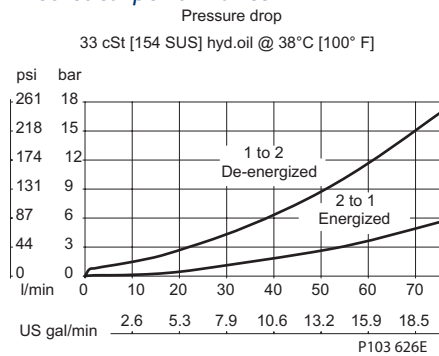
### Schematic



P104 750

### SPECIFICATIONS

#### Theoretical performance



#### Specifications

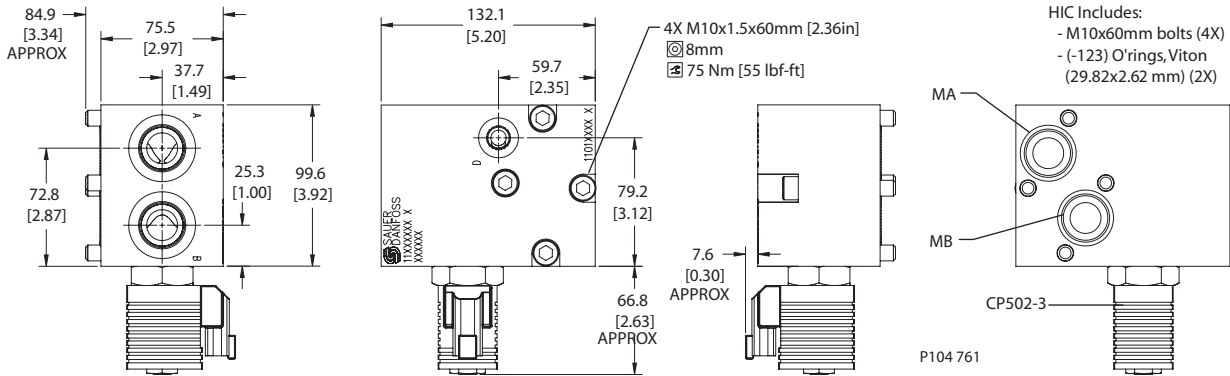
|                               |                                 |
|-------------------------------|---------------------------------|
| Rated pressure                | 210 bar [3045 psi]              |
| Rated flow at 7 bar [102 psi] | 80 l/min [21 US gal/min]        |
| Leakage                       | 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

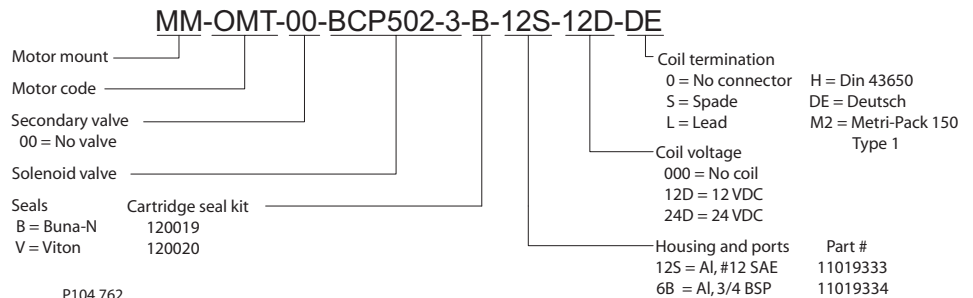
### DIMENSIONS

#### Cross-sectional view

mm [in]



### ORDERING INFORMATION





# Cartridge Valves Technical Information

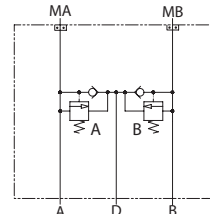
## Motor Mount HICs

### MM-DH-00-DPVLP

### OPERATION

This is a dual shock valve with anticavitation checks that mounts to DH 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.

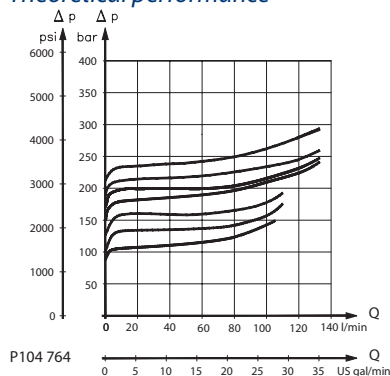
### Schematic



P104 763

### SPECIFICATIONS

#### Theoretical performance



P104 764

#### Specifications

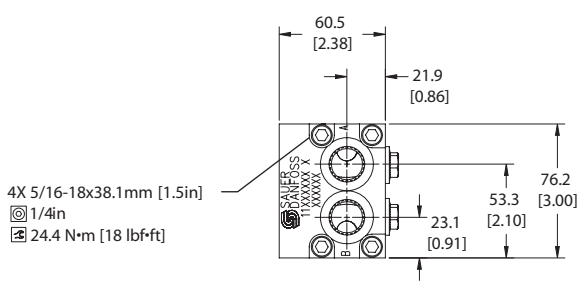
|                               |   |
|-------------------------------|---|
| Rated pressure                | 345 bar [5003 psi]  |
| Rated flow at 7 bar [102 psi] | 57 l/min [15 US gal/min]  |
| Crack pressure                | 0.5 bar [7 psi]   |
| Leakage                       | 5 cm <sup>3</sup> /min [0.3 in <sup>3</sup> /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-DPVLP

### DIMENSIONS

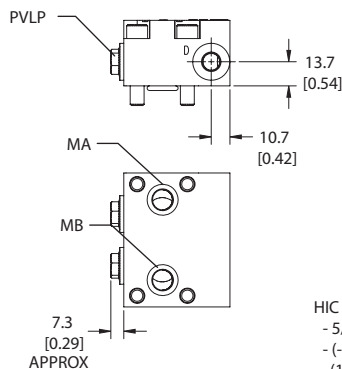
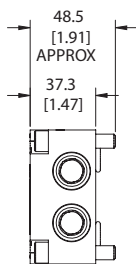
#### Cross-sectional view

mm [in]



4X 5/16-18x38.1mm [1.5in]  
 Ⓞ 1/4in  
 Ⓜ 24.4 N•m [18 lbf•ft]

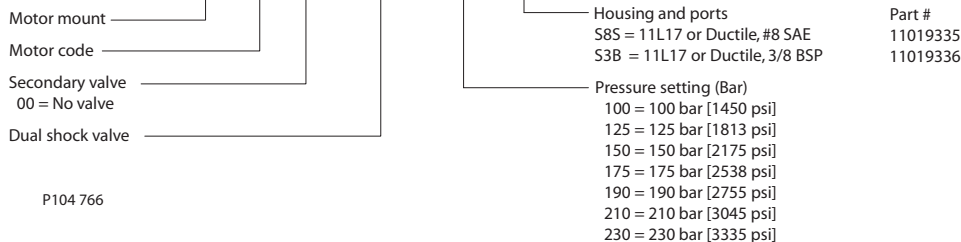
P104 765



HIC Includes:  
 - 5/16-18 x 1.5" bolts (4X)  
 - (-112) O'rings, Viton (12.37x2.62 mm) (4X)

### ORDERING INFORMATION

#### MM-DH-00-DPVLP-100-S8S



P104 766



# Cartridge Valves Technical Information

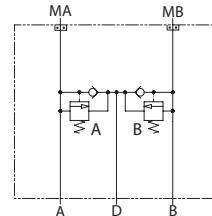
## Motor Mount HICs

### MM-DS-00-DPVLP

### 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.

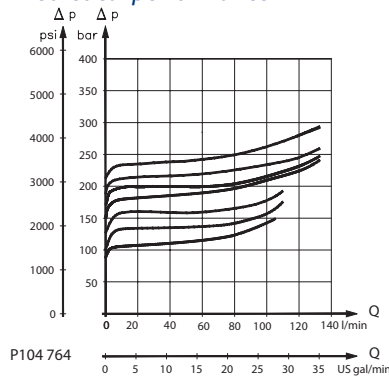
### Schematic



P104 763

### SPECIFICATIONS

#### Theoretical performance



P104 764

#### Specifications

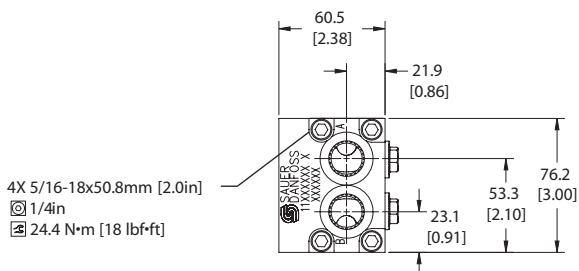
|                               |   |
|-------------------------------|---|
| Rated pressure                | 345 bar [5003 psi]  |
| Rated flow at 7 bar [102 psi] | 57 l/min [15 US gal/min]  |
| Crack pressure                | 0.5 bar [7 psi]   |
| Leakage                       | 5 cm <sup>3</sup> /min [0.3 in <sup>3</sup> /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

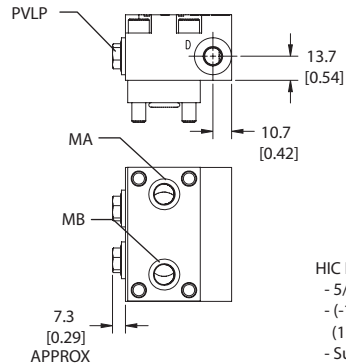
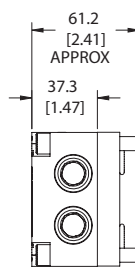
#### Cross-sectional view

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

Motor mount  
 Motor code  
 Secondary valve  
 00 = No valve  
 Dual shock valve

Housing and ports  
 S8S = 11L17 or Ductile, #8 SAE  
 S3B = 11L17 or Ductile, 3/8 BSP  
 Pressure setting (Bar)  
 100 = 100 bar [1450 psi]  
 125 = 125 bar [1813 psi]  
 150 = 150 bar [2175 psi]  
 175 = 175 bar [2538 psi]  
 190 = 190 bar [2755 psi]  
 210 = 210 bar [3045 psi]  
 230 = 230 bar [3335 psi]

Part #  
 11019335  
 11019336

P104 768



# Cartridge Valves Technical Information

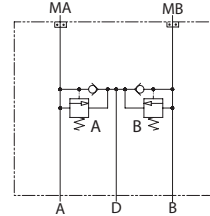
## Motor Mount HICs

### MM-OMP/OMR-00-DPVLP

### 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.

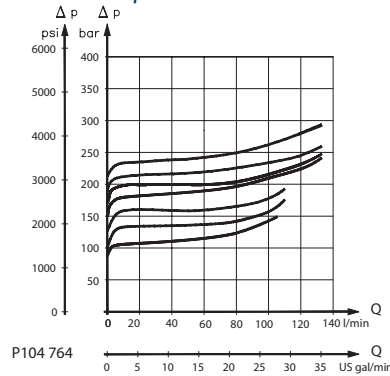
### Schematic



P104 763

### SPECIFICATIONS

#### Theoretical performance



P104 764

#### Specifications

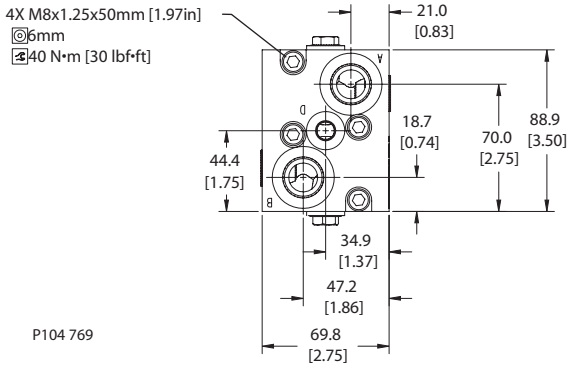
|                               |   |
|-------------------------------|---|
| Rated pressure                | 345 bar [5003 psi]  |
| Rated flow at 7 bar [102 psi] | 57 l/min [15 US gal/min]  |
| Crack pressure                | 0.5 bar [7 psi]   |
| Leakage                       | 5 cm <sup>3</sup> /min [0.3 in <sup>3</sup> /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                         | DS  |

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

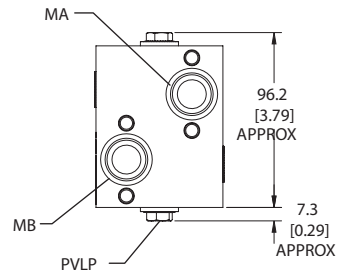
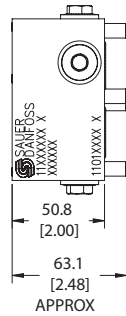
### DIMENSIONS

#### Cross-sectional view

mm [in]



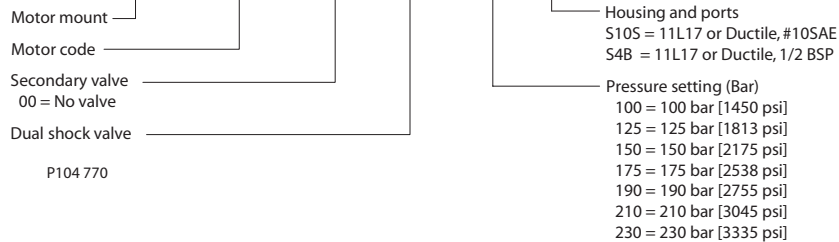
P104 769



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



# Cartridge Valves Technical Information

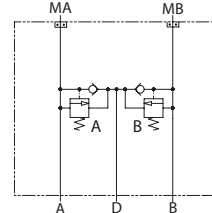
## Motor Mount HICs

### MM-OMH-00-DPVLP

### 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.

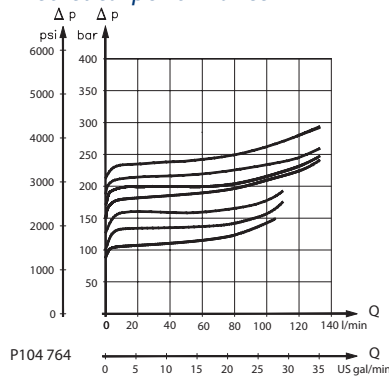
### Schematic



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 <sup>3</sup> /min [0.3 in <sup>3</sup> /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                         | OMH   |

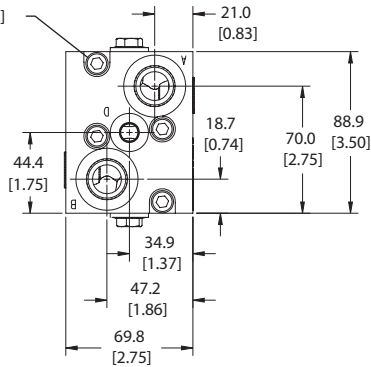
Motor mount HICs  
MM-OMH-00-DPVLP

### DIMENSIONS

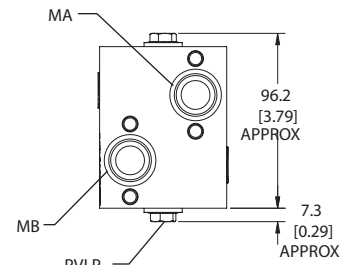
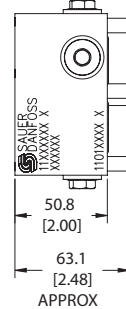
#### Cross-sectional view

mm [in]

4X M8x1.25x50mm [1.97in]  
 □ 6mm  
 ⚙ 40 N·m [30 lbf·ft]



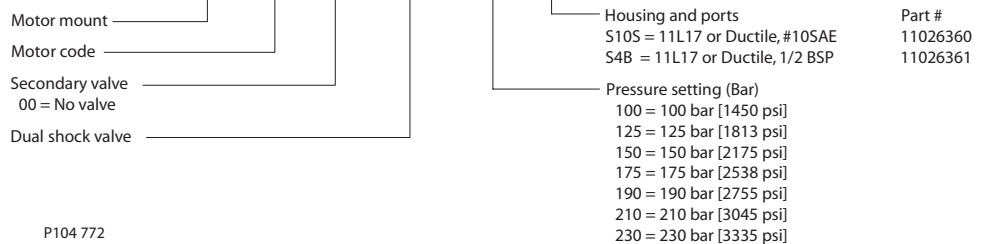
P104 771



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

### ORDERING INFORMATION

#### MM-OMH-00-DPVLP-175-S4B



P104 772



# Cartridge Valves Technical Information

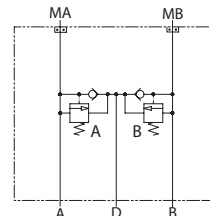
## Motor Mount HICs

### MM-OMS-00-DPVLP

### 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.

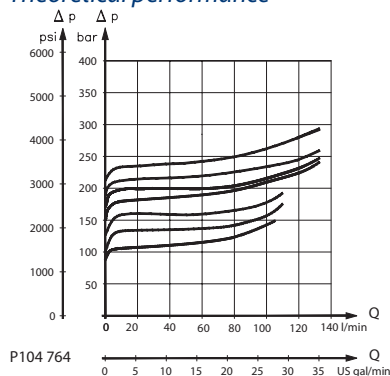
### Schematic



P104 763

### SPECIFICATIONS

#### Theoretical performance



P104 764

#### Specifications

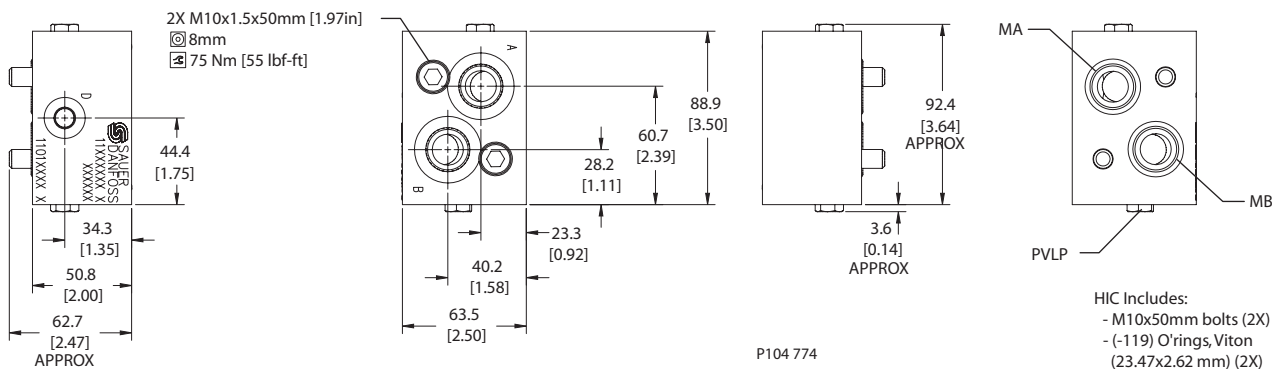
|                               |   |
|-------------------------------|---|
| Rated pressure                | 345 bar [5003 psi]  |
| Rated flow at 7 bar [102 psi] | 57 l/min [15 US gal/min]  |
| Crack pressure                | 0.5 bar [7 psi]   |
| Leakage                       | 5 cm <sup>3</sup> /min [0.3 in <sup>3</sup> /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-DPVLP

### 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-DPVLP-175-S10S

|             |            |                 |                  |                                 |          |
|-------------|------------|-----------------|------------------|---------------------------------|----------|
| Motor mount | Motor code | Secondary valve | Dual shock valve | Housing and ports               | Part #   |
|             |            | 00 = No valve   |                  | S10S = 11L17 or Ductile, #10SAE | 11019339 |
|             |            |                 |                  | S4B = 11L17 or Ductile, 1/2 BSP | 11019340 |
|             |            |                 |                  | Pressure setting (Bar)          |          |
|             |            |                 |                  | 100 = 100 bar [1450 psi]        |          |
|             |            |                 |                  | 125 = 125 bar [1813 psi]        |          |
|             |            |                 |                  | 150 = 150 bar [2175 psi]        |          |
|             |            |                 |                  | 175 = 175 bar [2538 psi]        |          |
|             |            |                 |                  | 190 = 190 bar [2755 psi]        |          |
|             |            |                 |                  | 210 = 210 bar [3045 psi]        |          |
|             |            |                 |                  | 230 = 230 bar [3335 psi]        |          |

P104 775





# Cartridge Valves Technical Information

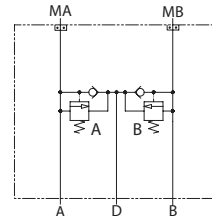
## Motor Mount HICs

### MM-OMT-00-DPVLP

### 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.

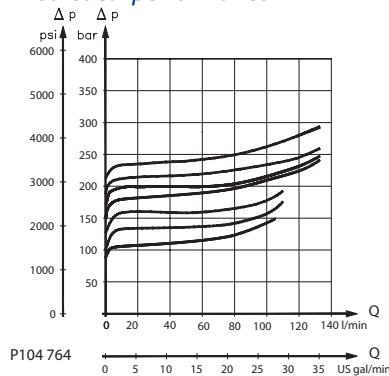
### Schematic



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 <sup>3</sup> /min [0.3 in <sup>3</sup> /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   |

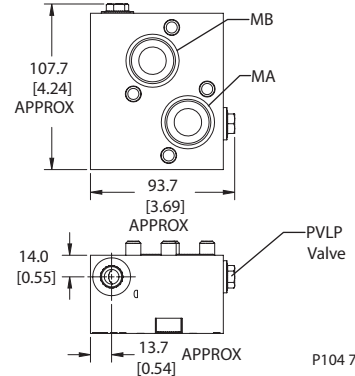
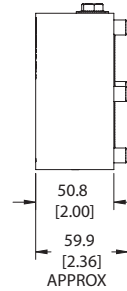
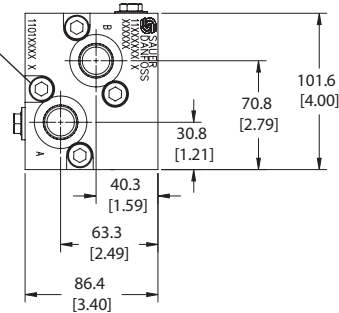
Motor mount HICs  
MM-OMT-00-DPVLP

### 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

- Motor mount
- Motor code
- Secondary valve  
00 = No valve
- Dual shock valve

- Housing and ports  
S10S = 11L17 or Ductile, #10SAE  
S4B = 11L17 or Ductile, 1/2 BSP

- Part #  
11026364  
11026365

- Pressure setting (Bar)  
100 = 100 bar [1450 psi]  
125 = 125 bar [1813 psi]  
150 = 150 bar [2175 psi]  
175 = 175 bar [2538 psi]  
190 = 190 bar [2755 psi]  
210 = 210 bar [3045 psi]  
230 = 230 bar [3335 psi]

P104 777



# Cartridge Valves Technical Information

## Motor Mount HICs

### Notes

Motor mount HICs