



8.1

HTFD TYPE

Flow Divider Combiner

Rated pressure (bar)	420
Peak flow (L/min)	HTFD16: 160 / 42.3
	HTFD25: 440 / 116.2

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Features

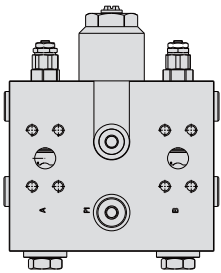
- Prevents hydraulic motors from overrunning in control mode
- Synchronised operation of up to 4 actuators connected in parallel over a wide flow range
- Diverter accuracy can be adjusted by pre-selecting or re-adjusting the proportional throttle orifice
- Double-acting (diverting or pooling) diverter valves
- Double-acting (diverting or converging) diverter valves Constant diverting ratio in case of converging diverters
- Suitable for open and closed circuits
- Integrated relief valve with hose protection and anti-cavitation

Description

Diverter collector valves control synchronised and freewheeling hydraulic motors for 2-, 3- and 4-wheel drives and can be operated in open or closed circuit.

Operation

The main flow flows from P into the chamber and moves the control spool against the preloaded spring. Hydraulic oil is supplied to the pressure compensator spool and flows through ports A, B, C and D. The pressure compensator is integrated into the different actuator ports to compensate for the load pressure difference. Pressure compensators are integrated into the different actuator ports to compensate for load pressure differences. To increase the diverting accuracy, a solenoid valve must be switched on to increase the pressure in the spring chamber so that the pressure compensator spool can start moving earlier and improve the traction accuracy of the construction machine.



Technical Data

Rated pressure		420 bar
Peak flow		HTFD16: 160 L/min
		HTFD25: 440 L/min
Pressure adjustment range of relief valve		150~420bar
Connection type		SAE flange connection
Fluid		Mineral-based or synthetics with lubricating properties
Viscosity range		7.4 to 420 mm ² /s
Temperature range		-40 to 100 °C (Buna N seals)
		-54 to 107 °C (Polyurethane seals)
		-26 to 204 °C (Fluorocarbon seals)
Degree of fluid contamination		The minimum pollution level is ISO4406 level 18/16/13, the following minimum retention filters are recommended for longer life: $\beta_{10} \geq 75$.
Weight	HTFD16	Two sections: 13.2 Kg ; Four sections: 17.5Kg
	HTFD25	Two sections: 25.9Kg ; Four sections: 32.7Kg

Ordering Code

HTFD	25	4	A	440	F12	R	42	D24	N
Nominal Size: 16 25									Seals: Buna N (Std.) N Polyurethane P Fluorocarbon V
Number of Implementing Agencies 2 4									Supply Voltage and Electrical Connections: Deutsch sockets DT0-2P: 24V D24 12V D12 AMP sockets AMP Junior Timer: 24V J24 12V J12
Dividing Ratio: Four sections (A:B:C:D) : 25:25:25:25 A 33:17:33:17 B 27:23:27:23 C 30:20:30:20 D Two sections (A:B) : 50:50 A 60:40 B 75:25 C 36:64 D									Pressure settings for secondary valves: With relief valve (MPa) 42 Without relief valve Blank
Rated Flow: Size 16 (L/min) : 80 160 Size 25 (L/min) : 220 440									Free-swinging oil circuit: With R Without Blank
									Δ P control: Adjustable orifice operation, P proportional solenoid valve Adjustable orifice operation, S solenoid switching valve Fixed orifice diameter of the throttle orifice, F e.g. F12= Ø 1.2mm

Materials

Cartridge:

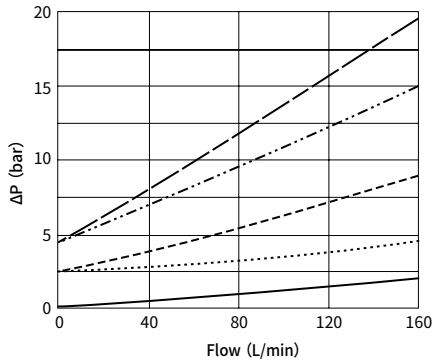
Steel , Buna N (Std.) seal.

Standard Ported Body:

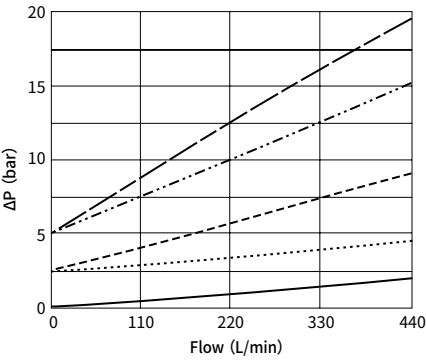
Ductile iron, rated to 420 bar; Dimensions may differ, consult factory.

Performance

HTFD16

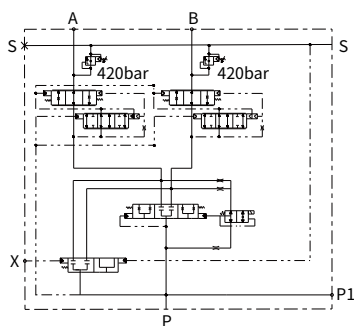


HTFD25

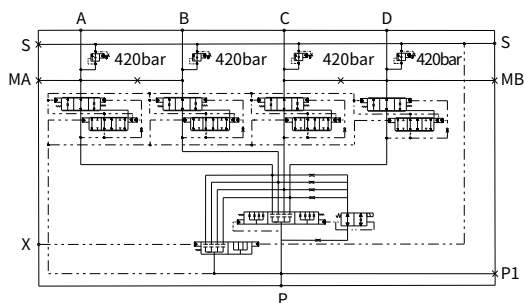


Curve	Flow Direction	Proportional Valve	Current Intensity
a —————	Free turn		
b	P-A、B、C、D	De-energised	I=0A
c - · - · - ·	P-A、B、C、D	Energised	I=1.8A @ 12V, 1.2A @ 24V
d - - - - -	A、B、C、D-P	De-energised	I=0A
e - - - - -	A、B、C、D-P	Energised	I=1.8A @ 12V, 1.2A @ 24V

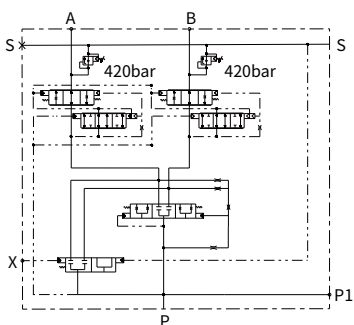
Hydraulic diagram



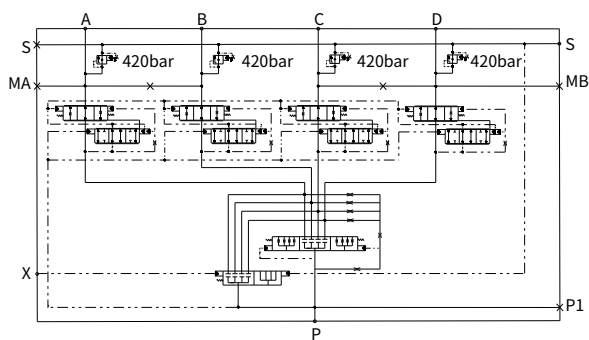
Two sections Adjustable flow



Four sections Adjustable flow



Two sections Fixed throttle

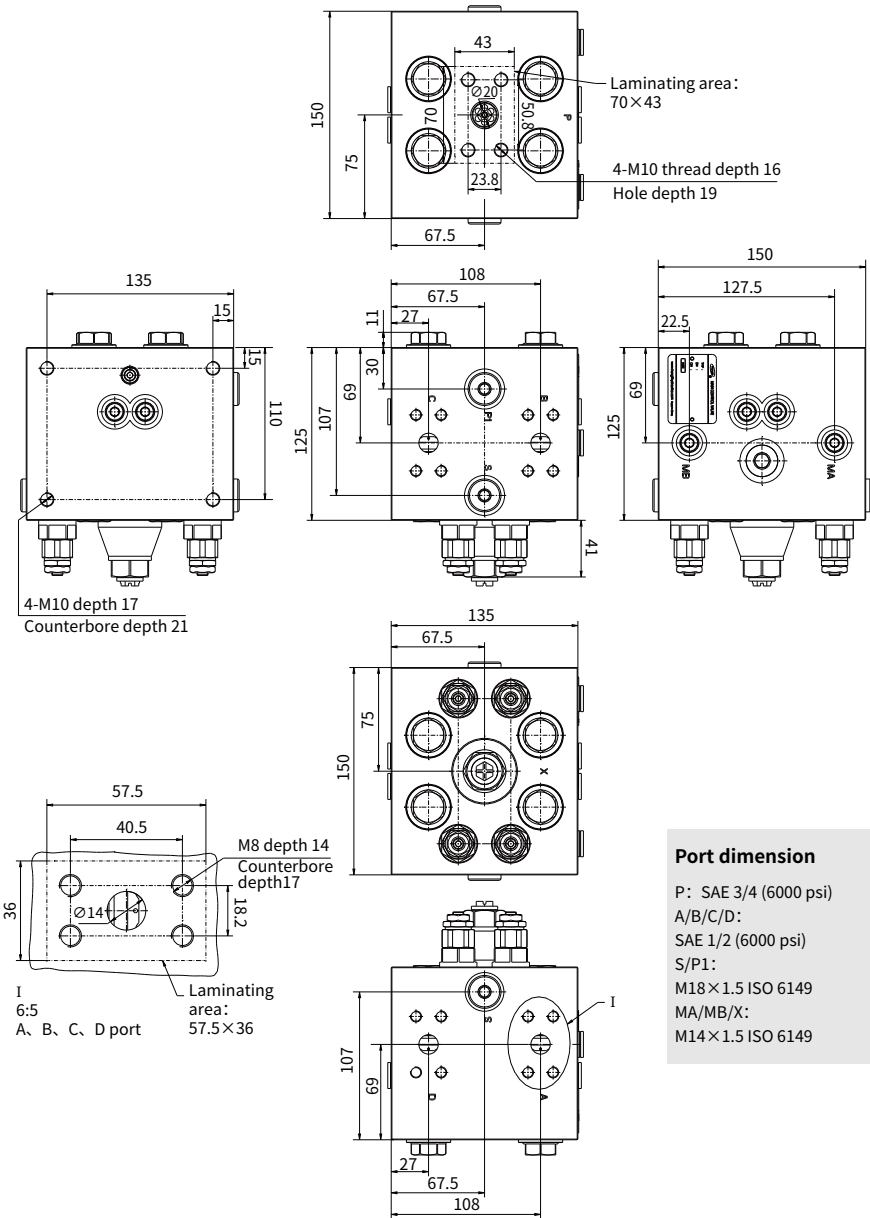


Four sections Fixed throttle

Dimensions

(Dimensions in mm)

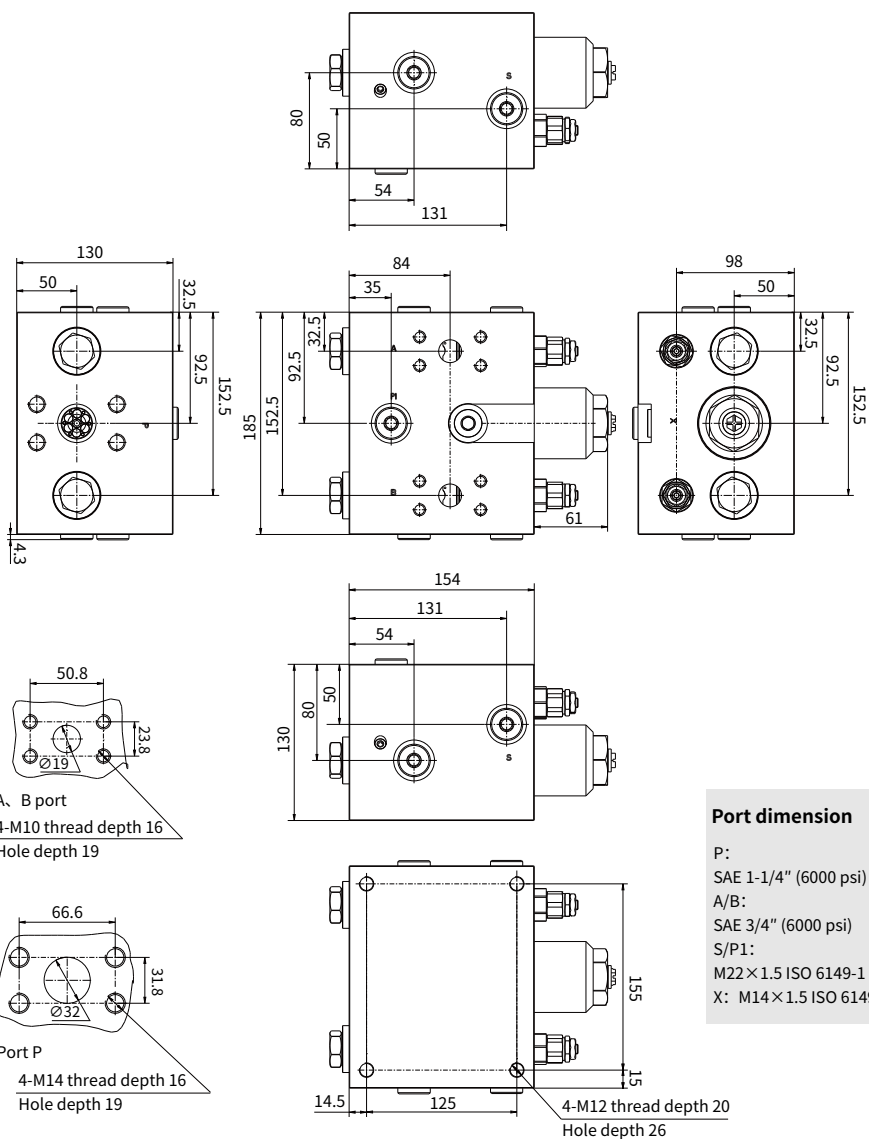
• HTFD16



Dimensions

(Dimensions in mm)

• HTFD25



Port dimension

P:
SAE 1-1/4" (6000 psi)
A/B:
SAE 3/4" (6000 psi)
S/P1:
M22×1.5 ISO 6149-1
X: M14×1.5 ISO 6149-1

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