

## DF5 Mechanical Spool Diverter

### Working conditions

This catalogue shows technical specifications and diagrams measured with mineral oil of 46 mm<sup>2</sup>/s - 46 cSt viscosity at 40°C temperature.

		DF5	DF10	DF20	DF25
N. of available ways		2-3-6	2-3-6	2-3-6	3
Nominal flow rating		60 l/min	90 l/min	140 l/min	280 l/min
Operating pressure (maximum)		315 bar 4600 psi	315 bar 4600 psi	315 bar 4600 psi	315 bar 4600 psi
Internal leakage A(B)→T	$\Delta p=100$ bar 1450 psi with fluid and valve at 40°C	5 cm <sup>3</sup> /min 0.31 in <sup>3</sup> /min	5 cm <sup>3</sup> /min 0.31 in <sup>3</sup> /min	8 cm <sup>3</sup> /min 0.49 in <sup>3</sup> /min	8 cm <sup>3</sup> /min 0.49 in <sup>3</sup> /min
Hydraulic fluid		Mineral base oil			
Fluid temperature	with NBR seals	from -20°C to 80°C			
	with FPM seals	from -20°C to 100°C			
Viscosity	operating range	from 15 to 75 mm <sup>2</sup> /s - from 15 to 75 cSt			
	minimum	12 mm <sup>2</sup> /s - 12 cSt			
	maximum	400 mm <sup>2</sup> /s - 400 cSt			
Max. level of contamination		-/19/16 - ISO 4406			
	with mechanical control	from -40°C to 60°C			
Ambient temperature for working conditions	with hydraulic and pneumatic controls	from -30°C to 60°C			
	with electric controls	from -20°C to 50°C			

NOTE - For different working conditions please contact Sales Dept.

### Standard threads

#### REFERENCE STANDARDS

		BSP	UN-UNF	NPTF	METRIC	
THREAD ACCORDING TO		ISO 228/1	ISO 263	ANSI B1.20.3	ISO 262	ISO 262
		BS 2779	ANSI B1.1 unified			
CAVITY ACCORDING TO	ISO	1179	11926		9974-1	6149
	SAE		J1926	J476a		J2244
	DIN	3852-2 shape X or Y			3852-1 shape X or Y	

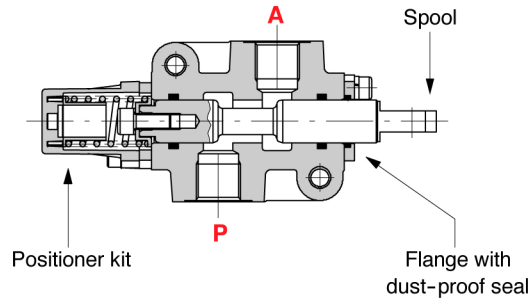
#### PORTS THREAD

ALL PORTS	BSP	UN-UNF	METRIC	METRIC
			(ISO 9974-1)	(ISO 6149)
DF5	G 3/8	3/4-16 (SAE 8)	M18x1.5	M18x1.5
DF10	G 1/2	7/8-14 (SAE 10)	M22x1.5	
DF20	G 3/4	1 1/16-12 (SAE 12)		
DF25	G 1	1 5/16-12 (SAE 16)		
PILOT PORTS				
Pneumatic	NPT 1/8-27	NPT 1/8-27	NPT 1/8-27	NPT 1/8-27
Hydraulic	G 1/4	9/16-18 (SAE 6)		

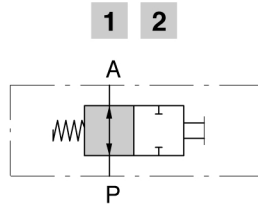
Optional threads: for availability contact Sales Department

**2-way**

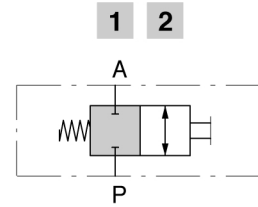
Available as body only in **DF5/2** execution; for other executions 3-way body is used.



Spool type A

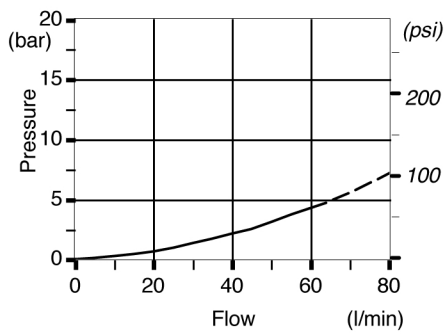


Spool type B



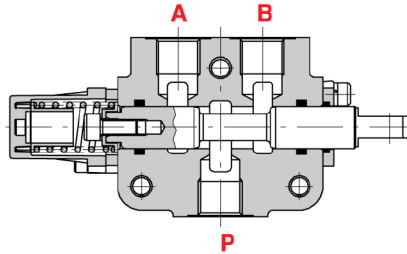
**Performance data**

**Pressure drop versus flow**  
**P→A**

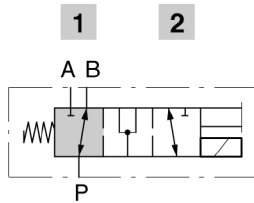


**3-way**

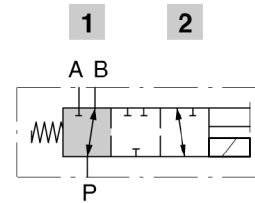
It's possible to obtain 2-way diverter valve plugging port A or B.



Spool type A



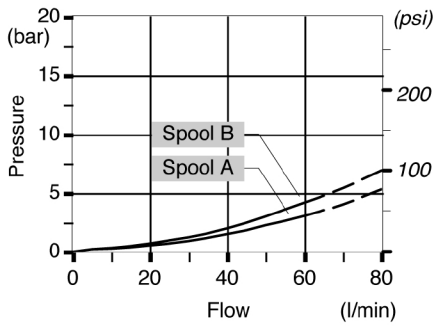
Spool type B B



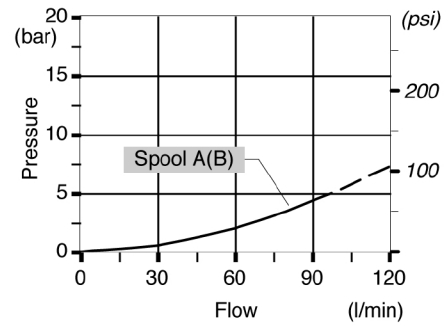
**Performance data**

**Pressure drop versus flow: P→A(B)**

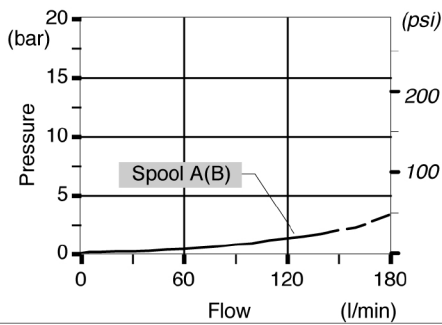
**DF5/3**



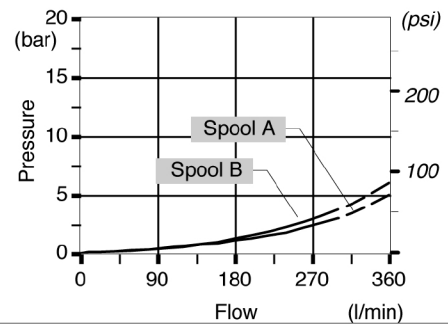
**DF10/3**



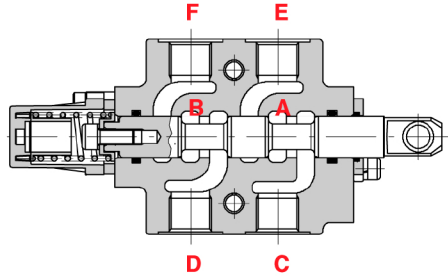
**DF20/3**



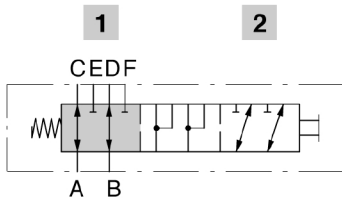
**DF25/3**



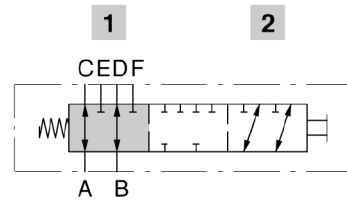
**6-way**



**Spool type A**



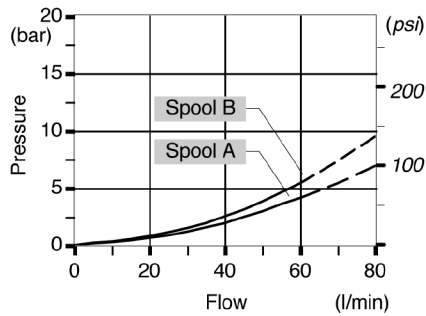
**Spool type B**



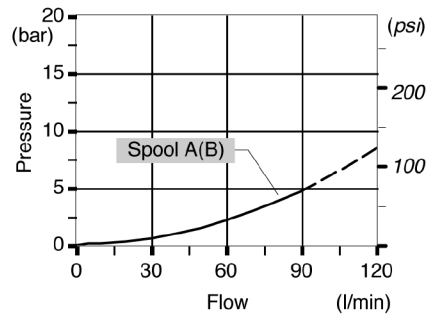
**Performance data**

**Pressure drop versus flow: A→C(E).**

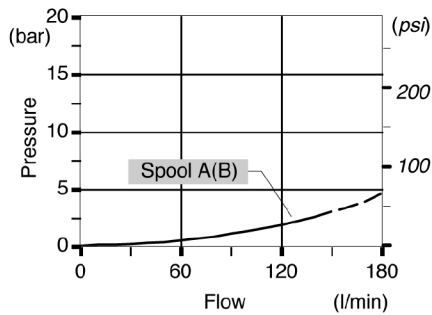
**DF5/6**



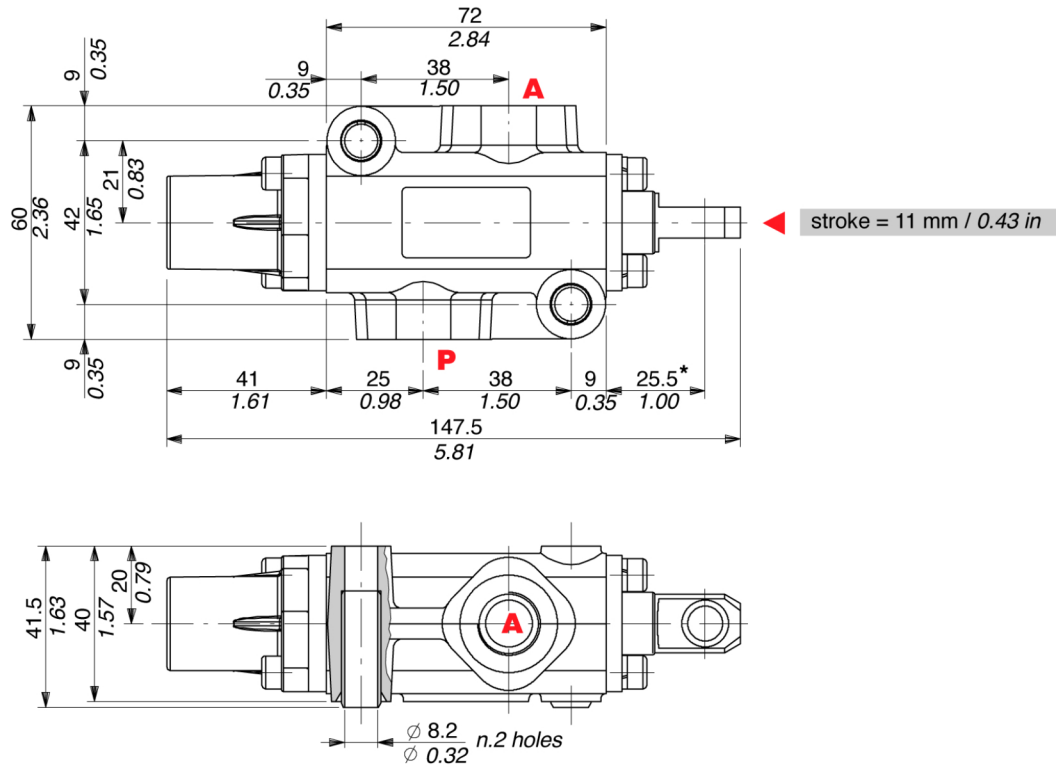
**DF10/6**



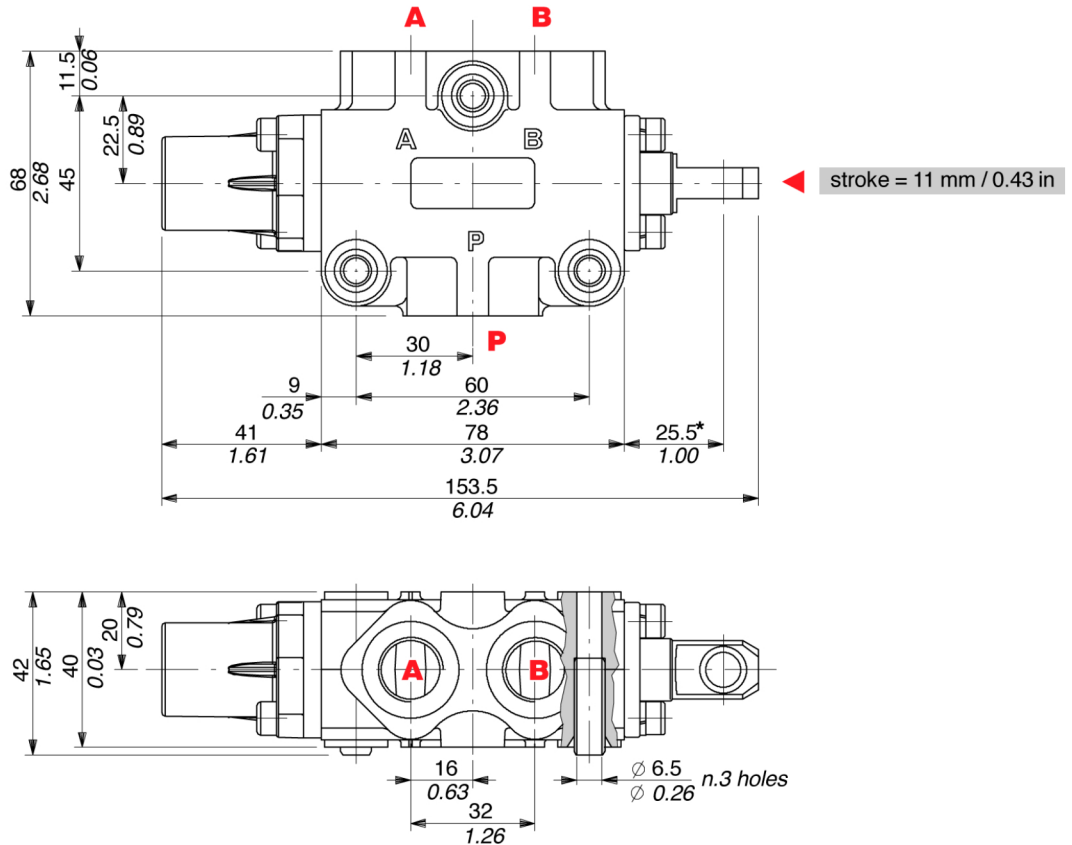
**DF20/6**



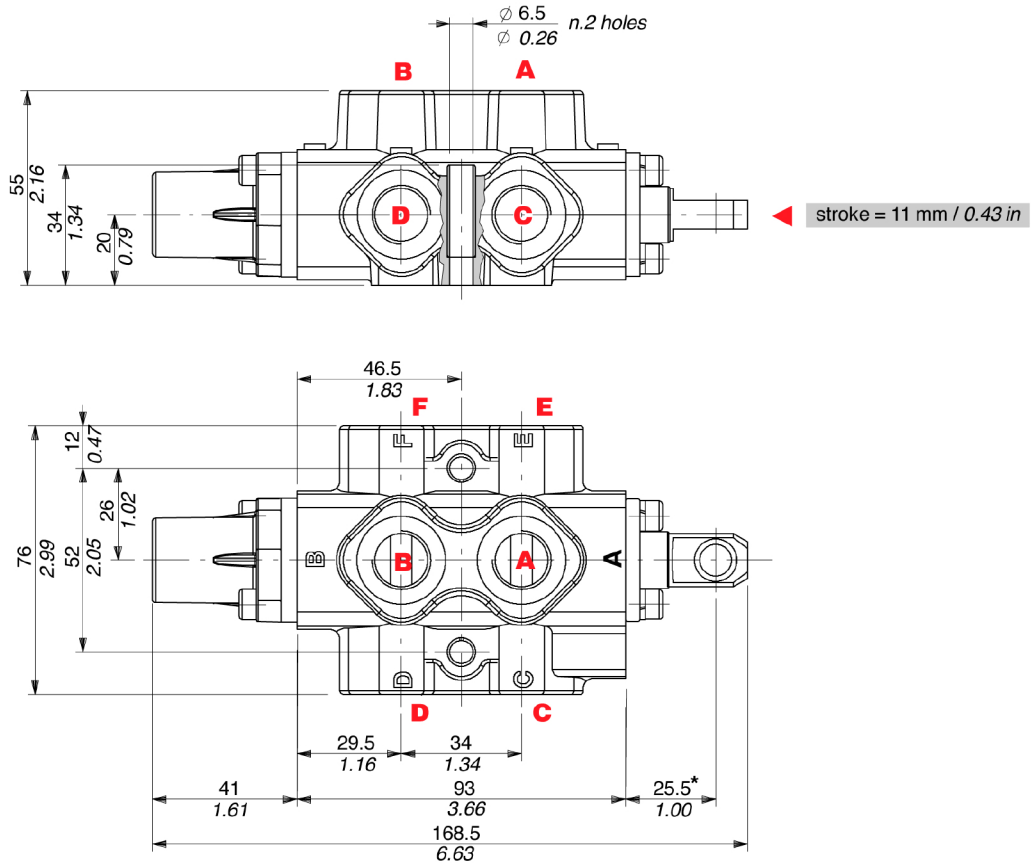
**2-way DF5/2 valve**



**3-way DF5/3 valve**

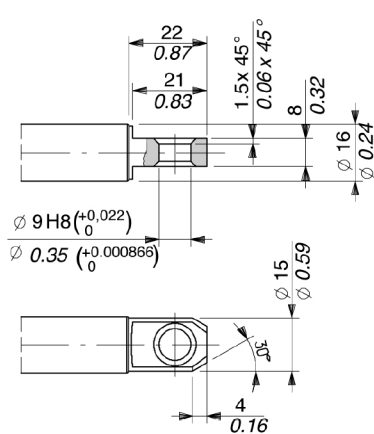


**6-way DF5/6 valve**



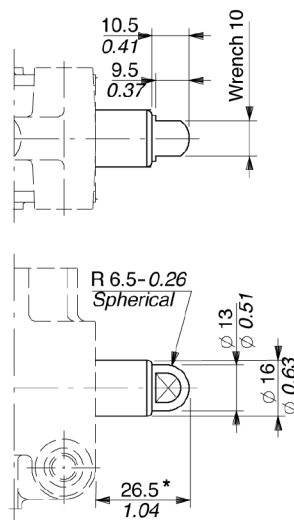
**Spool end**

**Standard end**

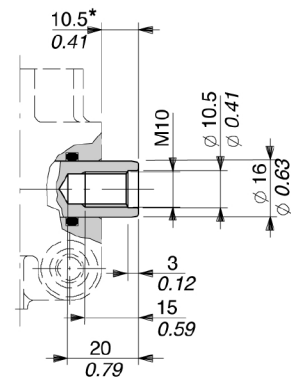


NOTE (\*) - With spool out  
(positioner kit type 17)

**Spherical end type T**



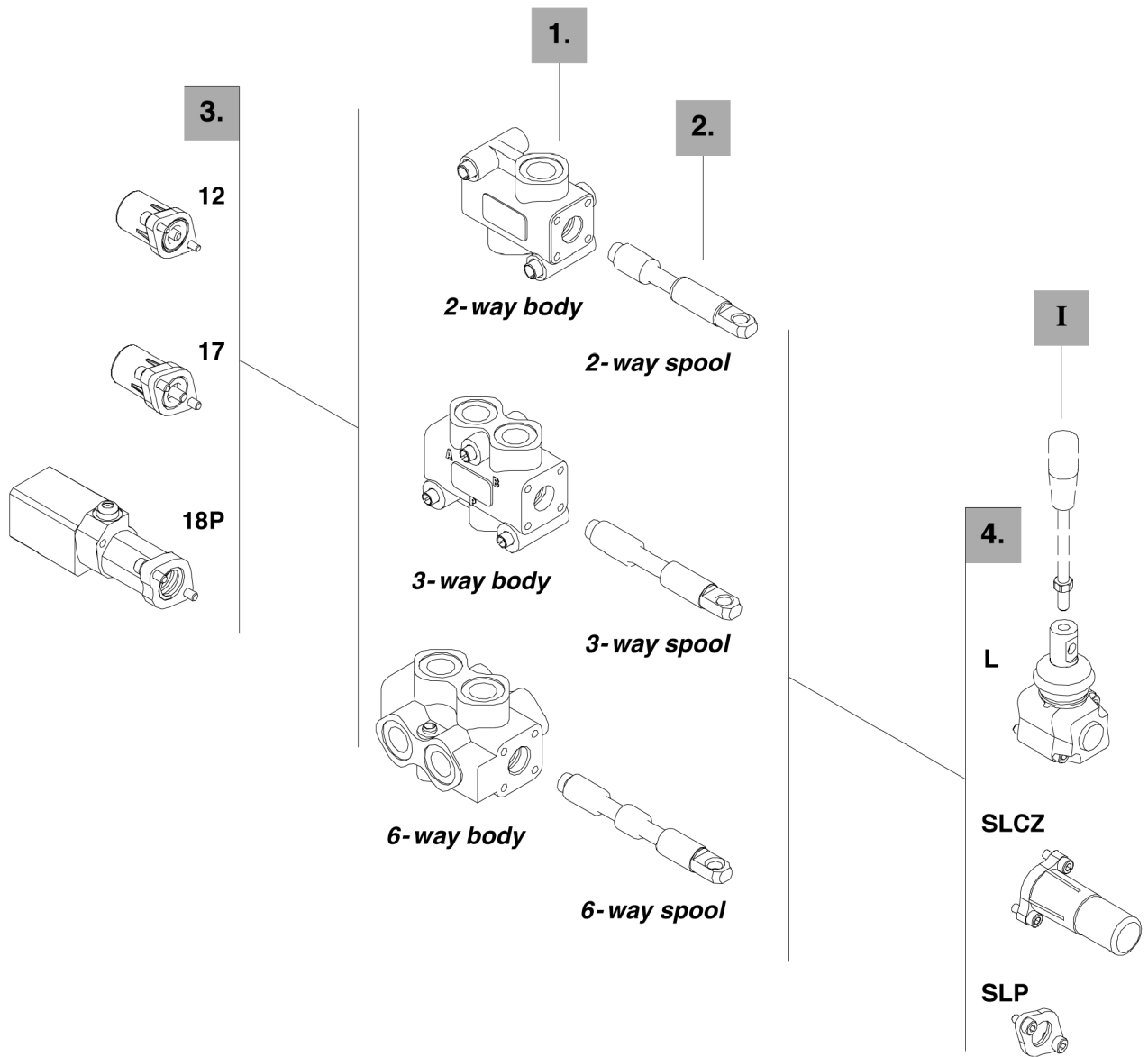
**Rotary cam prearrangement**



**Description example:**

Diverter valve DF5/3 A 17 SLP

- 1.
- 2.
- 3.
- 4.



## 2-way

### 1. Kit corpo \*

TYPE	BODY	DESCRIPTION
<b>DF5/2</b>	5CO2220300	Standard body kit

*Include body and seals*

### 2. Spool options

TYPE	CODE	DESCRIPTION
<b>A</b>	3CAS105210	2 positions with open centre in neutral
<b>B</b>	3CAS105110	2 positions with closed centre in neutral
<b>AT</b>	3CAS105230	As type A with spherical end
<b>BT</b>	3CAS105130	As type B with spherical end
<b>AC</b>	3CAS105220	As type A prearranged for cam control
<b>BC</b>	3CAS105120	As type B prearranged for cam control

## 3-way

### 1. Body kit \*

TYPE	CODE	DESCRIPTION
<b>DF5/3</b>	5CO2221300	Standard body kit

*Include body and seal*

### 2. Spool options

TYPE	CODE	DESCRIPTION
<b>A</b>	3CAS105310	3-way, 2 positions with ports connected in transit position
<b>B</b>	3CAS105410	3-way, 2 positions with ports closed in transit position
<b>AT</b>	3CAS105330	As type A with spherical end
<b>AC</b>	3CAS105320	As type A prearranged for cam control
<b>BC</b>	3CAS105420	As type B prearranged for cam control

## 6-way

### 1. Body kit \*

TYPE	CODE	DESCRIPTION
<b>DF5/6</b>	5CO2222300	Standard body kit

*Include body and seals*

### 2. Spool options

TYPE	CODE	DESCRIPTION
<b>A</b>	3CAS105610	6-way, 2 positions with ports connected in transit position
<b>B</b>	3CAS105710	6-way, 2 positions with ports closed in transit position
<b>AC</b>	3CAS105620	As type A prearranged for cam control
<b>BC</b>	3CAS105720	As type B prearranged for cam control

### 3. Positioner kits

TYPE	CODE	DESCRIPTION
<b>12</b>	5V12105000	Detent in positions 1 and 2
<b>17</b>	5V17105000	Spring return in position 1
<b>17Y</b>	5V17105010	As type 17, it must be coupled to IA2 control
<b>18ME</b>	5V18405110	Spring return in position 2
<b>18P</b>	5V18105700	ON/OFF pneumatic kit with spring return in position 2
<b>18IA1</b>	5V18105820*	ON/OFF high pressure hydraulic kit with spring return in position 2
<b>18IB1N</b>	5V18105811*	Comando idraulico a bassa pressione con ritorno a molla in posizione 2

### 4. Control kits

TYPE	CODE	DESCRIPTION
<b>SLP</b>	5COP105000	Without lever box with dust-proof plate kit
<b>SLCZ</b>	5COP205030	Without lever box with endcap
<b>TQ</b>	5TEL105110	Flexible cable connection
<b>L</b>	5LEV105000	Standard kever box
<b>CB</b>	5CAM105020	Cam control
<b>IA2</b>	5IDR505000*	ON/OFF high pressure hydraulic control
<b>IB2</b>	5IDR705000*	ON/OFF low pressure hydraulic control

### I Optional handlever

TYPE	CODE	DESCRIPTION
<b>AL01/M8x120</b>	170011012	For lever L: height 120 mm / 4.72 in

NOTE (\*) - Codes are referred to **BSP** thread.