Umschaltventile – Magnet
– DFE20/3 –

Bestellnr.	Typ
254-030-01155	DFE20/3A18ES-W201-12VDC
254-030-01160	DFE20/3A18ES-W201-24VDC
254-030-01165	DFE20/3A18ES-Y201-12VDC
254-030-01170	DFE20/3A18ES-Y201-24VDC

Weitere Umschaltventil Varianten auf Anfrage möglich!

DFE

with solenoid control

Working conditions

This catalogue shows technical specifications and diagrams measured with mineral oil of 46 mm^2/s – ***46 cSt*** viscosity at 40°C temperature.

		DFE052	DFE10	DFE20
N. of available ways		2–3–6–8	3–6	3–6
Nominal flow rating	***in steady conditions***	60 l/min	90 l/min	140 l/min
Operating pressure (maximum)*	***without drain***	200 bar 2900 ***psi***	200 bar ***2900 psi***	200 bar ***2900 psi***
	with drain	315 bar ***4600 psi***	315 bar ***4600 psi***	315 bar ***4600 psi***
Available nominal voltage	***VDC***	12–24 48–110	12–24–48	12–24
	VAC 50Hz (with C04 connector)	24–110–220	110–220	24–110–220
Potenza nominale	***W***	40	60	60
Internal leakage A(B)→T	***Δp=100 bar 1450 psi with fuid and valve at 40°C***	7 cm^3/min ***0.43 in^3/min***	10 cm^3/min ***0.61 in^3/min***	15 cm^3/min ***0.92 in^3/min***
Fluid		Mineral base oil		
Fluid temperature	***with NBR seals***	da –20° a 80°C		
	with FPM seals	da –20° a 100°C		
Viscosity	***operating range***	da 15 a 75 mm^2/s – ***from 15 to 75 cSt***		
	minimum	12 mm^2/s – ***12 cSt***		
	maximum	400 mm^2/s – ***400 cSt***		
Max. level of contamination		19/16 – ISO 4406		
Ambient temperature		da –40° a 60°C		

NOTE – ***For different working conditions please contact Customer Service.***
(*) – ***This value is reachable only in steady conditions; for dynamic working conditions see the pages from 49 to 52.***

Standard threads

ALL PORTS	BSP (ISO 228/1)	UN-UNF (ISO 11926-1)
DFE052	G 3/8	3/4–16 UNF–2B (SAE 8)
DFE10	G 1/2	7/8–14 UNF–2B (SAE 10)
DFE20	G 3/4	1 1/16-12 UN-2B (SAE 12)
DRAIN PORT		
L	G 1/4	7/16–20 UNF–2B (SAE 4)

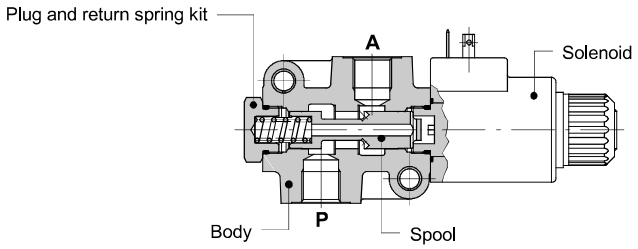
with solenoid control

DFE

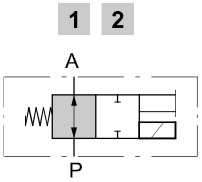
Hydraulic circuit

2-way

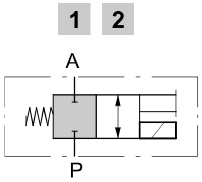
Available as body only in **DFE052/2** execution; for other executions 3-way body is used.



Spool type **A**



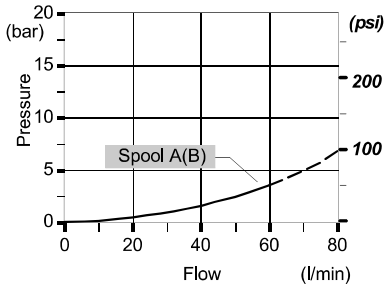
Spool type **B**



Performance data

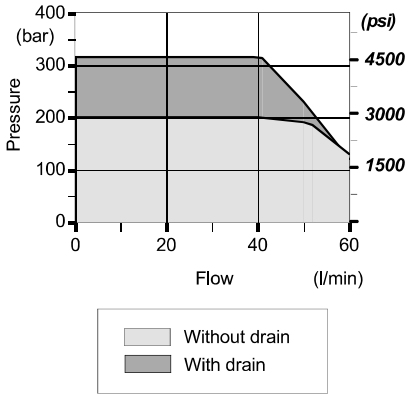
Pressure drop versus flow

P→A



Minimum dynamic conditions

(supply = Vn-10%, coil at 70 °C)



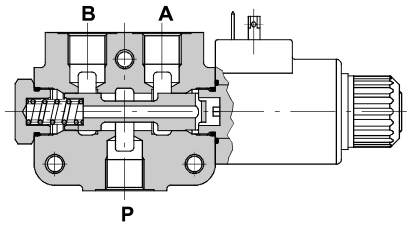
DFE

with solenoid control

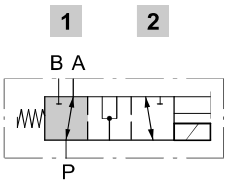
Hydraulic circuit

3-way

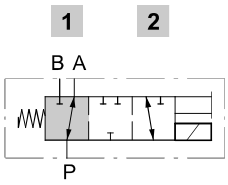
It's possible to obtain 2-way diverter valve plugging port A or B.



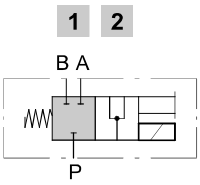
Spool type **A**



Spool type **B**



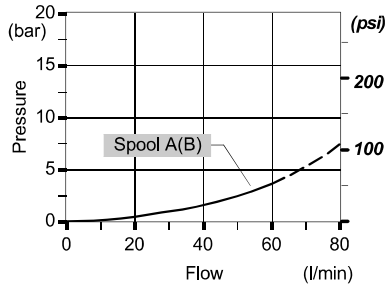
Spool type **D**



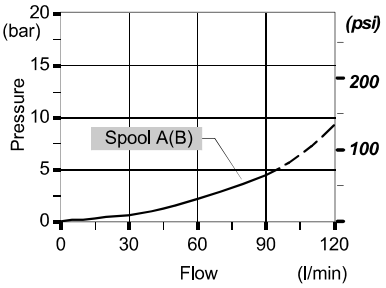
Performance data

Pressure drop versus flow: P→A(B)

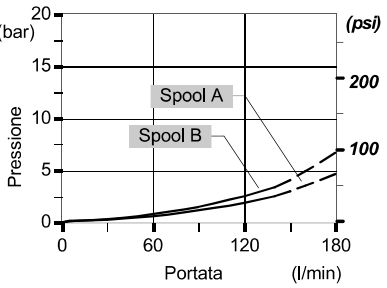
DFE052/3



DFE10/3

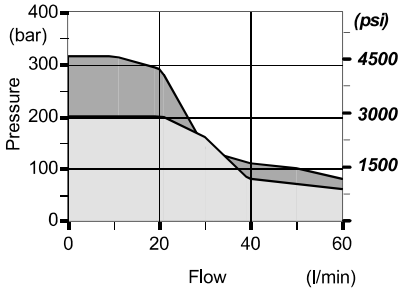


DFE20/3

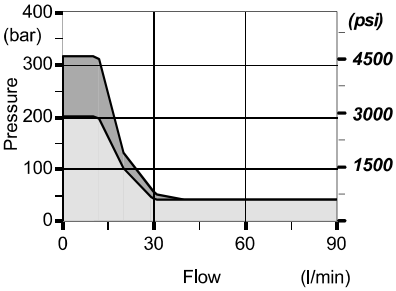


Minimum dynamic conditions: (supply = Vn-10%, coil at 70 °C)

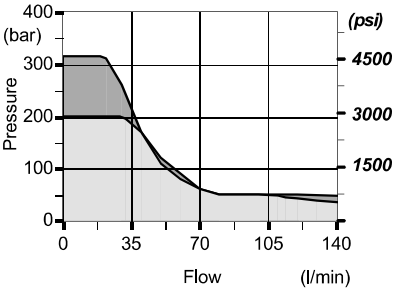
DFE052/3



DFE10/3



DFE20/3

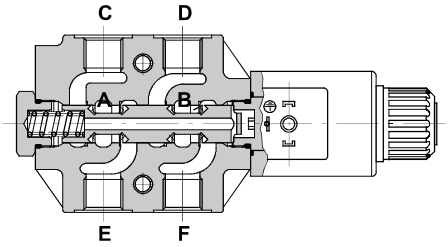


with solenoid control

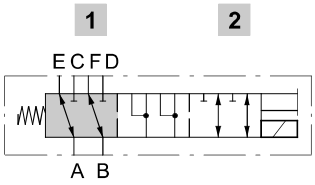
DFE

Hydraulic circuit

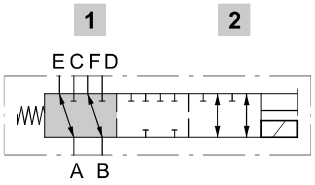
6-way



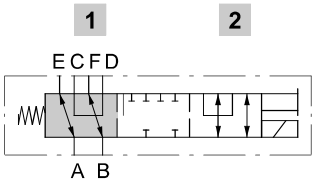
Spool type **A**



Spool type **B**



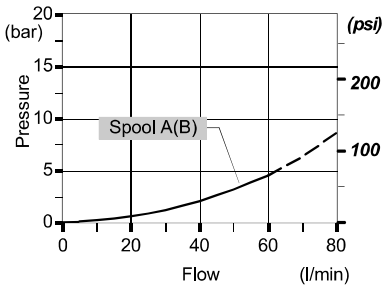
Spool type **H**



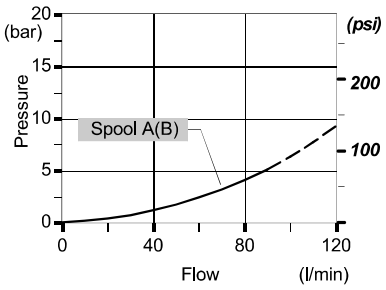
Performance data

Pressure drop versus flow: A→E(C).

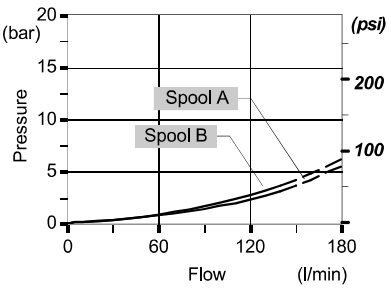
DFE052/6



DFE10/6

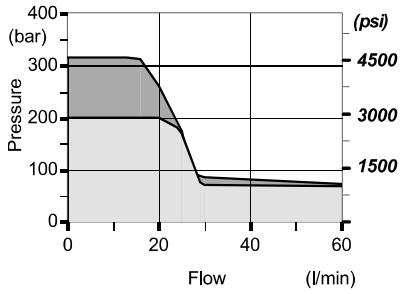


DFE20/6

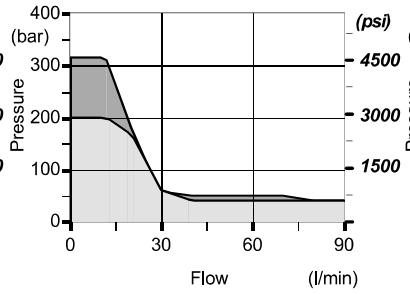


Minimum dynamic conditions: (supply = Vn–10%, coil at 70 °C)

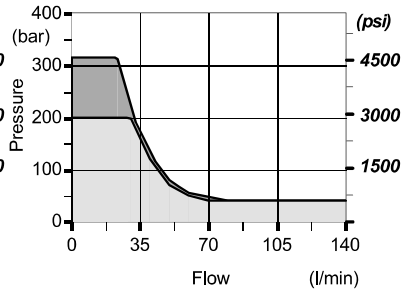
DFE052/6



DFE10/6



DFE20/6



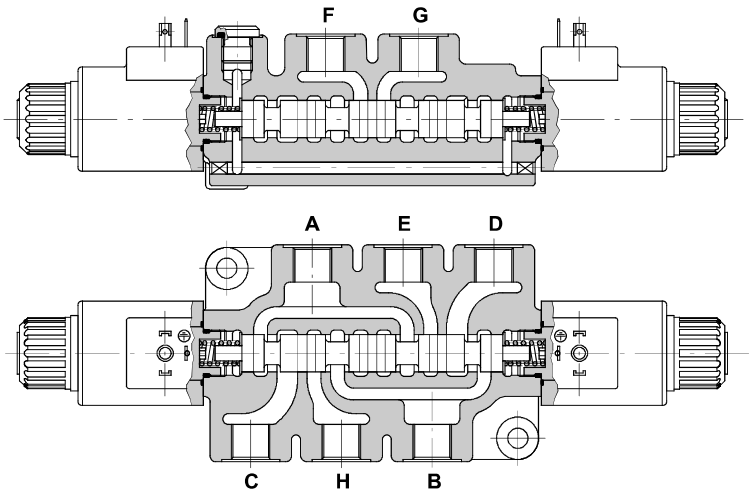
With drain Without drain

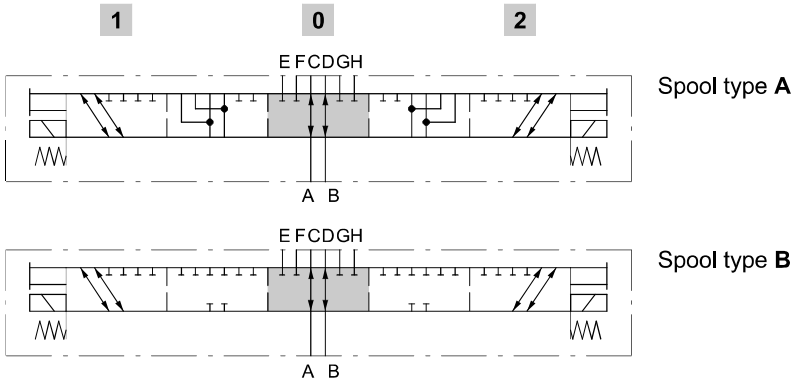
DFE

with solenoid control

Hydraulic circuit

8-way

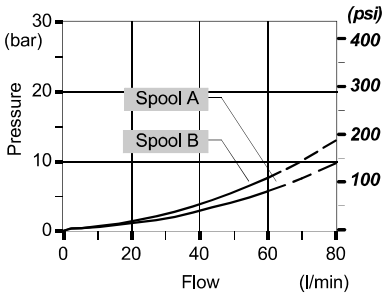




Performance data

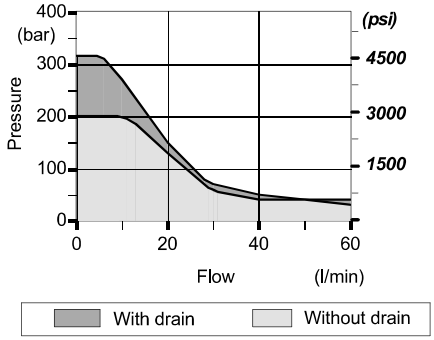
Pressure drop versus flow

A→C



Minimum dynamic conditions

(supply = Vn−10%, coil at 70 °C)

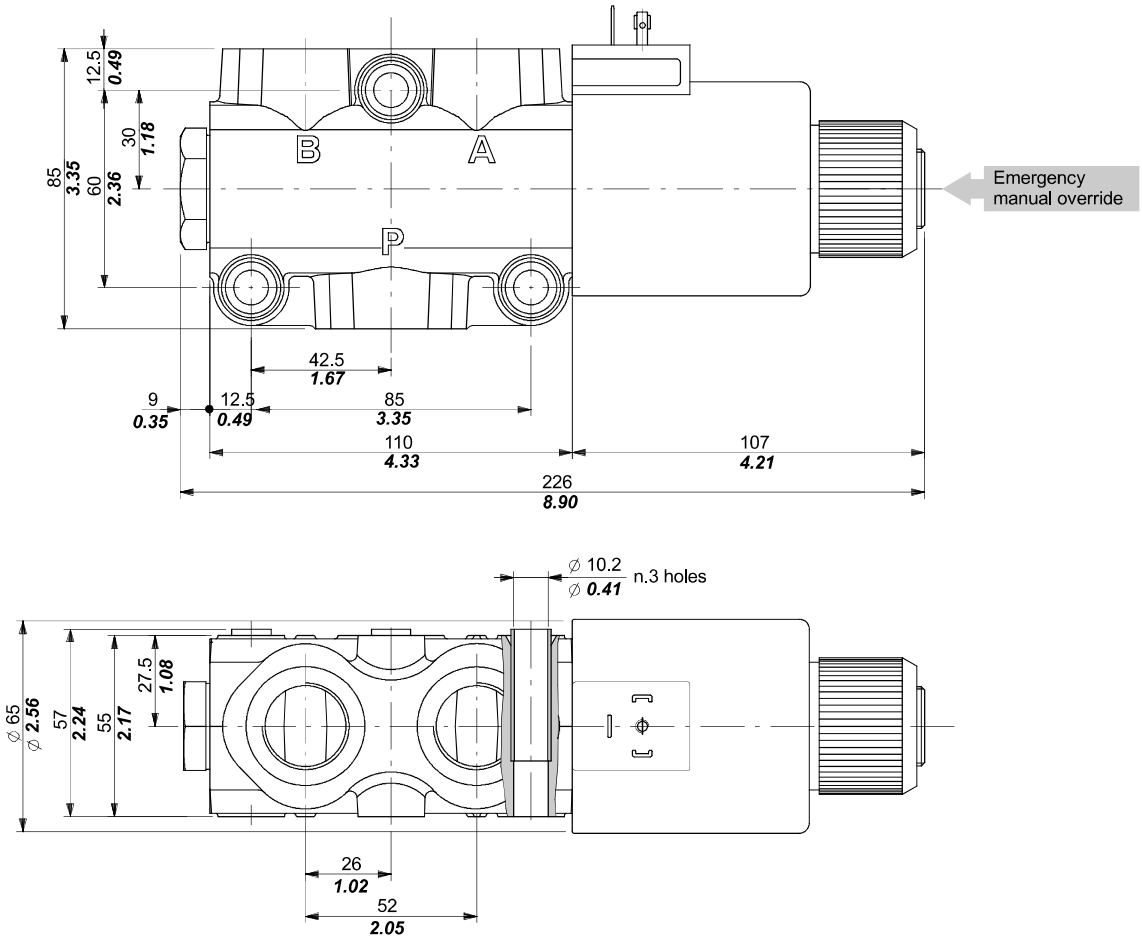


DFE20

with solenoid control

Dimensional data

3-way DFE20/3 valve

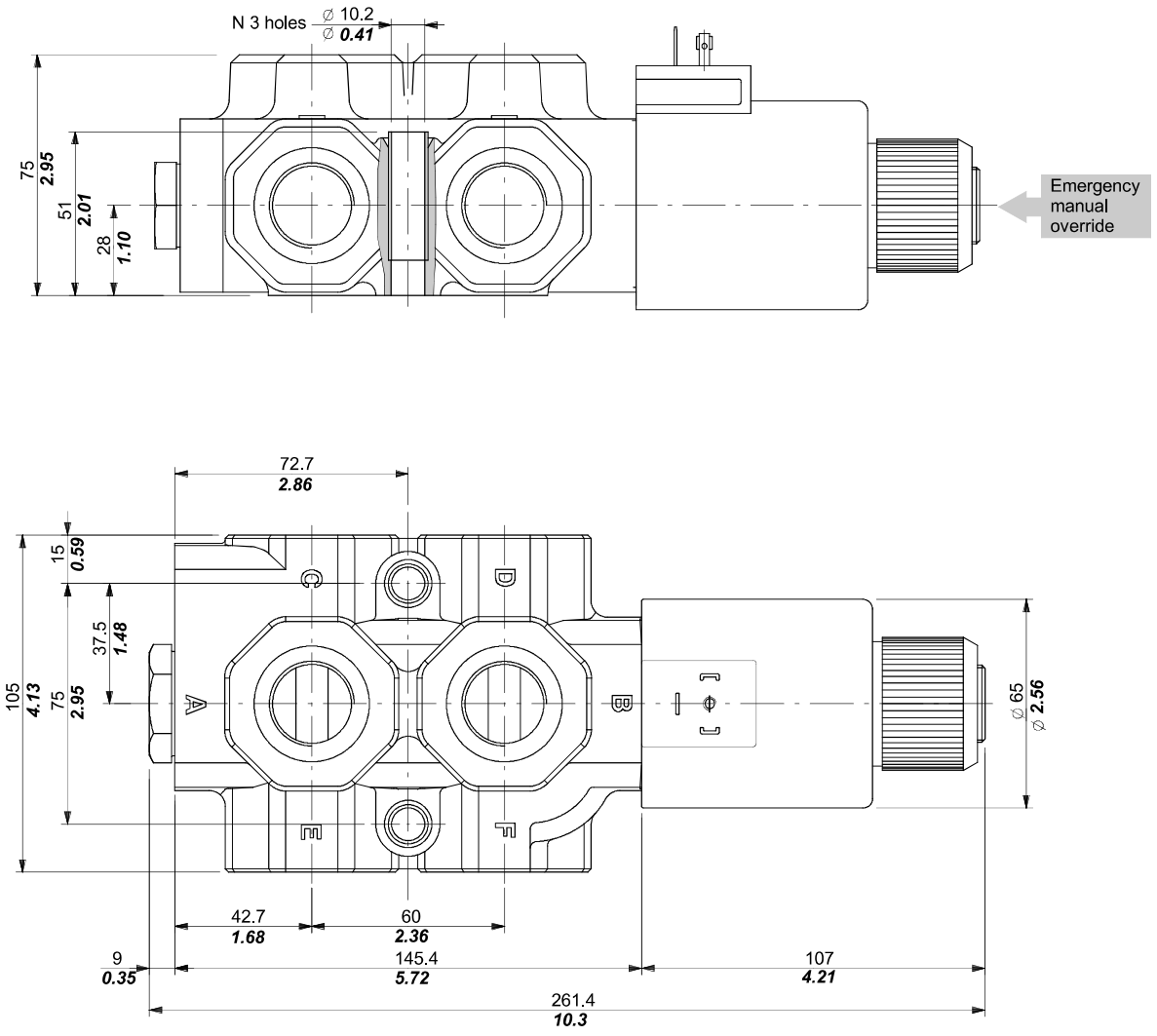


with solenoid control

DFE20

Dimensional data

6-way DFE20/6 valve



DFE20

with solenoid control

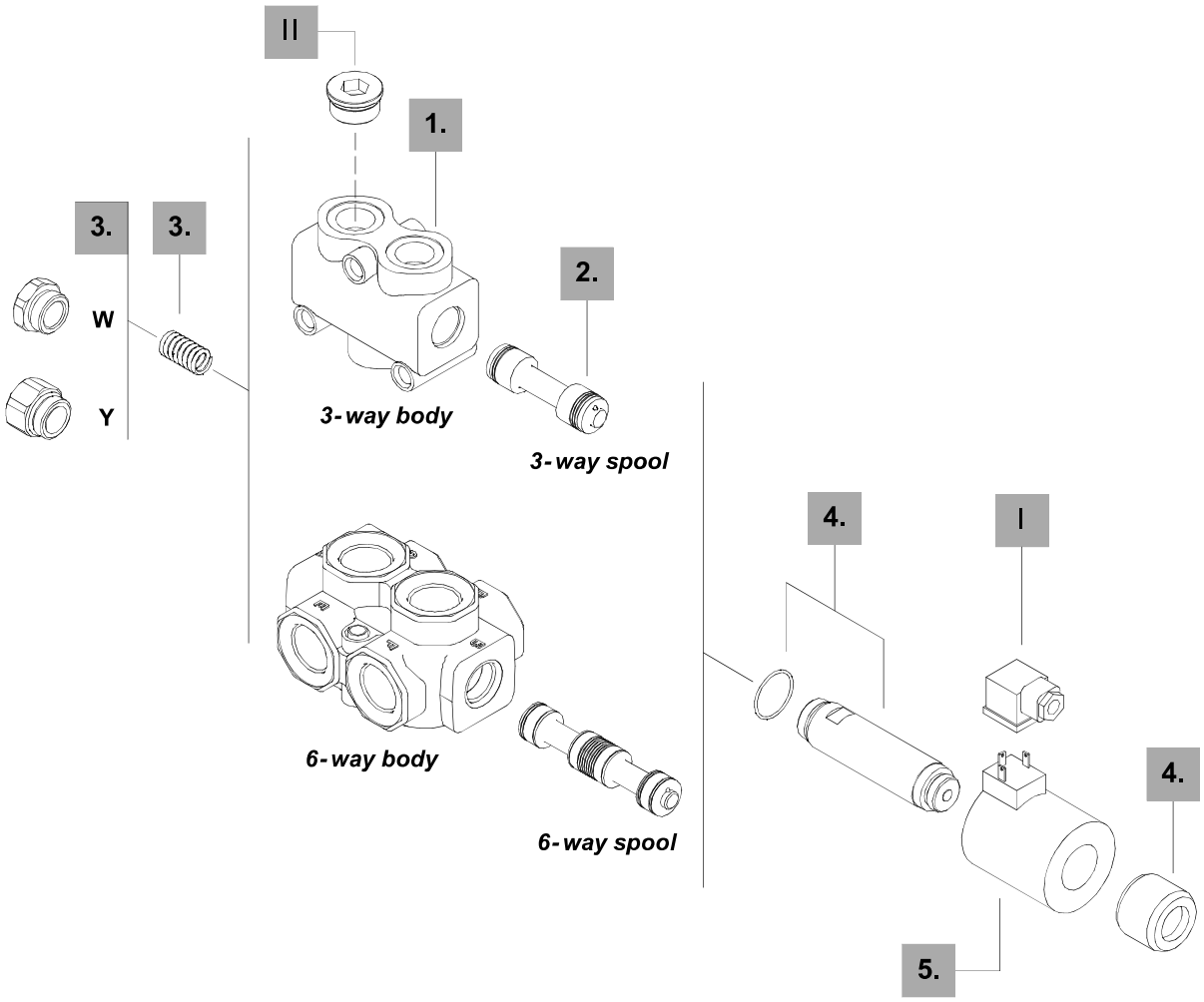
Ordering codes

Description example :

Diverter valve DFE20/3 A 18 ES - W 201-12VDC - <CVN>

1	2	3	4	3.	5

Valve is supplied painted as standard, with one coat of Primer black antirust paint



with solenoid control

DFE20

Ordering codes

3-way

1. Body *

TYPE	CODE	DESCRIPTION
DFE20/3	3CO2261320	Standard body, BSP threaded

2. Spool options

TYPE	CODE	DESCRIPTION
A	3CAS120341	3-way, 2 positions with ports connected in transit position
B	3CAS120441	3-way, 2 positions with ports closed in transit position

6-way

1. Body *

TYPE	CODE	DESCRIPTION
DFE20/6	3CO2263820	Standard body, BSP threaded

2. Spool options

TYPE	CODE	DESCRIPTION
A	3CAS120641	6-way, 2 positions with ports connected in transit position
B	3CAS120741	6-way, 2 positions with ports closed in transit position
H	3CAS120841	6-way, 2 positions, D↔C in position 1, F↔E in position 2, ports closed in transit position

3. Positioner kits *page 70*

TYPE	CODE	DESCRIPTION
18...W	5TAP003	Spring return in position 1
18...Y	5GIU007 *	Spring return in position 1, with G1/4 drain port

4. Tube assembly *page 70*

TYPE	CODE	DESCRIPTION
ES	5SOL519001	Spring return in position 1 (without coil)

5. Coil options *page 70*

TYPE	CODE	DESCRIPTION
101		Without coil (only with tube kit)
VDC supply (connector C02)		
201-12VDC	4SOL519112	Coil with 12VDC nominal voltage
201-24VDC	4SOL519124	Coil with 24VDC nominal voltage
VAC supply (connector C04)		
201-20VDC	4SOL519020	Coil with 20VDC nominal voltage (for 24VAC)
201-94VDC	4SOL519094	Coil with 94VDC nominal voltage (for 110VAC)
201-192VDC	4SOL519192	Coil with 192VDC nominal voltage (for 220VAC)

I Optional connectors *page 80*

TYPE	CODE	DESCRIPTION
C02	2X1001010	According ISO4400
C04	2X1001040	According to ISO4400 with rectifier

II Ports plug

TYPE	CODE	DESCRIPTION
G3/4	3XTAP732200*	Body conversion from 3-way to 2-way circuit

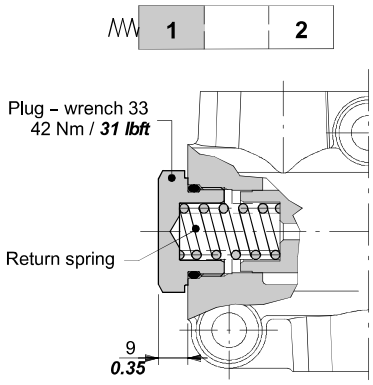
DFE20

with solenoid control

Positioner kits

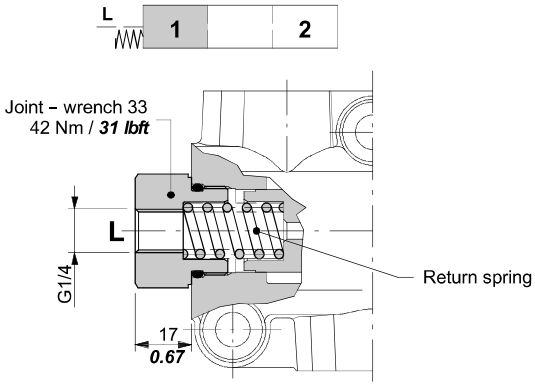
18W kit

Spring return in position 1 with plug.



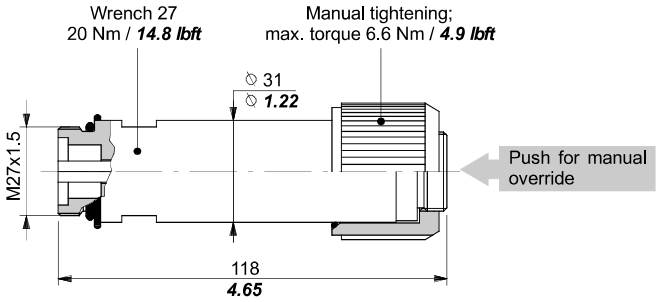
18Y kit

Spring return in position 1, with G1/4 joint for drain.



Solenoid parts

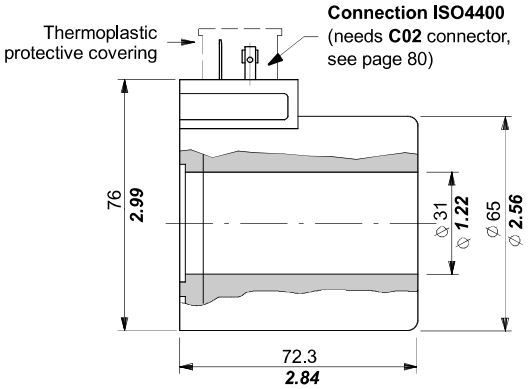
ES tube assembly



Operating features

Plunger stroke . . . . . : 10.2 mm / ***0.40 in***

Coil options



Operating features

Nominal voltage . . . . . : 12-20-24-94-192VDC
Nominal voltage tolerance . . . : ±10%
Power rating . . . . . : 60 W
Duty cycle . . . . . : 100%
Weather protection . . . . . : IP66
Coil insulation . . . . . : Class H