



## 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 mm<sup>2</sup>/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	$\Delta p = 100 \text{ bar (1450 psi)}$	5 cm <sup>3</sup> /min (0.31 in <sup>3</sup> /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 <sup>2</sup> /s (from 15 to 75 cSt)
	min.	12 mm <sup>2</sup> /s (12 cSt)
	max.	400 mm <sup>2</sup> /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

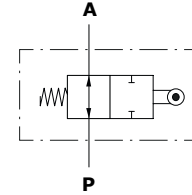
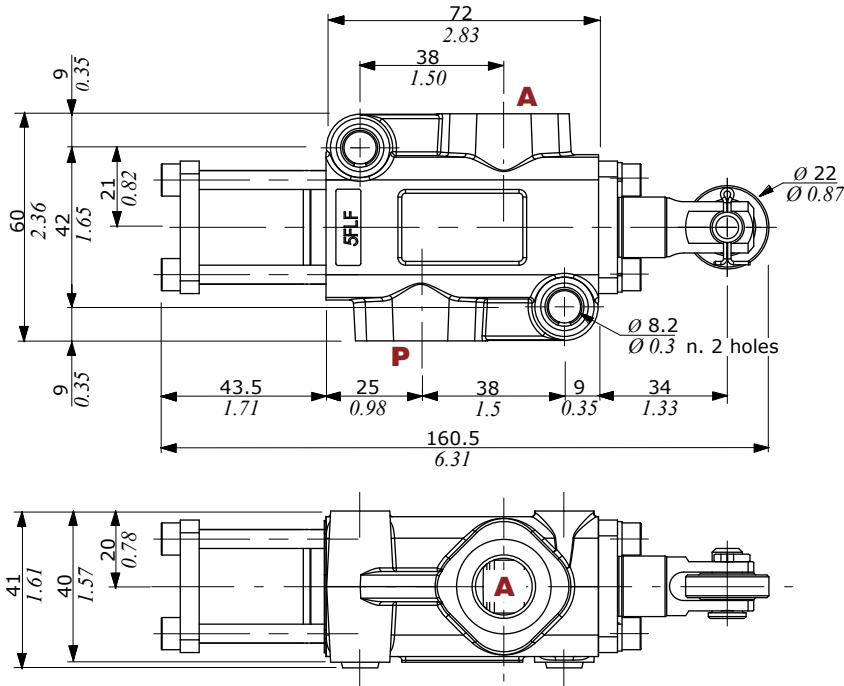
PORTS THREAD				
ALL PORTS	BSP	UN-UNF	METRIC(*) (ISO 9974-1)	METRIC(*) (ISO 6149)
<b>DFC050</b>	G 3/8	3/4-16 (SAE 8)	M18x1.5	M18x1.5

(\*) Optional threads  
for availability contact Sales  
Department

## Dimensional data - hydraulic circuit - performance data

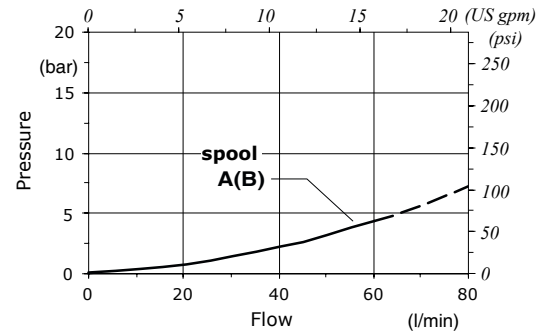
Cam spool control suggested for severe applications; it requires a special body, spool and control kit.

### 2 ways

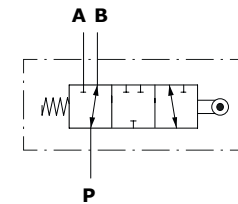
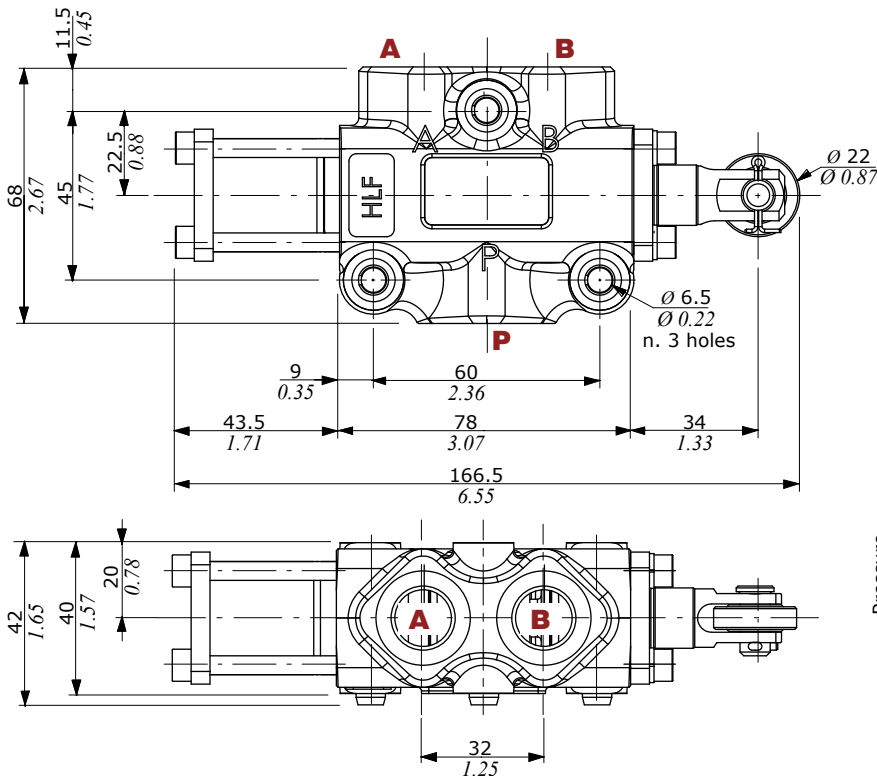


Pressure drop versus flow

P → A

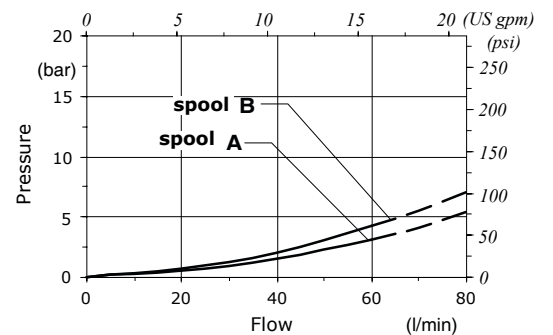


### 3 ways



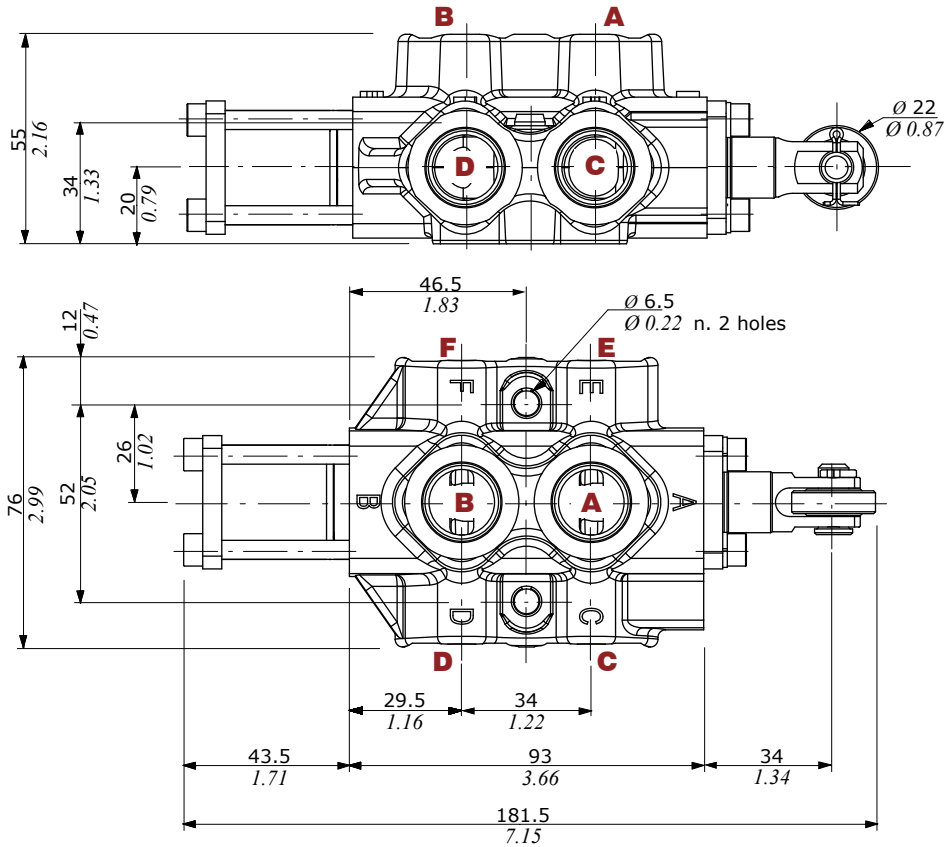
Pressure drop versus flow

P → A(B)



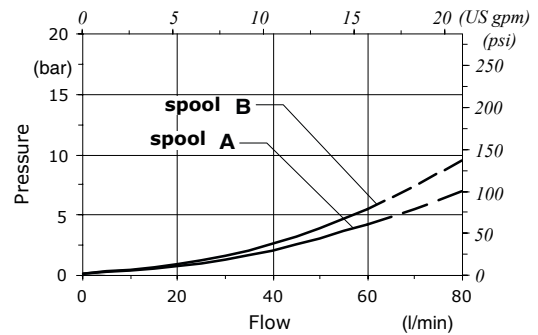
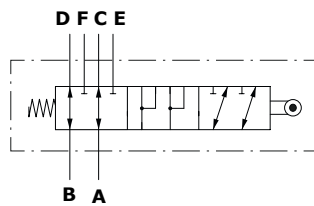
**Dimensional data - hydraulic circuit - performance data**

**6 ways**



**Pressure drop versus flow**

**A → C(E)**



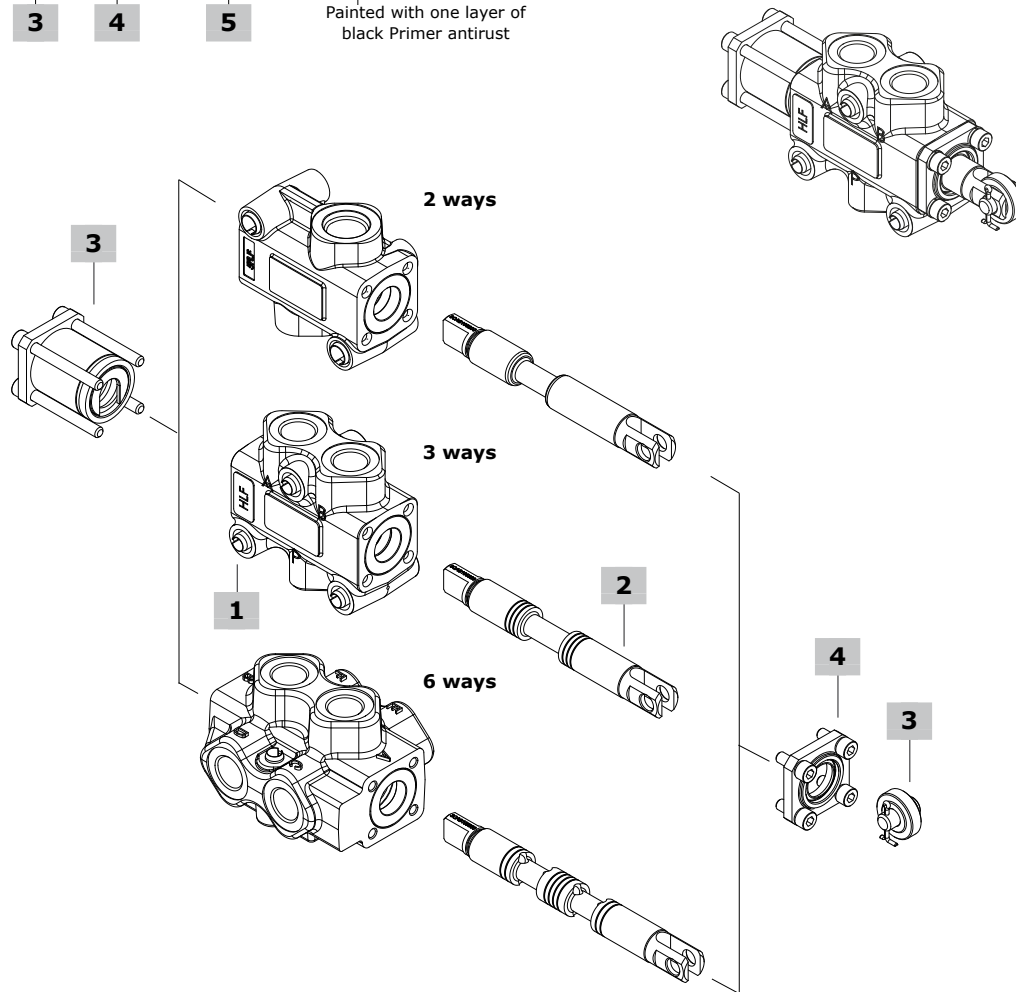
## Part ordering codes

Example:

**DFC050/3**   **A**   **17G**   **SLP**   -   **SAE**   -   **(CVN)**

1   
 2   
 3   
 4   
 5

Painted with one layer of black Primer antirust



1 Body kit*			3 Complete controls			page 24
TYPE	CODE	DESCRIPTION	TYPE	CODE	DESCRIPTION	
<b>DFC050/2</b>	5CO2220730	2 ways body kit	<b>17G</b>	5V17905000	Cam control with spring return in pos. 1	
<b>DFC050/3</b>	5CO2221713	3 ways body kit	<b>17GCAX</b>	5V17905001	Inox steel cam control with spring return in pos. 1	
<b>DFC050/6</b>	5CO2222711	6 ways body kit				

2 Spools			page 23
TYPE	CODE	DESCRIPTION	
<b>for DFC050/2:</b>			
<b>A</b>	3CAS105200	Open port in neutral position	
<b>B</b>	3CAS105100	Closed port in neutral position	
<b>for DFC050/3:</b>			
<b>A</b>	3CAS105323	Flow in B in pos. 1. Ports connected in transit position	
<b>B</b>	3CAS105422	Flow in B in pos. 1. Ports closed in transit position	
<b>for DFC050/6:</b>			
<b>A</b>	3CAS105660	Flow in C and D. E and F closed in pos. 1. Ports connected in transit position	
<b>B</b>	3CAS105721	Flow in C and D. E and F closed in pos. 1. Ports closed in transit position	

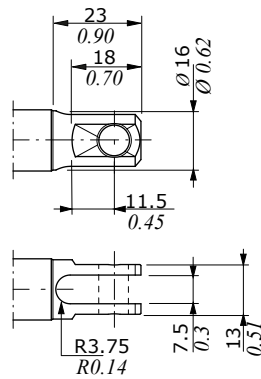
  

4 "B" side options			page 24
TYPE	CODE	DESCRIPTION	
<b>SLP</b>	5COP107000	with dust-proof plate	

5 Body threading	
Specify threading always when it is different from <b>BSP</b> standard	

(\* ) - Codes are referred to **UN-UNF** thread

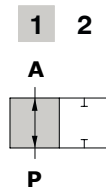


Rotary cam arrangement:  
spool type **A, B**

**2 ways**

**Type A**

Open port in neutral position

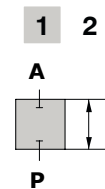


**Spool stroke**

Position 2: - 11 mm (- 0.43 in)

**Type B**

Closed port in neutral position



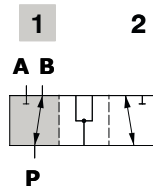
**Spool stroke**

Position 2: - 11 mm (- 0.43 in)

**3 ways**

**Type A**

Ports connected in transit position

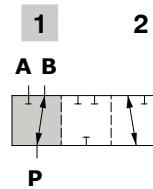


**Spool stroke**

Position 2: - 11 mm (- 0.43 in)

**Type B**

Ports closed in transit position



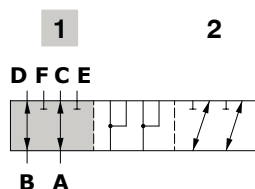
**Spool stroke**

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

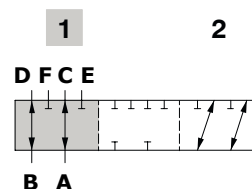


**Spool stroke**

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**

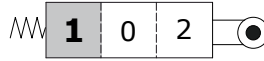
Position 2: - 11 mm (- 0.43 in)

**Complete controls**

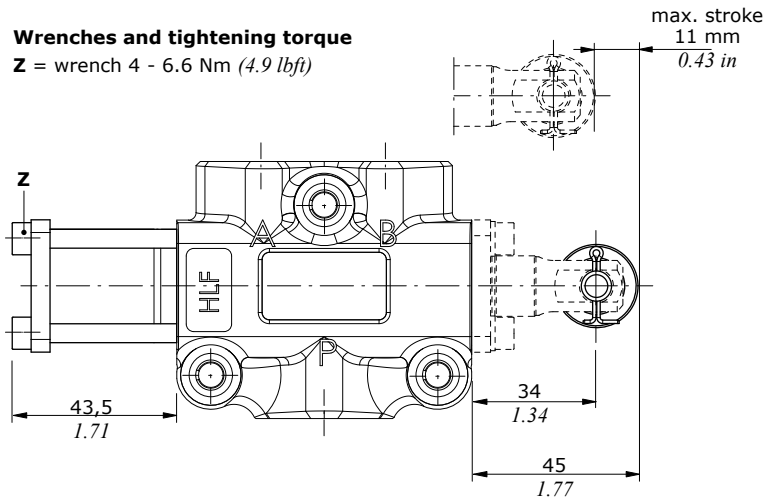
**Cam control kit**

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

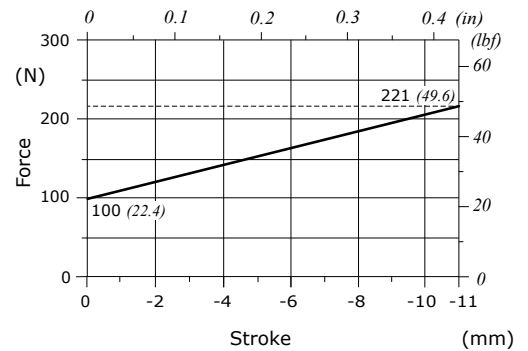
**Type 17G - 17GCAX**  
Spring return in position 1



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



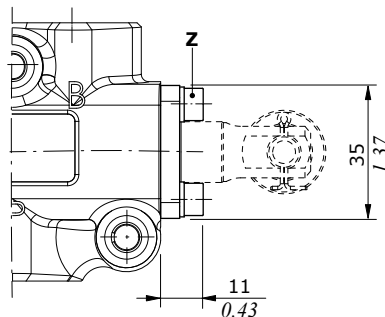
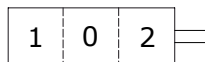
**Force-Stroke diagram**



**"B" side options**

**Without lever, with flange**

**Type SLP**



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