



FLOW CONTROL VALVES



FDB20. VALVES.

Methodology :

This document is intended for manufacturers of machines that incorporate Poclairn Hydraulics products. It describes the technical characteristics of Poclairn Hydraulics products and specifies installation conditions that will ensure optimum operation.

This document includes important comments concerning safety. They are indicated in the following way:



Safety comment.

This document also includes essential operating instructions for the product and general information. These are indicated in the following way:



Essential instructions.



General information .



Information on the model number. Information on the model code.



Weight of component without oil.



Volume of oil.



Units.



Tightening torque.



Screws.



Information intended for Poclairn-Hydraulics personnel.

The views in this document are created using metric standards.

The dimensional data is given in mm and in inches (inches are between brackets and italic)



CONTENT



HYDRAULIC BLOCKS

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Hydraulic blocks

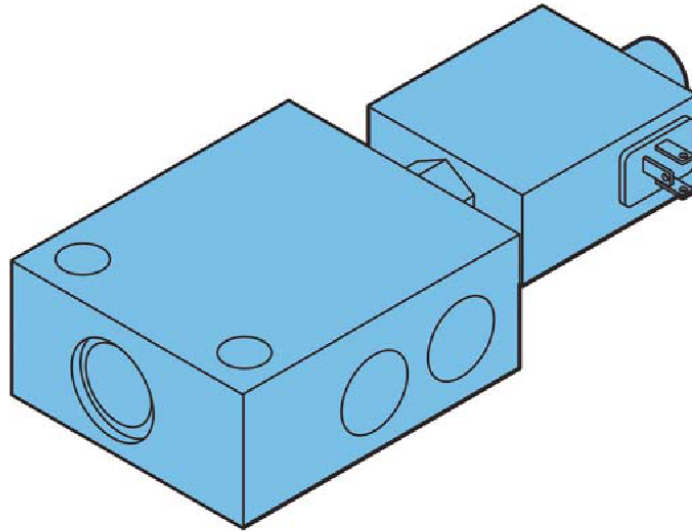
OTHER COMPONENTS

54

Other hydraulic components

BYPASS ELECTRO-VALVE BLOCK

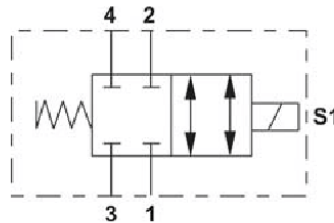
Function: Control cylinder bypass for a pump or tandem pump swash plate.



Commercial Description EV-CED10D51A20NG2 BLOCK

| | |
|---------------|---|
| Part number | 004843318B |
| Compatibility | Transmissions with combined integrated braking systems. |

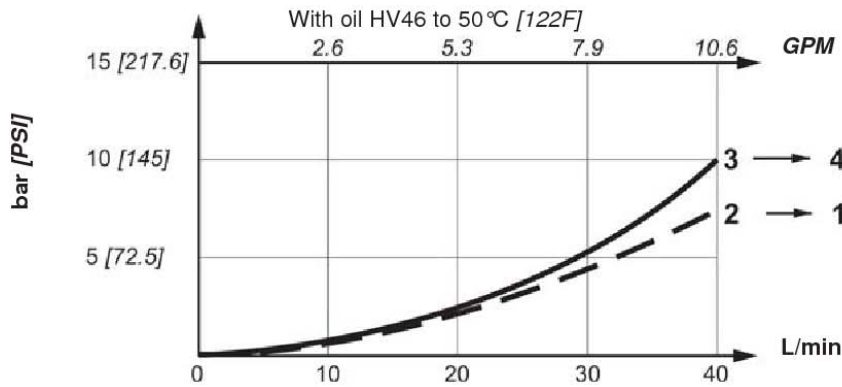
Hydraulic symbol



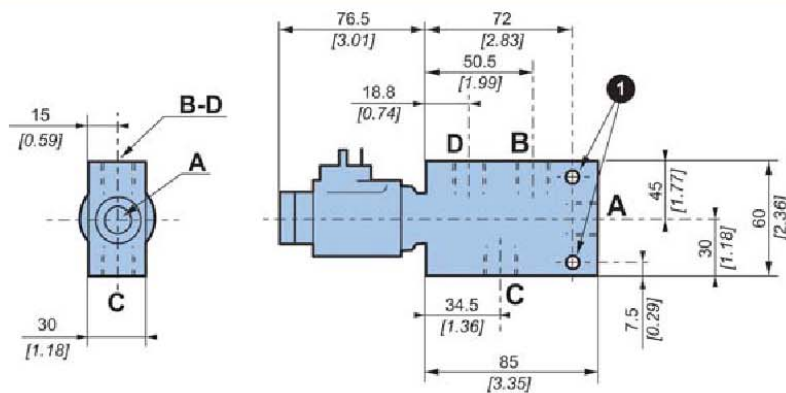
Characteristics

| | |
|---|---|
| Maximum flow rate | 40 L/min [10.57 GPM] |
| Response time | Time to energize: 40/80 ms Time to de-energize: 30/70 ms |
| Internal leakage at 200 bars [2900 PSI] | 80 cm ³ / min max. [max. 4.88 cu in/min] |
| Operating temperature range | - 40 °C to + 100 °C [- 40 °F to 212 °F] |
| Voltage | 12 V DC |
| Electrical interface | ISO 4 400 / DIN 43 650 (IP 65) See CDE SA CONNECTOR KIT (brochure A01889D) |
| Power | 26 W [0.035 HP] |
| Mass | 0.3 kg [0.6 lb] |

Pressure drop



Dimensions



Installation

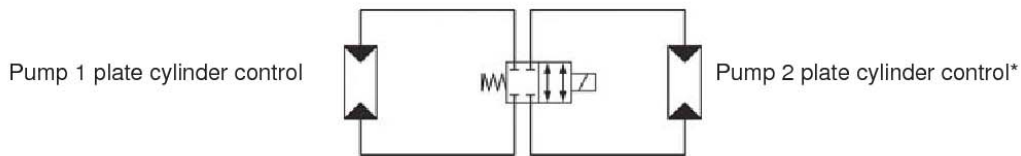
Block mounting position: Indifferent.

Chassis mounting:

| Ref. | | Quantity | Class | N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|------|-----|----------|-------|--|
| 1 | M 6 | 2 | 8.8 | 10 [7.37] |

Hydraulic connections (for a tandem pump) :

Electrical control by the brake valve when actuated

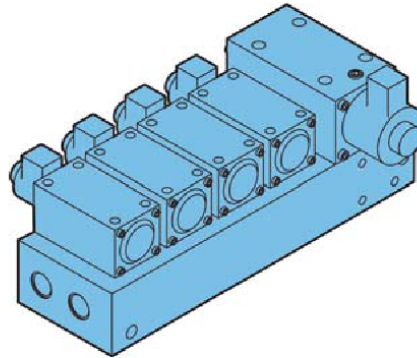


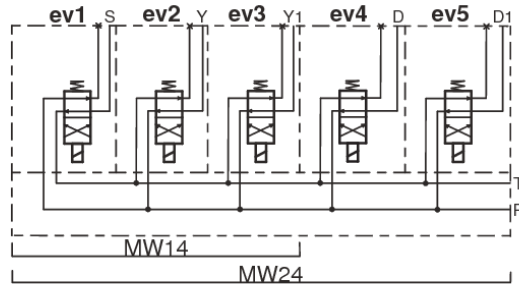
* When only one pump is used, the two unused orifices are plugged.

| Port | Function | Connection | Max pressure bar [PSI] | N.m [lb.ft] ± 10 % |
|------|------------------------------------|--------------------------|------------------------|--------------------|
| 1-2 | Pump displacement control | Ø 17 Gaz Cyl [G 3/8"] | 300 [4 351] | 55 [41] |
| 3-4 | Displacement control of other pump | (UNF: Please contact us) | 100 [1 450] in use | |

DISPLACEMENT SHIFT VALVE BLOCK

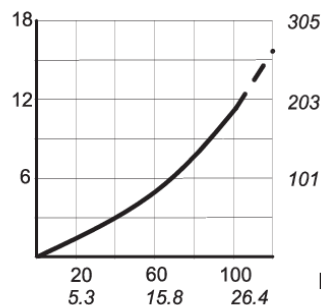
Function: Controls displacement shift for MW motors and release of parking brakes.



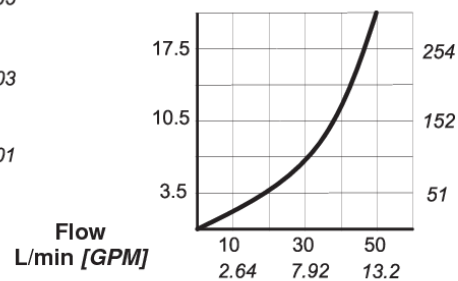
| Commercial Description | BLOC VALVE AVEC REPARTITION | |
|------------------------|---|------------|
| Designed for motors: | MW24 | MW14 |
| Part number | 003643609U | R00270015U |
| Compatibility | SPEED +™ Transmission systems. | |
| Hydraulic symbol |  | |

| Features | |
|----------------------|---|
| Voltage | 12 V DC |
| Electrical interface | ISO 4400 / DIN 43650 (IP 65). See CDE SA CONNECTOR KIT. |
| Power | 52 W [0.07 HP] |
| Mass | 20 kg [44.1 lb] |
| Electrovalve | Solenoid valve |

Pressure drop
bar [PSI]



ev2 - ev3 - ev4 - ev5

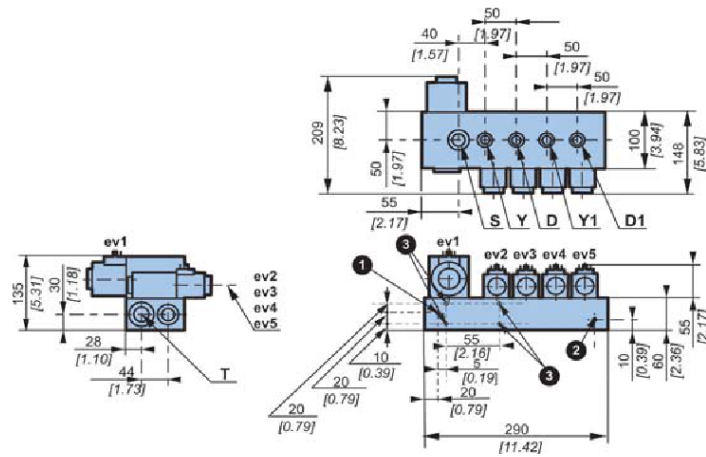


| | | |
|----------|-----------------------|----------------------------|
| Function | Parking brake control | Motor displacement control |
| Power | 52 W [0.07 HP] | 33 W [0.044 HP] |

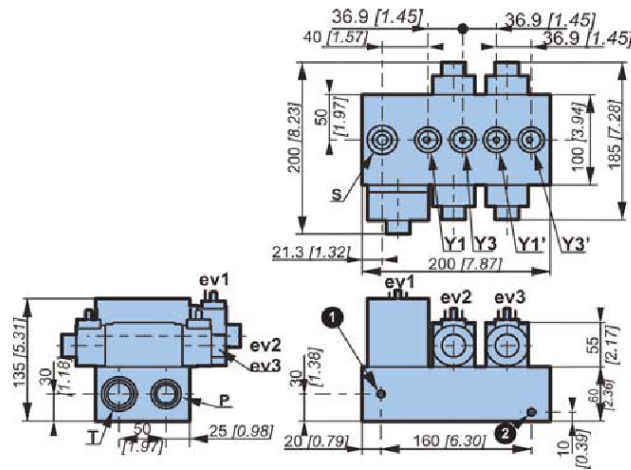


Never drive the vehicle when the parking brake is engaged.

Dimensions of valve bloc for 4 displacements motor MW24



Dimensions of valve bloc for 3 displacements motor MW



Installation

Valve mounting position: Indifferent.



This block must be protected from water spray, or its solenoids will be affected.

Chassis mounting:

| Ref. | | Quantity | Class | Thread depth mm [in] | N.m [lb.ft] ± 10 % |
|------|-----|----------|-------|-------------------------|--------------------|
| 1 2 | M 8 | 2 | 8.8 | 13 [0.51] | 25 [18.4] |
| 3 | M 6 | 4 | 8.8 | 15 [0.59] | 10 [7.4] |

Hydraulic connections:

| Port | Function | Connection | | Max pressure bar [PSI] | N.m [lb.ft] ± 10 % |
|------------------|----------------------------|------------|------------|---------------------------|--------------------|
| | | Metric | SAE | | |
| P | Supply | M 22 x 1.5 | Contact us | 30 [435] | 100 [74] |
| S | Parking brake | | | | |
| T | Tank | | | | |
| Y - Y1 D - D1 | Motor displacement control | M 18 x 1.5 | Contact us | 30 [435] | 70 [52] |

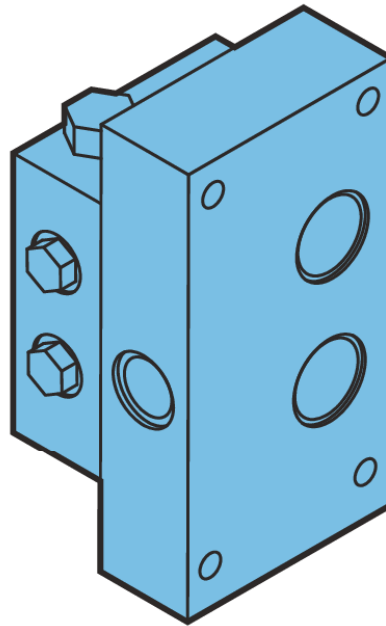


Recommended :

- A mechanical locking of the electric control in order not to change displacement by mistake.
- A LED indicating activation/deactivation of the parking brake.

EXCHANGE VALVE

Function: In a closed circuit, takes oil from the low pressure side and routes it to the coolant.



Commercial Description

EXCHANGE VALVE

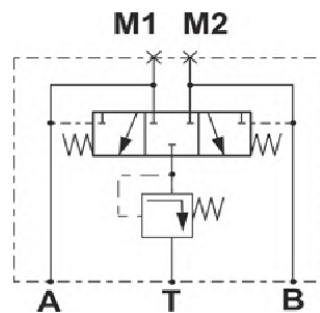
Part number depends on relief valve setting

16 bar [232 PSI] : 004843372K
 22 bar [319 PSI] : 004343332N
 30 bar [435 PSI] : 004343321B

Compatibility

All types of transmission

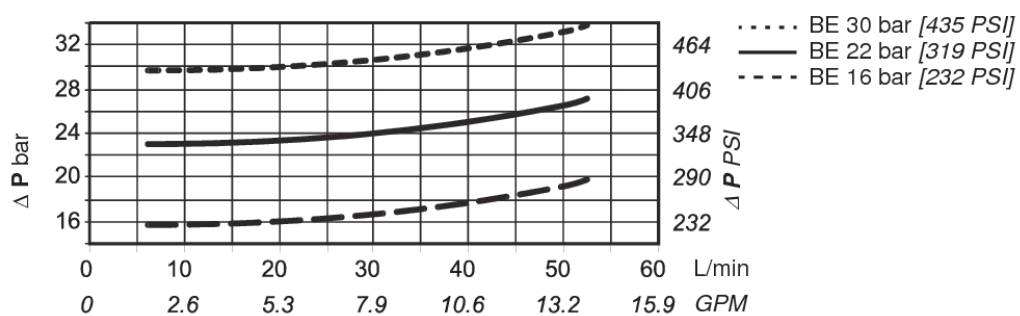
Hydraulic symbol



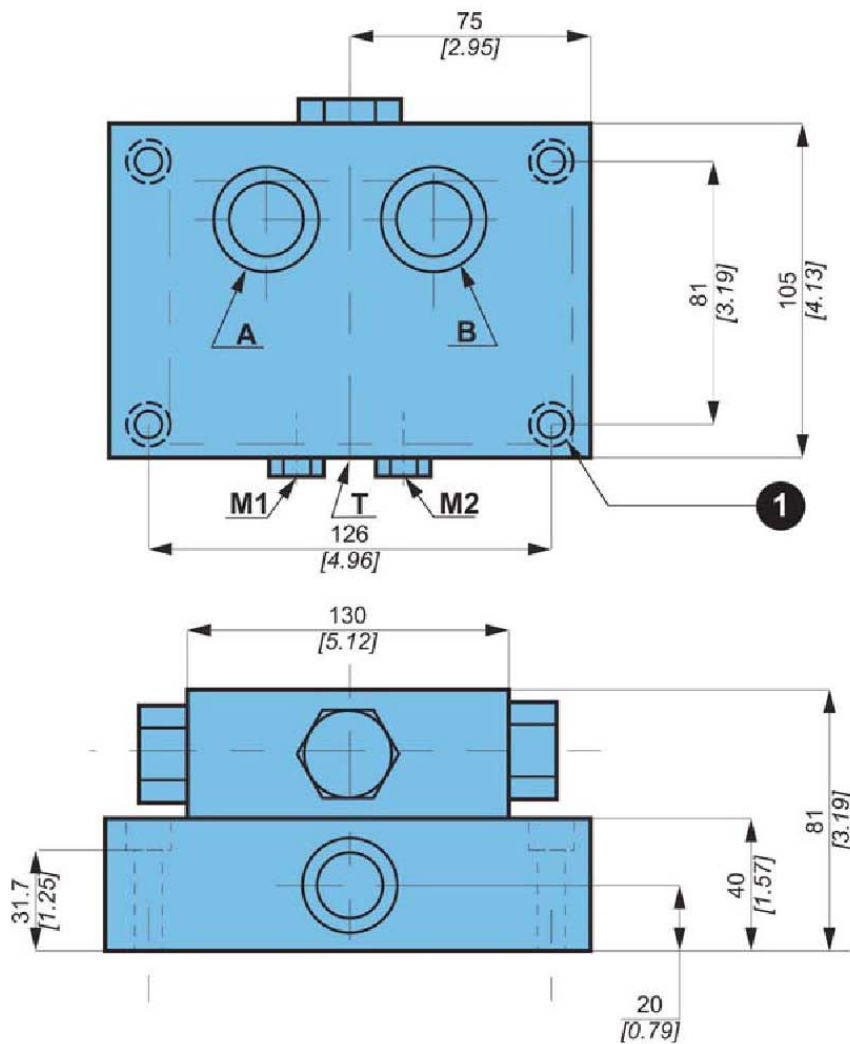
Characteristics

Mass 7.8 kg [17.19 lb]

Opening range




Dimensions




Installation

Valve mounting position: Indifferent.

Chassis mounting :

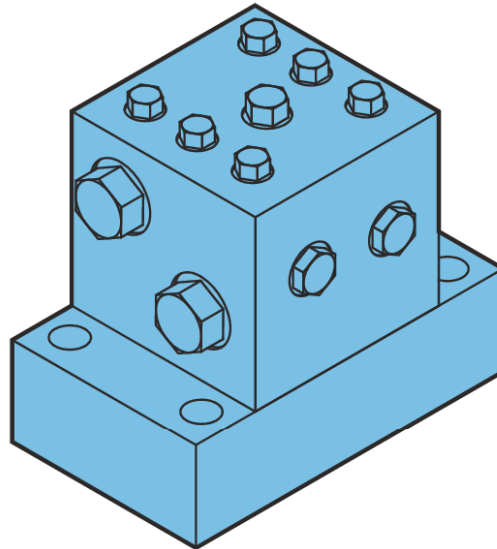
| Ref. |  | Quantity | Class | Thread depth mm [in] |  N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|------|---|----------|-------|-------------------------|--|
| 1 | M 8 | 4 | 8.8 | 13 [0.51] | 25 [18.4] |

Hydraulic connections :

| Port | Function | Connection | Max pressure bar [PSI] |  N.m [lb.ft] ± 10 % |
|------|--------------------------|------------------|---------------------------|--|
| A | HP connection | M 27 x 2 | 420 [6 100] | 200 [148] |
| B | HP connection | M 27 x 2 | 420 [6 100] | 200 [148] |
| T | Tank connection | M 22 x 1.5 | - | 100 [74] |
| M1 | Pressure measurement (A) | 7/16 - 20 UNF 2B | 420 [6 100] | 20 [15] |
| M2 | Pressure measurement (B) | 7/16 - 20 UNF 2B | 420 [6 100] | 20 [15] |

EXCHANGE BLOCK SAFETY WITH RELIEF VALVE

Function: In a closed circuit, takes oil from the low pressure side of the circuit where the exchange valve keeps a minimum pressure of 22 bars, and routes it to the cooler.

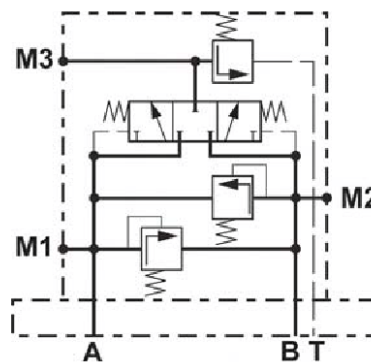


Commercial description **BLOC BEHS + E**

Part number depends on relief valve setting 22 bar [319 PSI] : 004343331M

Compatibility All types of transmission

Hydraulic symbol

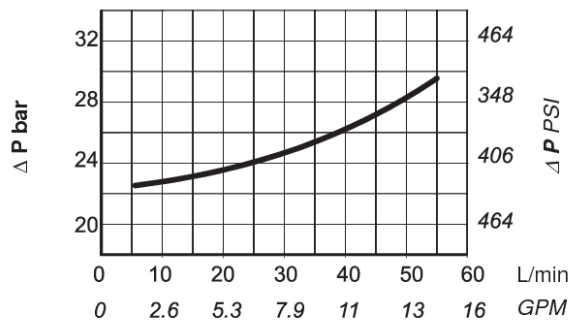


For others setting values, consult your Poclain Hydraulics sales engineer.

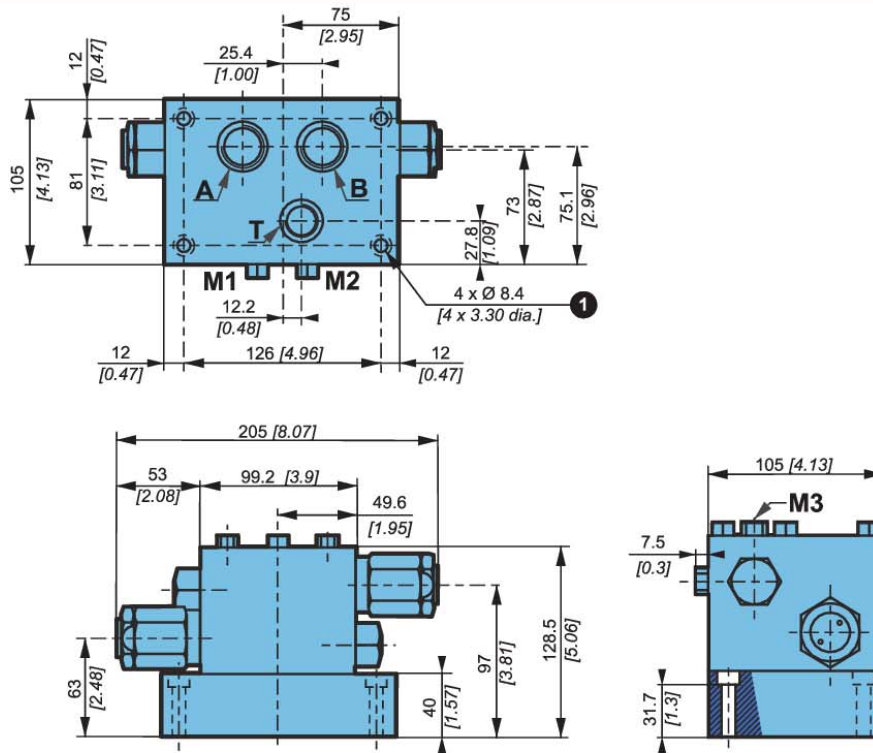
Caracteristics

Mass 11.5 kg [22.35 lb]

Opening range



Dimensions



Installation

Valve mounting position: Indifferent.

Chassis mounting :

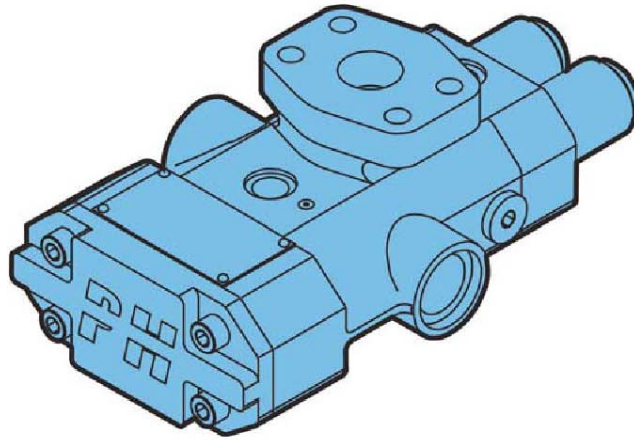
| Ref. | | Quantity | Class | N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|------|-----|----------|-------|--|
| 1 | M 8 | 4 | 8.8 | 25 [18.4] |

Hydraulic connections:

| Port | Function | Connection | Max pressure bar [PSI] | N.m [lb.ft] ± 10 % |
|------|--------------------------|-------------------|------------------------|--------------------|
| A | HP connection | M 27 x 2 | 420 [6 100] | 200 [148] |
| B | HP connection | | | |
| T | Tank connection | M 22 x 1.5 | - | 100 [74] |
| M1 | Pressure measurement (A) | 7/16" - 20 UNF 2B | 420 [6 100] | 20 [15] |
| M2 | Pressure measurement (B) | | | |
| M3 | LP Pressure measurement | | | |

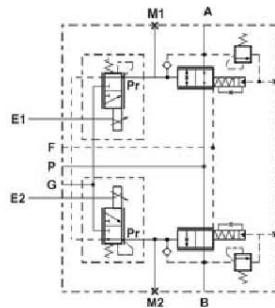
TRACTION CONTROL (IN-LINE) VALVE

Function: Proportional Flow Control Valve used to regulate a control wheel slip.

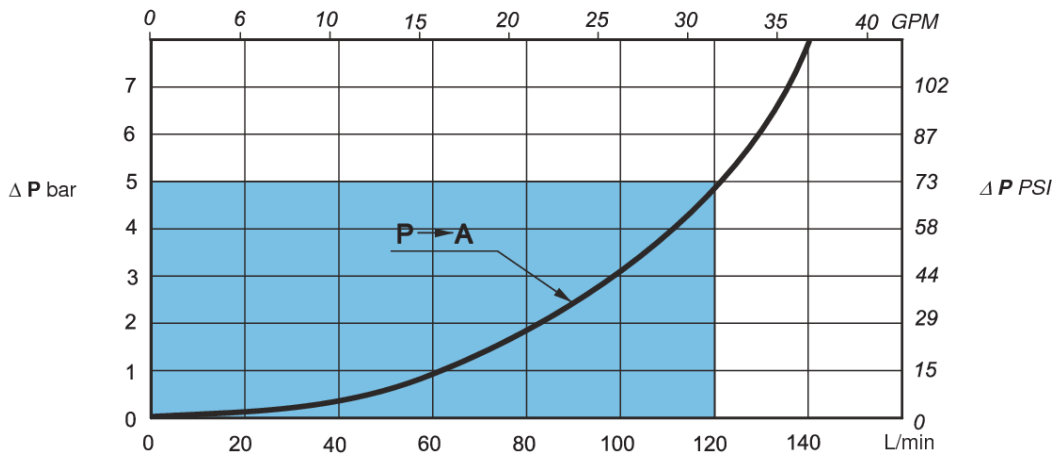


| Flow / voltage | Q < 20 L/min [5.2 GPM] | | 20 [5.2 GPM] < Q < 50 L/min [13.2 GPM] | |
|-------------------------------|------------------------------------|-------------------------|--|-------------------------|
| | 12 V | 24 V | 12 V | 24 V |
| Commercial Description | VMA-020-T1-12-00 | VMA-020-T1-24-00 | VMA-050-T1-12-00 | VMA-050-T1-24-00 |
| Part number | 004843325J | 004843348J | 004843326K | 004843347H |
| Compatibility | Electronic transmission management | | | |

Hydraulic symbol

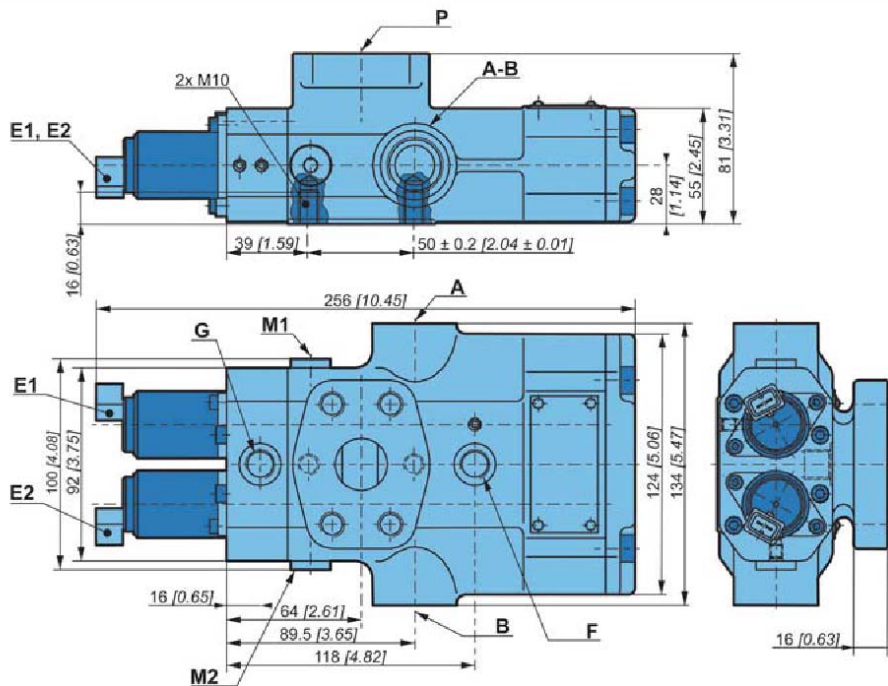


Pressure drop



The valves must be supplied in G with a pressure between 15 and 30 bar [217 PSI and 435 PSI]. Maximum flow, from P to A or B, for a fully open valve, is 120 l/min [31.7 GPM] per wheel with a pressure difference (ΔP) of 5 bar [72 PSI] (96 cSt mineral oil at 25 °C [77 °F]).

Dimensions

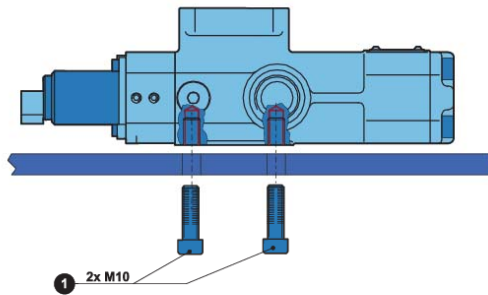


Installation

Valve mounting position Horizontal.

Chassis mounting

| Ref. | | Quantity | Class | N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|------|------|----------|-------|--|
| 1 | M 10 | 2 | 8.8 | 49 [36] |



Motor and valve drain piping must be connected directly to the tank.

Hydraulic connections

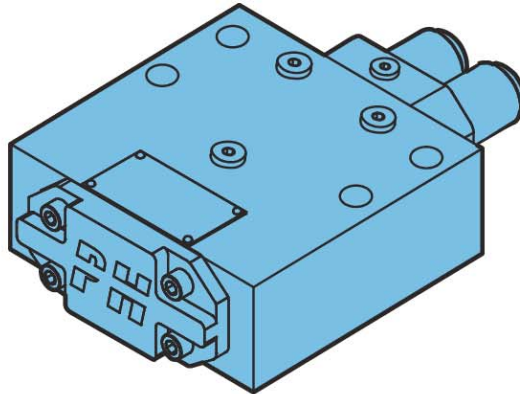
| Port | Function | Connection | Standards | Max pressure bar [PSI] | N.m [lb.ft] ± 10 % |
|-------|----------------------|-----------------------|--------------------------|-------------------------|--------------------|
| P | HP connection | Bride DN 25 PN 400 | ISO 6 162 ISO 9 974-1 | 450 [6 526] | 90 [66] |
| A-B | HP connection | M 27 x 2 | | 450 [6 526] | 200 [148] |
| F | Drain | M 14 x 1.5 | ISO 9 974-1 | 1 [14] | 45 [33] |
| G | LP supply | M 14 x 1.5 | | 15 [217] ≤ P < 30 [435] | 45 [33] |
| M1-M2 | Pressure measurement | M 14 x 1.5 | | 0 ≤ P < 20 bar [290] | 45 [33] |

Electrical connections on E1 and E2:

KIT CONNECT VMA VALVE.
(See Technical Catalog Mobile Electronic A01889D)

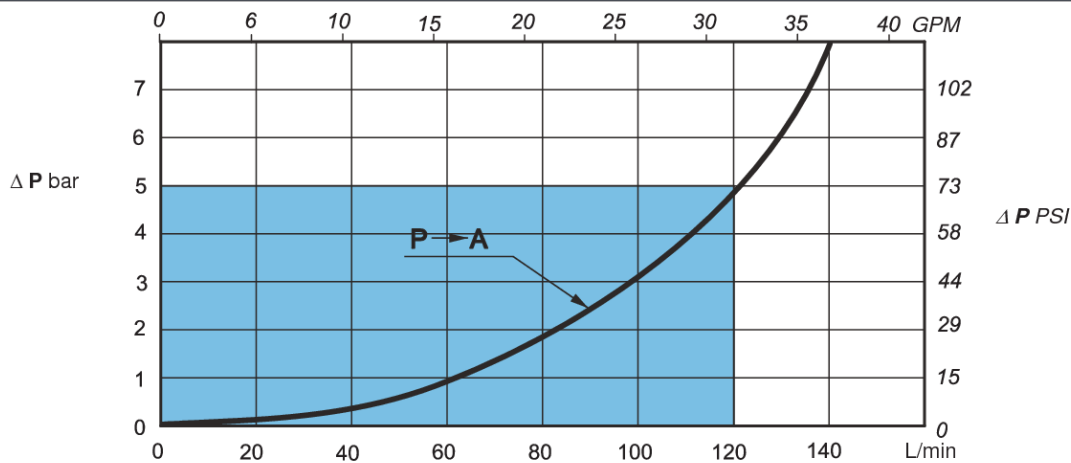
TRACTION CONTROL (FLANGED) VALVE

Function: Proportional Flow Control Valve used to regulate a control wheel slip.



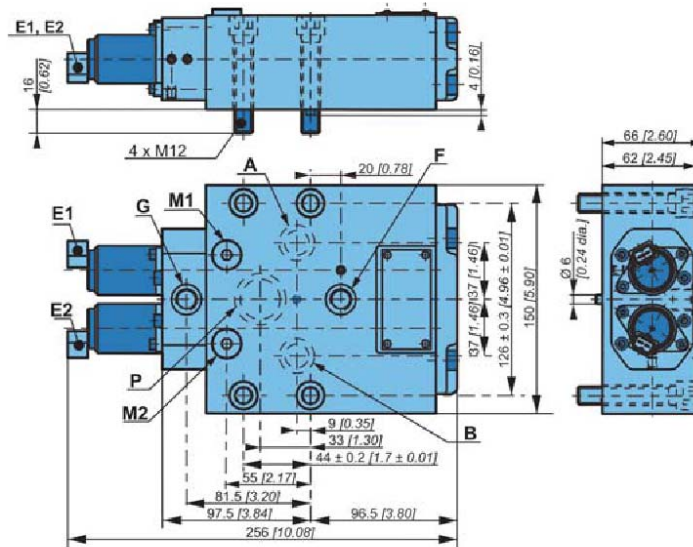
| Flow / voltage | Q < 20 L/min [5.2 GPM] | | 20 [5.2 GPM] < Q < 50 L/min [13.2 GPM] | |
|-------------------------------|------------------------------------|-------------------------|--|-------------------------|
| | 12 V | 24 V | 12 V | 24 V |
| Commercial Description | VMA-020-F0-12-00 | VMA-020-F0-24-00 | VMA-050-F0-12-00 | VMA-050-F0-24-00 |
| Part number | 004843327L | 004843350L | 004843328M | 004843349K |
| Compatibility | Electronic transmission management | | | |
| Hydraulic symbol | | | | |

Pressure drop



The valves must be supplied at G with a pressure of between 15 and 30 bar [217 PSI and 435 PSI]. Maximum flow, from P to A or B, for a fully open valve, is 120 l/min [31.7 GPM] per wheel with a pressure difference (ΔP) of 5 bar [72 PSI] (96 cSt mineral oil at 25 °C [77 °F]).

Dimensions



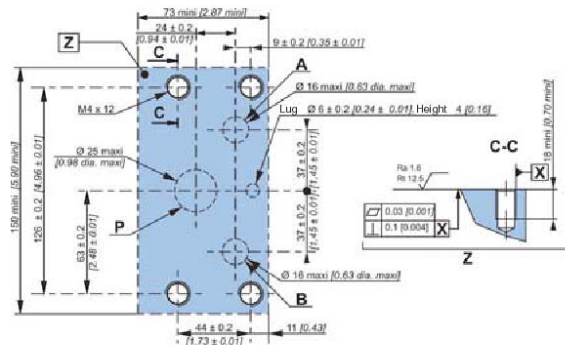
Installation

Valve mounting position Horizontal.

Remove the protection plate.

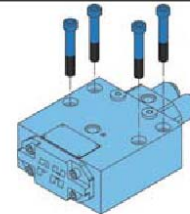
Make sure that the O-rings are correctly positioned.

Install the valve on the mounting face with help from the lug.



Chassis mounting

| | Quantity | Class | N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|-----|----------|-------|--|
| M12 | 4 | 8.8 | 86 [63.5] |



Hydraulic connections

| Port | Function | Connection | Standards | Max pressure bar [PSI] | N.m [lb.ft] ± 10 % |
|-------|----------------------|--------------|--------------------------|-------------------------|--------------------|
| P | HP connection | DN 25 PN 400 | ISO 6 162 ISO 9 974-1 | 450 [6 526] | 90 [66] |
| A-B | HP connection | M 27 x 2 | | 450 [6 526] | 200 [148] |
| F | Drain | M 14 x 1.5 | | 1 [14] | 45 [33] |
| G | LP supply | M 14 x 1.5 | ISO 9 974-1 | 15 [217] ≤ P < 30 [435] | 45 [33] |
| M1-M2 | Pressure measurement | M 14 x 1.5 | | 0 ≤ P < 20 bar [290] | 45 [33] |

Electrical connections on E1 and E2:

KIT CONNECT VMA VALVE.
(See Technical Catalog Mobile Electronic A01889D)



Motor and valve drain piping must be connected directly to the tank.

FLOW DIVIDER FDB 20

- Up to 450 Bar [6527 PSI]
- Up to 150 l/min [39,6 GPM]
- Direct in-line mounting.
- Threaded connections to ISO 1179 (BSPP/Gas), ISO 11926 (UNF).



FDB 20-2

Operation

The bidirectional flow divider controls the speed between wheels of the same axle or between different axles by dividing or combining the flow. The flow divider is equipped with an electric or hydraulic controlled by-pass and can be used in open or closed loop circuits.



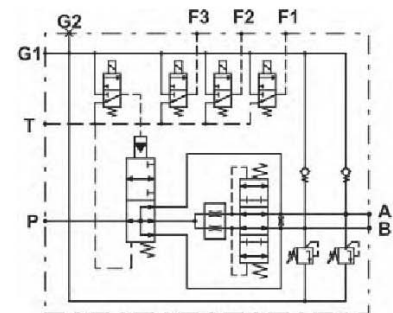
If you have to add a flushing valve in a closed loop circuit equipped with a flow divider, you have to install the flushing valve between the pump and the flow divider.

Features

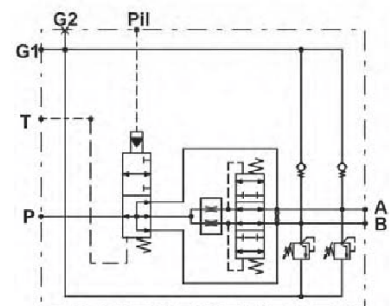
| | | |
|--|-------------|--|
| Max. pressure | Bar [PSI] | 450 [6527] |
| By-pass mini. piloting pressure | Bar [PSI] | 8 [116] |
| Max. flow in by-pass mode | Ratio 50/50 | 150 [39,62] |
| | Ratio 60/40 | 125 [33,02] |
| | Ratio 70/30 | 110 [29,05] |
| | Ratio 75/25 | 100 [26,41] |
| | Ratio 80/20 | 95 [25,09] |
| Mass | kg [lbs] | without valves 8,50 [18,74] |
| | | with HP valve 9,00 [19,84] |
| | | with HP valve and 3 solenoid valves 11,2 [24,70] |
| Surface treatment | | Zinc Chromate |

Hydraulic symbol

HP valve, 3 solenoid valves and electric by-pass



HP valve and hydraulic by-pass

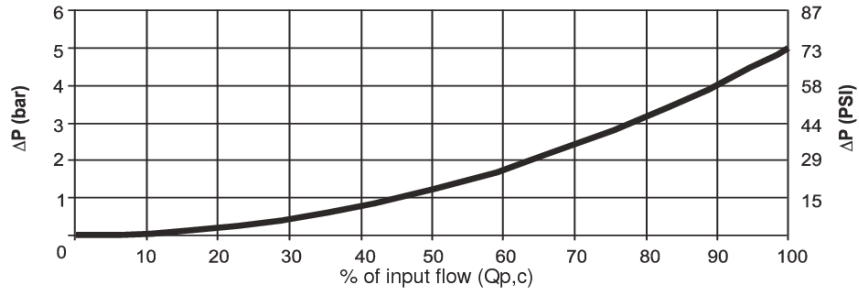


P: High pressure
A and B: Outlet
T: Drain
G1: Preferential charge pressure
G2: Plugged charge pressure
Pil: Hydraulic control
F1, F2 and F3: Solenoid valves

Hydraulics connections: See Model Code

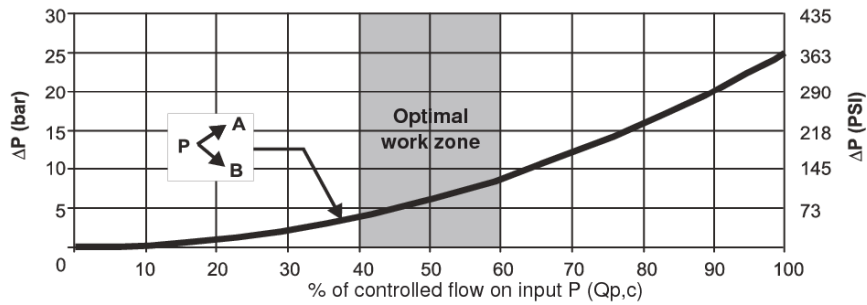
Pressure drop in by-pass mode

- Test conditions :
- HV 46 hydraulic fluid at 40°C [104 °F]



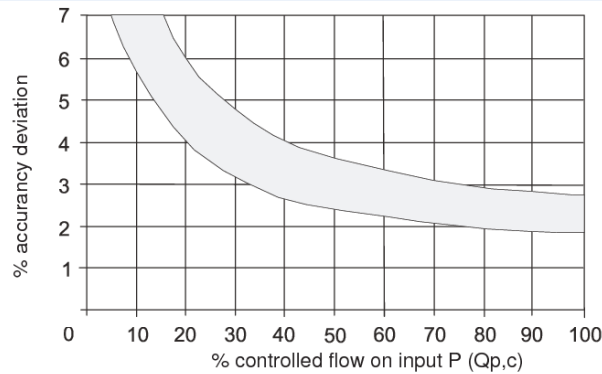
Pressure drop in divider mode

- Test conditions :
- HV 46 hydraulic fluid at 40°C [104 °F]



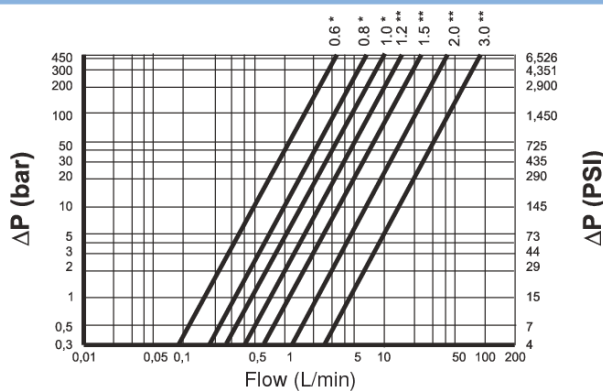
Division accuracy

- Test conditions :
- ΔP of 150 bar [2 175 PSI] between outlets.
- No transfer restrictor.
- HV 46 hydraulic fluid at 40°C [104 °F].



Transfer restrictor

Transfer restrictor is located between the outlets A and B.



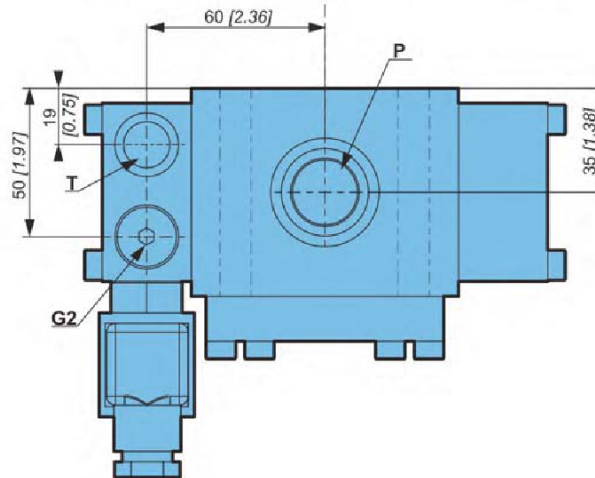
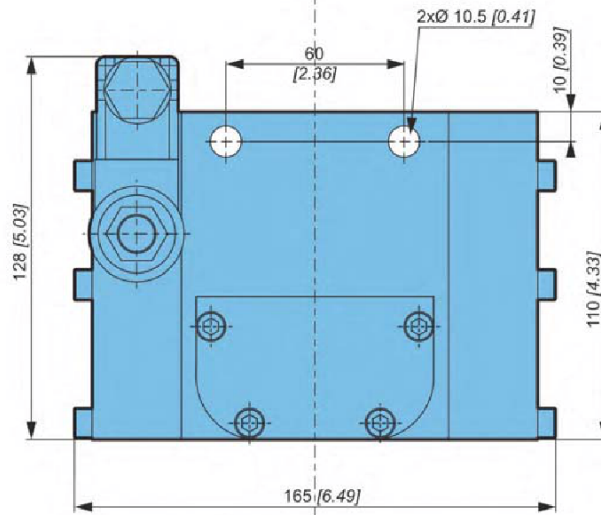
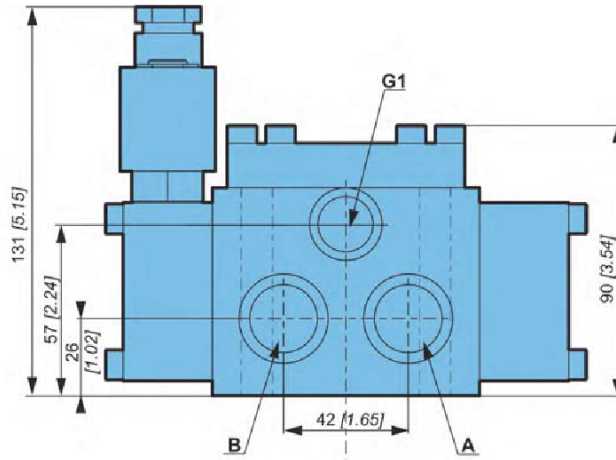
* Standard values
 ** On request, after validation of your application

Pressure drop in charge check valve

- ΔP = 5 bar [72.52 PSI] for a flow of 20 L/min (between A or B and G1)
- ΔP = up to 30 bar [435 PSI] for a flow of 20 L/min (between A or B and G2)

Dimensions without valves and with electric by-pass

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | | | | | D | | | | V | | | | P | | | C | | | S | | |
| 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| F | D | B | 2 | 0 | 2 | - | - | - | E | 0 | - | - | 0 | 0 | B | - | - | - | - | - | - |

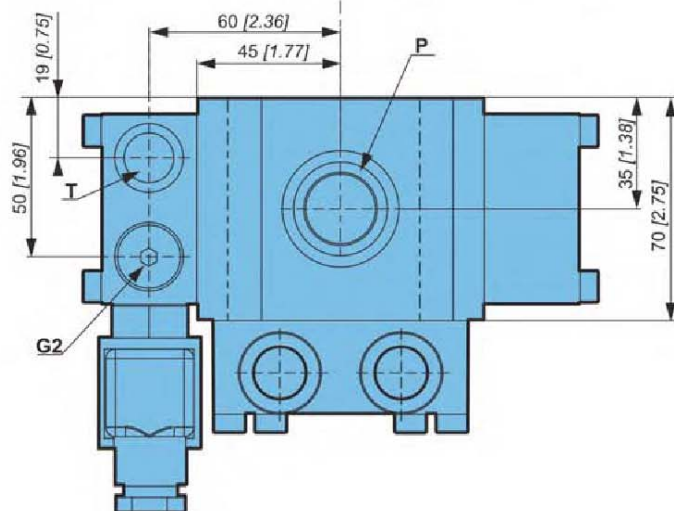
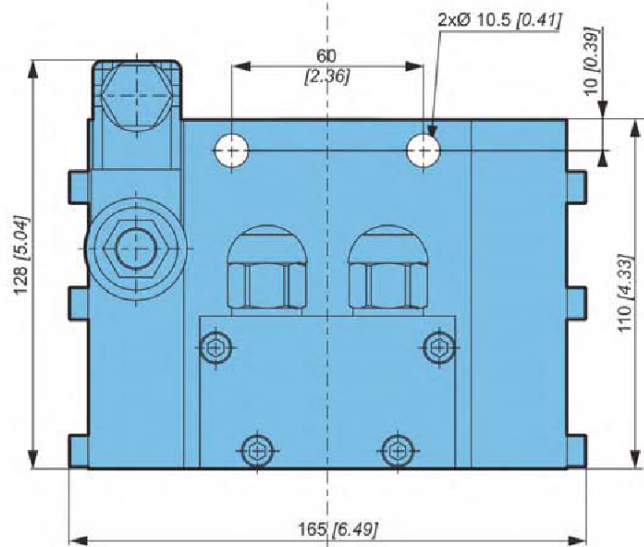
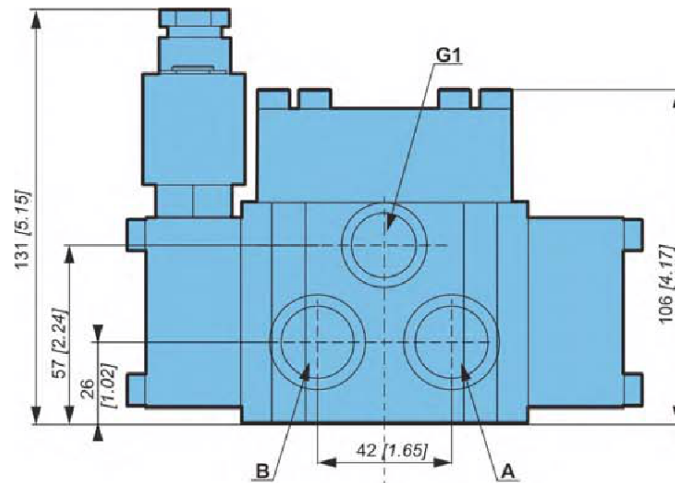


| Orifices | Max. pressure bar [PSI] | Mini. Pressure bar [PSI] |
|----------|----------------------------|-----------------------------|
| P | 450 [6526] | - |
| A-B | - | - |
| T | 1 [14,5] | - |
| G1 | 30 [435] | 8 [116] |

Hydraulic connections: See Model Code

Dimensions with HP valve and electric by-pass

| T | | | | | D | | | | V | | | | P | | | C | | | S | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| F | D | B | 2 | 0 | 2 | - | - | - | E | 0 | - | - | 4 | 5 | B | - | - | - | - | - | - |

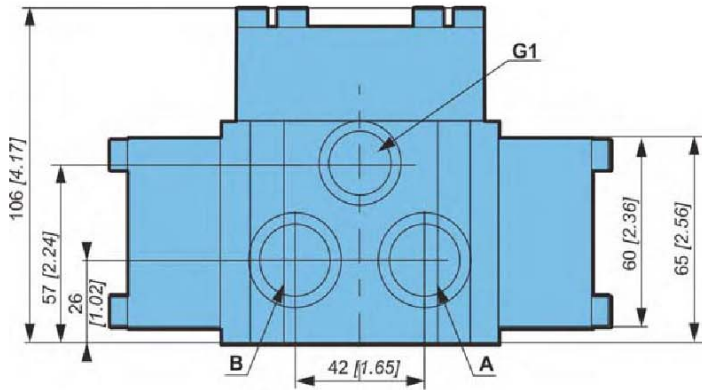


| Orifices | Max. pressure bar [PSI] | Mini. Pressure bar [PSI] |
|----------|----------------------------|-----------------------------|
| P | 450 [6,526] | - |
| A-B | 450 [6,526] | - |
| T | 1 [14,5] | - |
| G1 | 30 [435] | 8 [116] |

Hydraulic connections: See Model Code

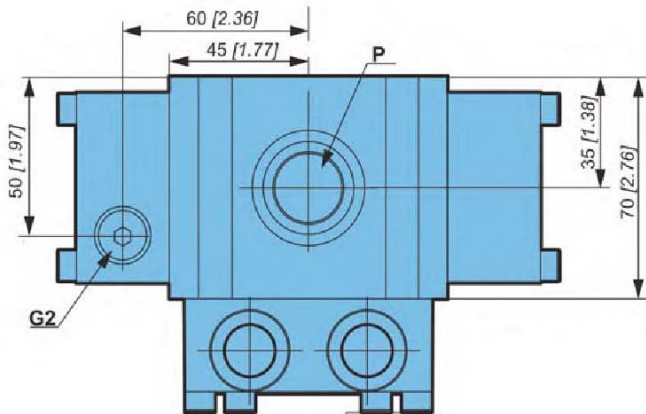
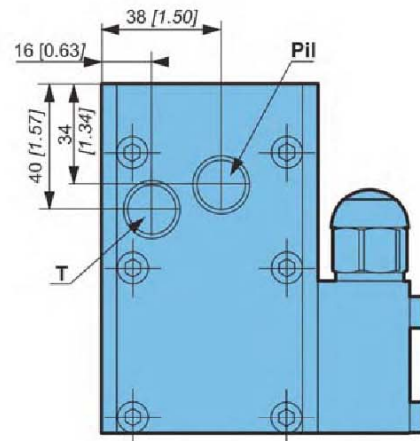
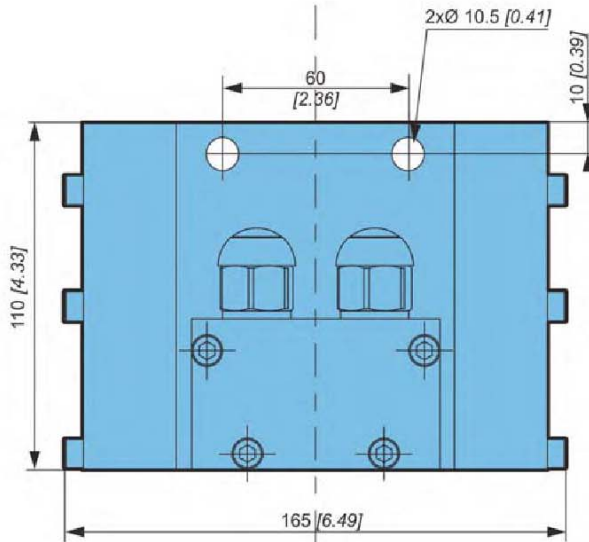
Dimensions with HP valve and hydraulic by-pass

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | | | | | D | | | | V | | | | P | | | C | | | S | | |
| 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| F | D | B | 2 | 0 | 2 | - | - | - | H | 0 | - | - | 4 | 5 | B | - | - | - | - | - | - |



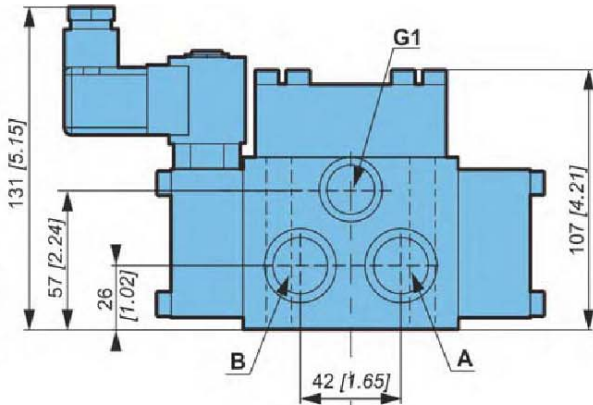
| Orifices | Max. pressure bar [PSI] | Mini. Pressure bar [PSI] |
|----------|----------------------------|-----------------------------|
| P | 450 [6,526] | - |
| A-B | 1 [14,5] | - |
| T | 30 [435] | 8 [116] |
| G1 | | |
| Pil | | |

Hydraulic connections: See Model Code



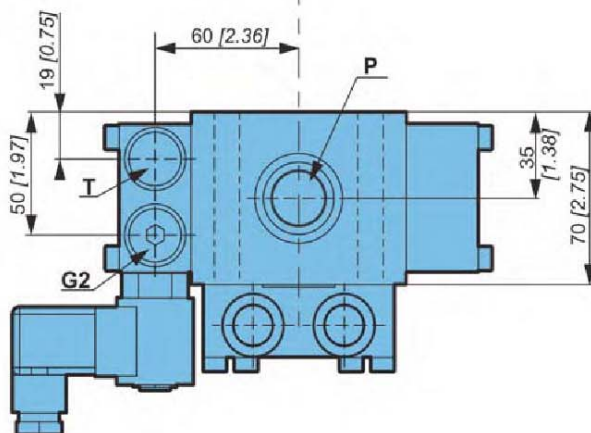
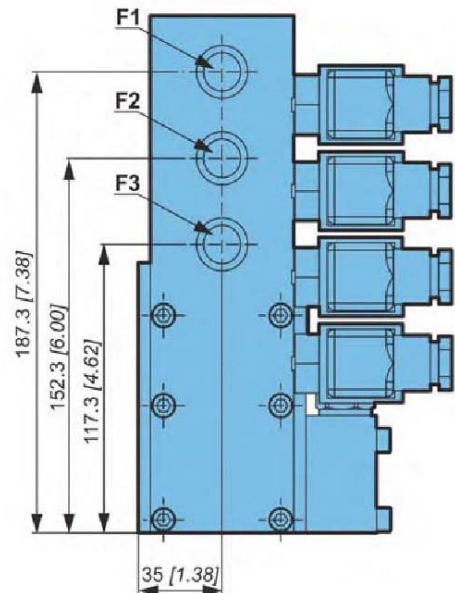
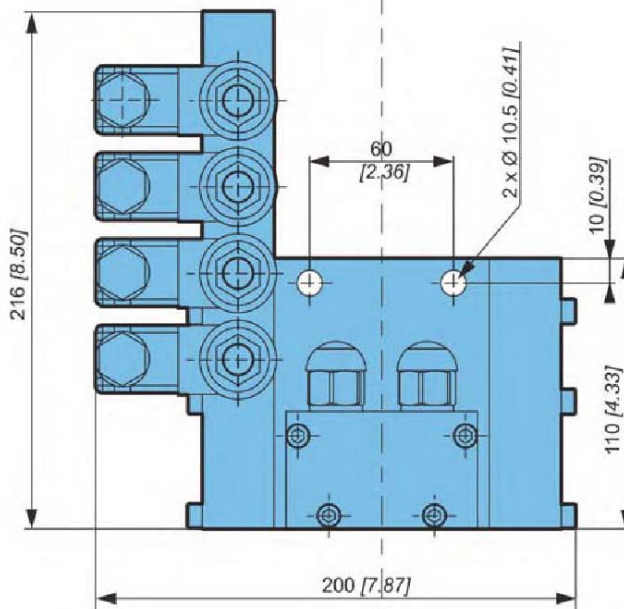
Dimensions with HP valve, 3 solenoid valves and electric by-pass

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | | | | | D | | | | V | | | | P | | | C | | | S | | |
| 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| F | D | B | 2 | 0 | 2 | - | - | - | E | 3 | - | - | 4 | 5 | B | - | - | - | - | - | - |



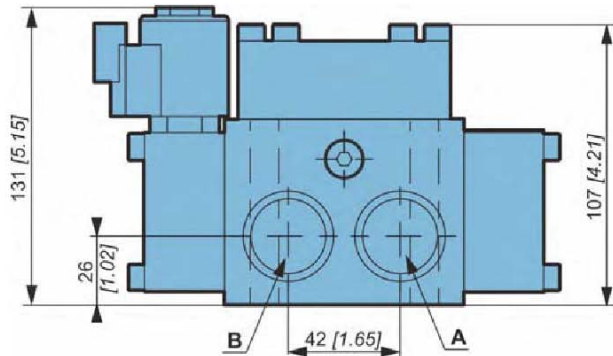
| Orifices | Max. pressure bar [PSI] | Mini. Pressure bar [PSI] |
|----------|----------------------------|-----------------------------|
| P | | - |
| A-B | 450 [6,526] | - |
| T | 1 [14,5] | - |
| F1 | | |
| F2 | 30 [435] | - |
| F3 | | |
| G1 | | 8 [116] |

Hydraulic connections: See Model Code



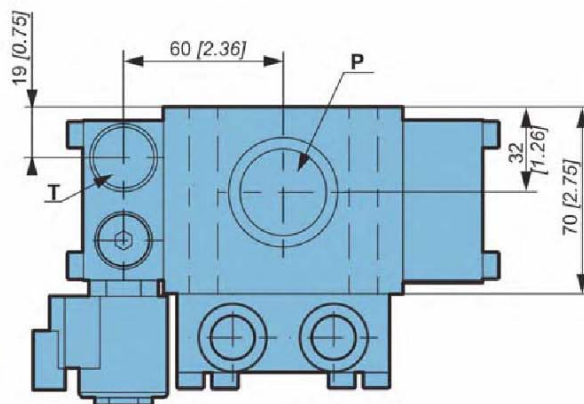
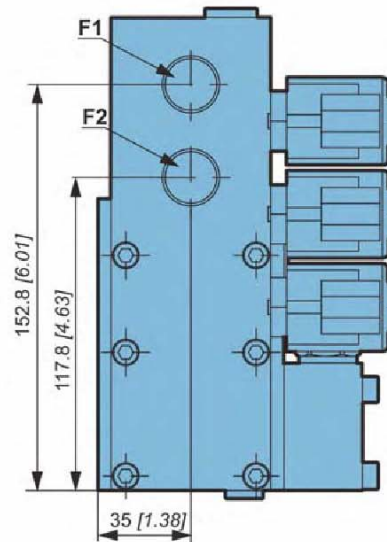
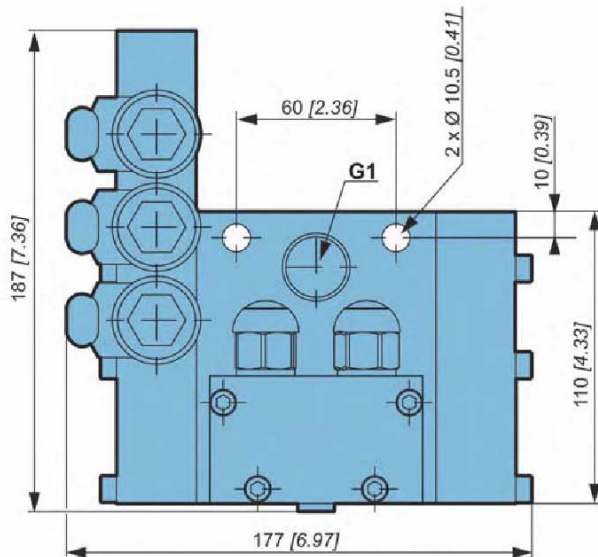
Dimensions with HP valve, 3 solenoid valves and electric by-pass

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | | | | | D | | | | V | | | | P | | | C | | | S | | |
| 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| F | D | B | 2 | 0 | 2 | - | - | - | E | 3 | - | - | 4 | 5 | B | A | - | - | - | - | - |



| Orifices | Max. pressure bar [PSI] | Mini. Pressure bar [PSI] |
|----------|----------------------------|-----------------------------|
| P | | - |
| A-B | 450 [6,526] | - |
| T | 1 [14,5] | - |
| F1 | | - |
| F2 | 30 [435] | - |
| G1 | | 8 [116] |

Hydraulic connections: See Model Code



Auxiliaries

Description

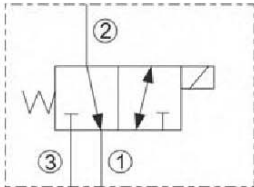
A solenoid-operated, 3 way, direct-acting, spool-type, screw-in hydraulic directional valve.

Features

Operating pressure Bar [PSI] 30 [435]

Initial coil current draw at 20 °C [68 °F] Standard coil: 1.2 amps at 12 V

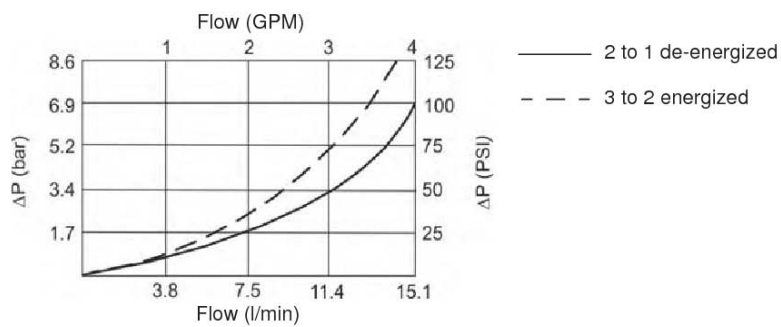
Hydraulic symbol

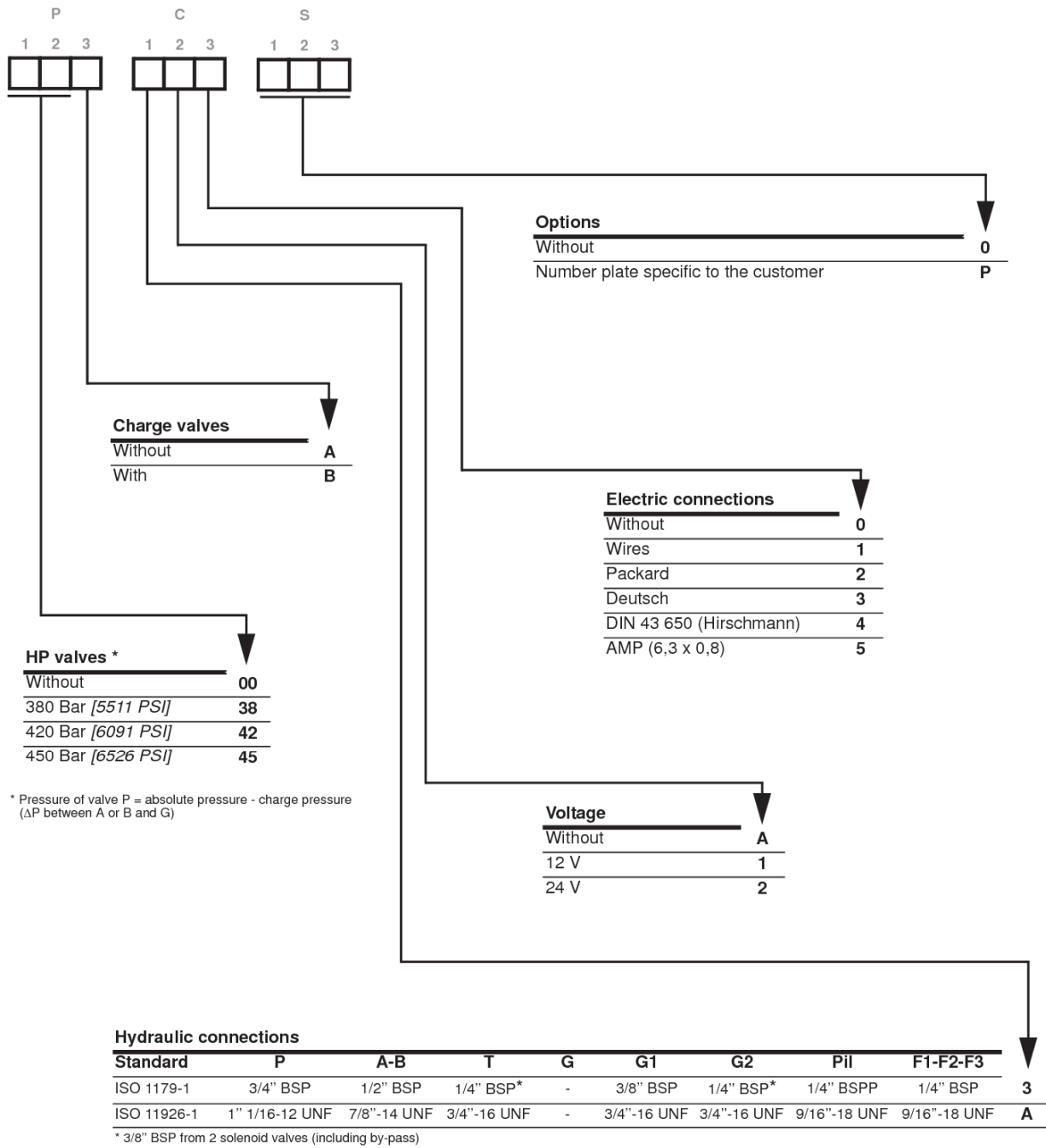


Pressure drop

Test conditions :

- 32 cSt/150 SUS oil at 40°C [104°F]





FLOW DIVIDER FDB 25

- Up to 450 Bar [6527 PSI]
- Up to 300 l/min [79,2 GPM]
- Direct in-line mounting.
- Direct mounting on the pump.
- Threaded connections to ISO 1179 (BSPP/Gas), ISO 11926 (UNF).



FDB 25-2

Operation

The bidirectional flow divider controls the speed between wheels of the same axle or between different axles by dividing or combining the flow. The flow divider is equipped with an electric or hydraulic controlled by-pass and can be used in open or closed loop circuits.



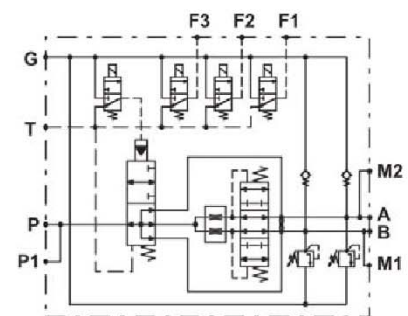
If you have to add a flushing valve in a closed loop circuit equipped with a flow divider, you have to install the flushing valve between the pump and the flow divider.

Features

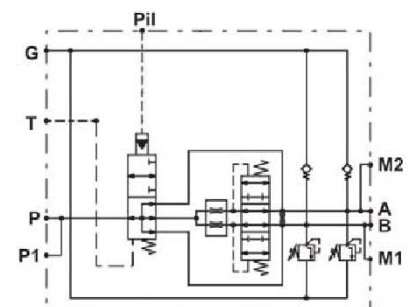
| | | |
|---------------------------------|-------------|---|
| Max. pressure | Bar [PSI] | 450 [6527] |
| By-pass mini. piloting pressure | Bar [PSI] | 8 [116] |
| Max. flow in by-pass mode | l/min [GPM] | Ratio 50/50 300 [79,25] |
| | | Ratio 70/30 215 [56,79] |
| | | Ratio 80/20 190 [50,19] |
| Mass | kg [lbs] | without valves 14,0 [30,86] |
| | | with HP valve 15,0 [33,06] |
| | | with HP valve and 3 solenoid valves 18,2 [40,12] |
| Surface treatment | | Zinc Chromate |

Hydraulic symbol

HP valve, 3 solenoid valves and electric by-pass



HP valve and hydraulic by-pass

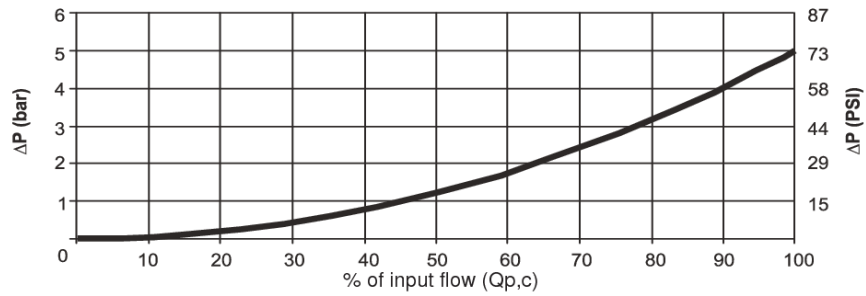


P: High pressure
A and B: Outlet
G: charge pressure
T: Drain
Pil: Hydraulic control
F1, F2 and F3: Solenoid valves
P1, M1 and M2: pressure measurements

Hydraulics connections: See Model Code

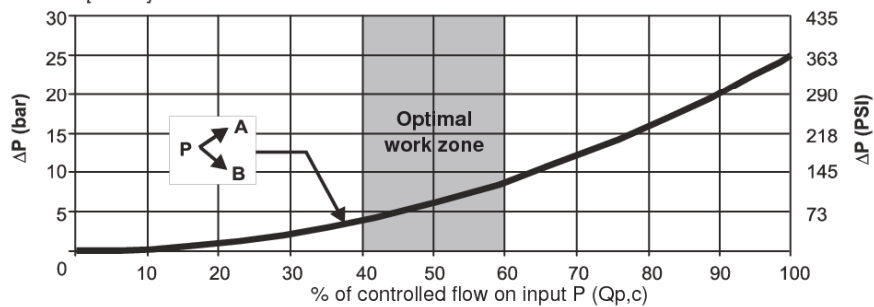
Pressure drop in by-pass mode

Test conditions :
 • HV 46 hydraulic fluid at 40°C [104°F]



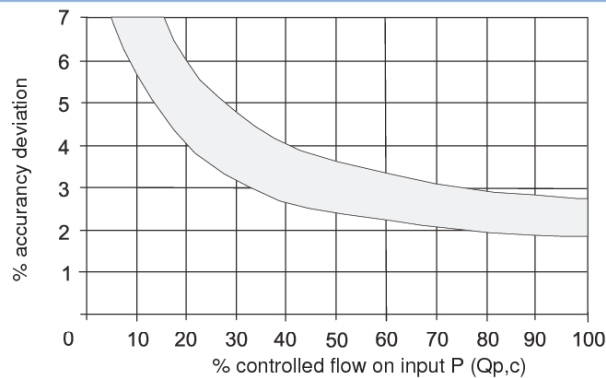
Pressure drop in divider mode

• Test conditions :
 • HV 46 hydraulic fluid at 40°C [104°F]



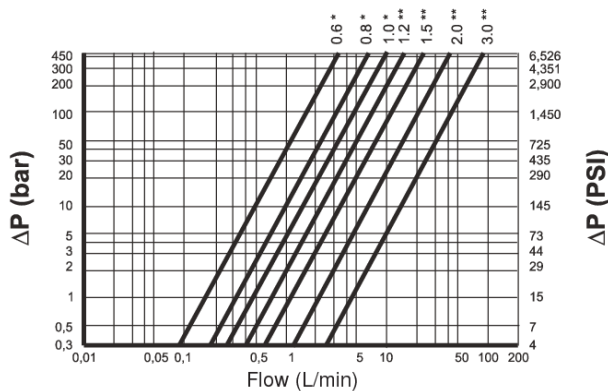
Division accuracy

Test conditions :
 • ΔP of 150 bar [2 175 PSI] between outlets.
 • No transfer restrictor.
 • HV 46 hydraulic fluid at 40°C [104°F].



Transfer restrictor

Transfer restrictor is located between the outlets A and B.



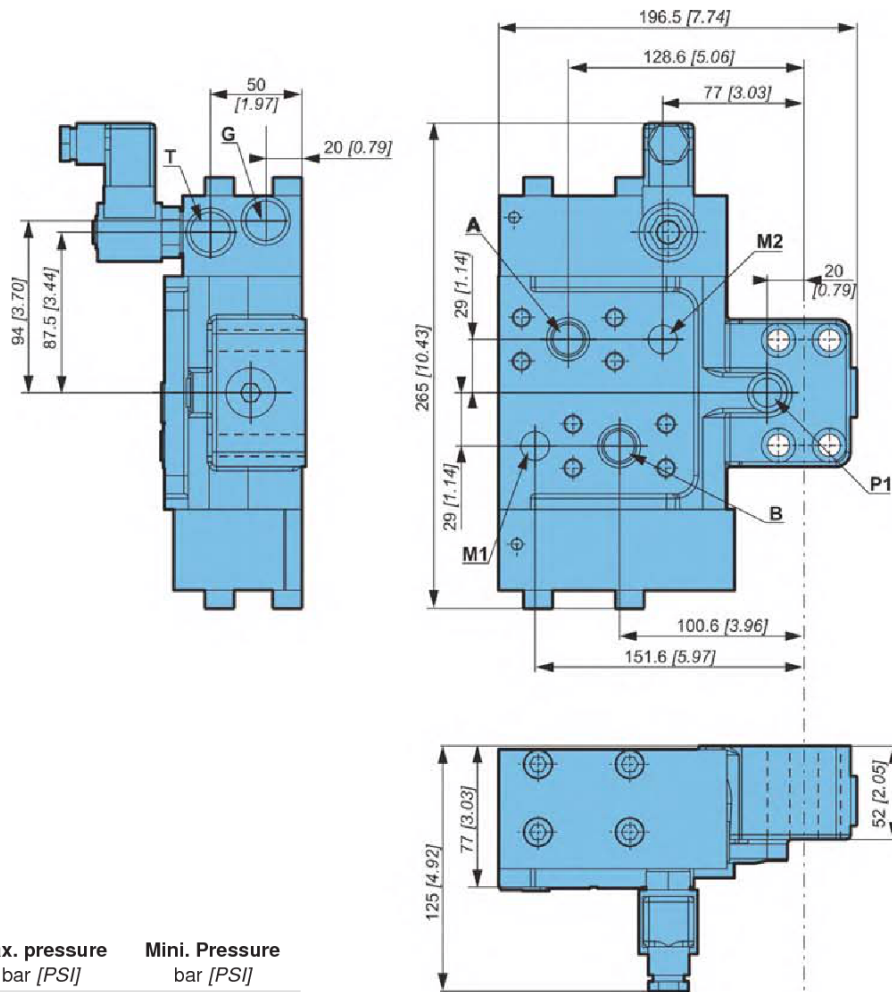
* Standard values
 ** On request, after validation of your application

Pressure drop in charge check valve

ΔP = 5 bar [72.52 PSI] for a flow of 20 L/min (between A or B and G1)
 ΔP= up to 30 bar [435 PSI] for a flow of 20 L/min (between A or B and G2)

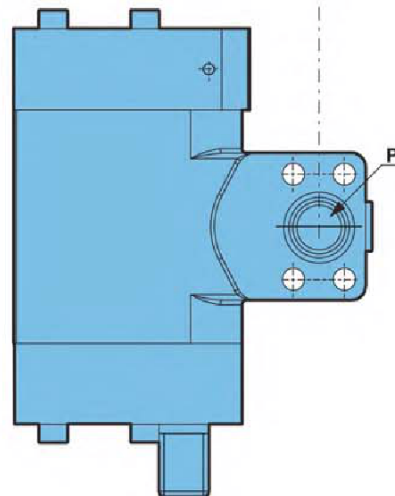
Dimensions without valves and with electric by-pass

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | | | | | D | | | | V | | | | P | | | C | | | S | | |
| 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| F | D | B | 2 | 5 | 2 | - | - | - | E | 0 | - | - | 0 | 0 | B | - | - | - | 0 | 0 | 0 |



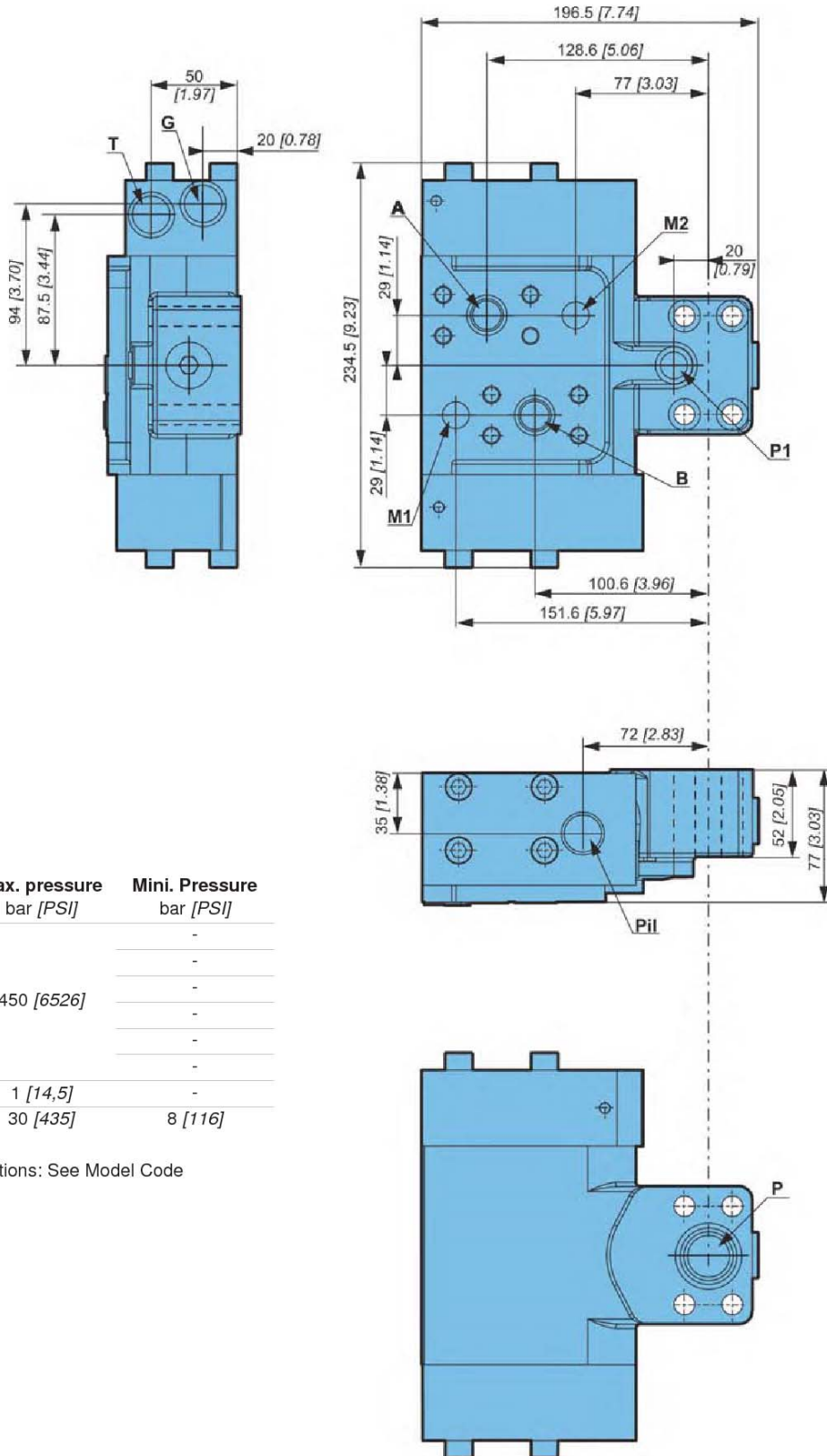
| Orifices | Max. pressure bar [PSI] | Mini. Pressure bar [PSI] |
|----------|----------------------------|-----------------------------|
| P | - | - |
| A-B | - | - |
| M1 | 450 [6526] | - |
| M2 | - | - |
| P1 | - | - |
| T | 1 [14,5] | - |
| G | 30 [435] | 8 [116] |

Hydraulic connections: See Model Code



Dimensions without valves and with hydraulic by-pass

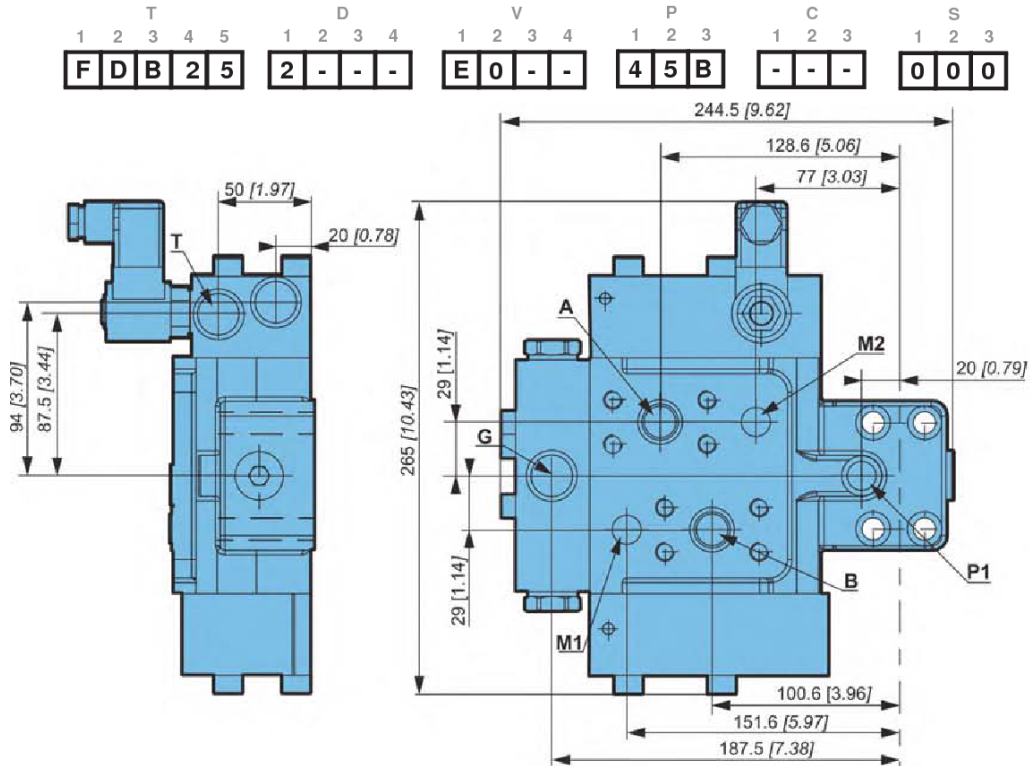
| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | | | | | D | | | | V | | | | P | | | C | | | S | | |
| 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| F | D | B | 2 | 5 | 2 | - | - | - | H | 0 | - | - | 0 | 0 | B | - | - | - | 0 | 0 | 0 |



| Orifices | Max. pressure bar [PSI] | Mini. Pressure bar [PSI] |
|----------|----------------------------|-----------------------------|
| P | | - |
| A-B | | - |
| Pil | 450 [6526] | - |
| M1 | | - |
| M2 | | - |
| P1 | | - |
| T | 1 [14,5] | - |
| G | 30 [435] | 8 [116] |

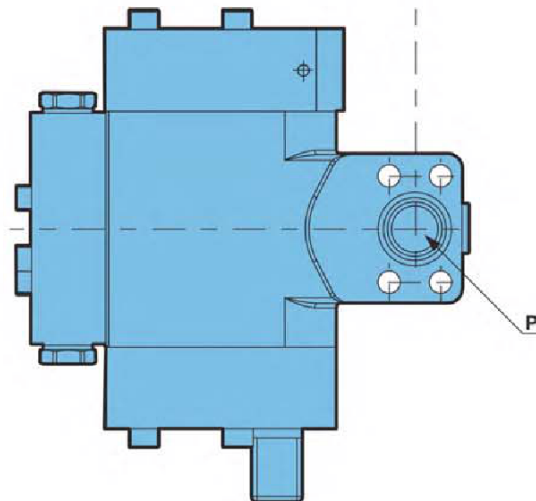
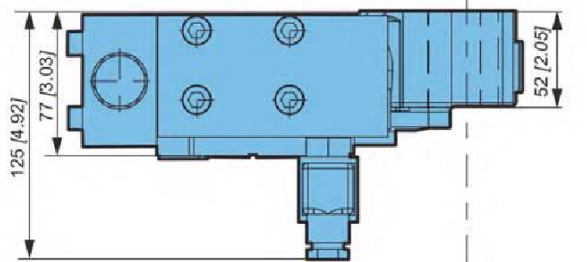
Hydraulic connections: See Model Code

Dimensions with HP valve and electric by-pas



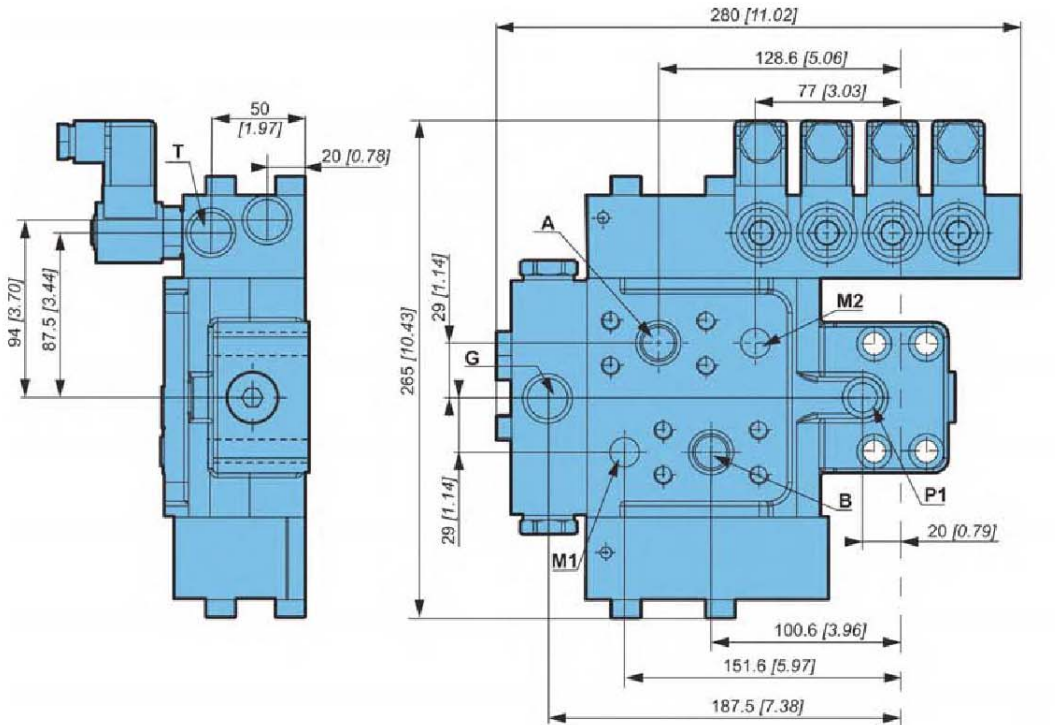
| Orifices | Max. pressure bar [PSI] | Mini. Pressure bar [PSI] |
|----------|----------------------------|-----------------------------|
| P | - | - |
| A-B | - | - |
| M1 | 450 [6526] | - |
| M2 | - | - |
| P1 | - | - |
| T | 1 [14,5] | - |
| G | 30 [435] | 8 [116] |

Hydraulic connections: See Model Code

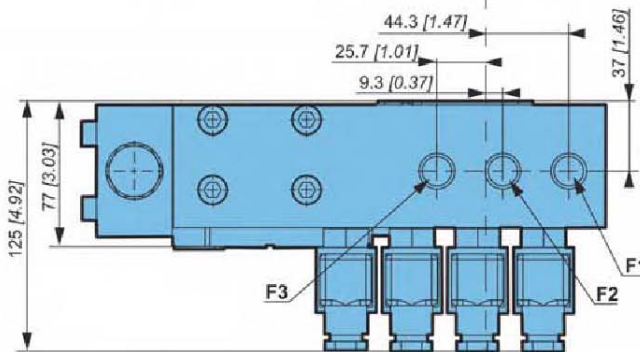


Dimensions with HP valve, 3 solenoid valves and electric by-pass

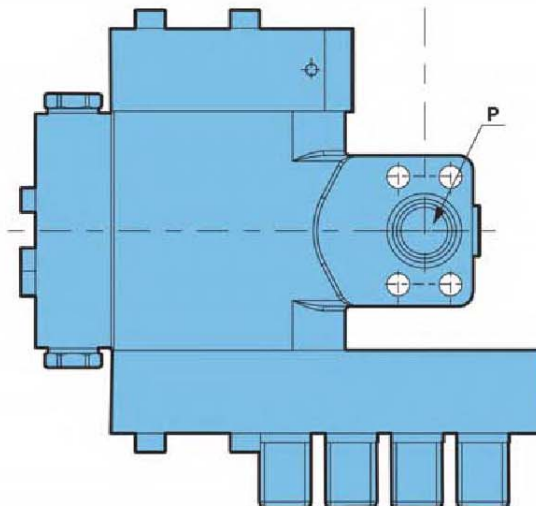
| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | | | | | D | | | | V | | | | P | | | C | | | S | | |
| 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| F | D | B | 2 | 5 | 2 | - | - | - | E | 3 | - | - | 4 | 5 | B | - | - | - | 0 | 0 | 0 |



| Orifices | Max. pressure bar [PSI] | Mini. Pressure bar [PSI] |
|----------|----------------------------|-----------------------------|
| P | - | - |
| A-B | - | - |
| M1 | 450 [6526] | - |
| M2 | - | - |
| P1 | - | - |
| T | 1 [14,5] | - |
| G | - | 8 [116] |
| F1 | 30 [435] | - |
| F2 | - | - |
| F3 | - | - |



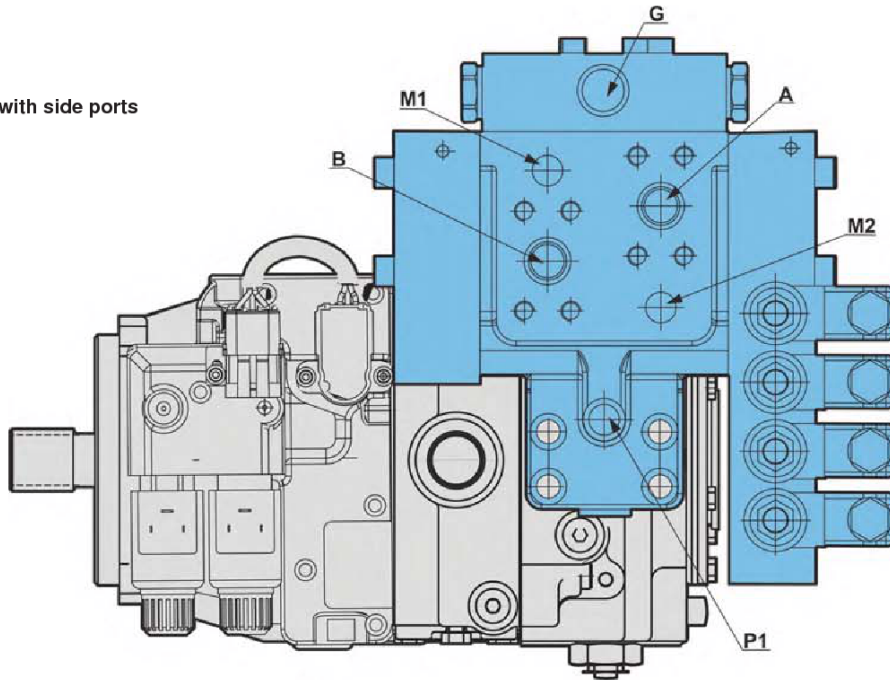
Hydraulic connections: See Model Code



Direct mounting on the pump

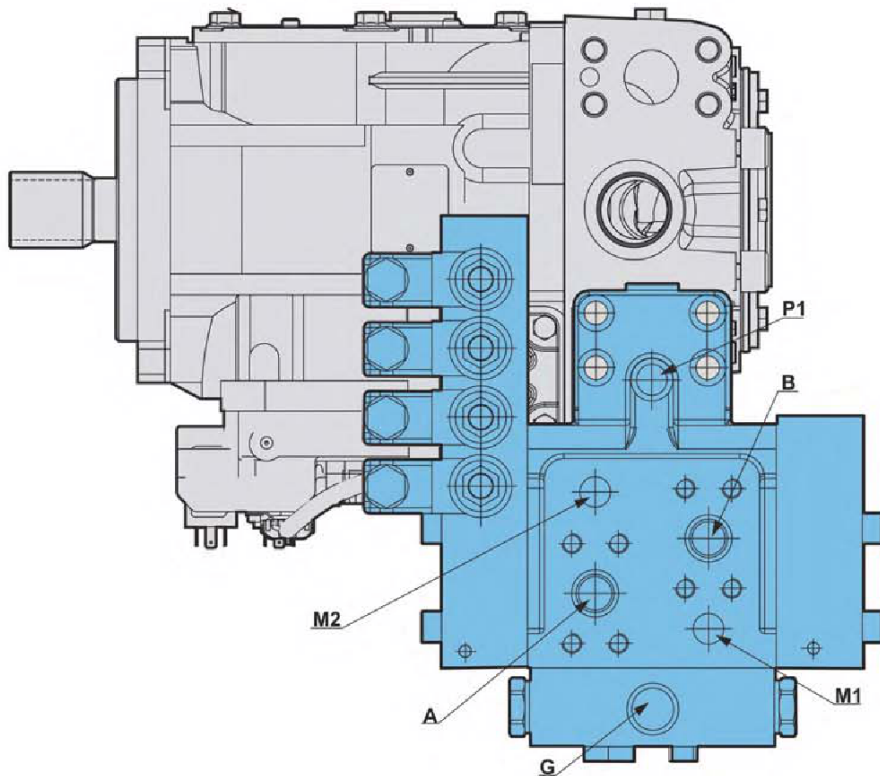
| T | | | | | D | | | | V | | | | P | | | C | | | S | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| F | D | B | 2 | 5 | 2 | - | - | - | E | 3 | - | - | 4 | 5 | B | - | - | - | A | 0 | 0 |

Pump with side ports



Pump with twin ports

Orifices description: page page 35



Auxiliaries

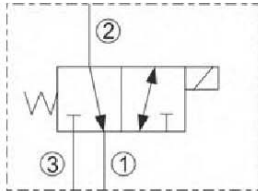
Description

A solenoid-operated, 3 way, direct-acting, spool-type, screw-in hydraulic directional valve.

Features

| | |
|--|---------------------------------|
| Operating pressure Bar [PSI] | 30 [435] |
| Initial coil current draw at 20 °C [68 °F] | Standard coil: 1.2 amps at 12 V |

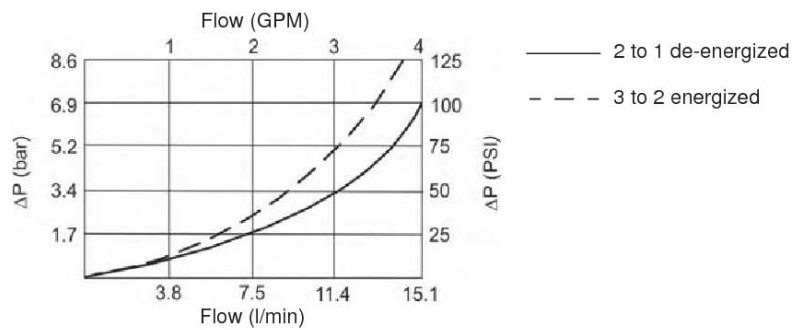
Hydraulic symbol



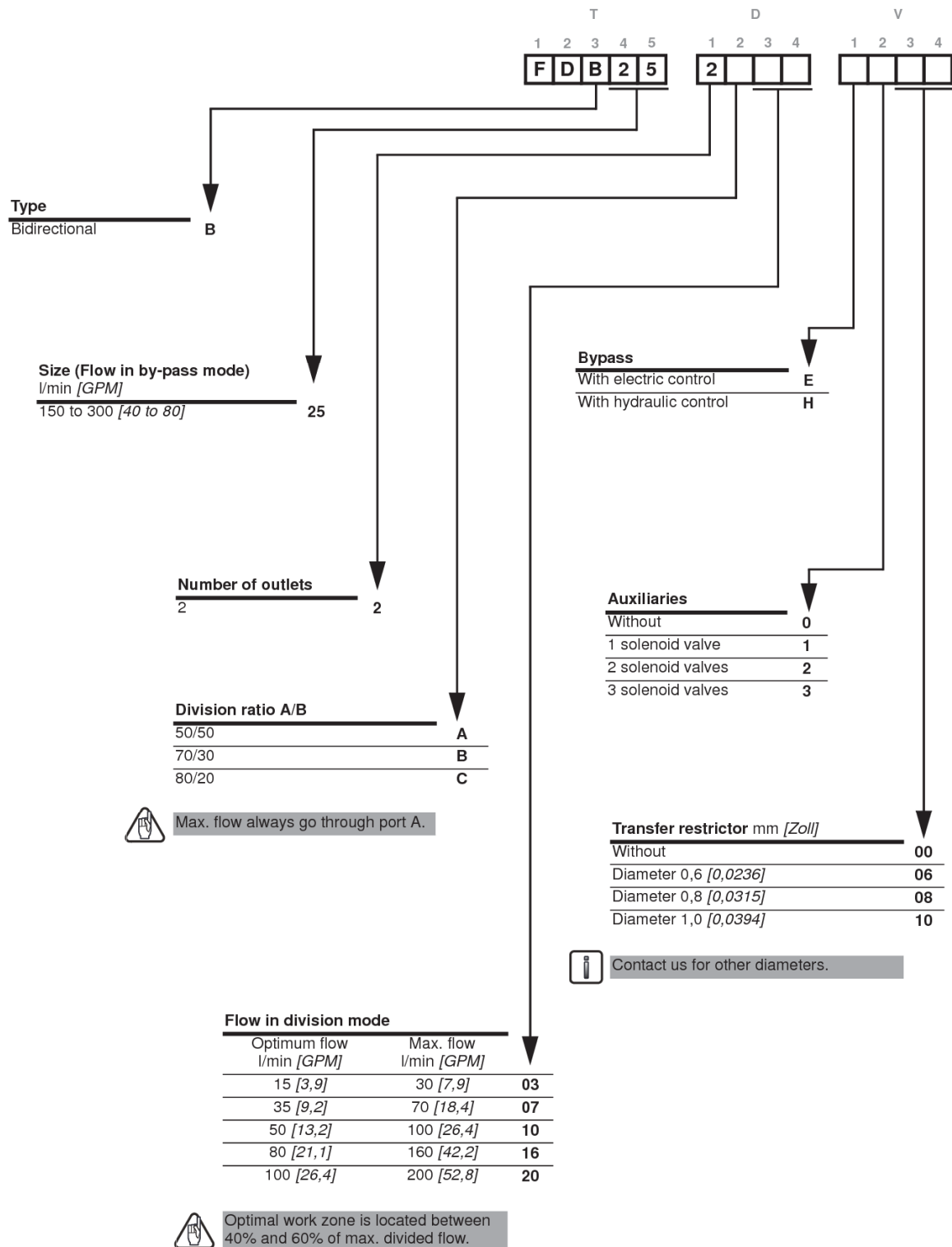
Pressure drop

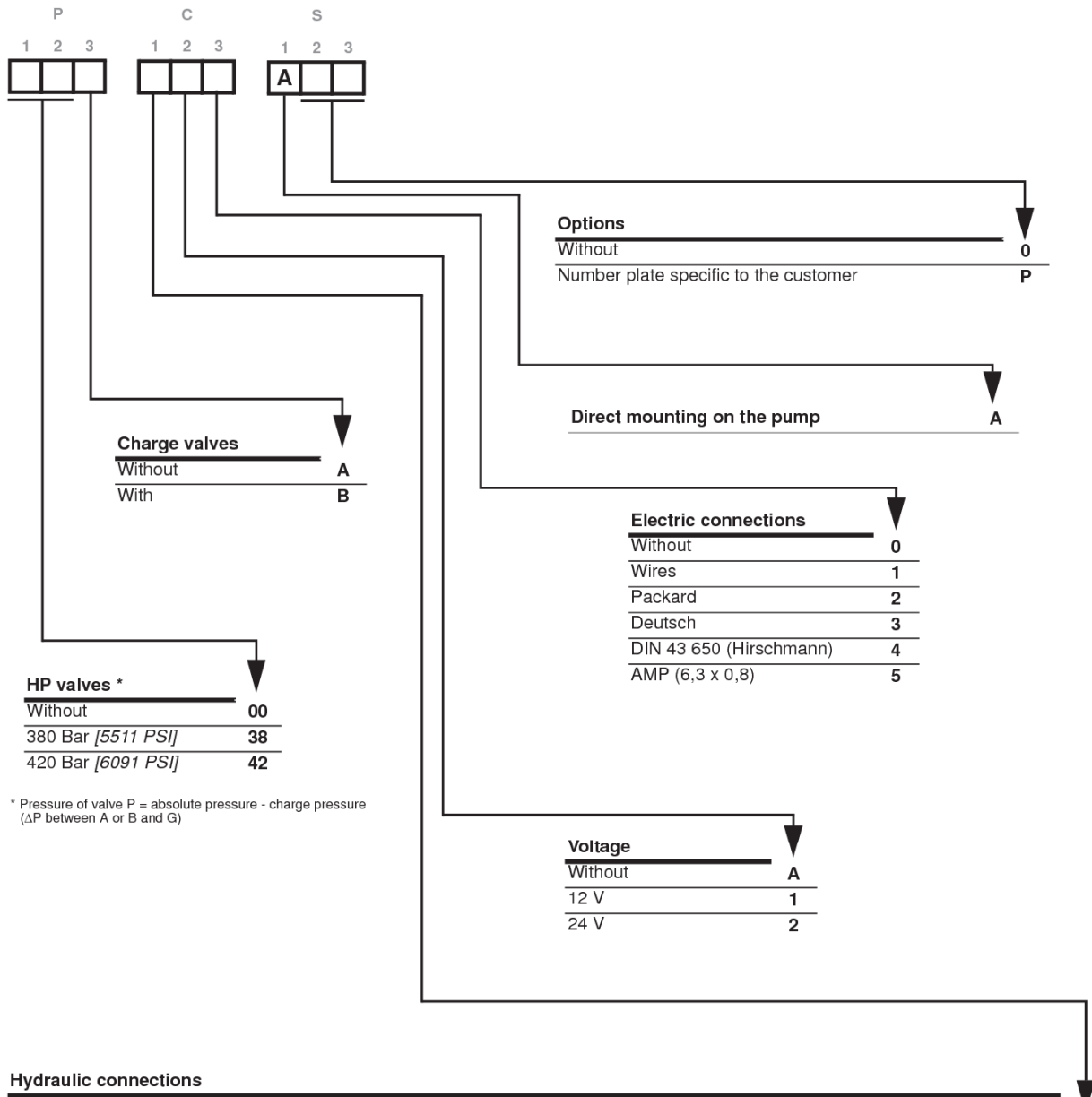
Test conditions :

- 32 cSt/150 SUS oil at 40 °C [104 °F]



Model code



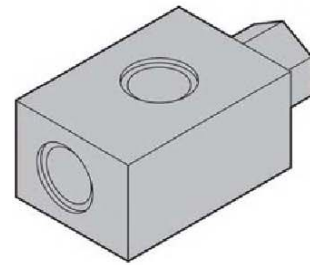


Hydraulic connections

| Standard | P | A-B | T | G | G1 | G2 | Pil | F1-F2-F3 | M1-M2 | |
|--------------------------|-----------|-------------|-------------|-------------|----|----|-------------|--------------|--------------|---|
| ISO 1179-1 | - | - | 3/8" BSP | 3/8" BSP | - | - | 3/8" BSP | 1/4" BSPP | 1/4" BSP | 2 |
| ISO 6162-2 M screws | Flange 1" | Flange 3/4" | - | - | - | - | - | - | - | E |
| ISO 11926-1 | - | - | 3/4"-16 UNF | 3/4"-16 UNF | - | - | 3/4"-16 UNF | 9/16"-18 UNF | 9/16"-18 UNF | F |
| ISO 6162-2 UNF screws | Flange 1" | Flange 3/4" | - | - | - | - | - | - | - | |
| ISO 1179-1 | - | - | 3/8" BSP | 3/8" BSP | - | - | 3/8" BSP | 1/4" BSPP | 1/4" BSP | |
| ISO 6162-2 UNF screws | Flange 1" | Flange 3/4" | - | - | - | - | - | - | - | |

PRESSURE RELIEF VALVE VPLB15

- Up to 15 bar [3,045 PSI]
- Up to 60 L/min [18.5 GPM]
- Limit creates back pressure in open loop.
- Limit case pressure in case of free-wheeling.



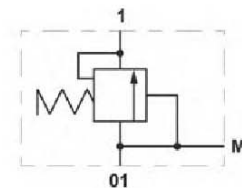
VPLB15

Features

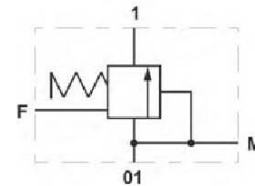
| | |
|------------------|-------------------|
| Flow rate | 70 L/min [20 GPM] |
| Mass | 3 kg [7 lb] |

Hydraulic symbol

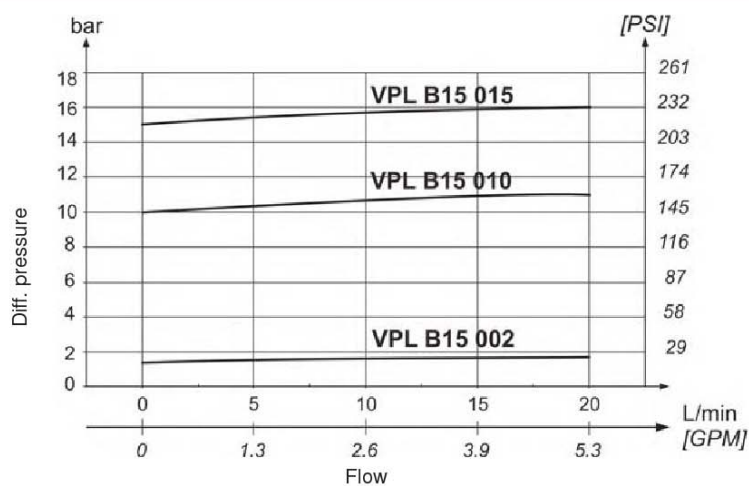
Without external drain



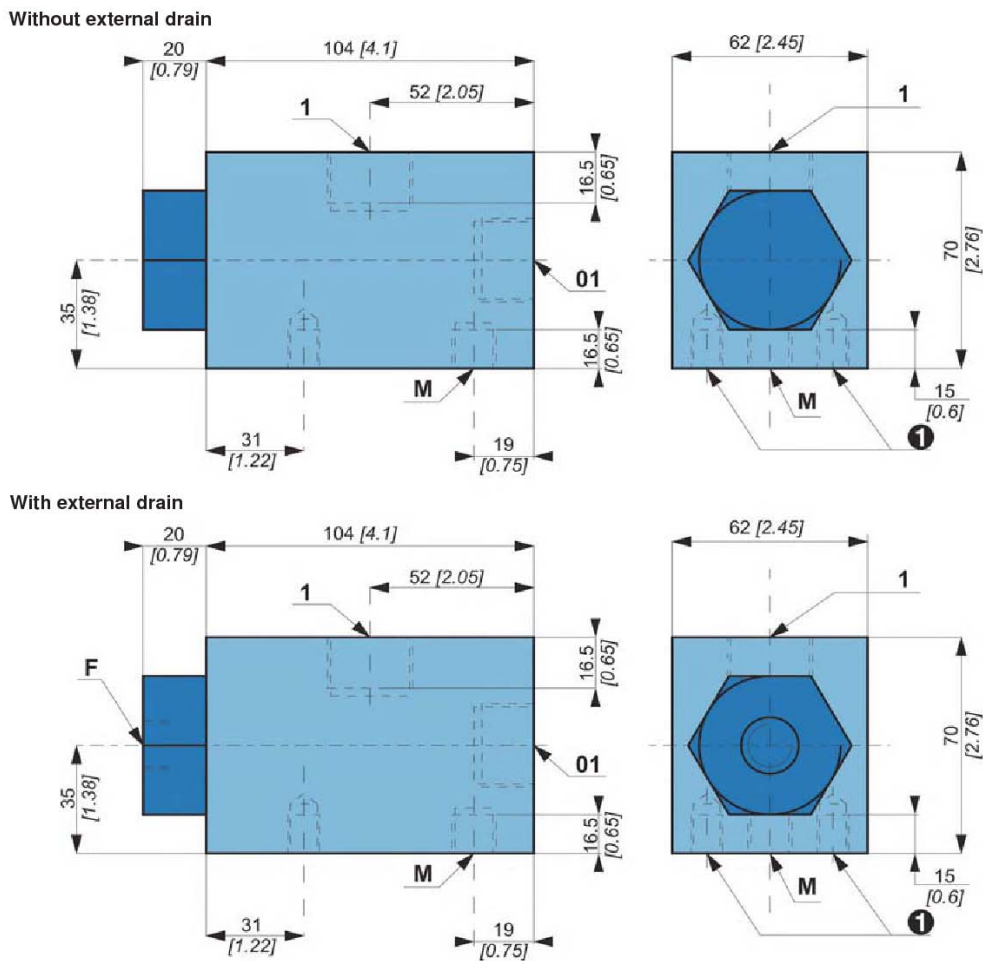
With external drain



ΔP-Q Performance curves



Dimensions



Installation

Valve mounting position Indifferent

Chassis mounting

| Ref. | | Quantity | Class | Nm [lb.ft] ± 10 % (as per standard DIN 912) |
|------|-----|----------|-------|--|
| 1 | M10 | 2 | 8.8 | 50 [37] |

Hydraulic connections

| Port | Function | Connection | Pressure bar [PSI] | Nm [lb.ft] ± 10 % (as per standard DIN 912) |
|------|----------------------|----------------------|--------------------|--|
| 01 | Input | M 27 x 2 (DIN 3852) | | 200 [148] |
| 1 | Output | | max. 50 [max. 725] | |
| M | Pressure measurement | M14 x 1,5 (DIN 3852) | | 45 [33] |
| F | Drain | M16 x 1.5 (DIN 3852) | 0 [0] | 60 [44] |

Model code

V P L B 1 5 0 0 0 0 1 0 4 0 0 0 0

High pressure relief valve bar [PSI]

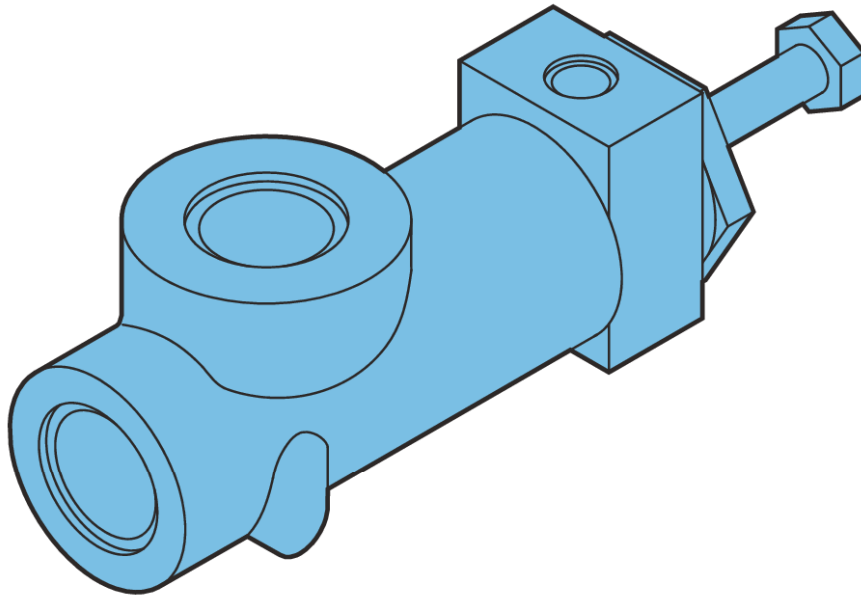
| | |
|------------|-----|
| 1.5 [21.7] | 002 |
| 10 [145] | 010 |
| 15 [217] | 015 |

External drain

| | |
|---------|---|
| Without | 0 |
| With | E |

ADJUSTABLE PRESSURE LIMITER VPB25

Function: Create back pressure in open loop circuit.



Commercial Description

BLOC RB25 F5/15

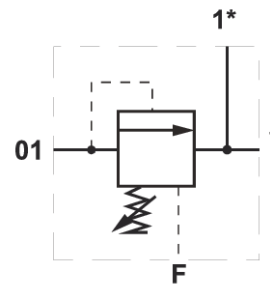
Part number

001443329L

Compatibility

All types of circuit

Hydraulic symbol



Characteristics

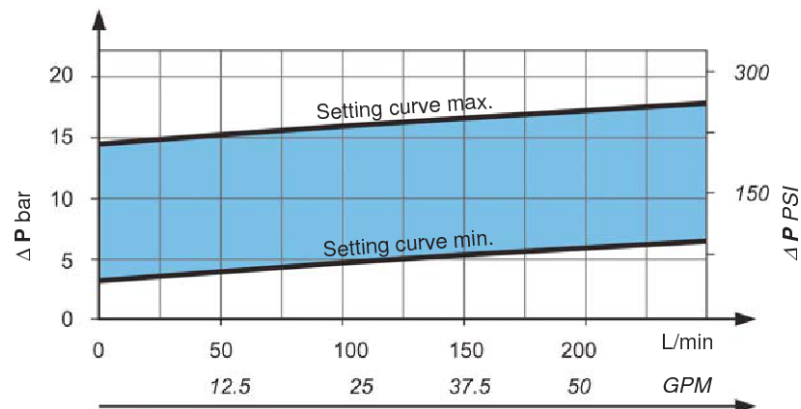
Mass

3.5 kg [7.7 lb]

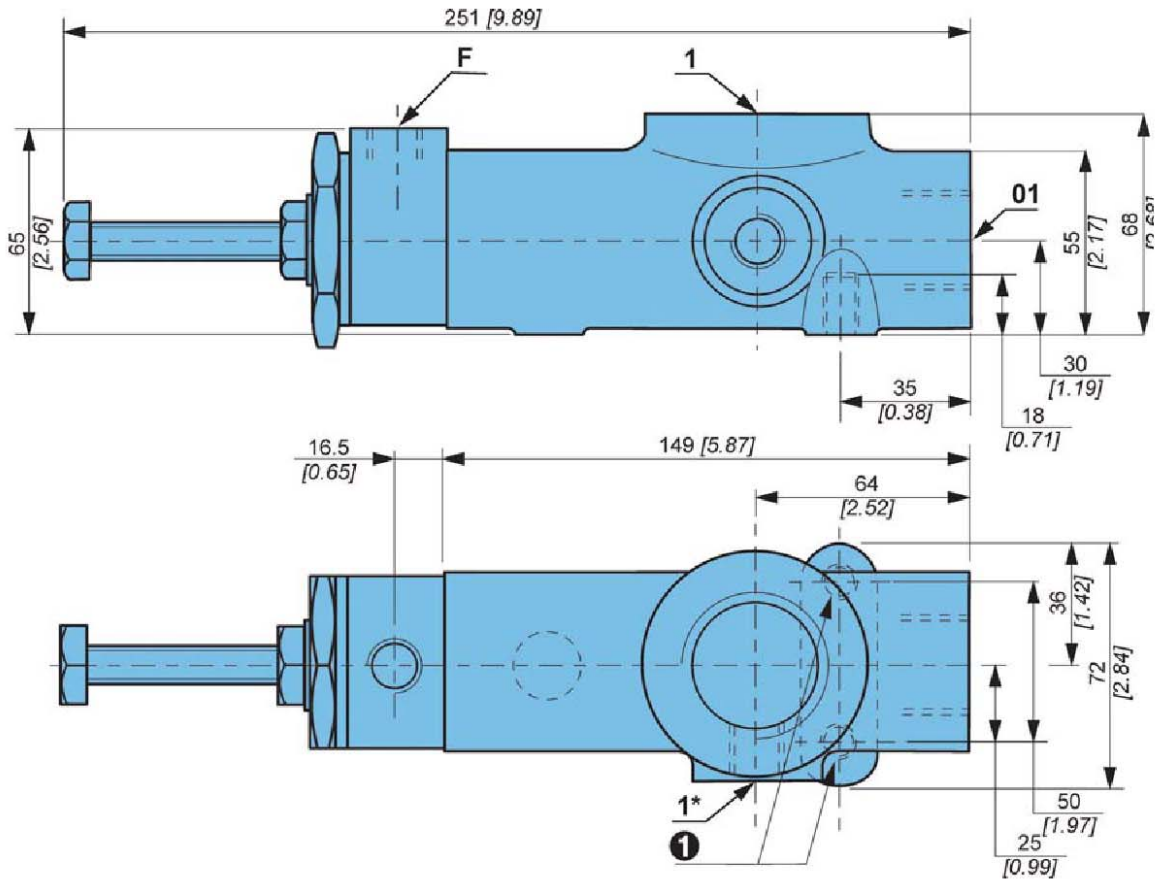
Flow

260 L/min [70 GPM]

Pressure drop



Dimensions




Installation

Valve mounting position : Indifferent.

Chassis mounting :

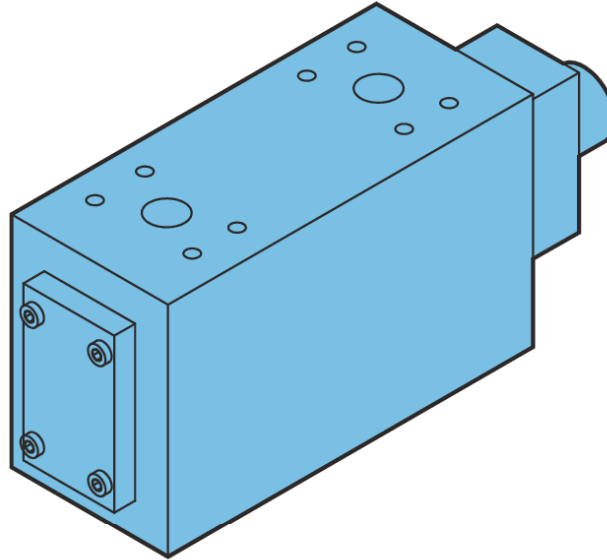
| Ref. |  | Quantity | Class |  N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|----------|---|----------|-------|---|
| 1 | M10 | 2 | 8.8 | 50 [37] |

Hydraulic connections:

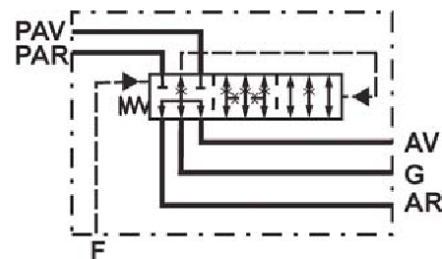
| Port | Function | Connection | Max pressure bar [PSI] |  N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|------|----------|---------------------------|---------------------------|---|
| 01 | Input | 42 gaz cyl. [1" 1/4 BSPP] | 15 max. [max. 220] | 632 [466] |
| 1 | Output | | | |
| 1* | Output | 21 gaz cyl. [1/2" BSPP] | | 160 [118] |
| F | Drain | 13 gaz cyl. [1/2" BSPP] | 0 [0] | 30 [22] |

FREE-WHEELING VALVE H25

Function: On motor, connects the ports A and R (or L and R on motor 1C) to tank and allows the pistons to return in cylinder-blocks and the motor to turn in free-wheeling. Protect the motor from pressure spikes in the casing.

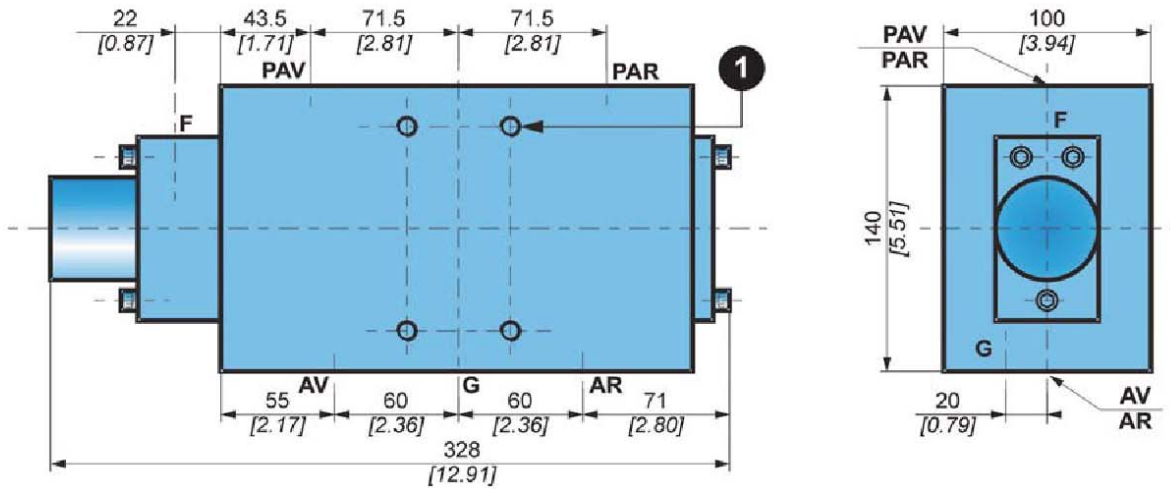


| Commercial Description | BLOC DE DECRABOTAGE H25 BLOC DE DECRABOTAGE H25 U |
|------------------------|---|
| Part number | 002443681A (metric connections) 003643608T (UNF connections) |
| Compatibility | All types of circuit |
| Hydraulic symbol | |



| Characteristics | |
|-----------------|------------------------------|
| Mass | 22 kg [48.5 lb] |
| Flow | 260 L/min [70 GPM] |
| Pilot pressure | 7 to 10 bar [100 to 145 PSI] |

Dimensions



Installation

Valve mounting position : Indifferent.

Chassis mounting :

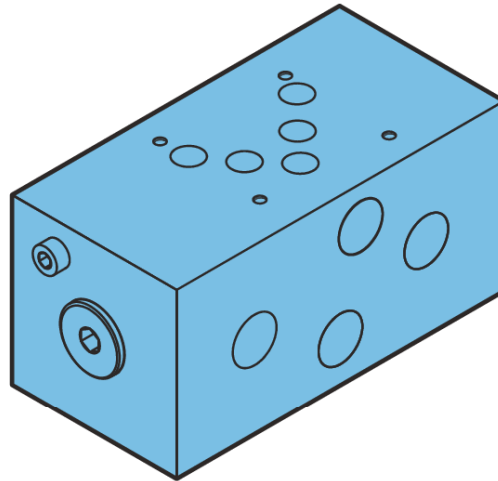
| Ref. | | Quantity | Class | N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|----------|-----|----------|-------|---|
| 1 | M10 | 4 | 8.8 | 50 [37] |

Hydraulic connections:

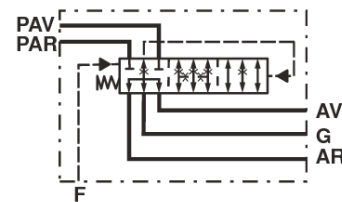
| Port | Function | Connection | Max pressure bar [PSI] | N.m [lb.ft] ± 10 % (as per standard DIN 912) | |
|------|------------------------|-------------------------------|---------------------------------|---|-----------|
| PAV | Input forward | DN 25 PN 400 (ISO 9 974-1) | 450 [6 526] | 55 [41] | |
| PAR | Input reverse forward | | | | |
| AV | Output forward | | | | |
| AR | Output reverse forward | | | | |
| G | Pilot | M27 x 2 (ISO 9 974-1) | 1" 1/16 -12 UNF (ISO 11 926) | 100 [1 450] | 200 [148] |
| F | Drain | M16 x 1.5 (ISO 9 974-1) | 9/16"-18 UNF (ISO 11 926) | 0 [0] | 60 [44] |

FREE-WHEELING VALVE H15

Function: On motor, connects the ports A and R (or L and R on motor 1C) to tank and allows the pistons to return in cylinder-blocks and the motor to turn in free-wheeling. Protect the motor from pressure spikes in the casing.

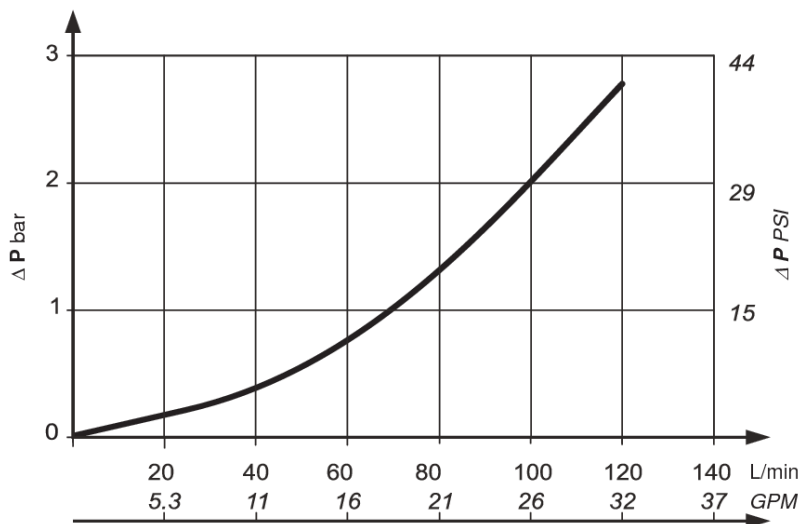


| Commercial Description | BLOC DECRABOTAGE H15 |
|------------------------|----------------------|
| Part number | 002443688H |
| Compatibility | All types of circuit |
| Hydraulic symbol | |

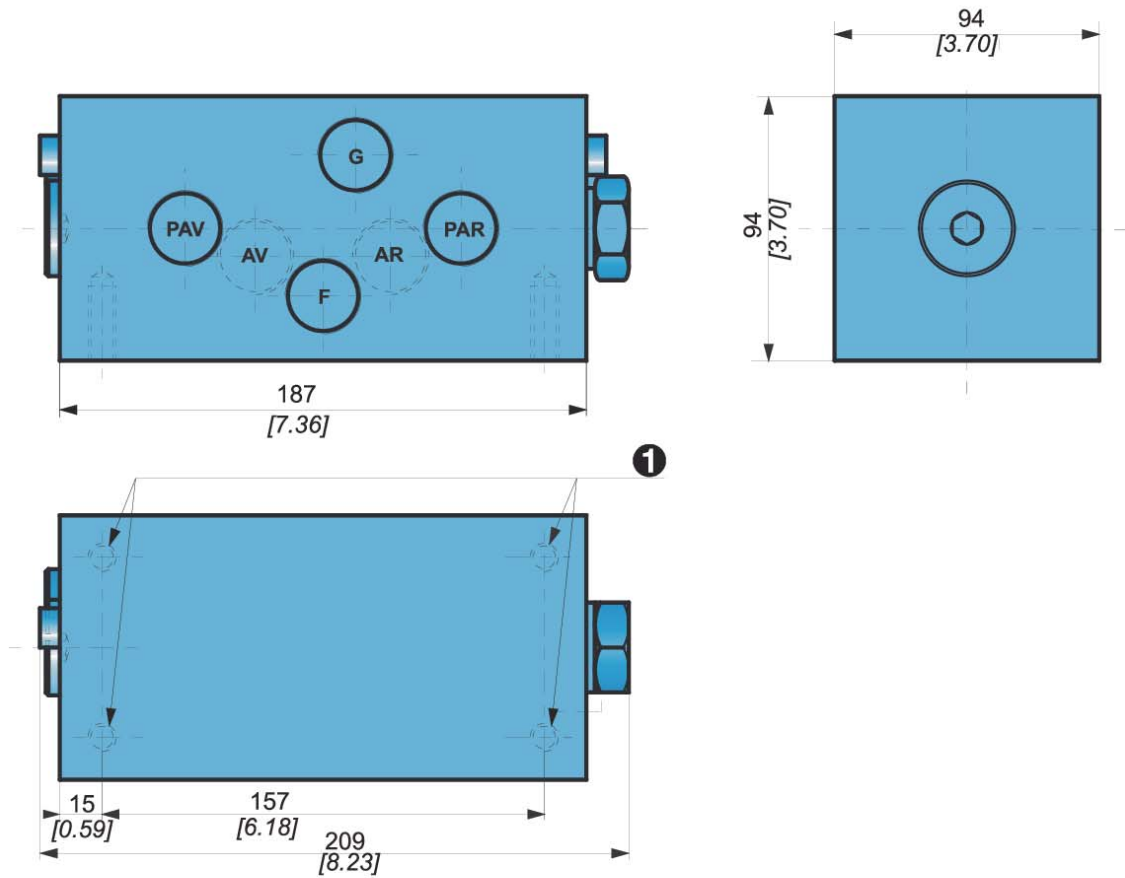


| Characteristics | |
|------------------|----------------------------|
| Mass | 15 kg [33.1 lb] |
| Flow | 65 L/min [17 GPM] |
| Control pressure | 6 to 9 bar [90 to 130 PSI] |

Pressure drop



Dimensions



Installation

Valve mounting position : Indifferent.
 Chassis mounting :

| Ref. | | Quantity | Class | N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|----------|-----|----------|-------|---|
| 1 | M12 | 4 | 8.8 | 86 [63] |

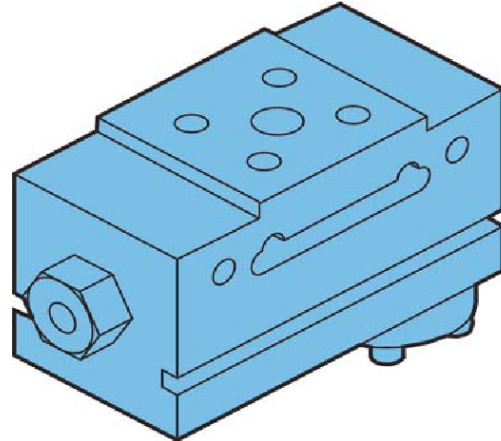
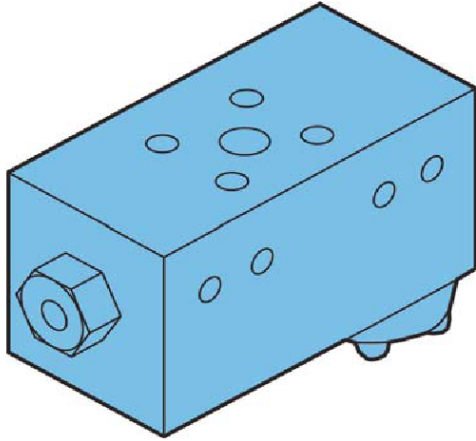
Hydraulic connections:

| Port | Function | Connection | Max. pressure bar [PSI] | N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|------|------------------------|------------|----------------------------|---|
| PAV | Input forward | M27 x 2 | 450 [6 526] | 200 [148] |
| PAR | Input reverse forward | | | |
| AV | Output forward | | | |
| AR | Output reverse forward | | | |
| G | Pilot | | | |
| F | Drain | | | |

DIRECTIONAL CONTROL VALVE VD 2V 2H20/H25

Function: Two position flow directional control valve, opens or closes a circuit.

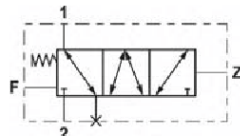
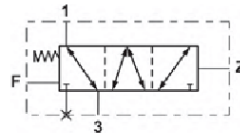
Valve VD 2V 2H20 | **Valve VD 2V 2H25**



Commercial Description | **VD 2V 2H20**
VD 2V 2H25

| | |
|---------------|--|
| Part number | 003943368U (VD 2V 2H20) 003943367T (VD 2V 2H25) |
| Compatibility | All types of circuit |

Hydraulic symbol



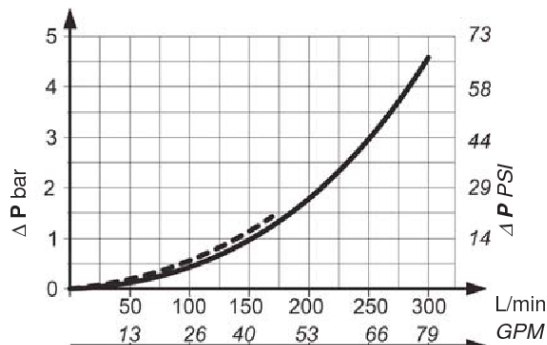
Characteristics

Mass | 8 kg [18 lb]

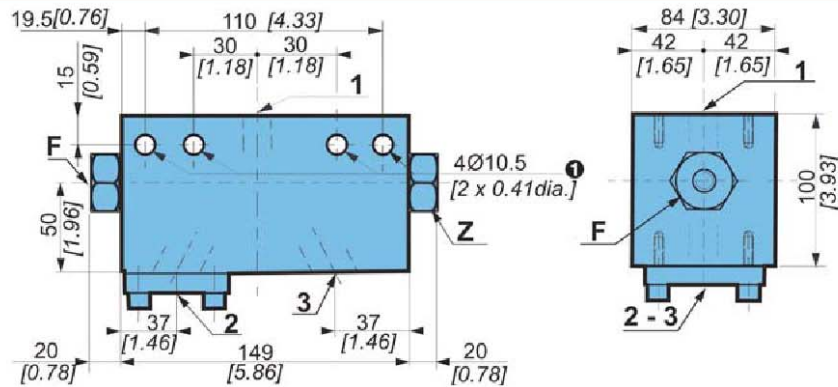
| Commercial Description | Pressure bar [PSI] | Flow L/min [GPM] |
|------------------------|--------------------|-----------------------|
| VD 2V 2H20 | 450 [6 526] | 92 to 170 [25 to 45] |
| VD 2V 2H25 | | 170 to 300 [45 to 80] |

Pressure drop (1 ⇌ 2 or 1 ⇌ 3)

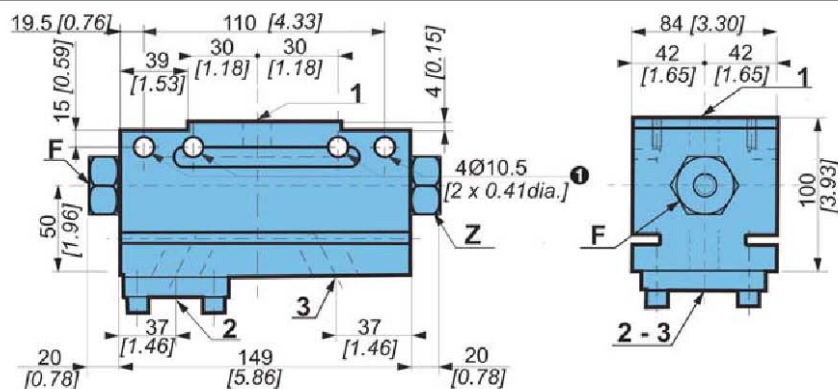
VD 2V 2H20 - - - -
VD 2V 2H25 ————



VD 2V 2H 20 Dimensions



VD 2V 2H 25 Dimensions



The plug can be positioned in 3

Installation

Valve mounting position : Indifferent.

Chassis mounting :

| Ref. | | Quantity | Class | N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|------|-----|----------|-------|---|
| 1 | M10 | 4 | 8.8 | 50 [37] |

Hydraulic connections:

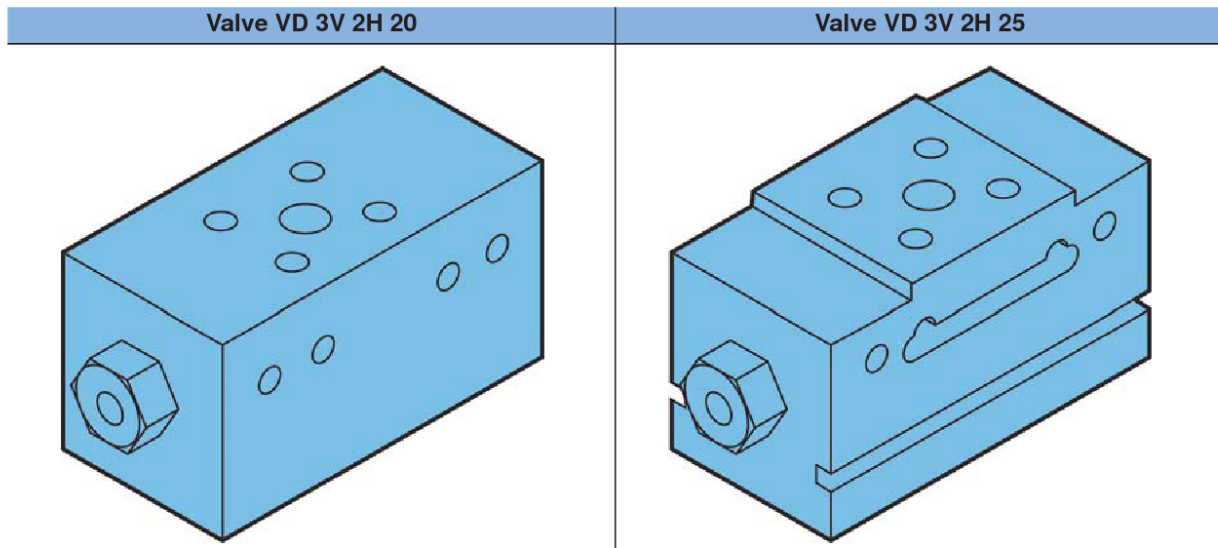
| Port | Function | Connection | | Max. pressurebar [PSI] | N.m [lb.ft] ± 10 % (as per standard DIN 912) | |
|-------|------------|------------------------|------------------------|------------------------|---|---------|
| | | H20 | H25 | | H20 | H25 |
| 1-2-3 | HP circuit | DN 19 (NF E 48 055) | DN 25 (NF E 48 055) | 450 [6 526] | 55 [41] | 60 [44] |
| Z | Pilot | M16 x 1.5 | | 5 [75.2] + F | 60 [44] | |
| F | Drain | M16 x 1.5 | | 3 [45] | 60 [44] | |



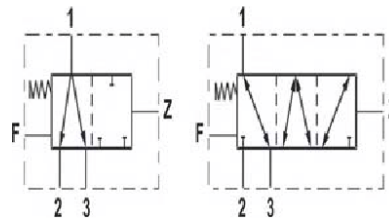
The pressure in F port must be added to the pressure in Z port (control).

DIRECTIONAL CONTROL VALVES VC 3V 2H 20/25

Function: Two position flow directional control valve, allowing to direct a circuit.



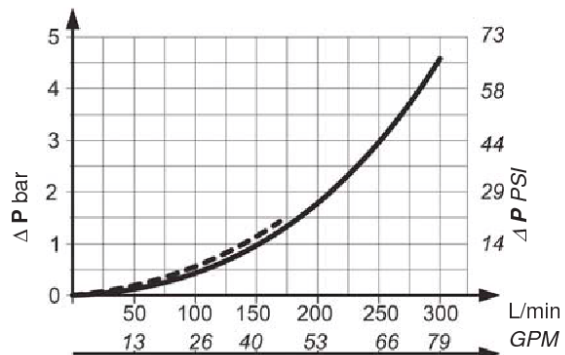
| Commercial Description | VD 3V 2H20 VD 3V 2H25 |
|------------------------|--|
| Part number | 003943319R (VD 3V 2H20) 003943320S (VD 3V 2H25) |
| Compatibility | All types of circuit |
| Hydraulic symbol | |



| Characteristics | | |
|------------------------|-----------------------|-----------------------|
| Mass | 8 kg [18 lb] | |
| Commercial Description | Pressure bar [PSI] | Flow L/min [GPM] |
| VD 3V 2H20 | 450 [6 526] | 92 to 170 [25 to 45] |
| VD 3V 2H25 | | 170 to 300 [45 to 80] |

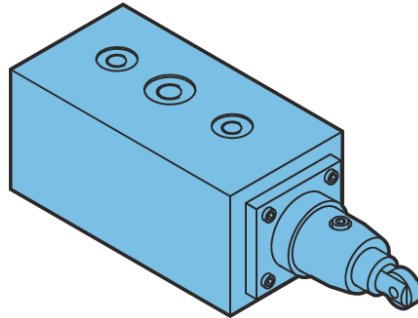
Pressure drop

VD 3V 2H20
 VD 3V 2H25



DIRECTIONAL CONTROL VALVES VDP

Function: Directional control valve on TwinLock™ circuit and mechanical or hydraulic proportional control.

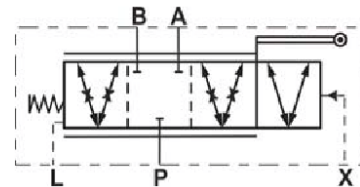
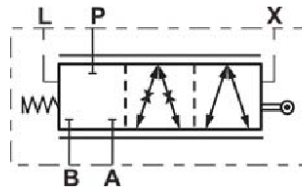


Commercial Description
 VDP H10 323 M1G30 100 0000
 VDP H10 332 M1G30 110 0000
 VDP H10 331 M1G30 110 0000
 VDP H10 331 M1G30 210 0000

Part number
 004643346Q (VDP H10 323 M1G30 100 0000)
 004643387K (VDP H10 332 M1G30 110 0000)
 004643382E (VDP H10 331 M1G30 110 0000)
 005043313M (VDP H10 331 M1G30 210 0000)

Compatibility TwinLock™ Circuit

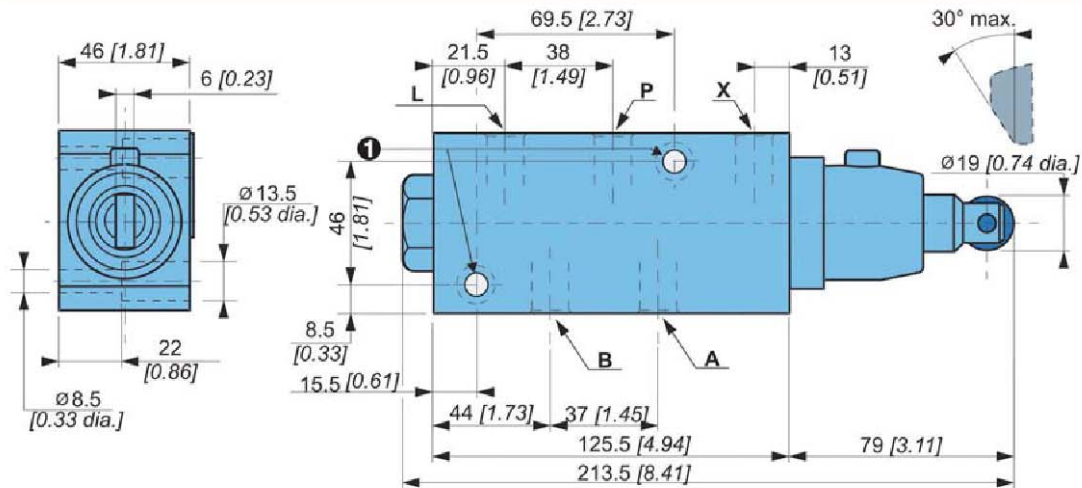
Hydraulic symbol
 004643346Q 004643387K
 004643382E
 005043313M



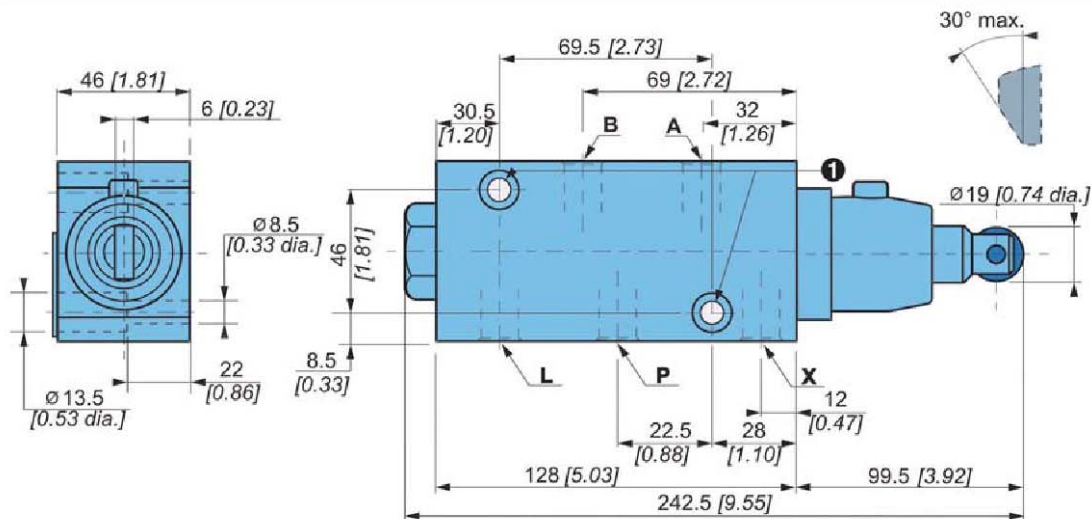
Characteristics

| | Max. pressure bar [PSI] | Flow L/min [GPM] | Mass kg [lb] |
|------------|----------------------------|---------------------|-----------------|
| 004643346Q | | | 2.65 [5.8] |
| 004643387K | 450 [6 526] | 26 to 50 [7 to 13] | |
| 004643382E | | | 3.33 [7.3] |
| 005043313M | | | |

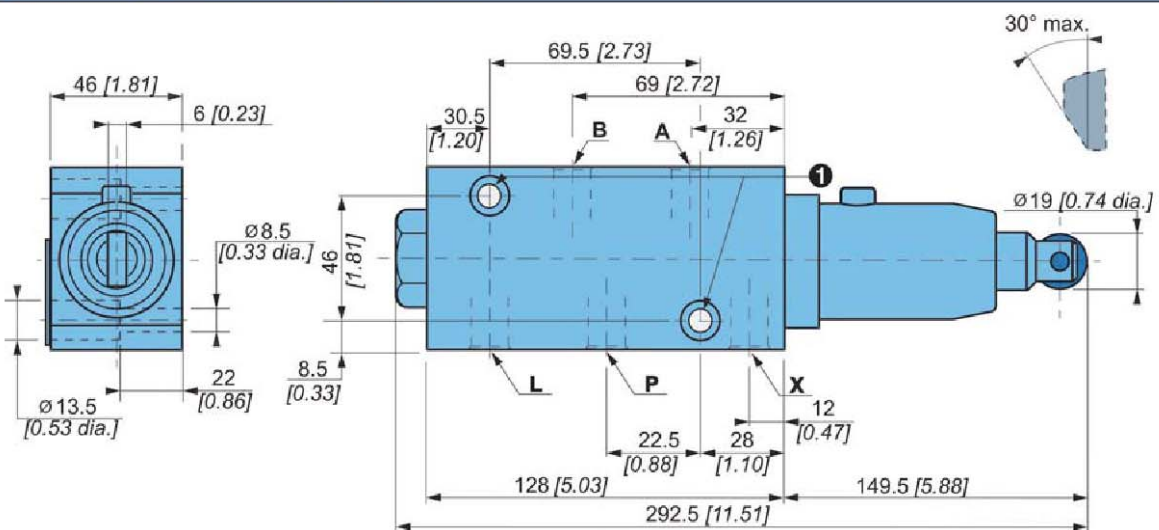
Dimensions VDP H10 323 M1G30 100 0000



**Dimensions VDP H10 332 M1G30 110 0000
VDP H10 331 M1G30 110 0000**



Dimensions VDP H10 331 M1G30 210 0000





The operation of the cam on the roller must be limited to $\pm 30^\circ$ to limit the parasite forces.

Mechanical control

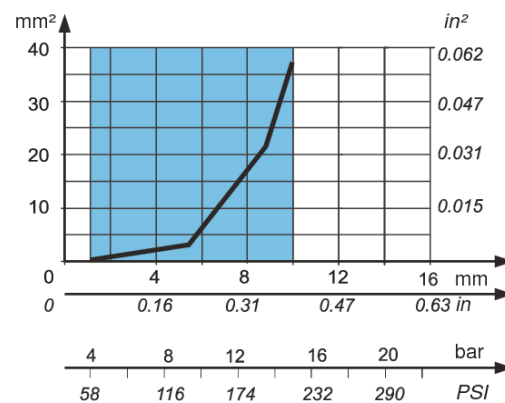
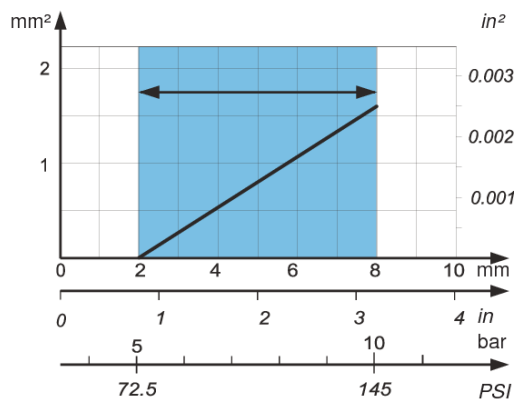
| | Beginning of opening N [lbf] | End of opening N [lbf] | Max. stroke mm [in] |
|------------|---------------------------------|---------------------------|------------------------|
| 004643346Q | 25 [5.62] | 55 [12.36] | 10 [0.39] |
| 004643387K | | | |
| 004643382E | 49 [11.02] | 170 [38.22] | 16 [0.6] |
| 005043313M | | | |

Hydraulic control

| | Beginning of opening bar [PSI] | End of opening bar [PSI] | Max. pressure bar [PSI] |
|------------|-----------------------------------|-----------------------------|----------------------------|
| 004643346Q | 5 [72.5] | 11 [160] | |
| 004643387K | | | |
| 004643382E | 4 [58] | 15 [218] | 50 [725] |
| 005043313M | | | |

004643346Q:

004643387K
004643382E
004643313M




Installation

Valve mounting position: Indifferent.

Chassis mounting:

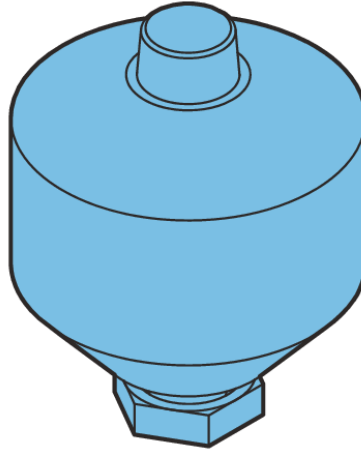
| Ref. |  | Quantity | Class |  N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|------|---|----------|-------|---|
| 1 | M8 | 2 | 8.8 | 25 [18] |


Hydraulic connections:

| Port | Function | Connection | Max. pressure bar [PSI] |  N.m [lb.ft] ± 10 % (as per standard DIN 912) |
|-------|------------|------------|----------------------------|---|
| P-A-B | HP circuit | M18 x 1.5 | 450 [6 526] | 70 [52] |
| X | Pilot | M14 x 1.5 | 50 [752] | 45 [33] |
| L | Drain | | 3 [45] | |

HYDRO-PNEUMATIC BRAKING CIRCUIT ACCUMULATOR

Function: Dedicated power reserve for dynamic brake safety circuits. Conforms to German standard STVZO-§41. The accumulated volume must provide for 9 braking operations.



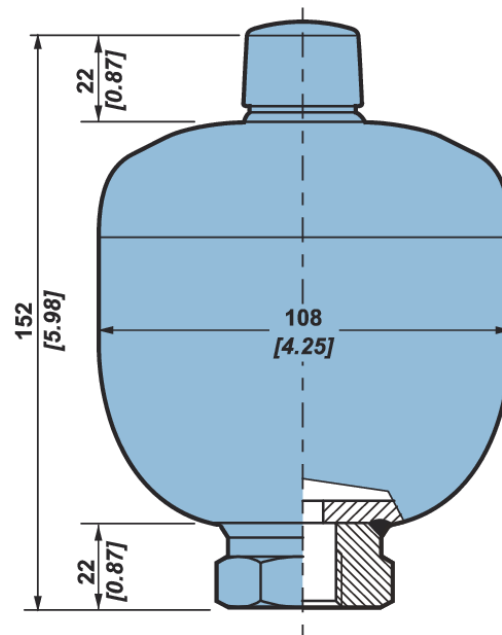
| Commercial Description | ACCU. 0,5 L PG 65 B |
|------------------------|---|
| Part number | 00114020F |
| Technology | Membrane Accumulator |
| Compatibility | All types of transmission |
| Hydraulic symbol |  |

| Features | |
|-----------------------------|--|
| Nominal volume | 0.5 L [30.5 cu.in] |
| Max permissible pressure | 160 bar [2 320 PSI] |
| Inflation pressure | 65 bar [942 PSI] (Please contact us for other possible pressures) |
| Mass | 2 kg [4.41 lb] |
| Operating temperature range | -10 °C to 80 °C [14 °F to 176 °F] |
| Inflation gas | Nitrogen |
| Nitrile quality | NBR |
| Oil used | Mineral oil (group 2 fluid) |



Definitions of volume, inflation pressure, and number of accumulators must be submitted for approval by Poclain Hydraulics application engineers.

Dimensions



Installation

| | |
|------------------------|---|
| Position | Indifferent. Position the accumulator as close as possible to the user equipment. There must be 200 mm of space around the inflation valve to enable access to the accumulator for inflation checking equipment; this checking equipment to have a draining system fitted. |
| mounting | A collar needs to be fitted around the accumulator body. This collar must be able to prevent the accumulator from moving in the event of a broken connection. |
| Hydraulic connections: | Preferably with rigid tubing: |

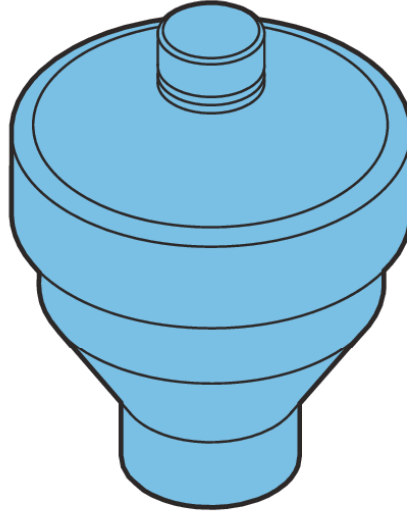
| BSPP Standard connection | Thread depth mm [in] | Max. pressure bar [PSI] |  N.m [lb.ft] ± 10 % |
|--------------------------|-------------------------|----------------------------|--|
| Ø 21 [G 1/2'] | 14 [0.55] | 160 [2320] | 160 [118] |



Always drain accumulators before disconnecting any tubing. Adjust the distribution and purge valves, referring to the hydraulic diagram for the whole installation.

HYDRO-PNEUMATIC BRAKING CIRCUIT ACCUMULATOR

Function: Dedicated power reserve for dynamic brake safety circuits. Conforms to German standard STVZO-§41. The accumulated volume must provide for 9 braking operations.



| Commercial Description | ACCU.0,5L PG65B-P.MAXI=210 |
|------------------------|----------------------------|
| Part number | 002440238H |
| Technology | Membrane Accumulator |
| Compatibility | All types of transmission |

Hydraulic symbol

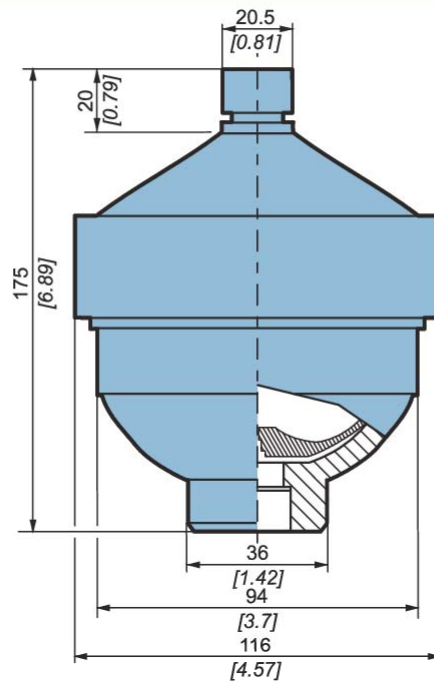


| Features | |
|-----------------------------|--|
| Nominal volume | 0.5 L [30.5 cu.in] |
| Max permissible pressure | 210 bar [3 045 PSI] |
| Inflation pressure | 65 bar [942 PSI] (Please contact us for other possible pressures) |
| Mass | 3.6 kg [7.94 lb] |
| Operating temperature range | -20°C to 80°C [-4°F to 176°F] |
| Inflation gas | Nitrogen |
| Nitrile quality | NBR |
| Oil used | Mineral oil (group 2 fluid) |



Definitions of volume, inflation pressure, and number of accumulators must be submitted for approval by Poclair Hydraulics application engineers.

Dimensions



Installation

| | |
|------------------------|---|
| Position | Indifferent. Position the accumulator as close as possible to the user equipment. There must be 200 mm of space around the inflation valve to enable access to the accumulator for inflation checking equipment; this checking equipment to have a draining system fitted. |
| mounting | A collar needs to be fitted around the accumulator body. This collar must be able to prevent the accumulator from moving in the event of a broken connection. |
| Hydraulic connections: | Preferably with rigid tubing: |

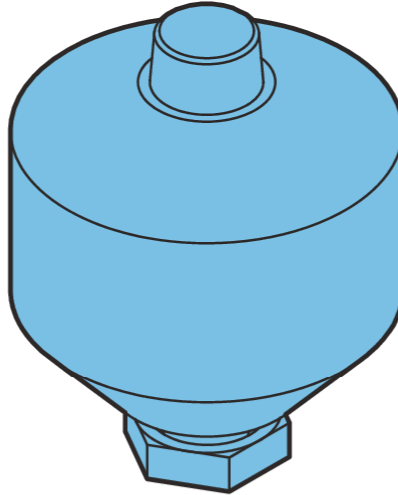
| BSP Standard connection | Thread depth mm [in] | Max. pressure bar [PSI] | N.m [lb.ft] ± 10 % |
|-------------------------|-------------------------|----------------------------|--------------------|
| M 18 x 1.5 | 14 [0.55] | 210 [3 045] | 70 [52] |



Always drain accumulators before disconnecting any tubing. Adjust the distribution and purge valves, referring to the hydraulic diagram for the whole installation.

HYDRO-PNEUMATIC RETURN AND BOOSTER CIRCUIT ACCUMULATOR (1.3L)

Function: Pressure limiting in return circuit.



| Commercial Description | ACCU 1,3 L 0,5 BAR EQ |
|------------------------|---|
| Part number | 0.5 bar [7.25 PSI] : 002440239J (Type B) |
| Function | |
| Part number | 8 bar [116 PSI] : 005237731L (Type A) 12 bar [174 PSI] : 005237732M (Type A) 20 bar [290 PSI] : 005237733N (Type A) 30 bar [435 PSI] : 002440240K (Type B) |
| Compatibility | All types of transmission |
| Hydraulic symbol | |

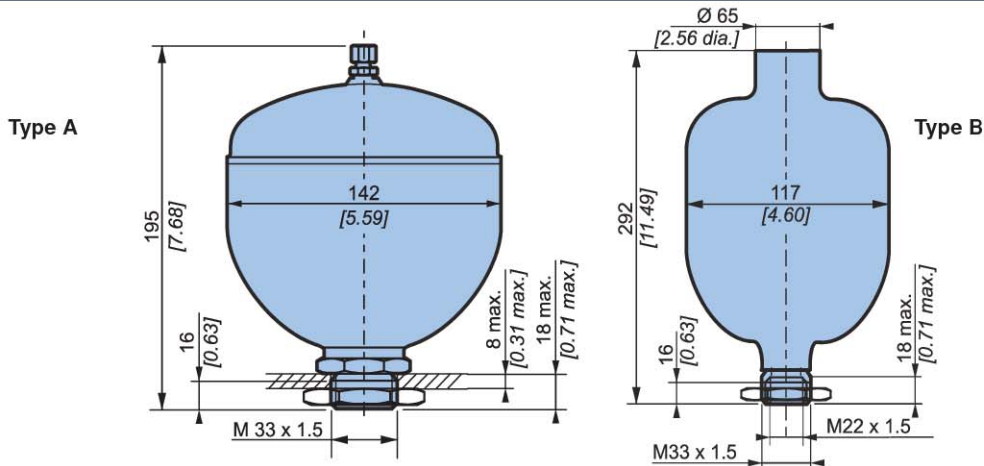


| Features | Type A | Type B |
|-----------------------------|-------------------------------|-------------------------------|
| Nominal volume | 1.3 L [79.33 cu.in] | 1.3 L [79.33 cu.in] |
| Max permissible pressure | 50 bar [725 PSI] | 210 bar [3045 PSI] |
| Inflation pressure | According to model | According to model |
| Mass | 1.7 kg [3.75 lb] | 3.6 kg [7.94 lb] |
| Operating temperature range | -10°C to 80°C [14°F to 176°F] | -20°C to 80°C [-4°F to 176°F] |
| Inflation gas | Nitrogen | - |
| Oil used | Mineral oil (group 2 fluid) | |



Definitions of volume, inflation pressure, and number of accumulators must be submitted for approval by Poclain Hydraulics application engineers.

Dimensions



Installation

Position Indifferent.
Position the accumulator as close as possible to the user equipment. There must be 200 mm of space around the inflation valve to enable access to the accumulator for inflation checking equipment; this checking equipment to have a draining system fitted.

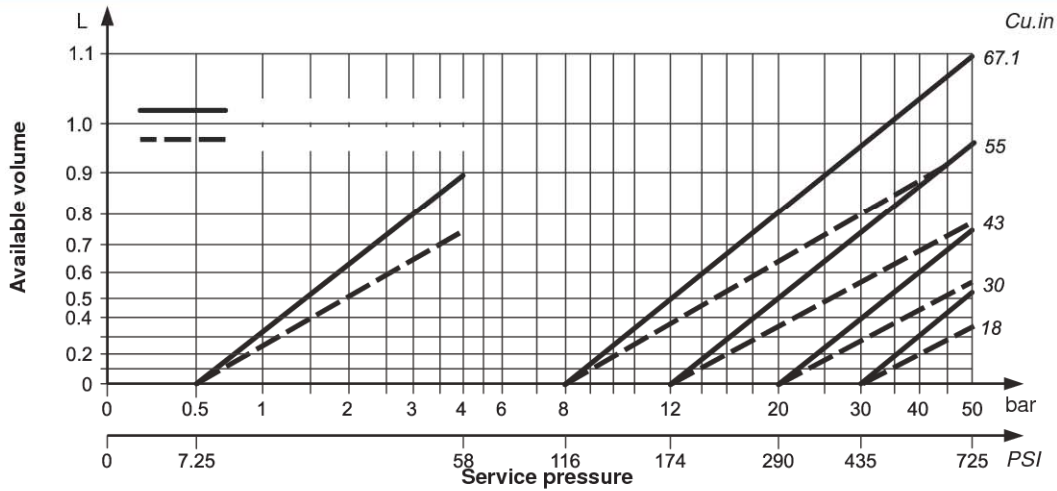
mounting A collar needs to be fitted around the accumulator body. This collar must be able to prevent the accumulator from moving in the event of a broken connection.

| | |
|-------------------|---------------------------|
| Connection | N.m [lb.ft] ± 10 % |
| M22 x 1.5 | 100 [74] |



These accumulators can be fitted with a male-female reducer M22x1.5 -G Ø27 [3/4"] (part number : 000637313G), and an O-ring 262002507NBR-80 (part number : 000030460J).

Use (Type A)



Maintenance



Accumulators greater than 1l must be regularly inspected. Refer to European Directive 97/23/CE.

Precautions in use



Always drain accumulators before disconnecting any tubing. Adjust the distribution and purge valves, referring to the hydraulic diagram for the whole installation.

