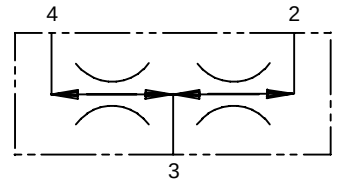
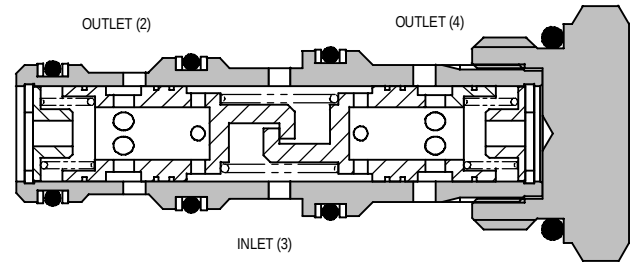
2CFD SERIES FLOW DIVIDER/COMBINER

2CFD50





APPLICATION

The 2CFD range of flow divider/combiner valves gives division of input flow into two equal parts and re-combination of flow in the reverse direction. Pressure compensation ensures that whether dividing or combining, equal flow is maintained over a wide range of pressure variation. A typical use of these valves is to divide a pump flow to operate two actuators (which may be under different load conditions and at different pressures) and to re-combine the return flows to synchronise actuator movement. Flow variation is within ±10% with the maximum variation of pressure and inlet flow and under normal conditions will be significantly less.

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OPERATION

Inlet flow passes through the two matched orifices in the spools, through the spools and out of the radial holes in the sleeve. The matched orifices and the compensating springs ensure that the flow is divided equally, excess flow in either direction causes the spool to move and close the radial holes in the sleeve until equilibrium is restored. In the reverse direction the spools close together and regulate the flow in through the radial ports.

FEATURES

One valve synchronises in both directions. Matched spools give high accuracy under load and pressure imbalance conditions. Cartridge construction gives versatility of application. A valve may be fitted into a line body, a custom designed Hydraulic Integrated Circuit or other hydraulic equipment.

SPECIFICATIONS

Figures based on: Oil Temp = 40°C Viscosity = 40 cSt

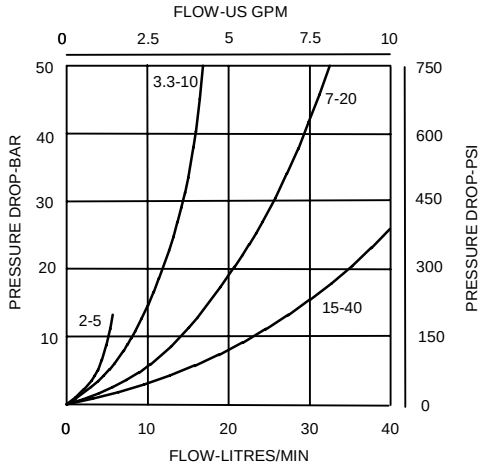
Rated Flow	Up to 40 litres/min (10.5 US GPM)
Ratio Division	50/50 Standard.
Max Pressure	350 bar (5000 psi)
Cartridge Material	All working parts hardened and ground steel. Zinc plated external steel body
Body Material	Standard aluminium (up to 210 bar*) Add suffix '377' for steel option
Mounting Position	Unrestricted
Cavity Number	A12744
Torque Cartridge into Cavity	34 Nm (25 lbs ft)
Weight	2CFD50 0.10 kg (0.23 lbs) 2CFD55 0.44 kg (0.98 lbs)
Seal Kit Number	SK1065 (Nitrile) SK1065V (Viton)
Recommended Filtration Level	BS5540/4 Class 18/13 (25 micron nominal)
Operating Temp	-20°C to +90°C
Nominal Viscosity Range	5 to 500 cSt

***For applications above 210 bar please consult our technical department or use the steel body option.**

Integrated Hydraulics Ltd
Collins Road, Heathcote Ind. Est., Warwick, CV34 6TF, UK.
Tel: +44 (0) 1926 881171 Fax: +44 (0) 1926 315729
Website: www.integratedhydraulics.com

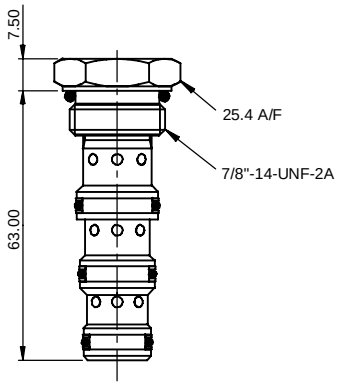
Integrated Hydraulics Inc
7047 Spinach Drive, Mentor, Ohio 44060, USA
Tel: (440) 974 3171 Fax: (440) 974 3170
Website: www.integratedhydraulics.com

PRESSURE DROP



CARTRIDGE ONLY

BASIC CODE: 2CFD50



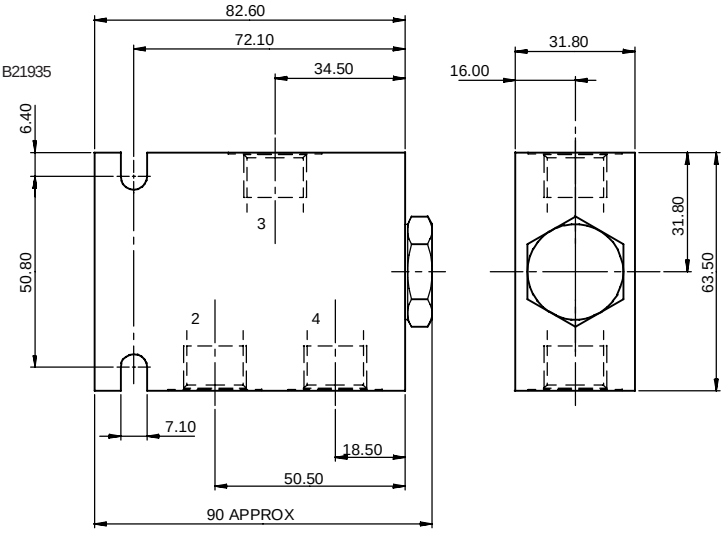
NOTE: When used on cylinders size to suite the return flow rate.

COMPLETE VALVE 3/8" 1/2" PORTS

BASIC CODE: 2CFD55

Body ONLY part numbers

BSP, aluminium	*SAE, aluminium*	*SAE, steel*
3/8" - 3/8" B19187	1/2" - 3/8" B19185	1/2" - 3/8" B21935
1/2" - 1/2" B20816		



NOTE: Blocking one leg will result in a large reduction in flow from the other.
Valves with higher working pressures are available. Contact main office for details.

Where measurements are critical request certified drawings

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ORDERING CODE EXAMPLE

2CFD**	4W	40	S

Basic Code
2CFD50 = Cartridge only
2CFD55 = Cartridge and body

Port Sizes - Bodied Valves Only
3W = 3/8" BSP inlet and outlet
4W = 1/2" BSP inlet and outlet
8T-6T = 1/2" SAE inlet, 3/8" SAE outlet

Seals
S = Nitrile (For use with most industrial hydraulic oils)
SV = Viton (For high temperature and most special fluid applications)

Capacity (input)
5 = 2 - 5 litres/min
10 = 3.3 -10 litres/min
20 = 7 - 20 litres/min
40 = 15 - 40 litres/min