



DFC050

Mechanical control monoblock diverter valves

- 2 - 3 - 6 way configuration
- Cam controls
- Especially suitable for use in external environments

This catalogue shows technical specifications and diagrams measured with mineral oil of 46 mm²/s (46 cSt) viscosity at 40°C - (104°F) temperature.

WORKING CONDITIONS		
N. of available ways		2 - 3 - 6
Max. flow rating		60 l/min (15.8 US gpm)
Max. pressure		315 bar (4600 psi)
Internal leakage A(B)⇒T	Δp = 100 bar (1450 psi)	10 cm ³ /min (0.61 in ³ /min)
Fluid		Mineral based oil
Fluid temperature		from -20°C to 80°C (from -4°F to 176°F)
Viscosity	operating range	from 15 to 75 mm ² /s (from 15 to 75 cSt)
	min.	12 mm ² /s (12 cSt)
	max.	400 mm ² /s (400 cSt)
Max. level of contamination		21/19/16 - ISO 4406 - NAS 1638 - class 10
Ambient temperature for working conditions		from -40°C to 60°C (from -40°F to 140°F)

NOTE - For different working conditions please contact Sales Dept.

Available threads

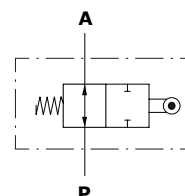
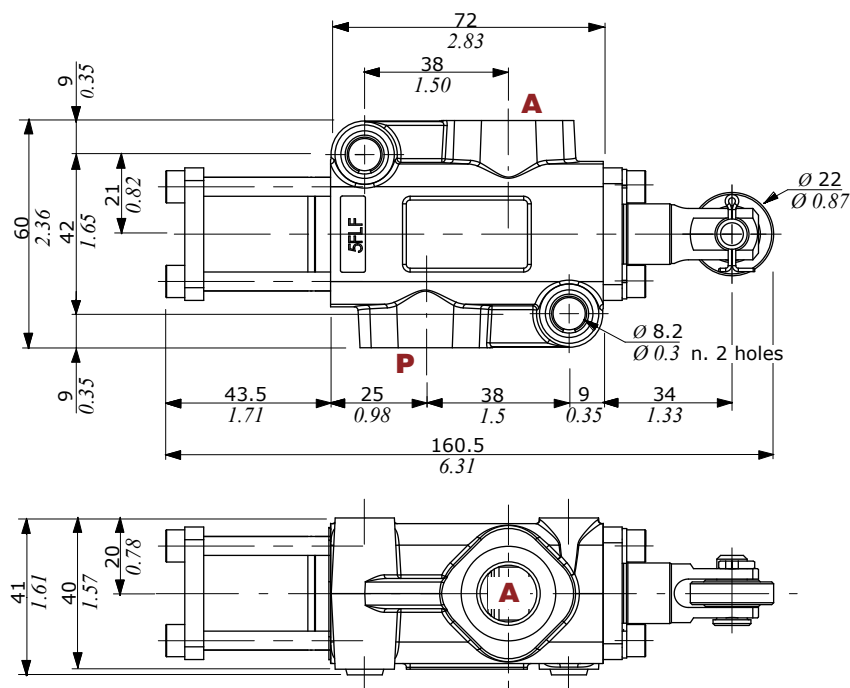
PORTS THREAD				
ALL PORTS	BSP	UN-UNF	METRIC(*) (ISO 9974-1)	METRIC(*) (ISO 6149)
DFC050	G 3/8	3/4-16 (SAE 8)	M18x1.5	M18x1.5

(*) Optional threads
for availability contact Sales
Department

Dimensional data - hydraulic circuit - performance data

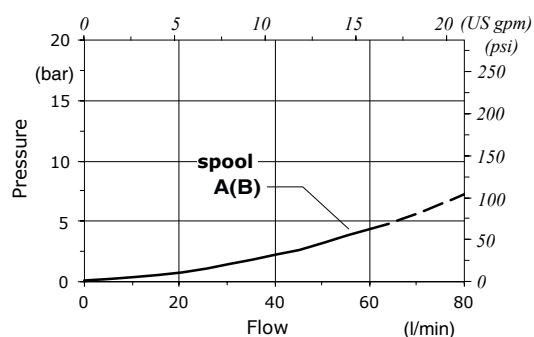
Cam spool control suggested for severe applications; it requires a special body, spool and control kit.

2 ways

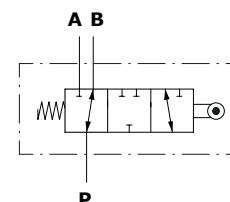
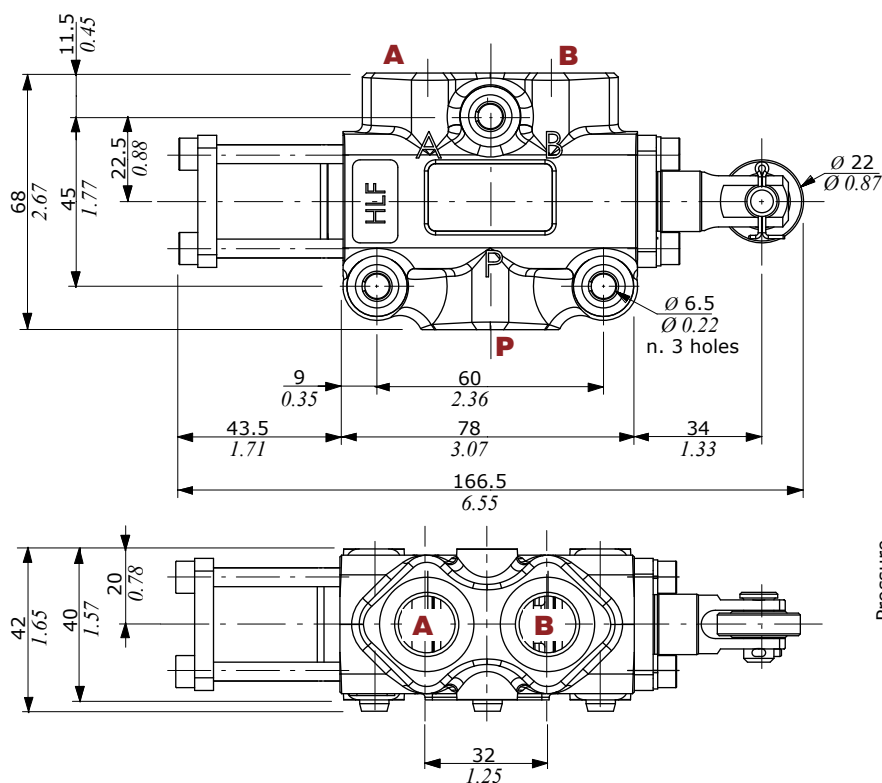


Pressure drop versus flow

P → A

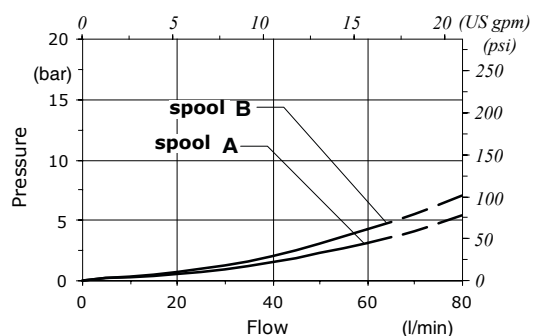


3 ways



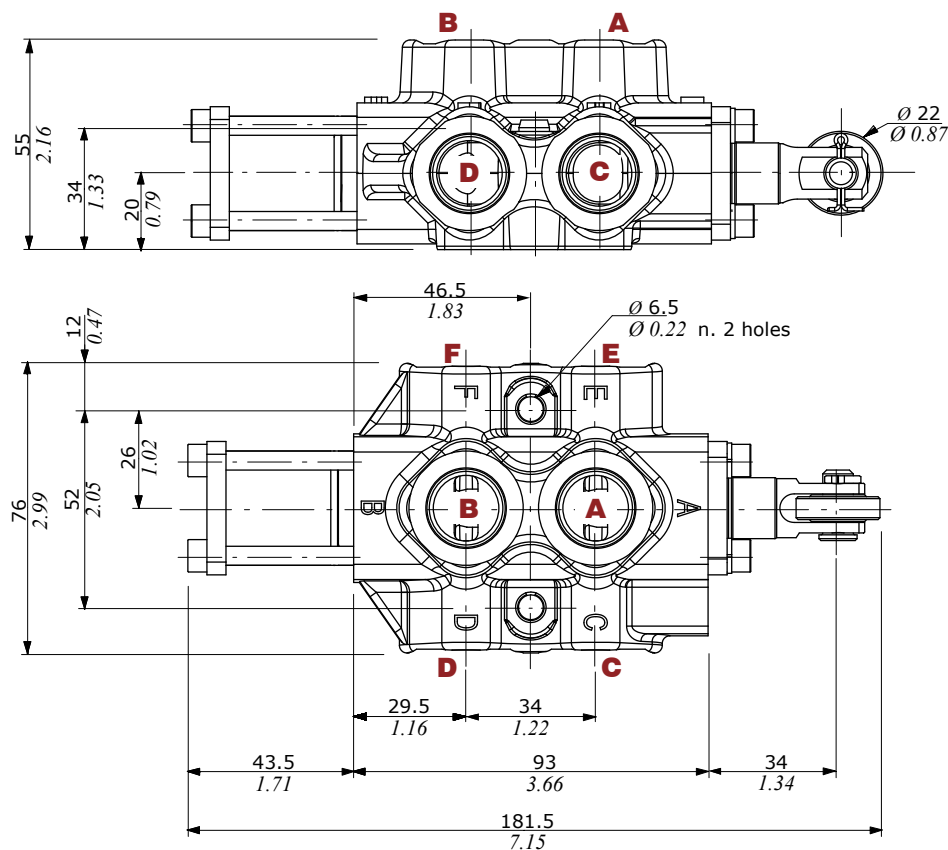
Pressure drop versus flow

P → A(B)



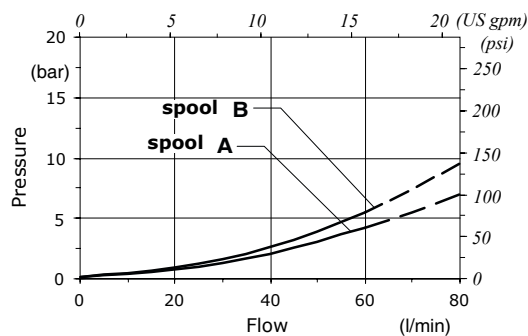
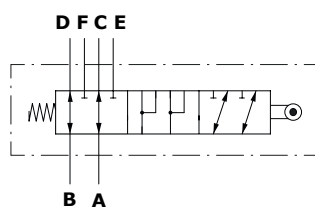
Dimensional data - hydraulic circuit - performance data

6 ways



Pressure drop versus flow

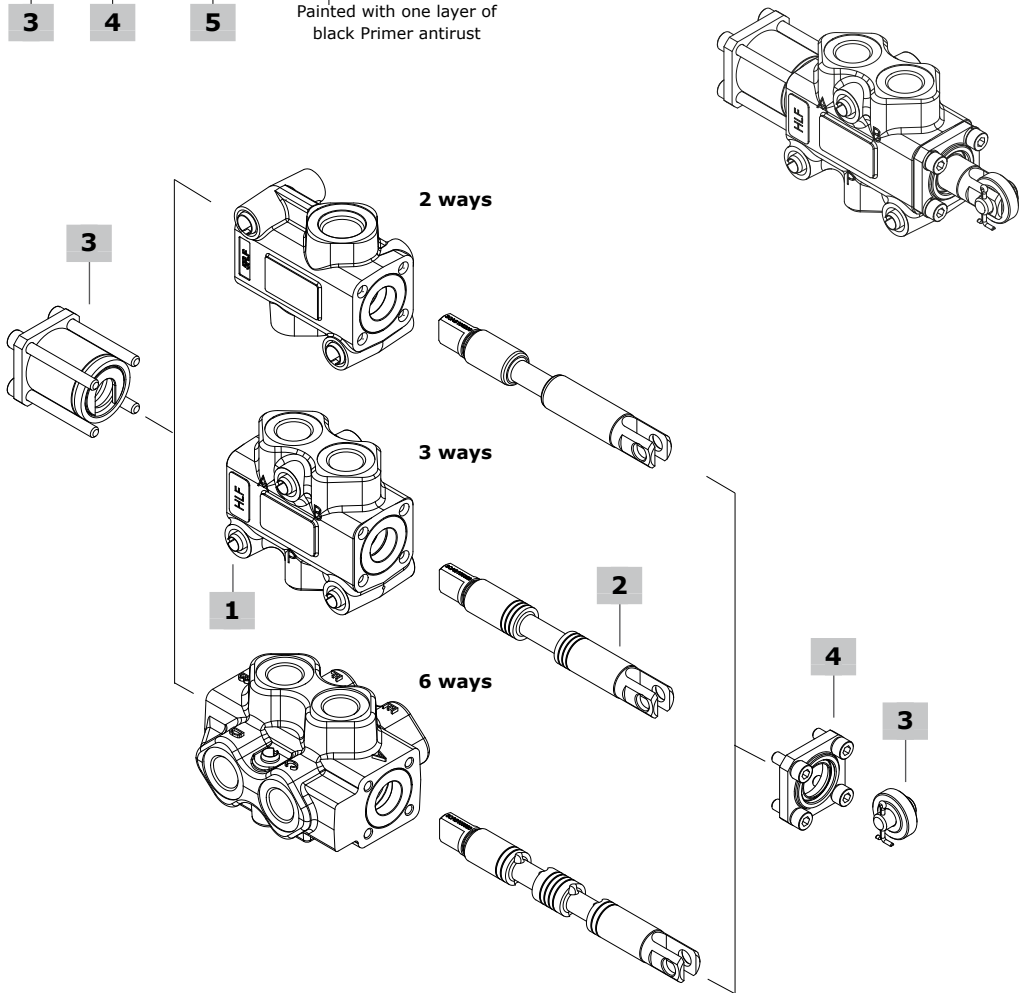
A → C(E)



Part ordering codes

Example:

DFC050/3	A	17G	SLP	-	...	-	(CVN)
1	2	3	4		5		Painted with one layer of black Primer antirust



1 Body kit*

TYPE	CODE	DESCRIPTION
DFC050/2	5CO2220380	2 ways body kit
DFC050/3	5CO2221313	3 ways body kit
DFC050/6	5CO2222311	6 ways body kit

2 Spools page 23

TYPE	CODE	DESCRIPTION
for DFC050/2:		
A	3CAS105200	Open port in neutral position
B	3CAS105100	Closed port in neutral position
for DFC050/3:		
A	3CAS105323	Flow in B in pos. 1. Ports connected in transit position
B	3CAS105422	Flow in B in pos. 1. Ports closed in transit position
for DFC050/6:		
A	3CAS105660	Flow in C and D. E and F closed in pos. 1. Ports connected in transit position
B	3CAS105721	Flow in C and D. E and F closed in pos. 1. Ports closed in transit position

3 Complete controls page 24

TYPE	CODE	DESCRIPTION
17G	5V17905000	Cam control with spring return in pos. 1
17GCAX	5V17905001	Inox steel cam control with spring return in pos. 1

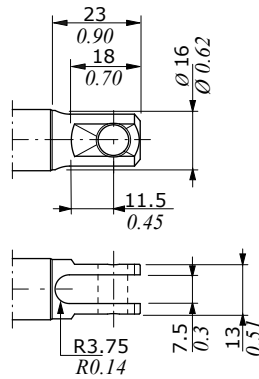
4 "B" side options page 24

TYPE	CODE	DESCRIPTION
SLP	5COP107000	with dust-proof plate

5 Body threading

Specify threading always when it is different from **BSP** standard

(*) - Codes are referred to **BSP** thread

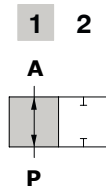


Rotary cam arrangement:
spool type **A, B**

2 ways

Type A

Open port in neutral position

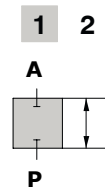


Spool stroke

Position 2: - 11 mm (- 0.43 in)

Type B

Closed port in neutral position



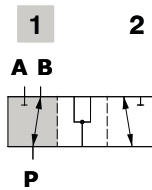
Spool stroke

Position 2: - 11 mm (- 0.43 in)

3 ways

Type A

Ports connected
in transit position

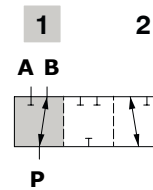


Spool stroke

Position 2: - 11 mm (- 0.43 in)

Type B

Ports closed
in transit position



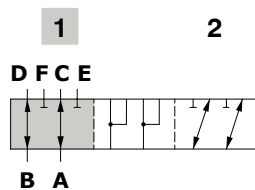
Spool stroke

Position 2: - 11 mm (- 0.43 in)

6 ways

Type A

Flow in C and D. E and F closed in pos. 1
Ports connected in transit position

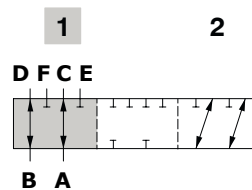


Spool stroke

Position 2: - 11 mm (- 0.43 in)

Type B

Flow in C and D. E and F closed in pos. 1
Ports closed in transit position



Spool stroke

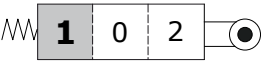
Position 2: - 11 mm (- 0.43 in)

Complete controls

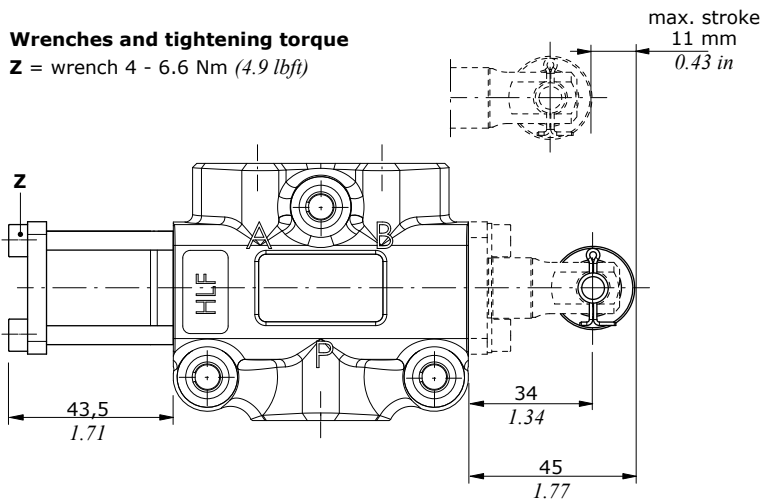
Cam control kit

17G type cam control available with stainless steel bearing (type 17GCAX).
It must be coupled with type SLP flange on valve B side

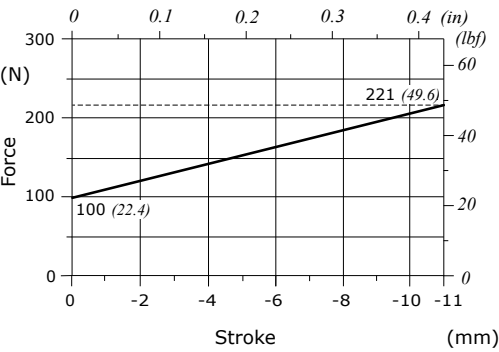
Type 17G - 17GCAX
Spring return in position 1



Wrenches and tightening torque
Z = wrench 4 - 6.6 Nm (4.9 lbf ft)



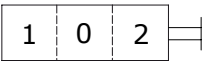
Force-Stroke diagram



"B" side options

Without lever, with flange

Type SLP



Wrenches and tightening torque
Z = wrench 4 - 6.6 Nm (4.9 lbf ft)

