DIVERTER VALVES

DFE

walvoil
HYDRAULIC CONTROL SYSTEMS

valvoilgroup

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.

		DFE080	DFE100	DFE140
N. of available ways		6-8-10	6-8-10	6-8-10
Nominal flow rating	*in steady conditions*	25 l/min	50 l/min	80 l/min
Operating pressure (maximum) *	*without drain*	200 bar - 2900 *psi*		
	with drain	315 bar - *4600 psi*		
Available nominal voltage	*VDC*	12-24	12-24	12-24
	VAC 50Hz (with C04 connector)	24-110-220	24-110-220	24-110-220
Nominal power	*W*	38	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*	10 cm^3/min *0.61 in^3/min*
Tie rods tightening torque		9.8 Nm *7.2 lbft*	18 Nm *13.3 lbft*	25 Nm *18.4 lbft*
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^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 for working conditions		from -20°C to 50°C		

NOTE - *For different working conditions please contact Sales Dept.*

(*) - *This value is reachable only in steady conditions; for dynamic working conditions see the related pages.*

Standard threads

REFERENCE STANDARDS

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

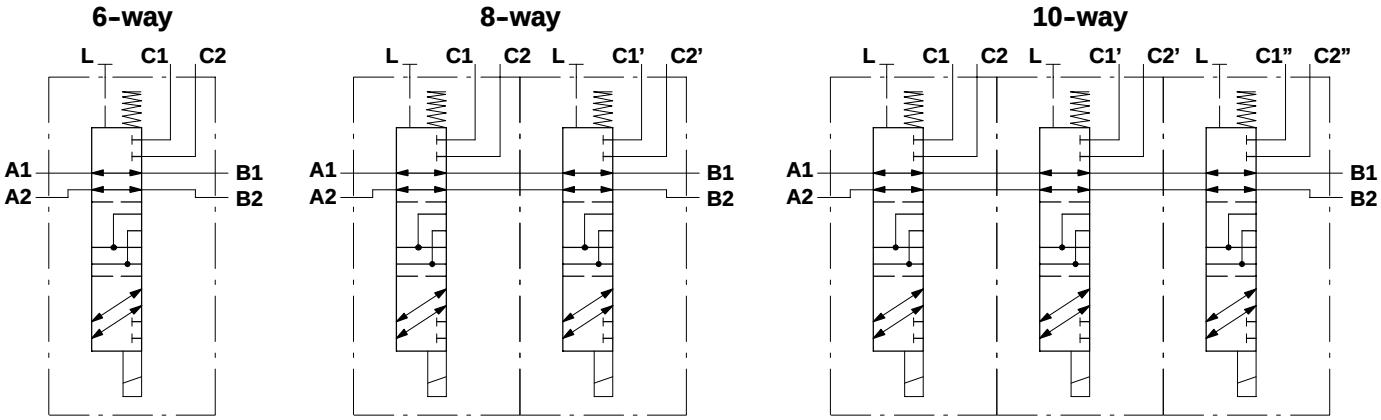
PORTS THREAD

ALL PORTS	BSP	UN-UNF	METRIC (ISO 9974-1)	METRIC (ISO 6149)
DFE080	G 1/4	7/16-20 (SAE 4)		
DFE100	G 3/8	3/4-16 (SAE 8)	M18x1.5	M18x1.5
DFE140	G 1/2	7/8-14 (SAE 10)		
DRAIN PORT				
L	G 1/4	7/16-20 (SAE 4)* 9/16-18 (SAE 6)	M12x1.5	M12x1.5

(*) For DFE080 diverter valve

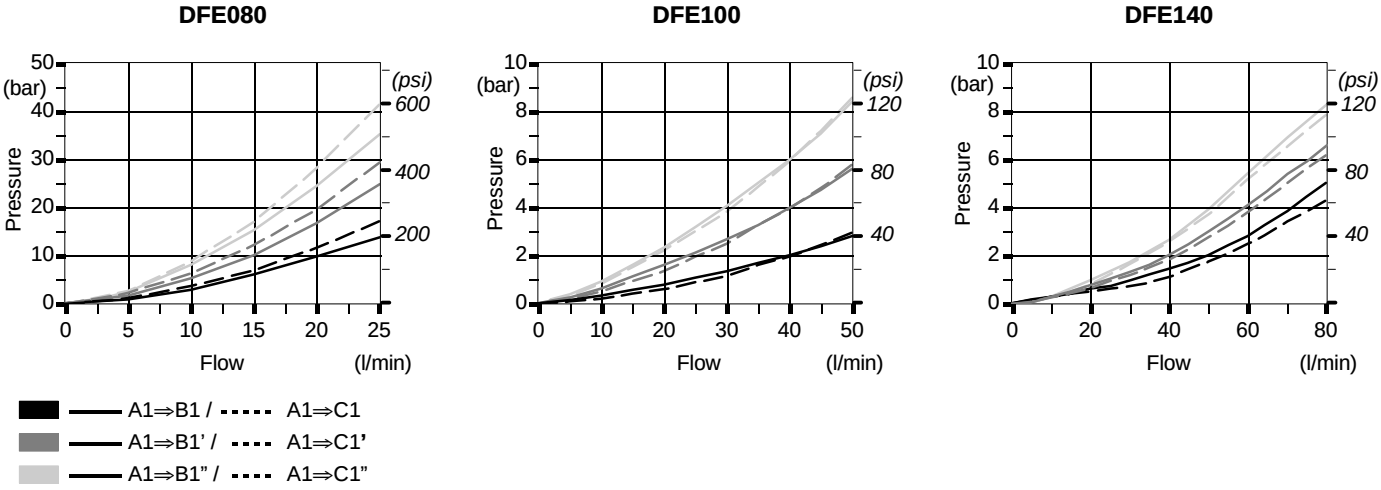
Optional threads: for availability contact Sales Department

Hydraulic circuit

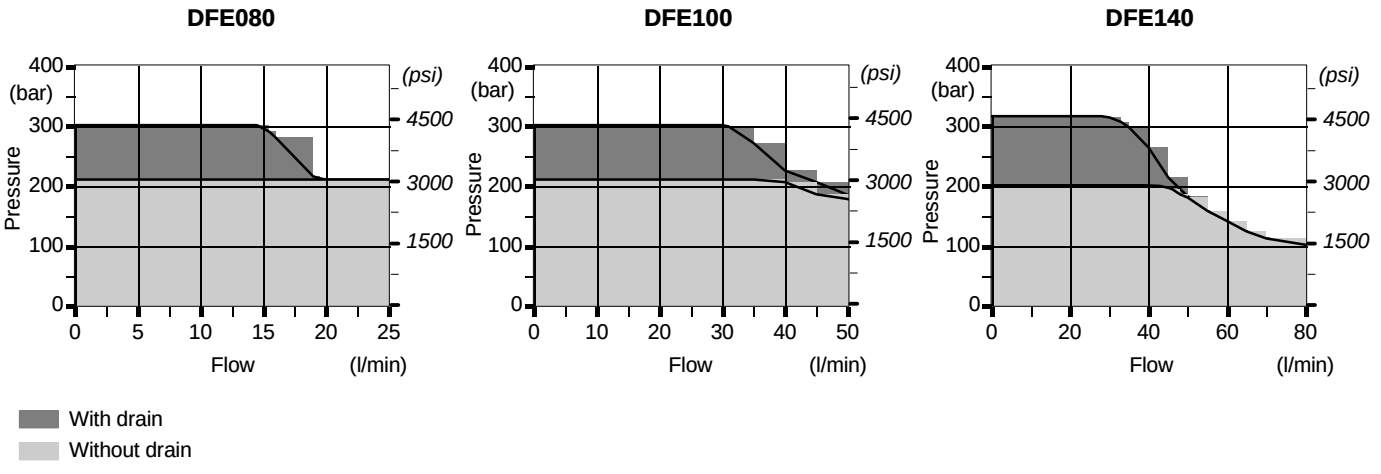


Performace data

Pressure drop versus flow



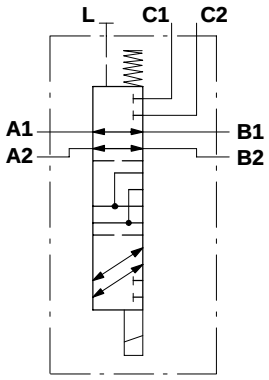
Minimum dynamic conditions: (supply = Vn-10%, coil at 70 °C)



Hydraulic circuit

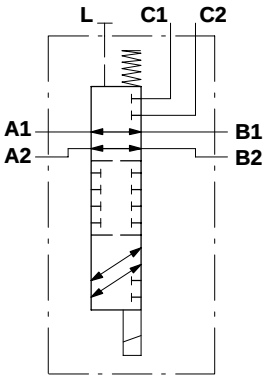
Spool circuits

Type A



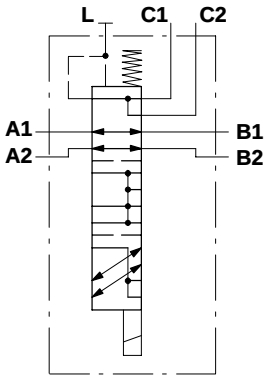
2 positions with ports connected in transit position

Type B



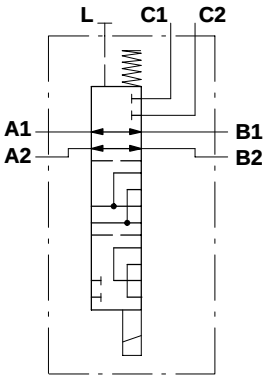
2 positions with ports closed in transit position

Type H



2 positions with ports connected to drain in transit position

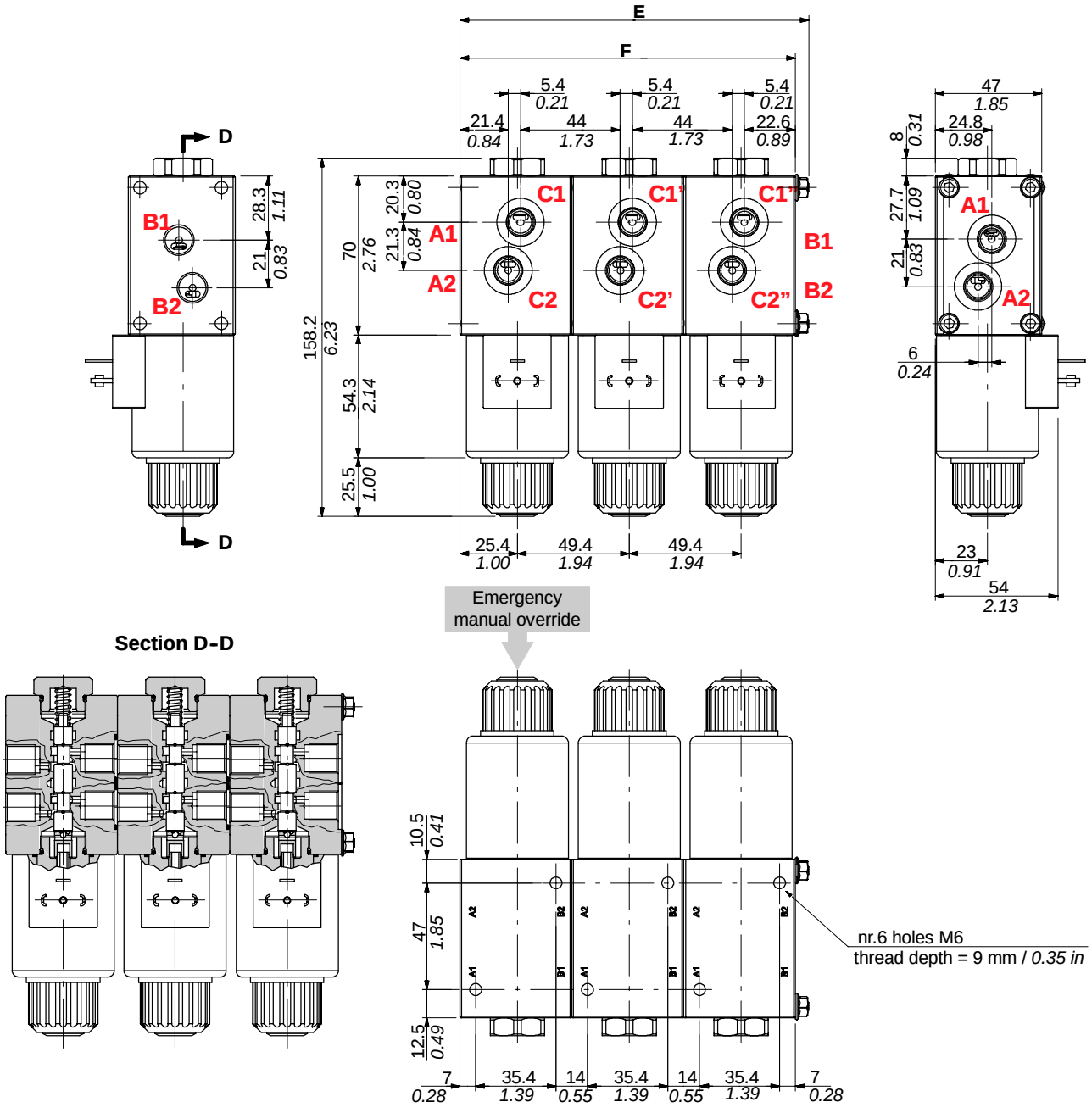
Type N



As type A, for right inlet

Dimensional data

The drawing below show diverter valve in 10-way configuration.



TYPE	E		F		Weight	
	mm	*in*	mm	*in*	kg	*lb*
DFE080/6	49.4	*1.94*	49.4	*1.94*	1.4	*3.1*
DFE080/8	105	*4.13*	98.8	*3.86*	2.8	*6.2*
DFE080/10	155	*6.10*	148.2	*5.84*	4.3	*9.5*

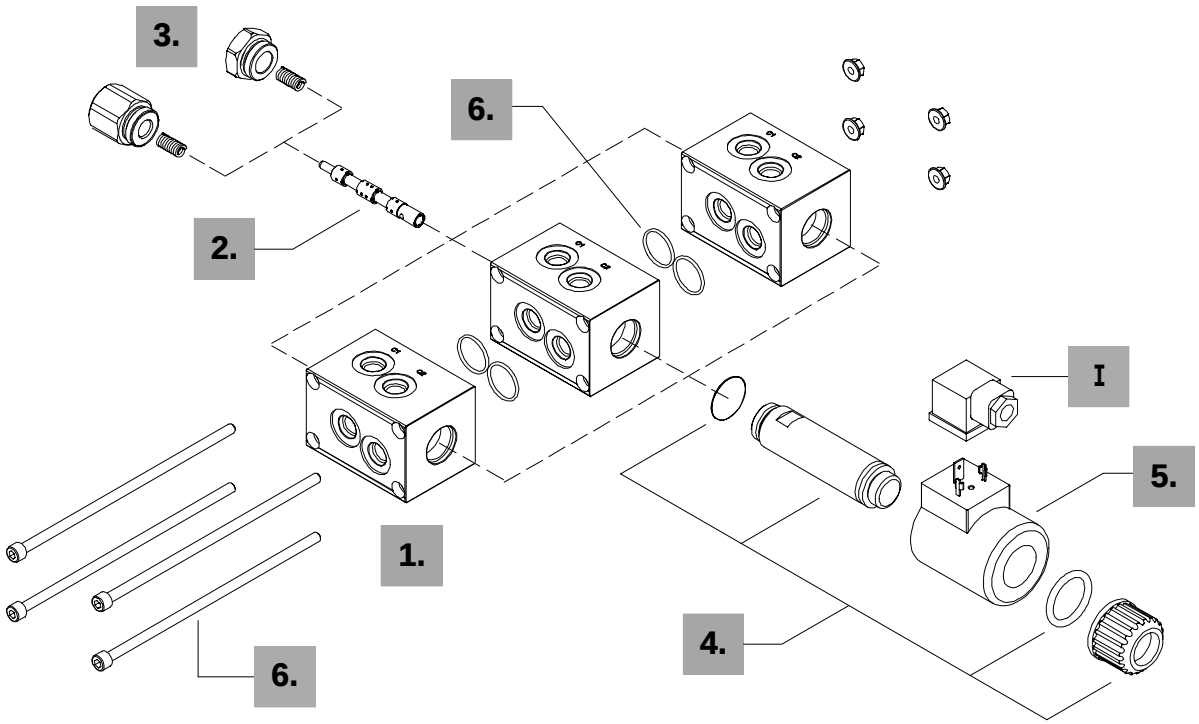
Ordering codes

Description example :

Diverter valve DFE080/10 A 18 ES - W 201-12VDC - CRZ

1. DFE080/10
2. A
3. 18
4. ES
3. W
5. 201-12VDC

Valve body is supplied galvanized



Ordering codes

1. Body *

TYPE	CODE	DESCRIPTION
080/6	3CO2208320	6-way body
080/8	"	Nr 2 of 6-way body for 8-way circuit
080/10	"	Nr 3 of 6-way body for 10-way circuit

2. Spool options

TYPE	CODE	DESCRIPTION
A	3CAS108640	2 positions with ports connected in transit position
B	3CAS108740	2 positions with ports closed in transit position
H	3CAS108840	2 positions with ports connected to drain in transit position
N	3CAS108940	As type A, for right inlet

3. Positioner kits *page 92*

TYPE	CODE	DESCRIPTION
18...W	5TAP007	Spring return in position 1
18...Y	5GIU016 *	Spring return in position 1, with G1/4 drain port

4. Tube assembly *page 92*

TYPE	CODE	DESCRIPTION
ES	5SOL515000	Spring return in position 1 (without coil)

5. Coil options *page 92*

TYPE	CODE	DESCRIPTION
101	-	Without coil (only with tube kit)
With ISO4400 connector		
201-12VDC	4SOL515012	Coil with 12VDC nominal voltage
201-24VDC	4SOL515024	Coil with 24VDC nominal voltage
With integrated DEUTSCH DT04 connector		
241-12VDC	4SOL515014	Coil with 12VDC nominal voltage
241-24VDC	4SOL515025	Coil with 24VDC nominal voltage

6. Tie rods kit and O-ring seals

CODE	MOUNTED ON
5TIR080008	DFE080/8 diverter valve
5TIR080010	DFE080/10 diverter valve

I Optional connectors *page 119*

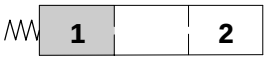
TYPE	CODE	DESCRIPTION
C02	2X1001010	According to ISO4400
C19	5CON007	Type DEUTSCH DT06

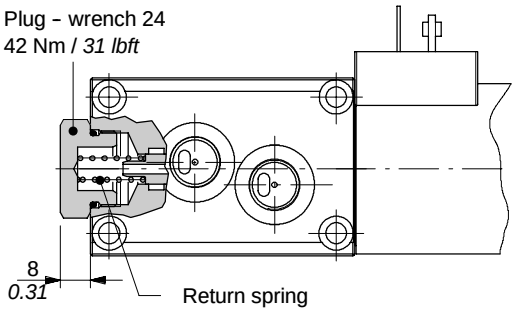
NOTE (*) - *Codes are referred to **BSP** thread.*

Positioner kits

18W kit

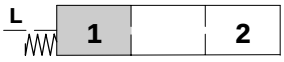
Spring return in position 1 with plug.

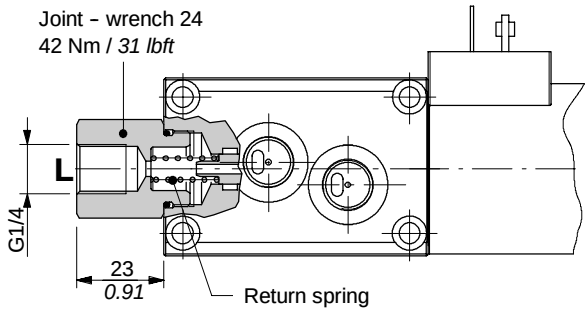




18Y kit

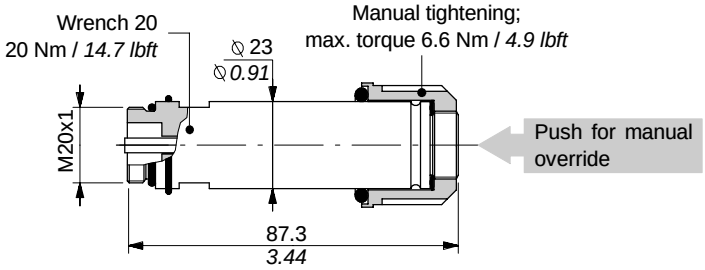
Spring return in position 1, with G1/4 joint for drain.





Solenoid parts

ES tube assemply

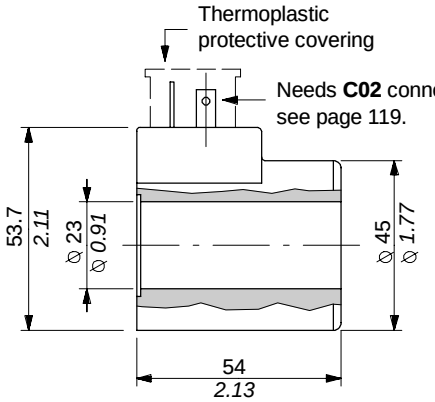


Operating features

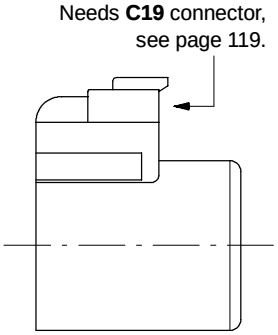
Plunger stroke . . . . . : 7.1 mm / *0.28 in*

Coil options

With ISO4400 connector
(weather protection IP65)



With integrated DEUTSCH 04 connector
(weather protection IP67)

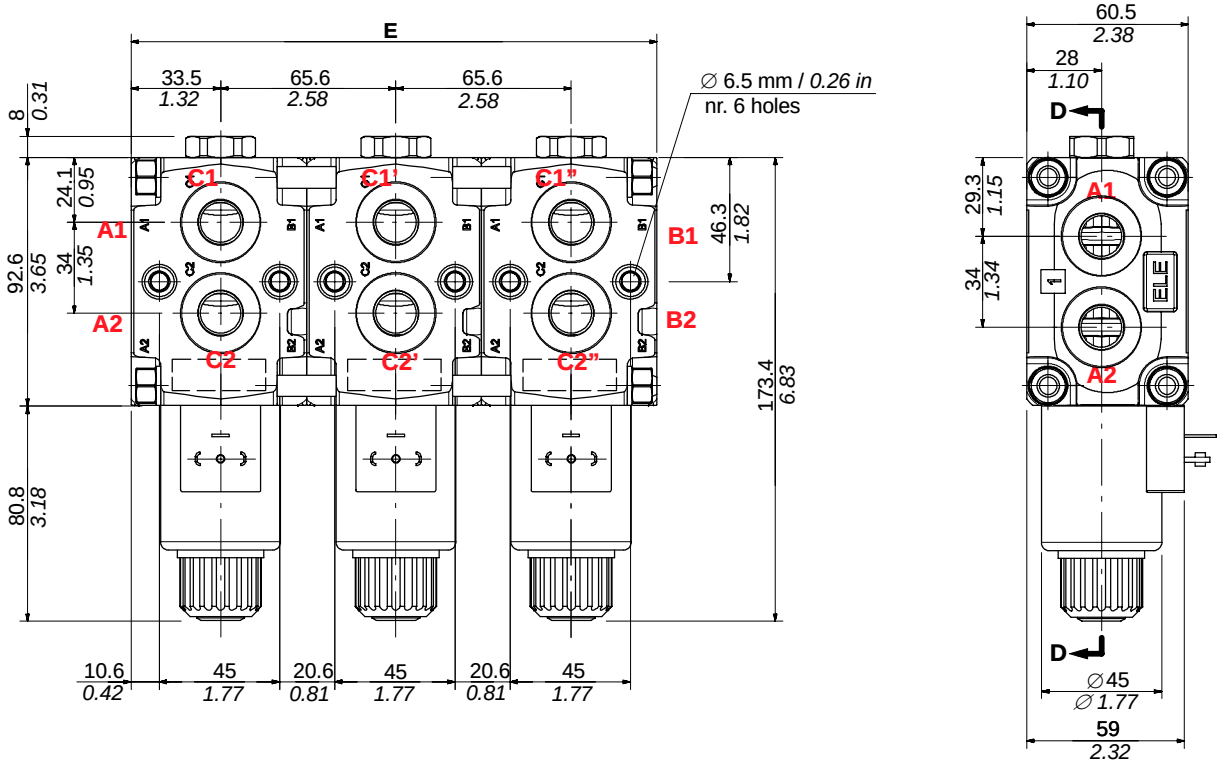


Operating features

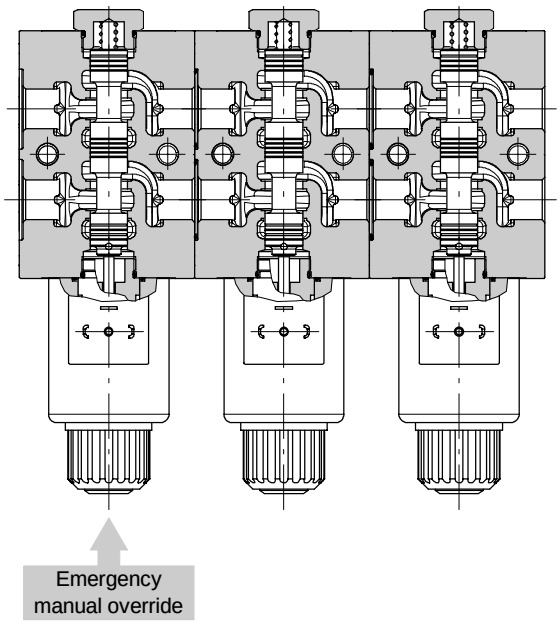
Nominal voltage . . . . . : 12VDC / 24VDC
Nominal voltage tolerance . . . : ±10%
Power rating . . . . . : 38 W
Duty cycle . . . . . : 100%
Weather protection . . . . . : Depending on connector type
Coil insulation . . . . . : Class H

Dimensional data

The drawing below show diverter valve in 10-way configuration.



Section D-D



TYPE	E		Weight	
	mm	*in*	kg	*lb*
DFE100/6	65.6	*2.58*	2.4	*5.3*
DFE100/8	105	*4.13*	5.1	*11.2*
DFE100/10	196.8	*7.75*	8.4	*18.5*

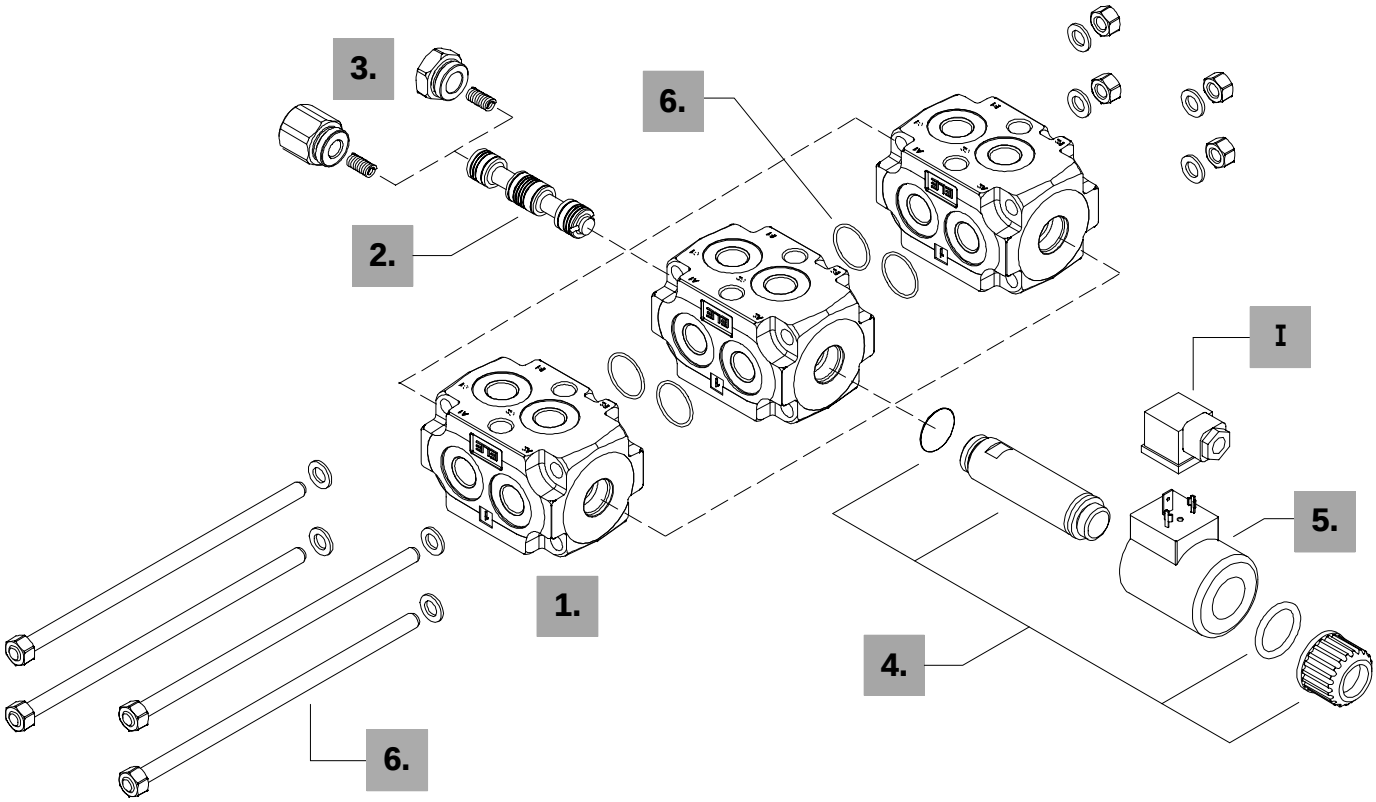
Ordering codes

Description example :

Diverter valve DFE100/10 A 18 ES - W 201-12VDC - CRZ

1. 2. 3. 4. 3. 5.

Valve body is supplied galvanized



Oedering codes

1. Body *

TYPE	CODE	DESCRIPTION
100/6	3CO2244321	6-way body
100/8	"	Nr 2 of 6-way body for 8-way circuit
100/10	"	Nr 3 of 6-way body for 10-way circuit

2. Spool options

TYPE	CODE	DESCRIPTION
A	3CAS110647	2 positions with ports connected in transit position
B	3CAS110747	2 positions with ports closed in transit position
H	3CAS110847	2 positions with ports connected to drain in transit position
N	3CAS110947	As type A, for right inlet

3. Positioner kits *page 96*

TYPE	CODE	DESCRIPTION
18...W	5TAP006	Spring return in position 1
18...Y	5GIU013 *	Spring return in position 1, with G1/4 drain port

4. Tube assembly *page 96*

TYPE	CODE	DESCRIPTION
ES	5SOL515000	Spring return in position 1 (without coil)

5. Coil options *page 96*

TYPE	CODE	DESCRIPTION
101	-	Without coil (only with tube kit)
With ISO4400 connector		
201-12VDC	4SOL515012	Coil with 12VDC nominal voltage
201-24VDC	4SOL515024	Coil with 24VDC nominal voltage
With integrated DEUTSCH DT04 connector		
241-12VDC	4SOL515014	Coil with 12VDC nominal voltage
241-24VDC	4SOL515025	Coil with 24VDC nominal voltage

6. Tie rods kit and O-ring seals

CODE	MOUNTED ON
5TIR108132	DFE100/8 diverter valve
5TIR108205	DFE100/10 diverter valve

I Optional connectors *page 119*

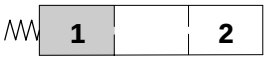
TYPE	CODE	DESCRIPTION
C02	2X1001010	According to ISO4400
C19	5CON007	Type DEUTSCH DT06

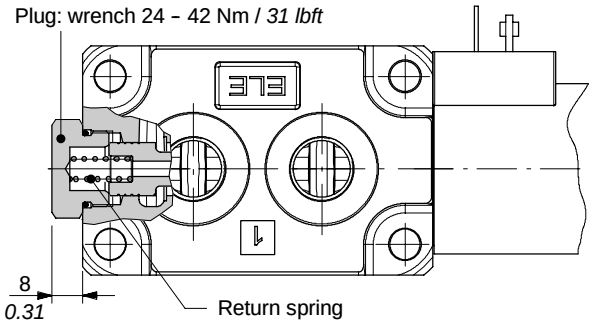
NOTE (*) - *Codes are referred to **BSP** thread.*

Positioner kits

18W kit

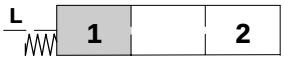
Spring return in position 1 with plug.

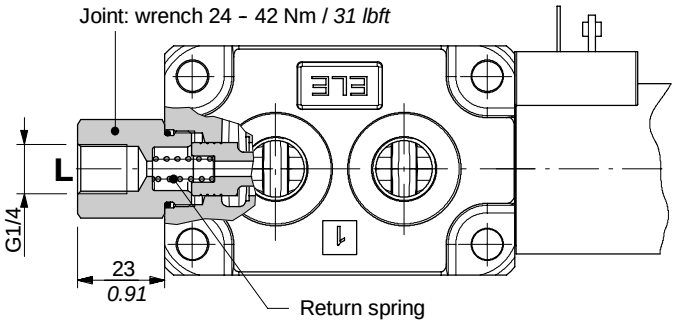




18Y kit

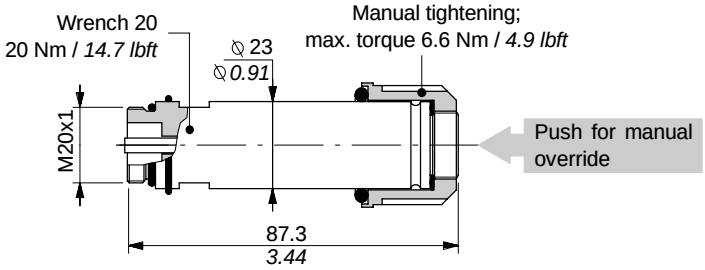
Spring return in position 1, with G1/4 joint for drain.





Solenoid parts

ES tube assemply

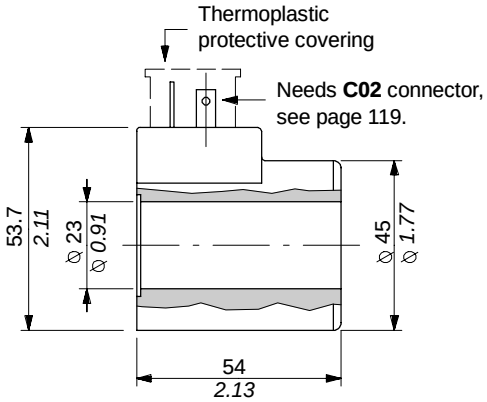


Operating features

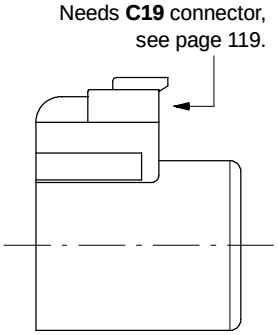
Plunger stroke . . . . . : 7.1 mm / *0.28 in*

Coil options

With ISO4400 connector
(weather protection IP65)



With integrated DEUTSCH 04 connector
(weather protection IP67)

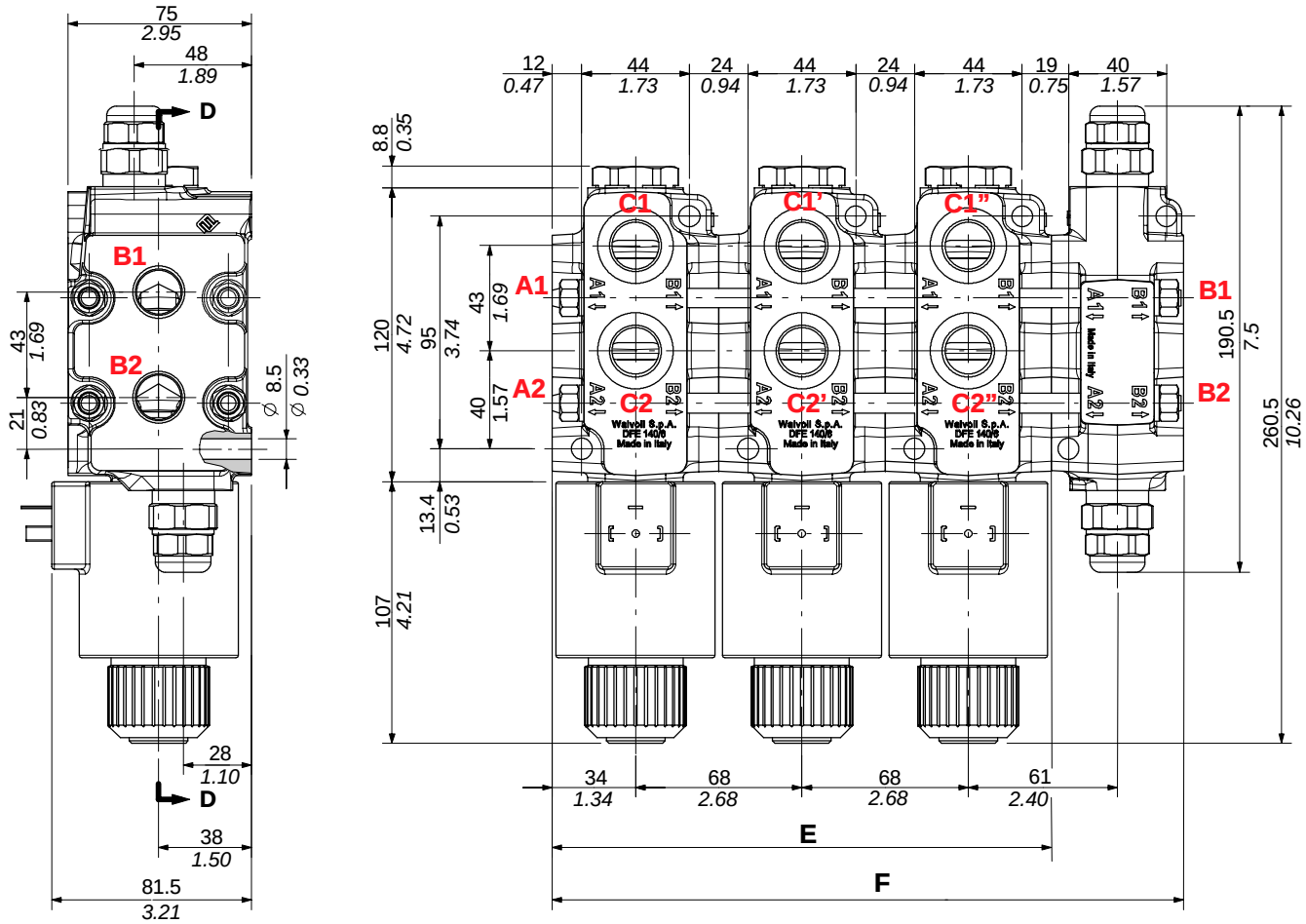


Operating features

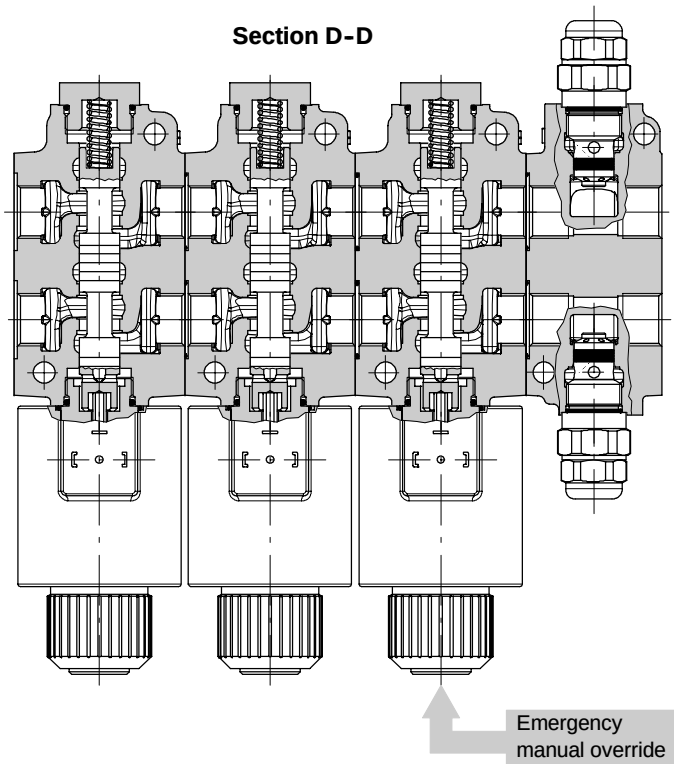
Nominal voltage . . . . . : 12VDC / 24VDC
Nominal voltage tolerance . . . : ±10%
Power rating . . . . . : 38 W
Duty cycle . . . . . : 100%
Weather protection . . . . . : Depending on connector type
Coil insulation . . . . . : Class H

Dimensional data

The drawing below show diverter valve in 10-way configuration with anti-shock valves block.



Section D-D



TYPE	E		Weight	
	mm	*in*	Kg	*lb*
DFE140/6	68	*2.68*	4.6	*10.1*
DFE140/8	136	*5.35*	9.5	*20.9*
DFE140/10	204	*8.03*	14.4	*31.7*
With valves block	**E**		Weight	
	mm	*in*	Kg	*lb*
DFE140/6	122	*4.80*	7.8	*17.2*
DFE140/8	190	*7.48*	12.5	*27.6*
DFE140/10	258	*10.16*	17.6	*38.8*

Ordering codes

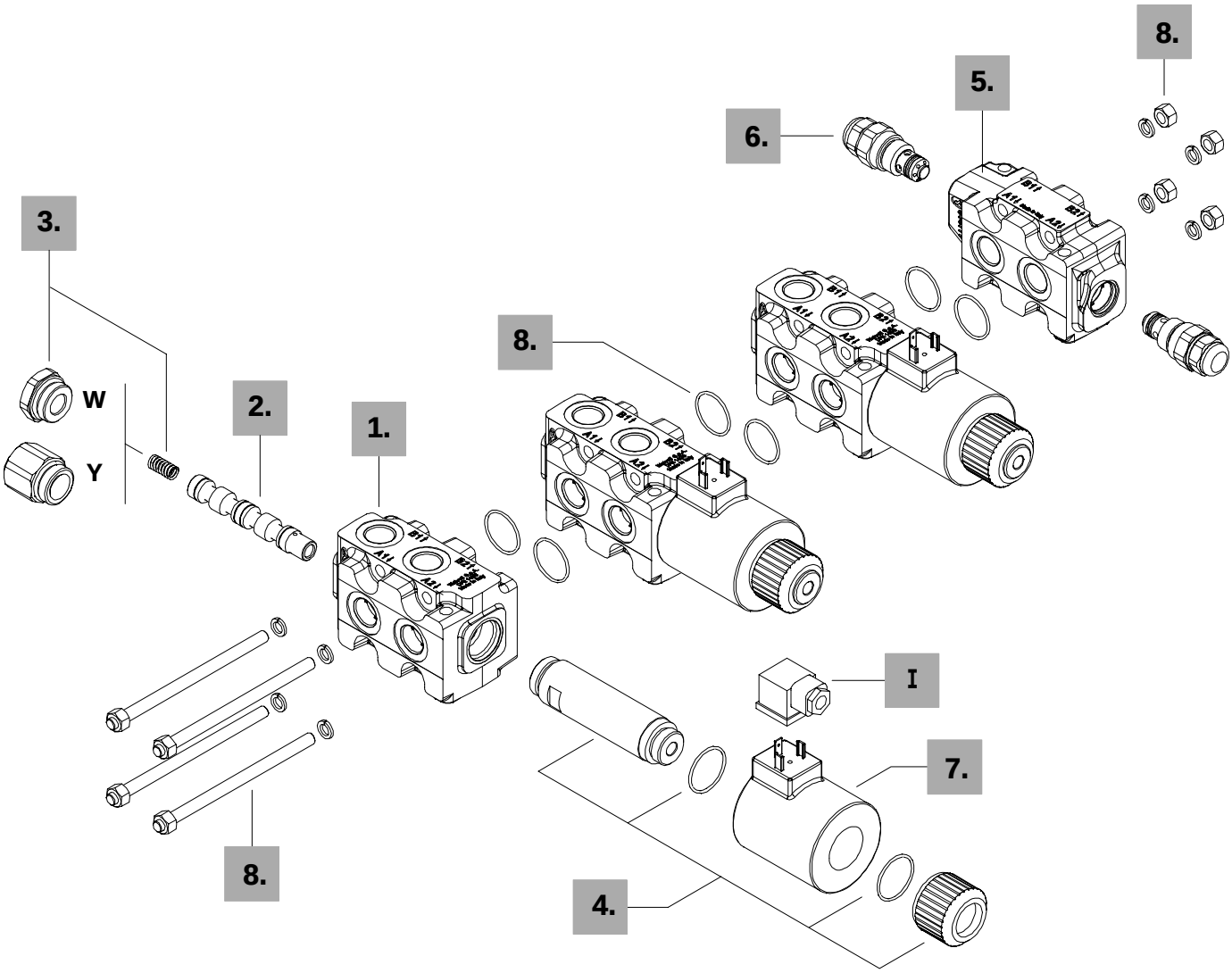
Description example :

Valve setting in bar

Diverter valve DFE 140 / 10 B 18 ES . P3 (D4-185) - W 201-12VDC - CRZ *

1. 2. 3. 4. 5. 6. 3. 7.

Valve body is supplied galvanized



Ordering codes

1. Body *

TYPE	CODE	DESCRIPTION
140/6	3CO2280302	6-way body
140/8	"	Nr 2 of 6-way body for 8-way circuit
140/10	"	Nr 3 of 6-way body for 10-way circuit

2. Spool option

TYPE	CODE	DESCRIPTION
B	3CAS110740	2 positions with ports closed in transit position

3. Positioner kits *page 100*

TYPE	CODE	DESCRIPTION
18...W	5TAP005	Spring return in position 1
18...Y	5GIU010*	Spring return in position 1, with G1/4 drain port

4. Tube assembly *page 100*

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

5. Valves block * *page 102*

TYPE	CODE	DESCRIPTION
P3	3CO2780301	Cross-over anti-shock valve body

6. Anti-shock valve *page 102*

With fixed setting: setting is referred to valve opening

TYPE	CODE	DESCRIPTION
(D2-80)	X005125095	Setting 80 bar / *1150 psi*
(D3-125)	X005125145	Setting 125 bar / *1800 psi*
(D3-140)	X005125155	Setting 140 bar / *2050 psi*
(D3-170)	X005125190	Setting 170 bar / *2450 psi*
(D4-185)	X005125216	Setting 185 bar / *2700 psi*
(D4-210)	X005125245	Setting 210 bar / *3050 psi*
(D4-240)	X005125270	Setting 240 bar / *3500 psi*

7. Coil options *page 101*

TYPE	CODE	DESCRIPTION
101		Without coil (only with tube kit)
With ISO4400 connector		
201-12VDC	4SOL519112	Coil with 12VDC nominal voltage
201-24VDC	4SOL519124	Coil with 24VDC nominal voltage
201-20VDC	4SOL519120	Coil with 20VDC nominal voltage (for 24VAC): need C04 connector
201-94VDC	4SOL519094	Coil with 94VDC nominal voltage (for 110VAC): need C04 connector
201-192VDC	4SOL519192	Coil with 192VDC nominal voltage (for 220VAC): need C04 connector
With flying leads and DEUTSCH DT04 connector		
241-12VDC	4SOL519412	Coil with 12VDC nominal voltage
241-24VDC	4SOL519424	Coil with 24VDC nominal voltage

8. Tie rods kit and O-ring seals

CODE	MOUNTED ON
5TIR108121	DFE140/6 with P3 valves block
5TIR108134	DFE140/8
5TIR108189	DFE140/8 with P3 valves block
5TIR108202	DFE140/10

I Optional connectors *page 119*

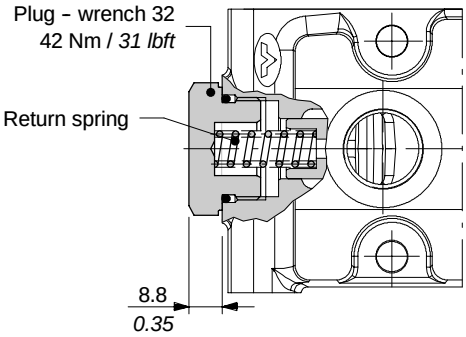
TYPE	CODE	DESCRIPTION
C02	2X1001010	According ISO4400
C04	2X1001040	According to ISO4400 with rectifier
C19	5CON007	Type DEUTSCH DT06

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

Positioner kits

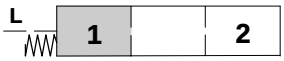
18W kit

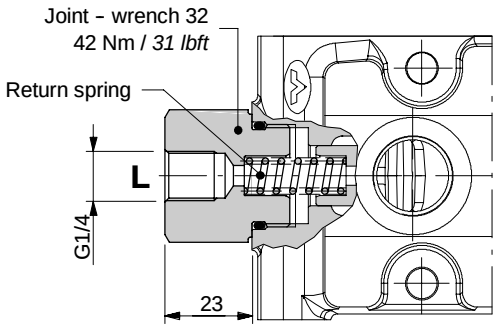
Spring return in position 1 with plug.



18Y kit

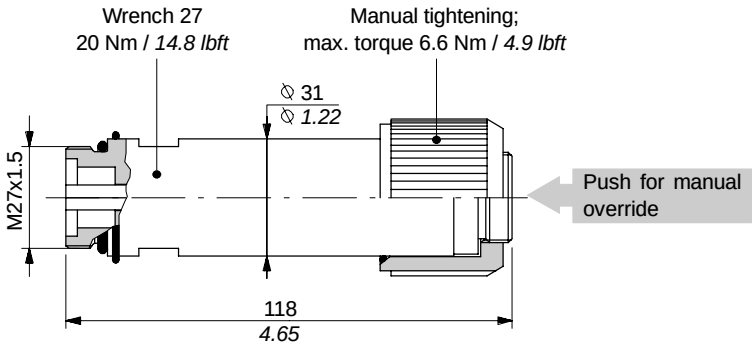
Spring return in position 1, with G1/4 joint for drain.





Solenoid parts

ES tube assembly

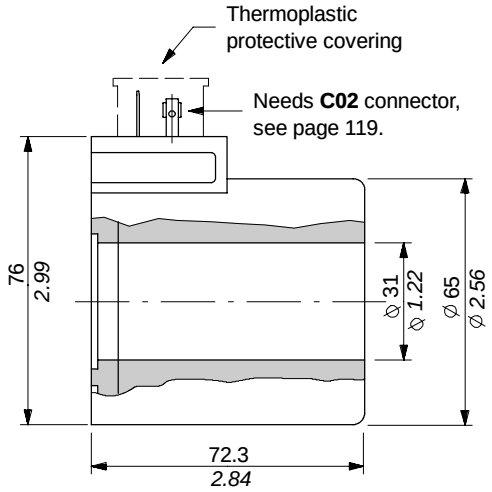


Operating features

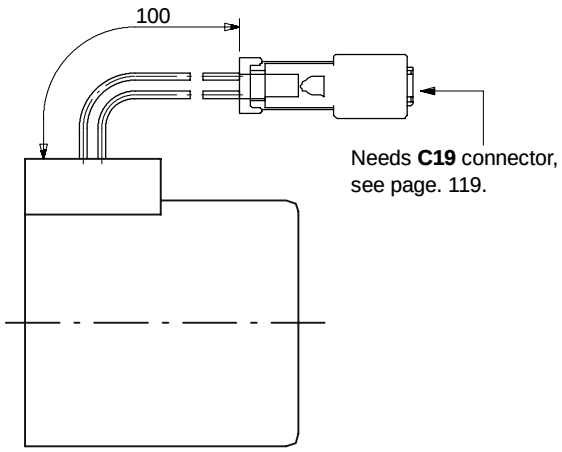
Plunger stroke . . . . . : 10.2 mm / *0.40 in*

Coil options

With ISO4400 connector
(weather protection IP65)



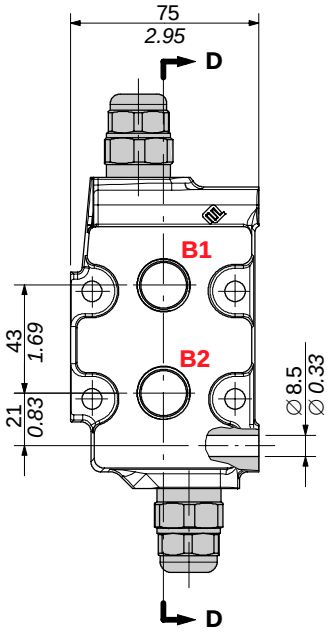
With flying leads and DEUTSCH DT04 connector
(weather protection IP67)

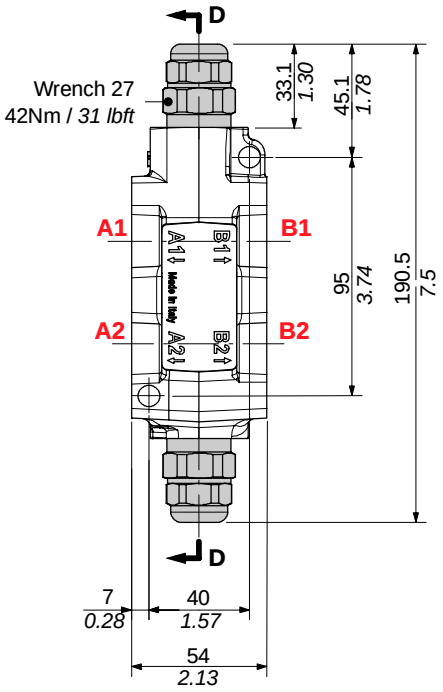


Operating features

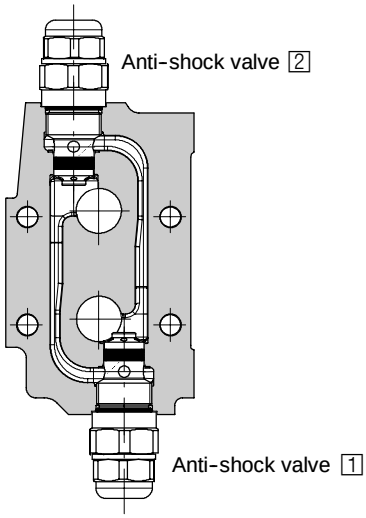
Nominal voltage . . . . . : 12-20-24-94-192VDC
Nominal voltage tolerance . . . : ±10%
Power rating . . . . . : 60 W
Duty cycle . . . . . : 100%
Weather protection . . . . . : depending on connector type
Coil insulation . . . . . : Class H

P3 block complete with anti-shock valves



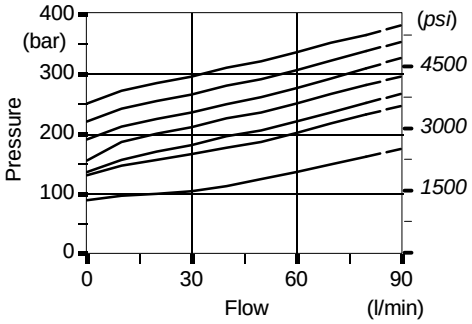


Section D-D

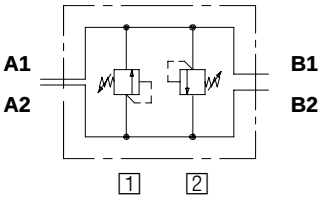


Anti-shock valves performance data

(setting: 80-125-140-170-185-210-240 bar / *1150-1800-2050-2450-2700-3050-3500 psi*)



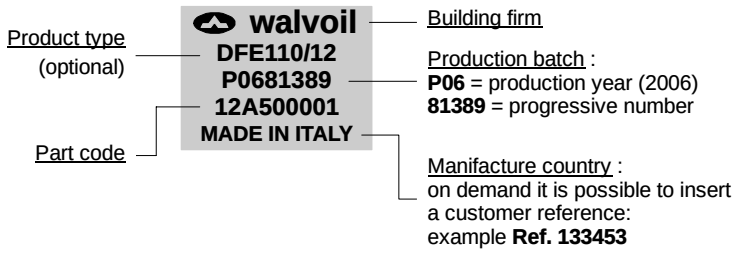
Hydraulic circuit



Product marking

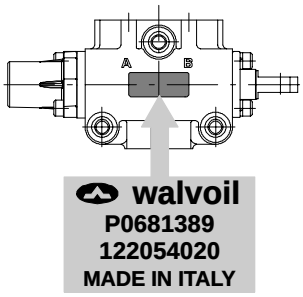
All Walvoil diverter valves are marked according to **EN 982** normative.
This marking includes: building firm, part code, production batch and manufacture country.

Marking example

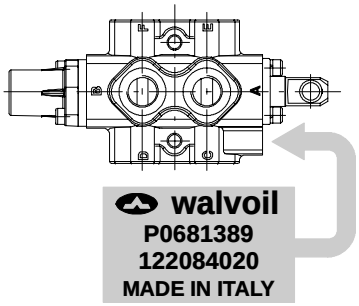


Marking zone depending on valve type, as indicate below.

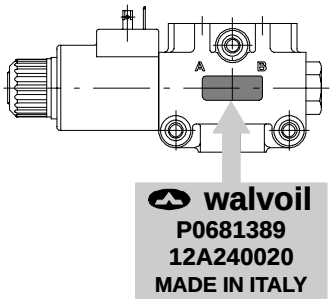
2-way and 3-way DF mechanical control type



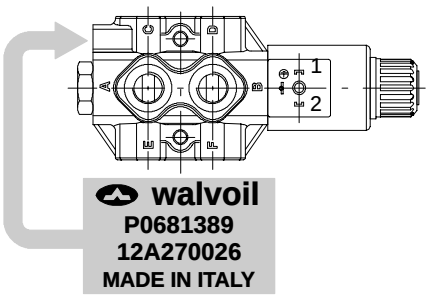
6-way DF mechanical control type



2-way and 3-way DFE solenoid control monoblock type

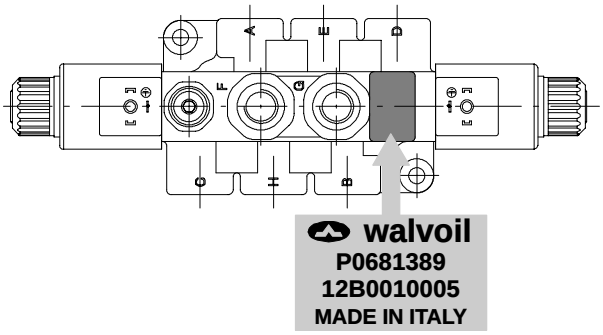


6-way DFE solenoid control monoblock type

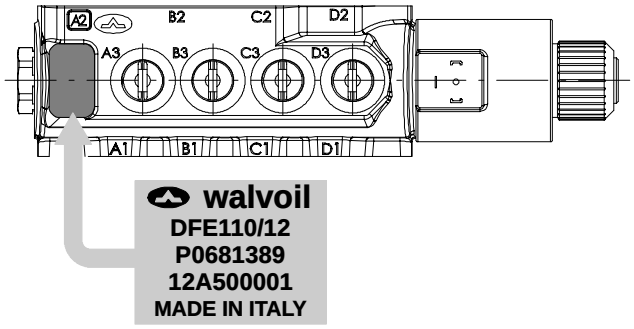


Product marking

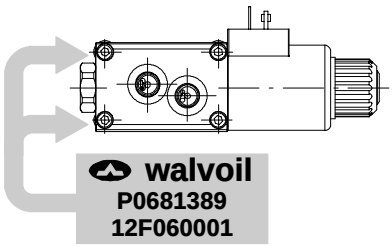
8-way DFE solenoid control monoblock type



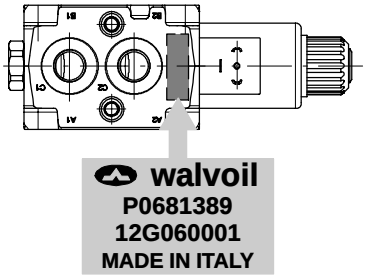
DFE110 solenoid control monoblock type



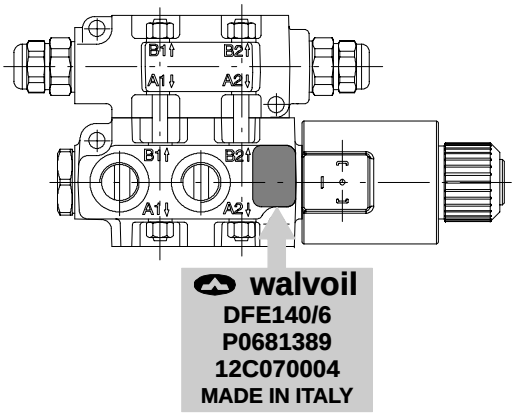
DFE080 solenoid control sectional type



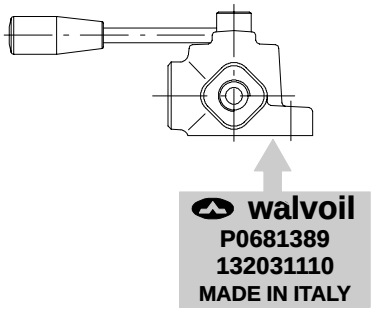
DFE100 solenoid control sectional type



DFE140 solenoid control sectional type



DH rotary control type

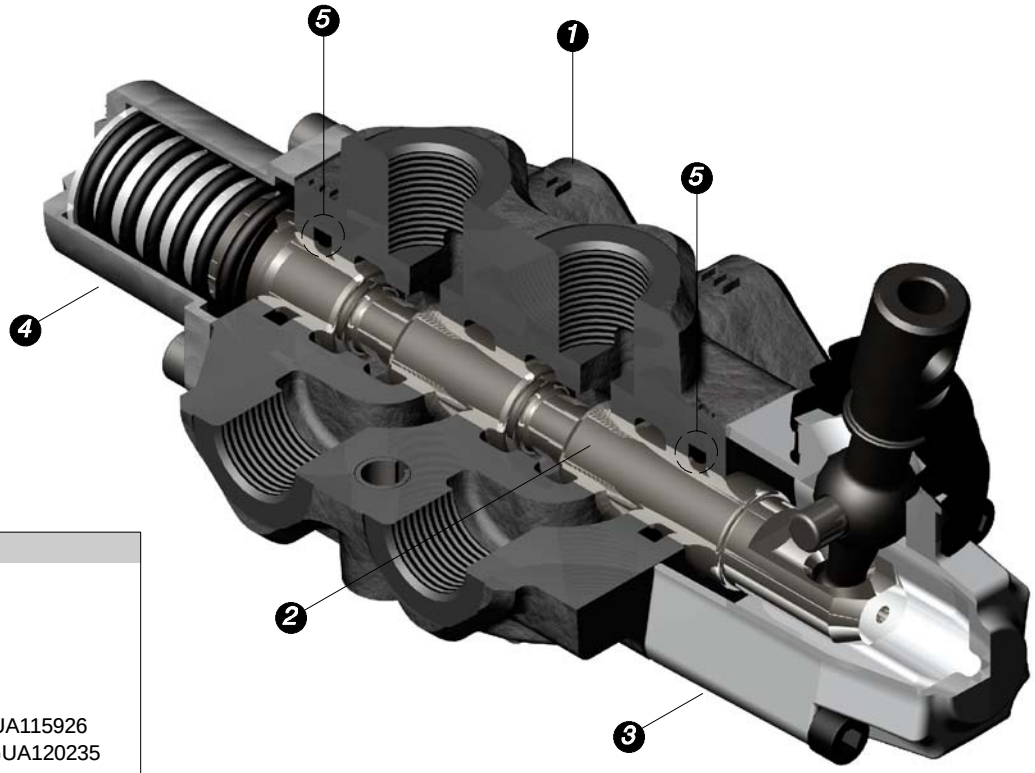


Installation and maintenance

The DF-DFE-DH diverter valves are assembled and tested as per the technical specification of this catalogue.
Before the final installation on your equipment, follow the below recommendations:

- the diverter valves can be assembled in any position, in order to prevent body deformation and spool sticking mount the product on a flat surface;
- in order to prevent the possibility of water entering the lever box and spool control kit, do not use high pressure wash down directly on the diverter valves;
- prior to painting, ensure plastic port plugs are tightly in place.

With mechanical control series DF

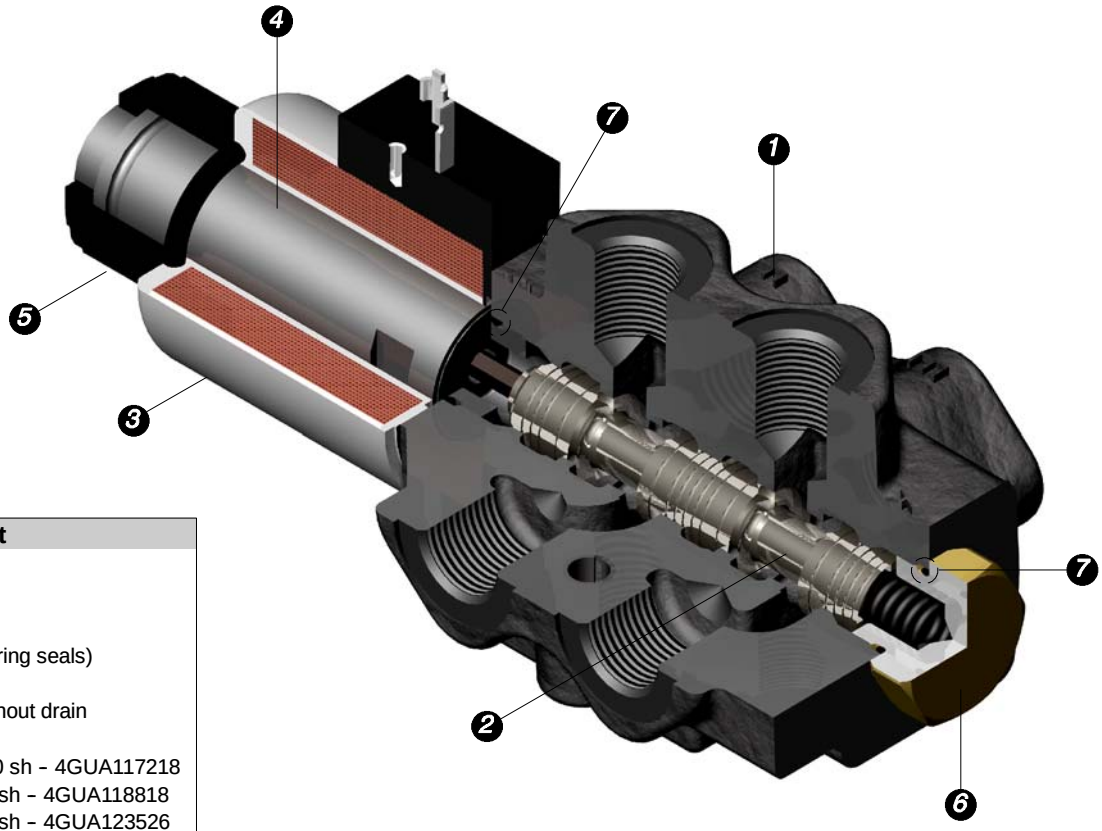


Item list
1) Diverter valve body
2) Spool
3) Control kit: lever box
4) Positioner kit
5) O-ring seals on spool
DF5: 15.88x2.62 NBR 70 sh - 4GUA115926
DF10: 20.22x3.53 NBR 70 sh - 4GUA120235
DF20: 24.99X3.53 NBR 70 sh - 4GUA125035
DF25: 29.75X3.53 NBR 70 sh - 4GUA129835

NOTE - *All articulated parts inside cap, lever box and mechanical joystick are lubricated with synthetic base grease grade NLGI2.*

Malfunction	Cause	Remedy
External leakage.	Worn spool seal due to mechanical actuation.	Locate the leakage and replace the seal.
Excessive internal leakage.	Increase clearance between spools and body due to high wear.	Replace the diverter valve and check the oil contamination level.
Diverter valve don't commute.	Spool blocked.	Remove the spool, clean it and check the oil contamination level.
	High pressure and/or flow.	Verify that pressure and flow values are within working conditions limits.

With ON/OFF solenoid control series DFE monoblock type



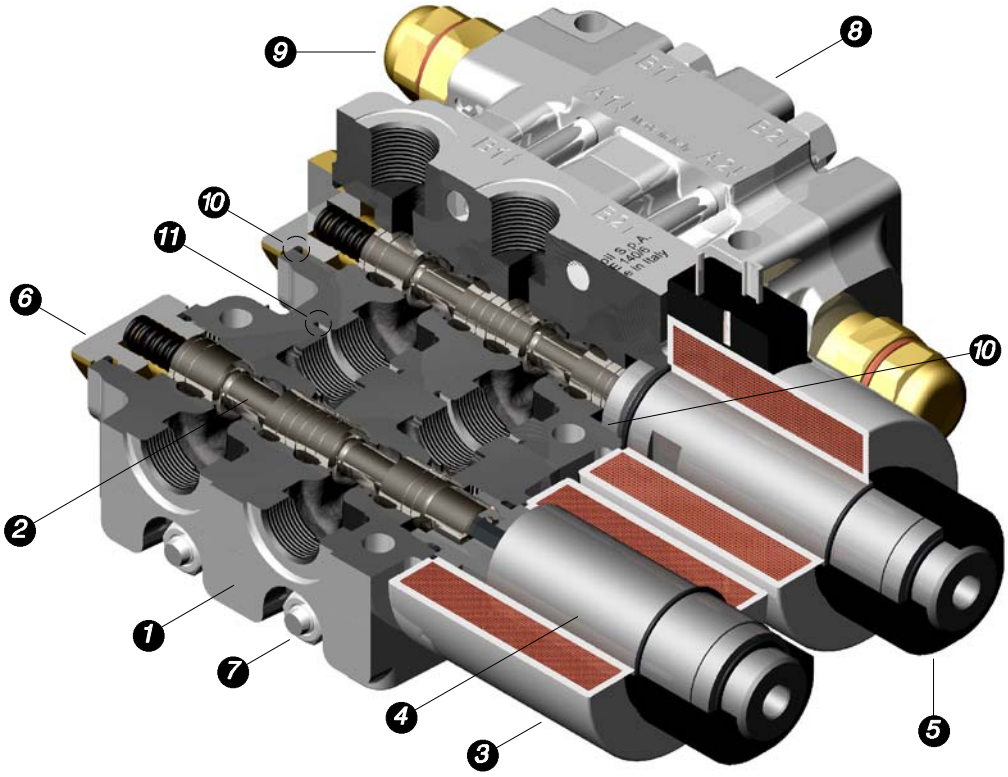
Item list

1) Diverter valve body
2) Spool
3) Coil
4) Tube assembly (with O-ring seals)
5) Lock ring
6) Positioner kit, with or without drain
7) O-ring seals on body
DFE052: 17.17x1.78 NBR 70 sh - 4GUA117218
DFE10: 18.77x1.78 NBR 70 sh - 4GUA118818
DFE20: 23.47x2.62 NBR 70 sh - 4GUA123526
DFE110: 23.47x2.62 NBR 70 sh - 4GUA123526

Malfunction	Cause	Remedy
External leakage.	Worn body seal due to mechanical actuation	Locate the leakage and replace the seal.
Excessive internal leakage.	Increase clearance between spools and body due to high wear.	Replace the diverter valve and check the oil contamination level.
Diverter valve don't commute.	Spool blocked.	Remove the spool, clean it and check the oil contamination level.
	Coil winding burnt.	Replace the coil and check the supply voltage value.
	Uncorrected supply voltage.	Test the electric circuit and check the supply voltage value.
	High pressure and/or flow.	Verify that pressure and flow values are within working conditions limits.

Installation and maintenance

With ON/OFF solenoid control series DFE sectional type

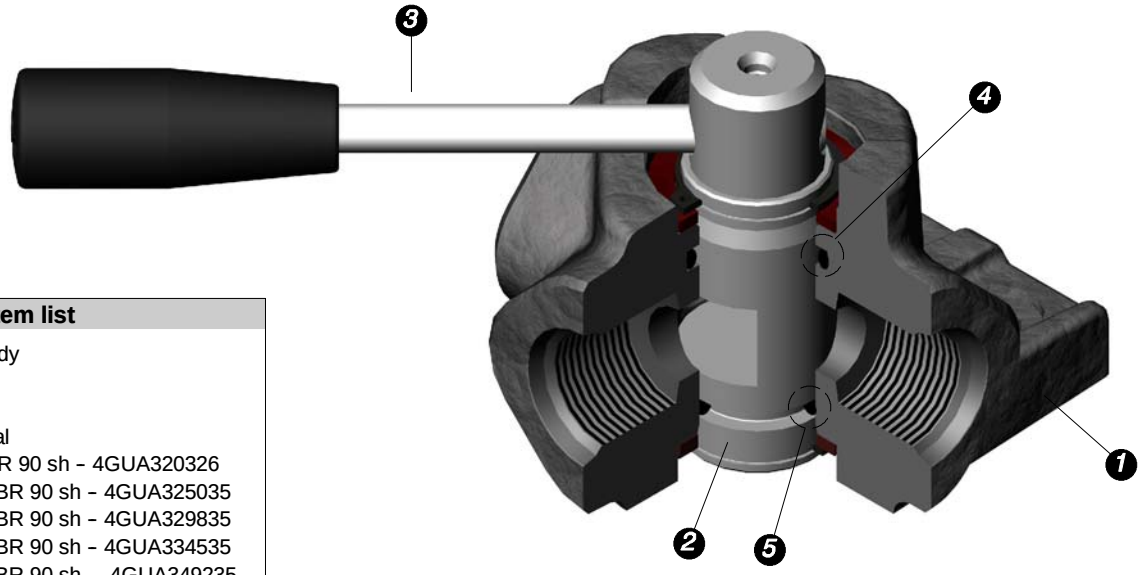


Item list

1) Diverter valve body
2) Spool
3) Coil
4) Tube assemply (with O-ring seals)
5) Lock ring
6) Positioner kit, with or without drain
7) Tie rods kit
8) Valves block (only for DFE140)
9) Anti-shock valves (only for DFE140)
10) O-ring seals on body
DFE080: 17.17x1.78 NBR 70 sh - 4GUA117218
DFE100: 17.17x1.78 NBR 70 sh - 4GUA117218
DFE140: 23.47x2.62 NBR 70 sh - 4GUA123526
11) O-ring seals between sections
DFE080: 18.77x1.78 NBR 90 sh - 4GUA318818
DFE100: 26.70x1.78 NBR 90 sh - 4GUA326718
DFE140: 28.30x1.78 NBR 90 sh - 4GUA328318

Malfunction	Cause	Remedy
External leakage.	Worn body seal.	Locate the leakage and replace the seal.
	Worn section seal.	Locate the leakage and replace the seal. Be sure to tignten the tie rods to correct value.
Excessive internal leakage.	Increase clearance between spools and body due to high wear.	Replace the diverter valve and check the oil contamination level.
Diverter valve don't commute.	Spool blocked.	Remove the spool, clean it and check the oil contamination level.
	Coil winding burnt.	Replace the coil and check the supply voltage value.
	Uncorrected supply voltage.	Test the electric circuit and check the supply voltage value.
	High pressure and/or flow.	Verify that pressure and flow values are within working conditions limits.

With rotary control series DH



Item list

1) Diverter valve body
2) Rotative spool
3) Handlever
4) Upper O-ring seal
DH5: 20.29X2.62 NBR 90 sh - 4GUA320326
DH10: 24.99X3.53 NBR 90 sh - 4GUA325035
DH20: 29.75X3.53 NBR 90 sh - 4GUA329835
DH25: 34.52X3.53 NBR 90 sh - 4GUA334535
DH30: 49.21X3.53 NBR 90 sh - 4GUA349235
5) Bottom O-ring seal
DH5: 15.08X2.62 NBR 90 sh - 4GUA315126
DH10: 18.64X3.53 NBR 90 sh - 4GUA318635
DH20: 23.39X3.53 NBR 90 sh - 4GUA323435
DH25: 28.17X3.53 NBR 90 sh - 4GUA328235
DH30: 42.86X3.53 NBR 90 sh - 4GUA342935

Malfunction	Cause	Remedy
External leakage.	Worn spool seal due to mechanical actuation.	Locate the leakage and replace the seal.
Excessive internal leakage.	Increase clearance between spools and body due to high wear.	Replace the diverter valve and check the oil contamination level.
Diverter valve don't commute.	Spool blocked.	Remove the spool, clean it and check the oil contamination level.
	High pressure and/or flow.	Verify that pressure and flow values are within working conditions limits.

Installation and maintenance

Fittings tightening torque - Nm / *lbft*

These torque are recommended.

Assembly tightening torque depends on many factors, including lubrication, coating and surface finish. The manufacturer shall be consulted.

MECHANICAL CONTROL DIVERTER VALVE VALVES

THREADS TYPE	DF5	DF10	DF20	DF25
BSP	G 3/8	G 1/2	G 3/4	G 1
With O-Ring seal	35 / *25.8*	50 / *37*	90 / *66.4*	100 / *73.8*
With copper washer	40 / *29.5*	60 / *44.3*	60 / *44.3*	90 / *66.4*
With steel and rubber washer	30 / *22*	60 / *44.3*	70 / *51.6*	100 / *73.8*
UN-UNF	3/4-16 (SAE 8)	7/8-14 (SAE 10)	1 1/16-12 (SAE 12)	1 5/16-12 (SAE 16)
With O-Ring seal	50 / *37*	60 / *44.3*	95 / *70*	150 / *111*

SOLENOID CONTROL MONOBLOCK DIVERTER VALVES

	DFE052			DFE10		DFE110		DFE20	
THREADS TYPE	Ports	Drain	Drain *	Ports	Drain	Ports	Drain	Ports	Drain
BSP	G 3/8	G 1/4	G 1/4	G 1/2	G 1/4	G 1/2	G 1/4	G 3/4	G 1/4
With O-Ring seal	35 / *25.8*	20 / *14.8*	20 / *14.8*	50 / *37*	20 / *14.8*	50 / *37*	20 / *14.8*	90 / *66.4*	20 / *14.8*
With copper washer	40 / *29.5*	25 / *18.4*	25 / *18.4*	60 / *44.3*	25 / *18.4*	60 / *44.3*	25 / *18.4*	60 / *44.3*	25 / *18.4*
With steel and rubber washer	30 / *22*	16 / *11.8*	16 / *11.8*	60 / *44.3*	16 / *11.8*	60 / *44.3*	16 / *11.8*	70 / *51.6*	16 / *11.8*
UN-UNF	3/4-16 (SAE 8)	9/16-18 (SAE 6)	7/16-20 (SAE4)	7/8-14 (SAE 10)	9/16-18 (SAE 6)	7/8-14 (SAE 10)	9/16-18 (SAE 6)	1 1/16-12 (SAE 12)	7/16-20 (SAE4)
With O-Ring seal	50 / *37*	30 / *22.1*	15 / *11*	60 / *44.3*	30 / *22.1*	60 / *44.3*	30 / *22.1*	95 / *70*	15 / *11*

(*) drain only for DFE052/8

SOLENOID CONTROL SECTIONAL DIVERTER VALVES

	DFE080		DFE100		DFE140	
THREADS TYPE	Bocche	Drenaggio	Bocche	Drenaggio	Bocche	Drenaggio
BSP	G 1/4	G 1/4	G 3/8	G 1/4	G 1/2	G 1/4
With O-Ring seal	20 / *14.8*	20 / *14.8*	35 / *25.8*	20 / *14.8*	50 / *37*	20 / *14.8*
With copper washer	25 / *18.4*	25 / *18.4*	40 / *29.5*	25 / *18.4*	60 / *44.3*	25 / *18.4*
With steel and rubber washer	16 / *11.8*	16 / *11.8*	30 / *22*	16 / *11.8*	60 / *44.3*	16 / *11.8*
UN-UNF	7/16-20 (SAE 4)	7/16-20 (SAE 4)	7/8-14 (SAE 10)	9/16-18 (SAE 6)	7/8-14 (SAE 10)	9/16-18 (SAE 6)
With O-Ring seal	15 / *11*	15 / *11*	50 / *37*	30 / *22.1*	60 / *44.3*	30 / *22.1*

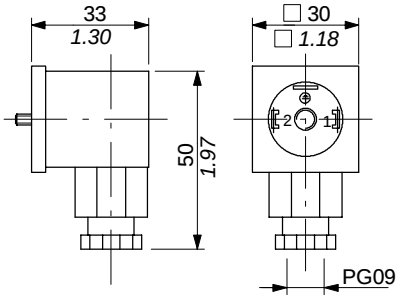
ROTARY CONTROL DIVERTER VALVES

THREADS TYPE	DH5	DH10	DH20	DH25	DH30
BSP	G 3/8	G 1/2	G 3/4	G 1	G 1 1/2
With O-Ring seal	35 / *25.8*	50 / *37*	90 / *66.4*	100 / *73.8*	120 / *44.3*
With copper washer	40 / *29.5*	60 / *44.3*	60 / *44.3*	90 / *66.4*	100 / *73.8*
With steel and rubber washer	30 / *22*	60 / *44.3*	70 / *51.6*	100 / *73.8*	120 / *44.3*
UN-UNF	3/4-16 (SAE 8)	7/8-14 (SAE 10)	1 1/16-12 (SAE 12)	1 5/16-12 (SAE 16)	1 7/8-12 (SAE 24)
With O-Ring seal	50 / *37*	60 / *44.3*	95 / *70*	150 / *111*	210 / *155*

Optional connectors

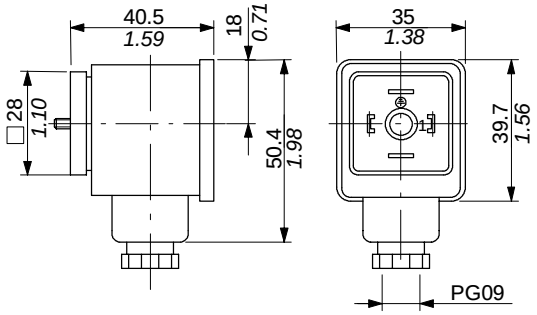
Type C02 code: 2X1001010

2P+T according to
ISO4400 / EN175301-803



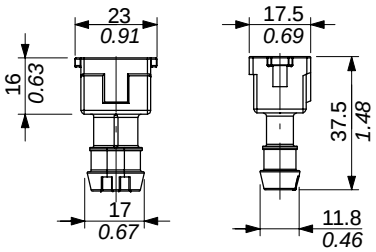
Type C04 code: 2X1001040

2P+T according to ISO4400 / EN175301-803
With bridge rectifier, to use with VAC supply.



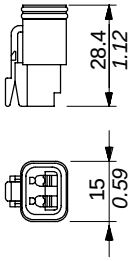
Type C08 code: 5CON003

2P female case with female end
type AMP "Junior-Power-Timer"



Type C19 code: 5CON007

2P male case with female end
type Deutsch DT06-2S



Type	Poles	Nominal voltage	Nominal current	Permitted conductor section range	Permitted cable diameter range	Weather protection
C02	2P + T	250 VAC / 300 VDC	10 A	max.1.5 mm^2 / *max.0.0023 in^2*	6-8 mm / *0.24-0.31 in*	IP65
C04	2P + T	/	10 A	max.1.5 mm^2 / *max.0.0023 in^2*	6-8 mm / *0.24-0.31 in*	IP65
C08	2P	250 VAC	12 A	0.5-1 mm^2 / *0.00077-0.00155 in^2*	1.4-1.6 mm / *0.055-0.063 in*	IP65
C19	2P	/	13 A	1-1.2 mm^2 / *0.00155-0.00186 in^2*	2.2-3.5 mm / *0.088-0.14 in*	IP67

HYDRAULIC CONTROL SYSTEMS

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