2-WAY FLOW DIVIDER FD-M2

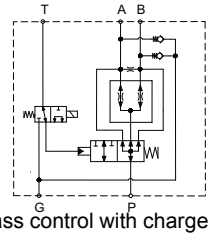
- **Modular**
- **Compact**
- **Energy efficient**

Operation

FD-M2 is a two-way medium-duty flow divider that assures parallel operation of wheels of the same axle or between different axles by dividing or combining the flow. It can operate in open or closed loop circuits. FD-M2 is equipped with normally opened by-pass that can be controlled electric or hydraulic.

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.

Hydraulic symbol



Electric by-pass control with charge check valves.

Features

Hydraulic		
Max. pressure	bar *[PSI]*	420 bar *[6 000 PSI]*
Max. flow	l/min *[gal/min]*	150 *[39.6]*
Dividing/combining accuracy		from +/- 5% to +/- 10% according to flow range
Type of hydraulic connections		ISO 1179-1 (BSPP); ISO 11926-1 (UNF)
Weight	kg *[lbs]*	7,9 *[17.4]*
Surface treatment		Zn plating Fe//Zn8//Cn//T2 (DIN 50979)
Fluid temperature	°C *[°F]*	-20 to +90 *[-4 to +200]*
Fluid viscosity	mm²/s *[SSU]*	15 to 380 *[75 to 1760]*
Fluid contamination	ISO 4401:1999	max 20/18/14

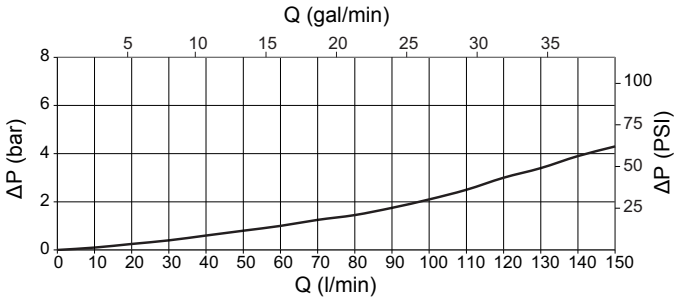
Electrical		
Solenoid supply voltage	V DC	12, 24; ±10%
Solenoid power consumption	W	17,2 (12V DC), 16,6 (24V DC)
Solenoid duty cycle		100% ED
Max. ambient temperature	°C *[°F]*	70 *[158]*

Pressure drop

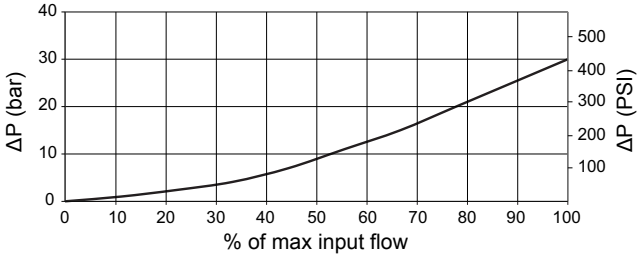
Test conditions: HV 46 hydraulic fluid at 40°C (104°F)

Measured at 50 °C *[122 °F]* and viscosity of 32 mm²/s *[148 SUS]*.

By-pass mode



Divider mode

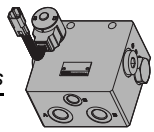


Installation

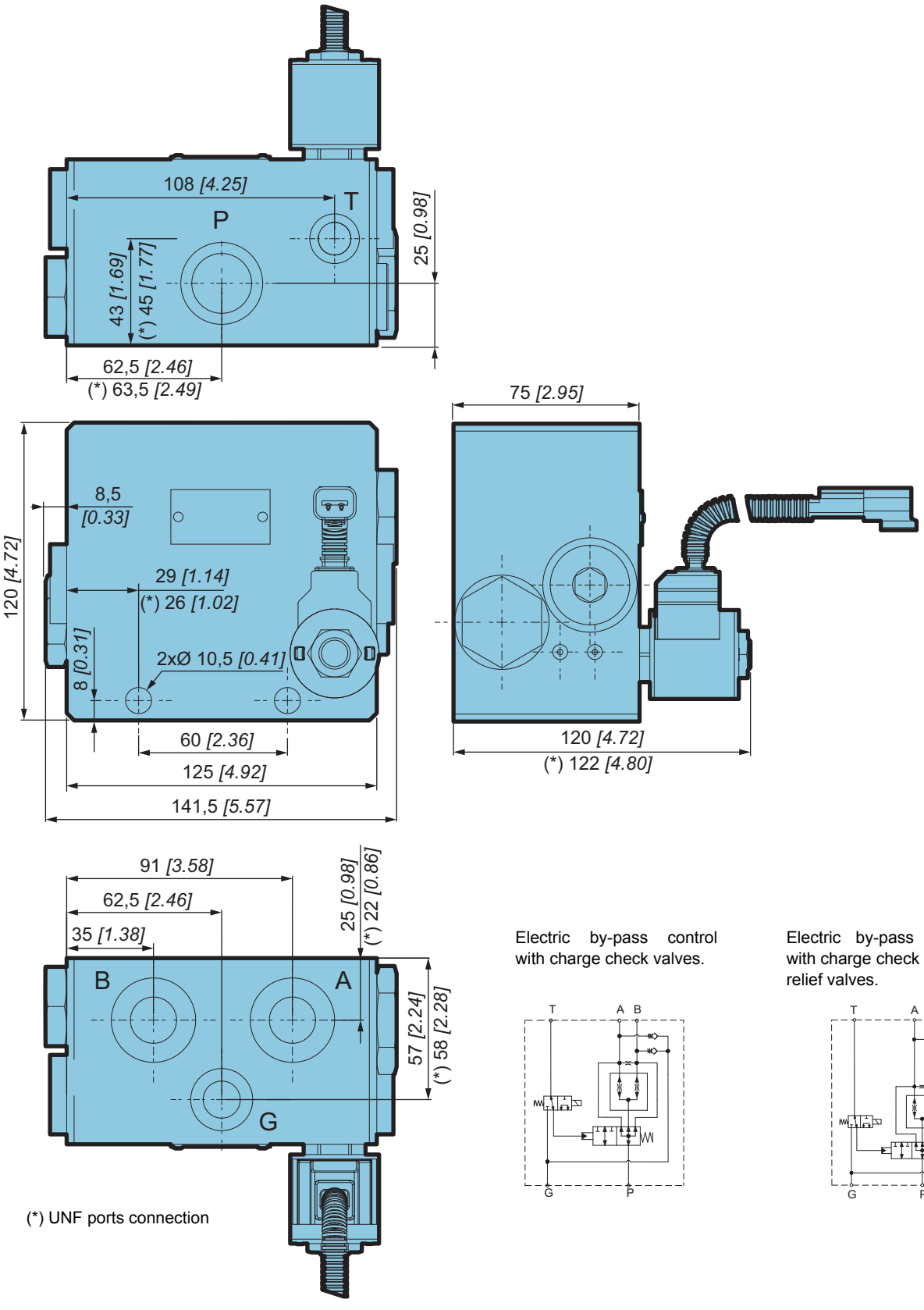
Mounting position: Indiferent

	Class	(*) N.m *[lb.ft]*
2xM10	8.8	49 *[36]*

(*) As per standard DIN 912



Dimensions - options according to model code:

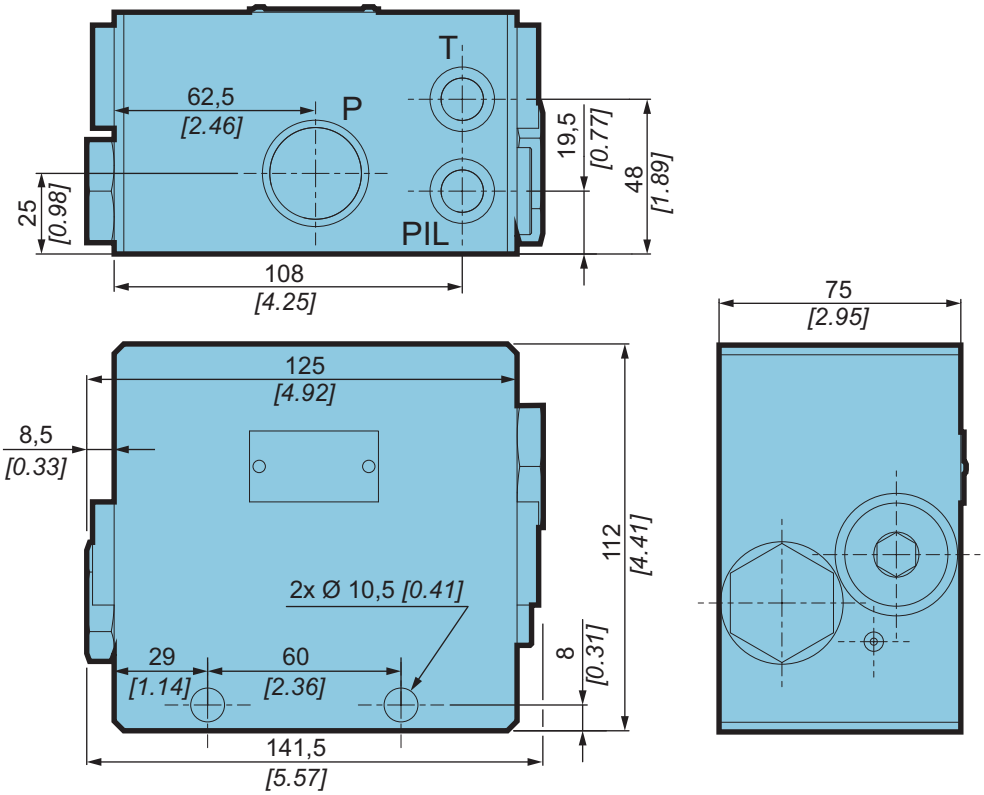


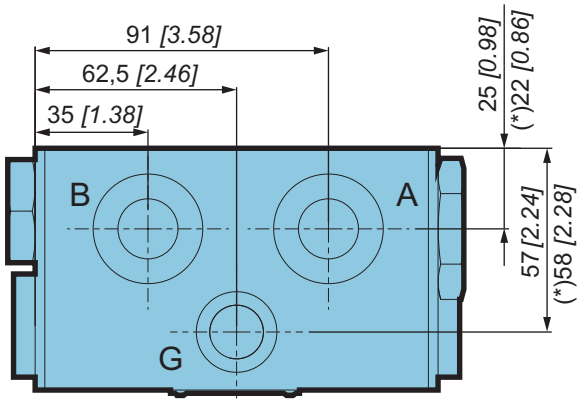
(*) UNF ports connection

Electric by-pass control with charge check valves.

Electric by-pass control with charge check and relief valves.

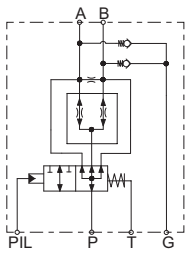
Dimensions - options according to model code:



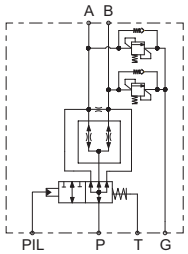


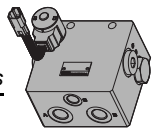
(*) UNF ports connection

Hydraulic by-pass control with charge check valves.



Hydraulic by-pass control with charge check and relief valves.





Dimensions - options according to model code:

Port	Function	Connection		Max. pressure bar *[PSI]*	Min. pressure bar *[PSI]*
		BSPP ISO 1179-1	UNF ISO 11926-1		
P	Main flow inlet-outlet	3/4“	1“1/16-12	420 *[6000]*	
A	Divided flow outlet - combined flow inllet	1/2“	7/8“-14	420 *[6000]*	
B					
G	Charge flow inlet	3/8“	3/4“-16	50 *[725]*	8 *[116]*
PIL	Pilot flow inlet (hydraulic by-pass only)	1/4“	9/16“-18	50 *[725]*	8 *[116]*
T	Drain	1/4“	9/16“-18	5 *[73]*	

Dimensions - options according to model code:

F D M 2 - 1 □ □ □ - □ 0 □ □ - □ □ □ - □ □ □ - □ □ □

By-pass flow

Without by-pass	**0**
to 150 l/min *[39,6 gal/min]*	**1**

Division ratio (flow split %)

50 - 50	**A**
70 - 30	**B**
60 - 40	**D**

Max. flow always goes through port A.

Flow range in division mode

20-60 l/min *[5.3-15.9 gal/min]*	**06**
25-90 l/min *[6.6-23.8 gal/min]*	**09**
35-120 l/min *[9.2-31.7 gal/min]*	**12**
55-150 l/min *[14.6-39.6 gal/min]*	**15**

Optimal work is located between 40% and 60% of max. dedicated flow.

By-pass control

Electric control	**E**
Hydraulic control	**H**
Without	**A**

Auxilliaries

Without	**0**

Transfer restrictor diameter

Without	**00**
0,6 mm *[0.024 in]*	**06**
0,8 mm *[0.032 in]*	**08**
1,0 mm *[0.039 in]*	**10**

Contact us for other diameters.

Relief valves setting*

00	Without
30	300 bar *[4351 PSI]*
35	350 bar *[5076 PSI]*
38	380 bar *[5511 PSI]*
40	400 bar *[5801 PSI]*

*ΔP between A (B) and G at 10 L/min

Charge check valves

A	Without
B	With

Hydraulic connections

A	UNF ports
3	BSPP ports

Voltage

A	Without solenoid
1	12 V DC
2	24 V DC

Electric connector

0	Without
3	Deutsch DT04-2P
4	DIN 43650
5	AMP Jr. Timer

Options

Without	**0**
By-pass - normally closed	**1**
Zn plating (STANDARD)	**B**
Special painting	**D**
Specific name plate	**P**
Customized*	**F**

* Further description on interface drawing