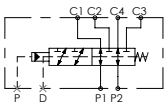
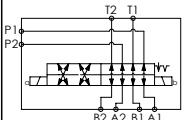




Diverter Valves

Section 17

SECTION 17				Atlantic Fluid Tech			
DIVERTER VALVES							
Hydraulic scheme	Valve description	Valve type	Rated flow (l/min)	Max. pressure (bar)	Installation	Main port size or cavity type	Page
	ESCB-025	Three ports	25	250-310	In line	G 1/4"	17.01. 010
	ESCB-050	Three ports	50	250-310	In line	G 3/8"	17.01. 020
	ESCB-090	Three ports	90	250-310	In line	G 1/2"	17.01. 030
	ELFB-025	Six ports single	25	250-310	In line	G 1/4"	17.02. 040
	ESFB-025	Six ports single and bankable	25	250-310	In line/Flanged	G 1/4"	17.03. 050
	ESFB-050	Six ports single and bankable	50	250-350	In line/Flanged	G 3/8"	17.03. 060
	ESFB-100	Six ports single and bankable	90	250-350	In line/Flanged	G 1/2"	17.03. 070
	ELFB-400	Six ports single	400	210-420	In line	G 3/4" - 1" SAE 6000	17.04. 080
	ELHB-010	Eight ports, with detent	10	210	In line	G 1/4"	17.05. 090

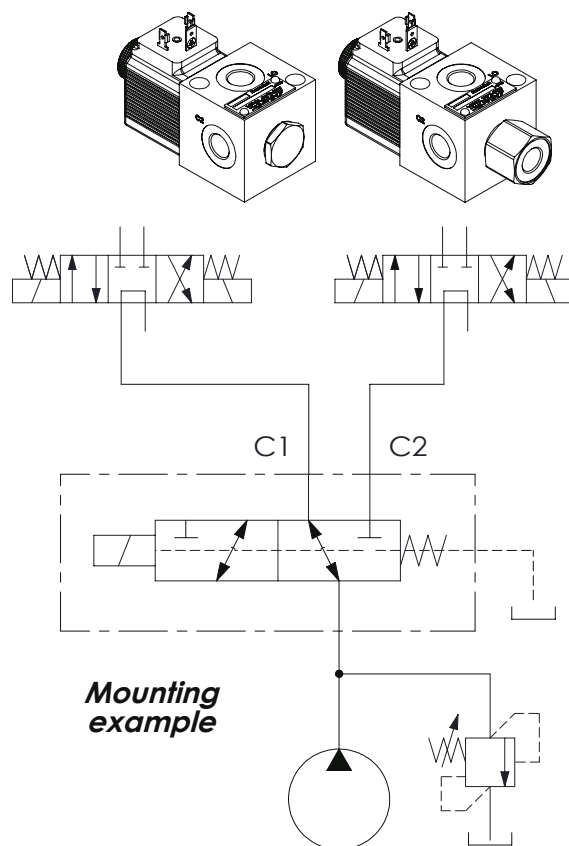
FLOW DIVERTERS

ESCB-025

3 WAYS FLOW DIVERTERS



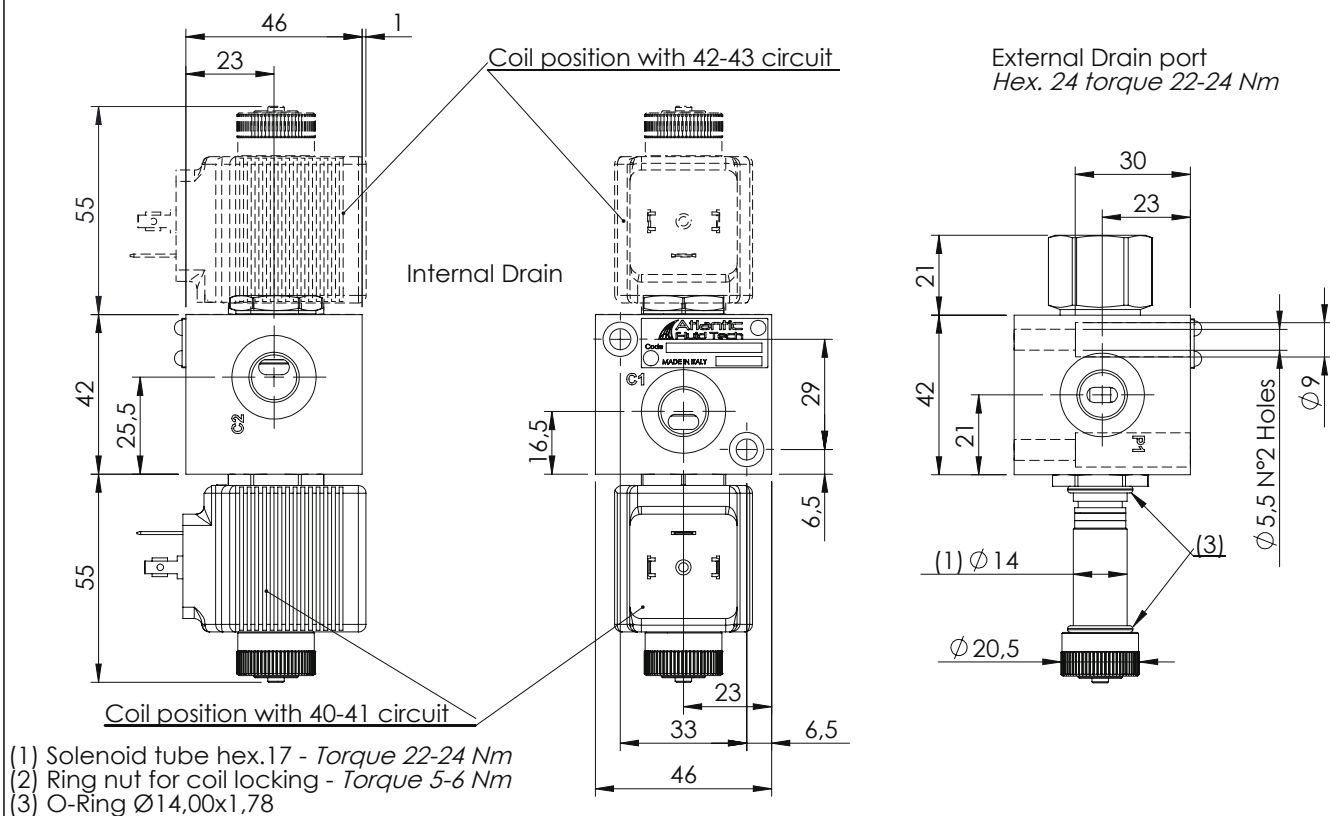
**	Circuit	Transit position
40		
41		
42		
43		



Technical data

Rated flow		l/min	25
Operating pressure	with internal drain "N"	bar	250
	with external drain "E"	bar	310
Valve weight		Kg	0,80

OVERALL DIMENSIONS

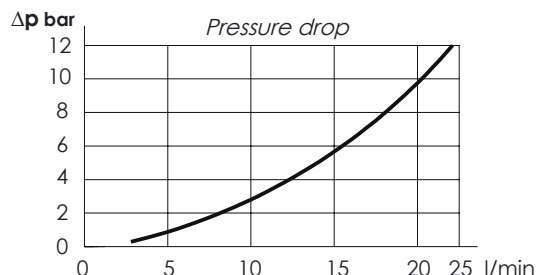
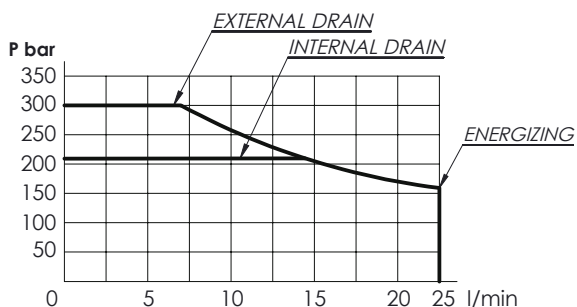


Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40° ± 5°C



Maximum performance



Internal leakage on C ports : MAX **15** cm³/min - Mineral oil with 32 cSt viscosity, at 40° C and 100 bar pressure

*	OPERATED	Circuit
E	Electric 	
N	Hydraulic/pneumatic (4) Hydraulic or pneumatic pilot connector: hex 30 mm - Torque 20-22 Nm With external drain Pilot Pressure Min. 5 bar With internal drain Pilot Pressure is 1/10 of the working pressure	

*	MANUAL OVERRIDE
S	Standard
P	Push-button
V	Screw
N	Without manual override

*	DRAIN	Circuit
N	Internal	
E	External	

PORTS		
***	Main (C)	Drain (D)
G14	1/4" Gas	1/4" Gas
Other port sizes available		

ESCB - 025 - * * A * - ** - * - * ** ***

CIRCUIT

N - Seals in NBR
V - Seals in VITON

*	Voltage (V)	Resistance (Ω) ± 7%	Power (W)	Current (A)
-	Without coil			
A	12 DC	5,53	26	2,17
B	24 DC	22,1	26	1,08
Other voltages available on request				

*	COIL	Type	Protection class
-	Without coil		
HR	DIN 43650 - ISO 4400 Class H	M14	IP65
AJ	AMP JUNIOR Class H	M14	IP65
DT	DEUTSCH DT04-2P-L Class H	M14	IP69

FLOW DIVERTERS

ESCB-050

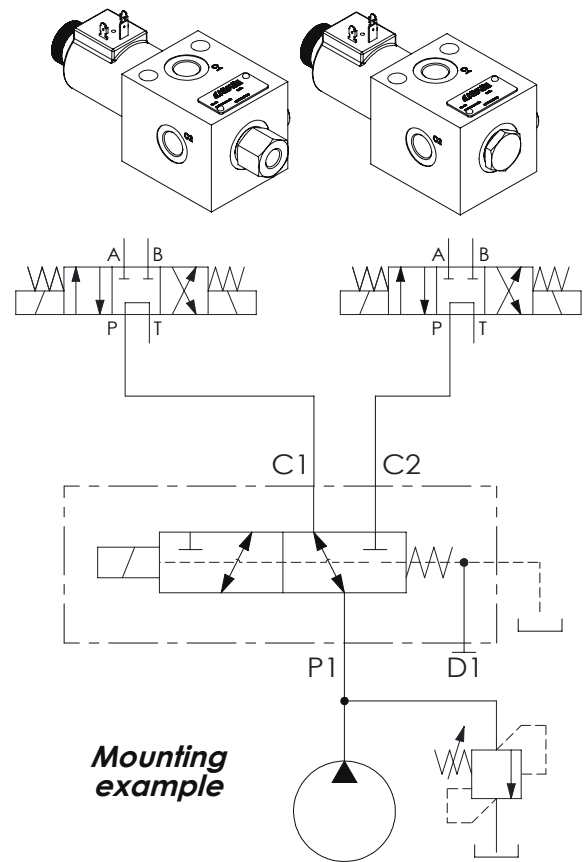
3 WAYS FLOW DIVERTERS



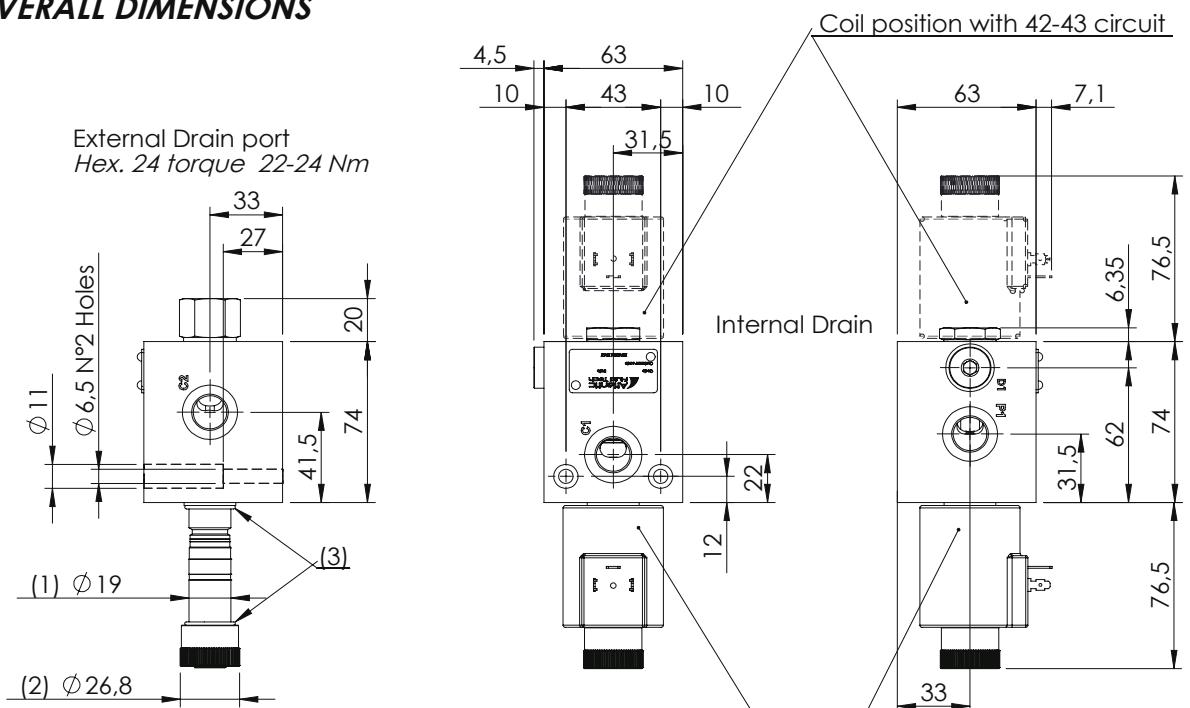
**	Circuit	Transit position
40		
41		
42		
43		

Technical data

Rated flow		l/min	50
Operating pressure	with internal drain "N"	bar	250
	with external drain "E"	bar	310
Valve weight		Kg	2,6



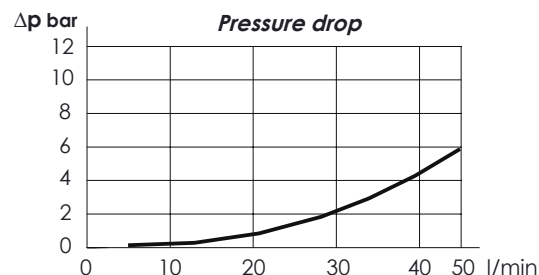
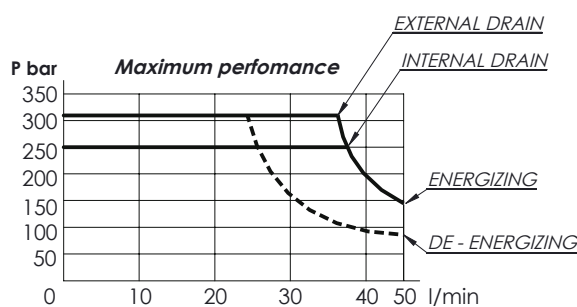
OVERALL DIMENSIONS



- (1) Solenoid tube hex.17 - Torque 22-24 Nm
- (2) Ring nut for coil locking - Torque 5-6 Nm
- (3) O-Ring Ø18,77 x1,78

Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40° ± 5°C



Internal leakage on C ports : MAX **25** cm³/min - Mineral oil with 32 cSt viscosity, at 40° C and 100 bar pressure

*	OPERATED	Circuit
E	Electric 	
N	Hydraulic/pneumatic (4) Hydraulic or pneumatic pilot connector: hex 30 mm - Torque 20-22 Nm With external drain Pilot Pressure Min. 5 bar With internal drain Pilot Pressure is 1/10 of the working pressure	

*	MANUAL OVERRIDE
S	Standard
P	Push-button
V	Screw
N	Without manual override

*	DRAIN	Circuit
N	Internal	
E	External	

PORTS		
***	Main (C)	Drain (D)
G38	3/8" Gas	1/4" Gas
Other port sizes available		

CIRCUIT

N - Seals in NBR
V - Seals in VITON

ESCB - 050 - * * C * - ** - * - * ** ***

*	Voltage (V)	Resistance (Ω) ± 7%	Power (W)	Current (A)
-	Without coil			
A	12 DC	4,36	33	2,75
B	24 DC	17,45	33	1,37
Other voltages available on request				

*	COIL	Type	Protection class
-	Without coil		
HR	DIN 43650 - ISO 4400 Class H	M8	IP65
AJ	AMP JUNIOR Class H	M8	IP65
DT	DEUTSCH DT04-2P-L Class H	M8	IP69

FLOW DIVERTERS

ESCB-090

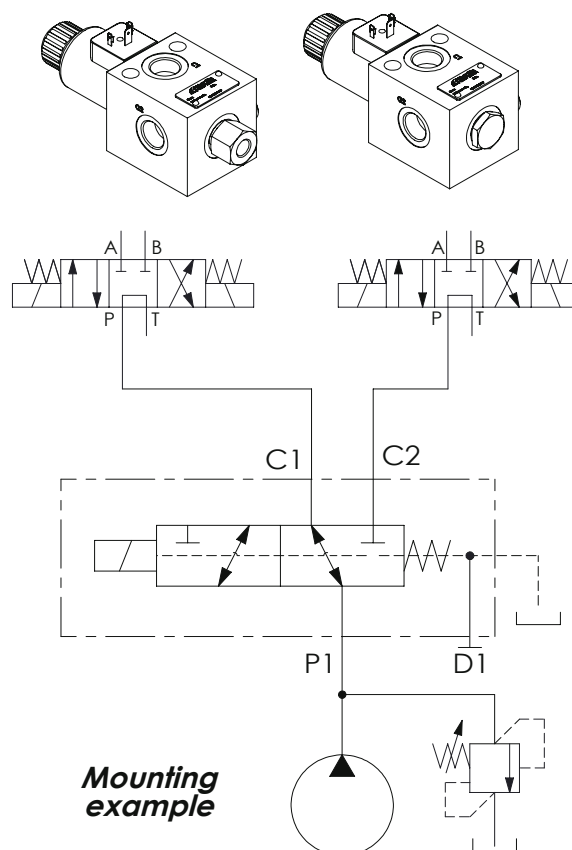
3 WAYS FLOW DIVERTERS



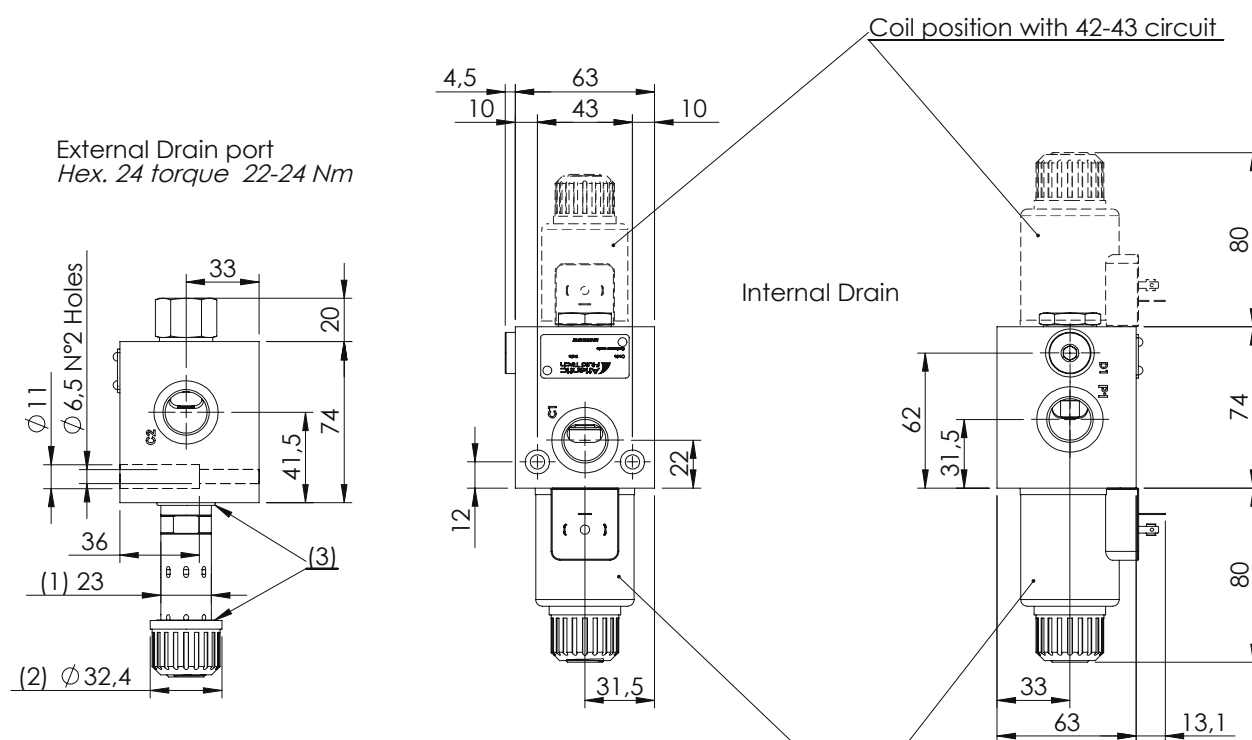
**	Circuit	Transit position
40		
41		
42		
43		

Technical data

Rated flow		l/min	90
Operating pressure	with internal drain "N"	bar	250
	with external drain "E"	bar	310
Valve weight		Kg	2,4



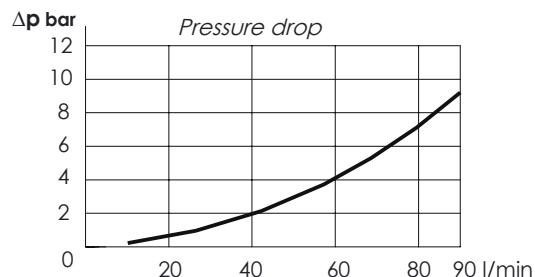
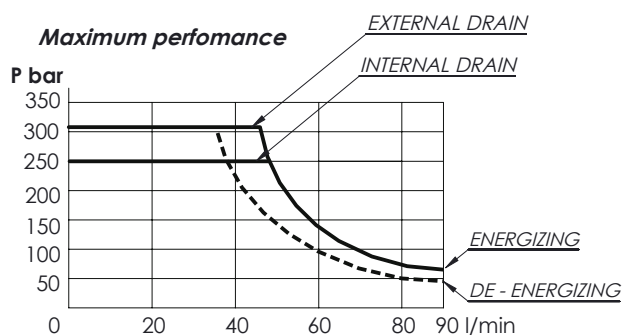
OVERALL DIMENSIONS



- (1) Solenoid tube hex.20 - Torque 18-22 Nm
- (2) Ring nut for coil locking - Torque 7-8 Nm
- (3) O-Ring $\varnothing 21,95 \times 1,78 - 22,22 \times 2,62$ (smaller one near manifold)

Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40° ± 5°C



Internal leakage on C ports : MAX **25** cm³/min - Mineral oil with 32 cSt viscosity, at 40° C and 100 bar pressure

*	OPERATED	Circuit
E	Electric 	
N	Hydraulic/pneumatic (4) Hydraulic or pneumatic pilot connector: hex 30 mm - Torque 20-22 Nm With external drain Pilot Pressure Min. 5 bar With internal drain Pilot Pressure is 1/10 of the working pressure	

*	MANUAL OVERRIDE
S	Standard
P	Push-button
V	Screw
N	Without manual override

*	DRAIN	Circuit
N	Internal	
E	External	

PORTS		
***	Main (C)	Drain (D)
G12	1/2" Gas	1/4" Gas
Other port sizes available		

ESCB - 090 - * * E * - ** - * - * ** ***

CIRCUIT

N - Seals in NBR
V - Seals in VITON

*	Voltage (V)	Resistance (Ω) ± 7%	Power (W)	Current (A)
-	Without coil			
A	12 DC	3,27	44	3,67
B	24 DC	13,09	44	1,83
Other voltages available on request				

*	COIL	Type	Protection class
-	Without coil		
HR	DIN 43650 - ISO 4400 Class H	M11	IP65
AJ	AMP JUNIOR Class H	M11	IP65
DT	DEUTSCH DT04-2P-L Class H	M11	IP69

FLOW DIVERTERS

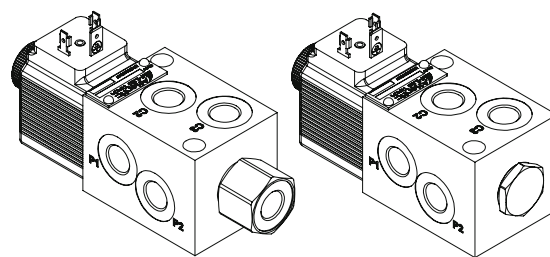
ELFB-025

6 WAYS SINGLE IN LINE
FLOW DIVERTERS

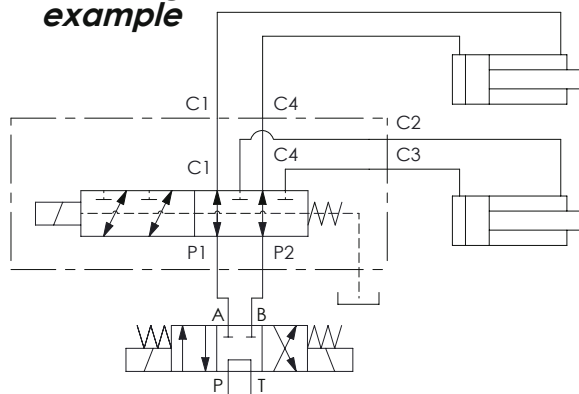


**	Circuit	Transit position
01		
02		
03		

*Only external drain



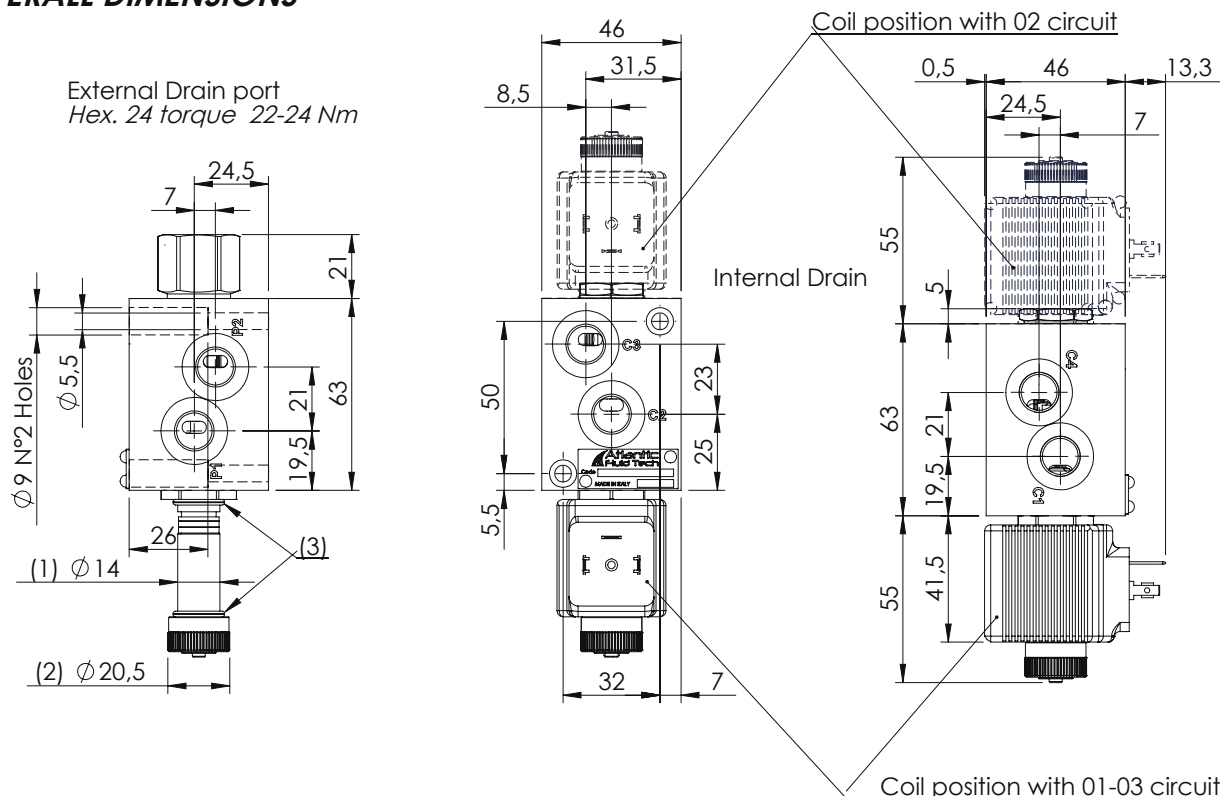
Mounting example



Technical data

Rated flow		l/min	25
Operating pressure	with internal drain "N"	bar	250
	with external drain "E"	bar	310
Valve weight		Kg	1,1

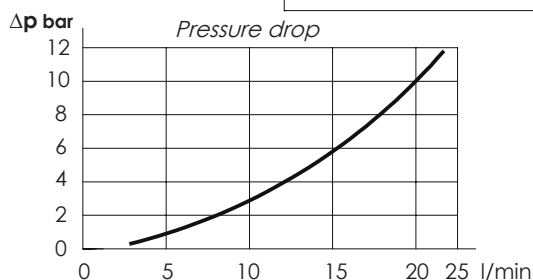
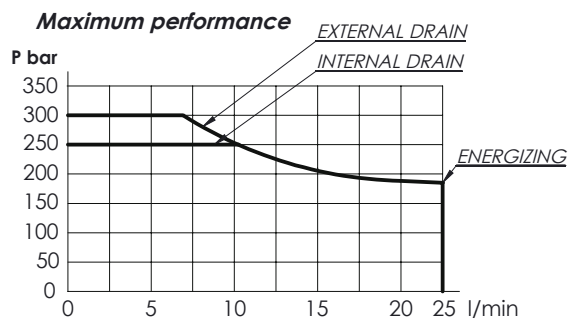
OVERALL DIMENSIONS



- (1) Solenoid tube hex.17 - Torque 22-24 Nm
- (2) Ring nut for coil locking - Torque 5-6 Nm
- (3) O-Ring Ø 14,00 x 1,78

Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40° ± 5°C



Internal leakage on C ports : MAX **15** cm³/min Mineral oil with 32 cSt viscosity, at 40° C and 100 bar pressure

*	OPERATED	Circuit
E	Electric 	
N	Hydraulic/pneumatic (4) Hydraulic or pneumatic pilot connector: hex 30 mm - Torque 20-22 Nm With external drain Pilot Pressure Min. 5 bar With internal drain Pilot Pressure is 1/10 of the working pressure	

*	MANUAL OVERRIDE
S	Standard
P	Push-button
V	Screw
N	Without manual override

*	DRAIN	Circuit
N	Internal	
E	External	

PORTS		
***	Main (C)	Drain (D)
G14	1/4" Gas	1/4" Gas
Other port sizes available		

N - Seals in NBR
V - Seals in VITON

ELFB - 025 - * * A * - ** - * - * ** ***

CIRCUIT

*	Voltage (V)	Resistance (Ω) ± 7%	Power (W)	Current (A)
-	Without coil			
A	12 DC	5,53	26	2,17
B	24 DC	22,1	26	1,08
Other voltages available on request				

*	COIL	Type	Protection class
-	Without coil		
HR	DIN 43650 - ISO 4400 Class H	M14	IP65
AJ	AMP JUNIOR Class H	M14	IP65
DT	DEUTSCH DT04-2P-L Class H	M14	IP69

FLOW DIVERTERS

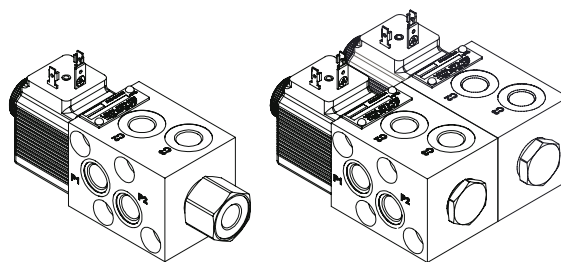
ESFB-025

6 WAYS SINGLE & BANKABLE
FLOW DIVERTERS

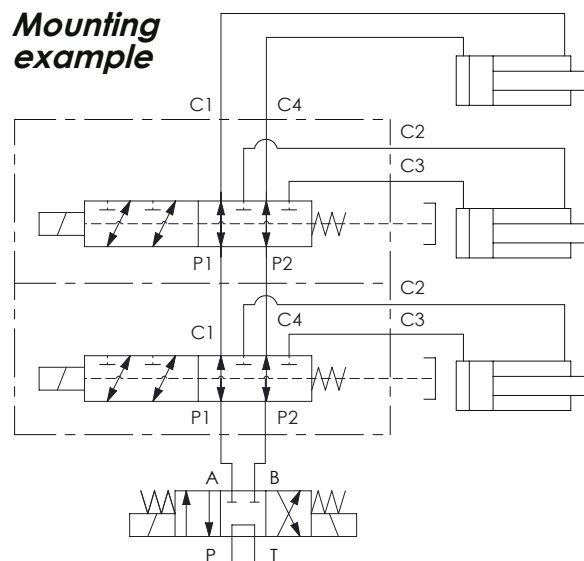


**	Circuit	Transit position
01		
02		
03		

*Only external drain



Mounting example

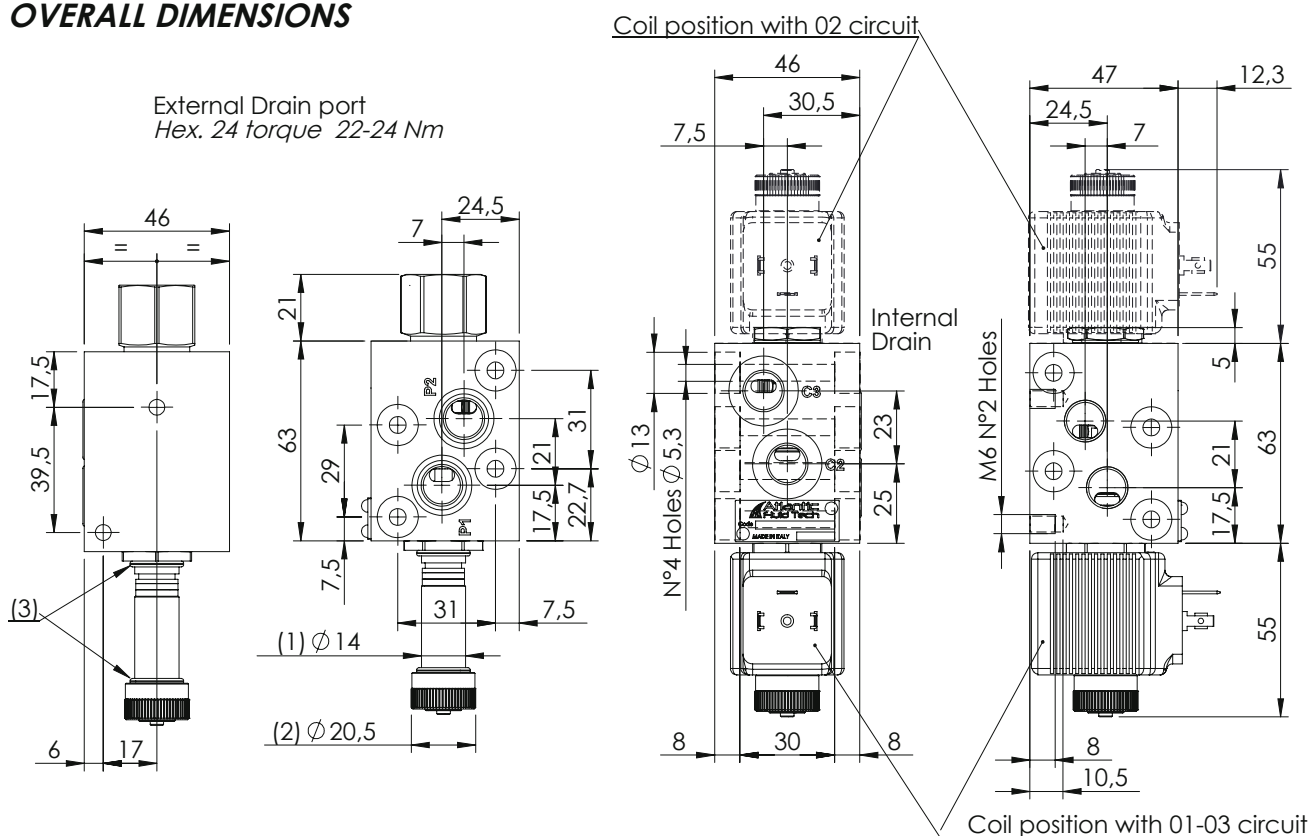


Technical data

Rated flow		l/min	25
Operating pressure	with internal drain "N"	bar	250
	with external drain "E"	bar	310
Valve weight		Kg	1

OVERALL DIMENSIONS

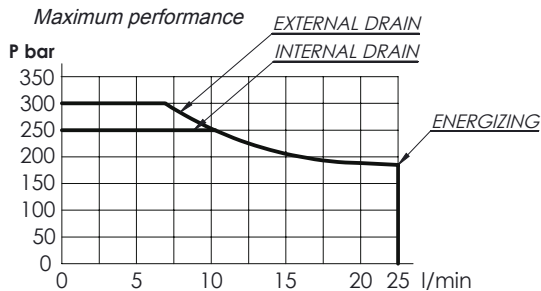
External Drain port
Hex. 24 torque 22-24 Nm



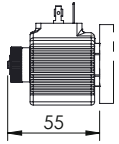
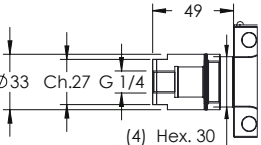
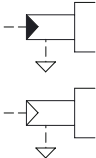
- (1) Solenoid tube hex.17 - Torque 22-24 Nm
- (2) Ring nut for coil locking - Torque 5-6 Nm
- (3) O-Ring Ø 14,00 x 1,78

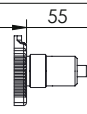
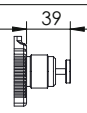
Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40° ± 5°C



Internal leakage on C ports :
MAX 15 cm³/min
Mineral oil with 32 cSt
viscosity, at 40° C and
100 bar pressure

*	OPERATED	Circuit
E	Electric 	
N	Hydraulic/pneumatic  (4) Hydraulic or pneumatic pilot connector: hex 30 mm - Torque 20-22 Nm With external drain Pilot Pressure Min. 5 bar With internal drain Pilot Pressure is 1/10 of the working pressure	

*	MANUAL OVERRIDE
S	Standard 
P	Push-button 
V	Screw 
N	Without manual override

*	DRAIN	Circuit
N	Internal	
E	External	

PORTS		
***	Main (C)	Drain (D)
G14	1/4" Gas	1/4" Gas
Other port sizes available		

N - Seals in NBR
V - Seals in VITON

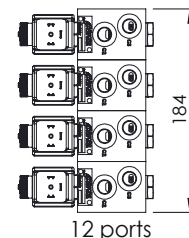
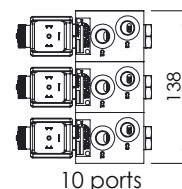
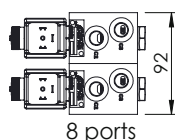
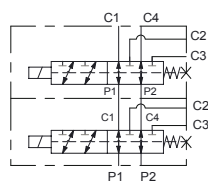
ESFB - 025 - * * A * - ** - *** - * ** * **

*	Voltage (V)	Resistance (Ω) ± 7%	Power (W)	Current (A)
-	Without coil			
A	12 DC	5,53	26	2,16
B	24 DC	22,1	26	1,08
Other voltages available on request				

*	COIL	Type	Protection class
-	Without coil		
HR	 DIN 43650 - ISO 4400 Class H	M14	IP65
AJ	 AMP JUNIOR Class H	M14	IP65
DT	 DEUTSCH DT04-2P-L Class H	M14	IP69

TYPE OF MOUNTING

*	Port number	Screw Tie rods	Installation torque
-	6	-	-
08	8	M5x92	5-6 Nm
10	10	M5x138	5-6 Nm
12	12	M5x184	5-6 Nm
14	14	-	-



FLOW DIVERTERS

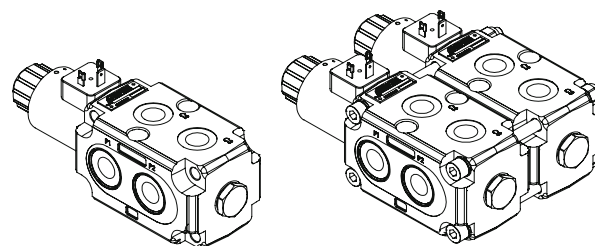
ESFB-050

6 WAYS SINGLE & BANKABLE
FLOW DIVERTERS

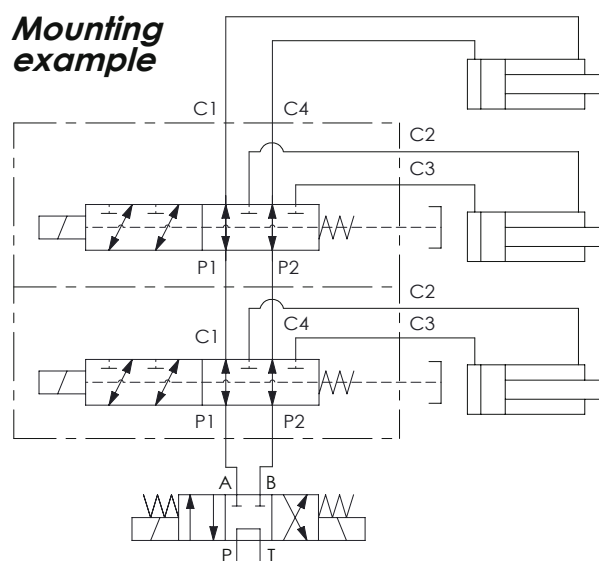


**	Circuit	Transit position
01		
02		
03		

*Only external drain



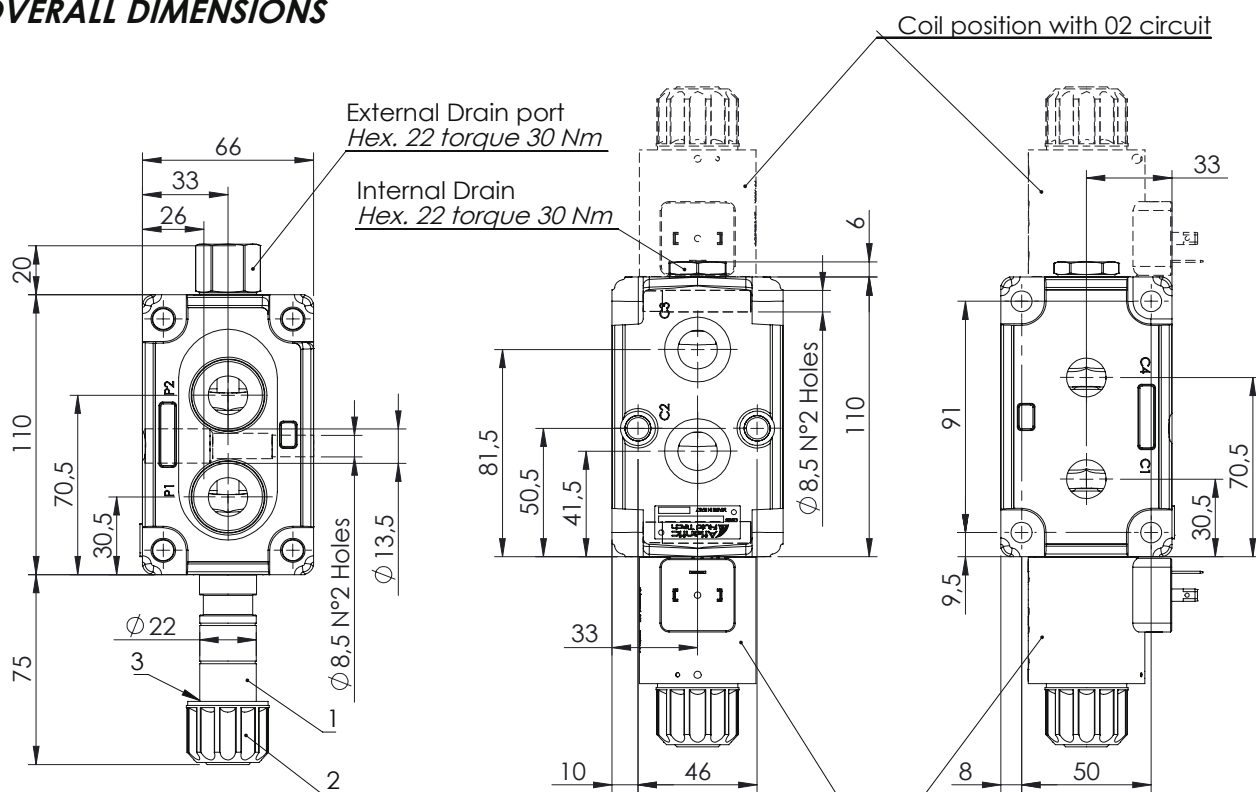
Mounting example



Technical data

Rated flow		l/min	50
Operating pressure	with internal drain "N"	bar	250
	with external drain "E"	bar	350
	on port D	bar	210
Valve weight		Kg	3,8

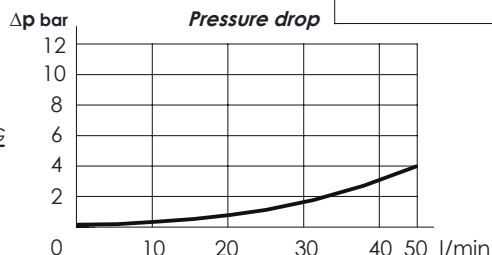
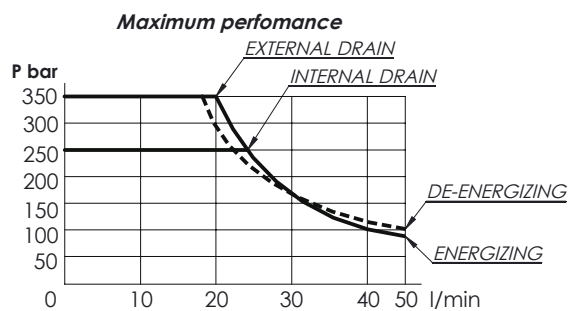
OVERALL DIMENSIONS



- (1) Solenoid tube hex.19 - Torque 30 Nm
- (2) Ring nut for coil locking - Torque 5-6 Nm
- (3) O-Ring Ø 21,5 x 2

Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40° ± 5°C



Internal leakage on C ports :
MAX **25** cm³/min
Mineral oil with 32 cSt
viscosity, at 40° C and
100 bar pressure

*	OPERATED	Circuit
E	Electric 	
N	Hydraulic/pneumatic 	
(4) Hydraulic or pneumatic pilot connector: hex 30 mm - Torque 20-22 Nm With external drain Pilot Pressure Min. 5 bar With internal drain Pilot Pressure is 1/10 of the working pressure		

*	MANUAL OVERRIDE
S	Standard
P	Push-button
V	Screw
N	Without manual override

*	DRAIN	Circuit
N	Internal	
E	External	

PORTS		
***	Main (C)	Drain (D)
G38	3/8" Gas	1/4" Gas
J38	3/8" JIS	1/4" JIS
S08	3/4-16 UNF	7/16-20 UNF
Other port sizes available		

N - Seals in NBR
V - Seals in VITON

CIRCUIT

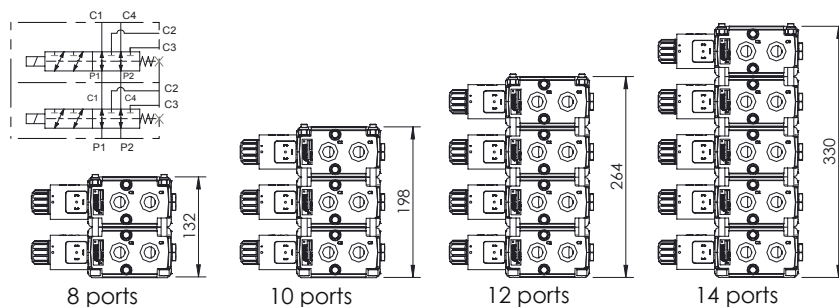
ESFB - 050 - * * D * - ** - * - * ** * ****

*	Voltage (V)	Resistance (Ω) ± 7%	Power (W)	Current (A)
-	Without coil			
A	12 DC	4,41	32,7	2,72
B	24 DC	18,6	31	1,29
Other voltages available on request				

*	COIL	Type	Protection class
-	Without coil		
HR	DIN 43650 - ISO 4400 Class H	M12	IP65
AJ	AMP JUNIOR Class H	M12	IP65
DT	DEUTSCH DT04-2P-L Class H	M12	IP69

TYPE OF MOUNTING

*	Port number	Screw Tie rods	Installation torque
-	6	-	-
08	8	M8x130	15-17 Nm
10	10	M8x190	15-17 Nm
12	12	M8x255	15-17 Nm
14	14	M8x320	15-17 Nm



FLOW DIVERTERS

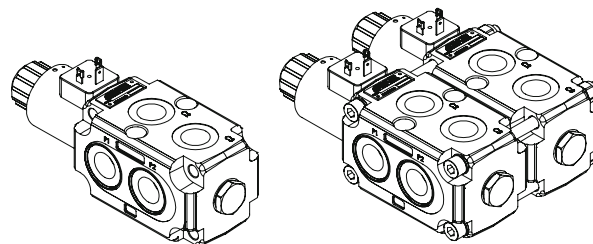
ESFB-100

6 WAYS SINGLE & BANKABLE
FLOW DIVERTERS

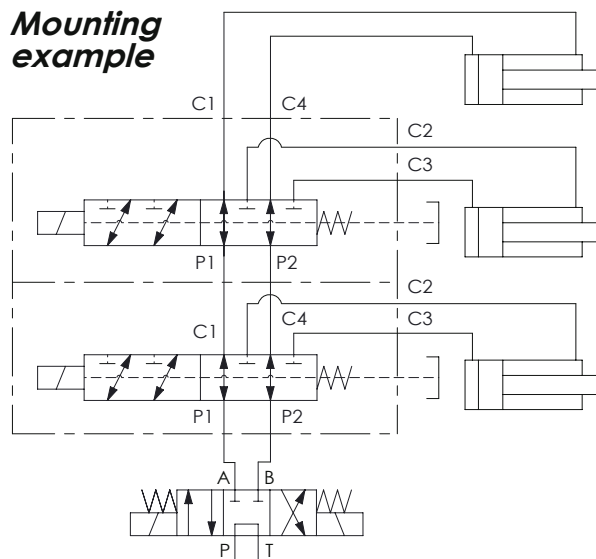


**	Circuit	Transit position
01		
02		
03		

*Only external drain



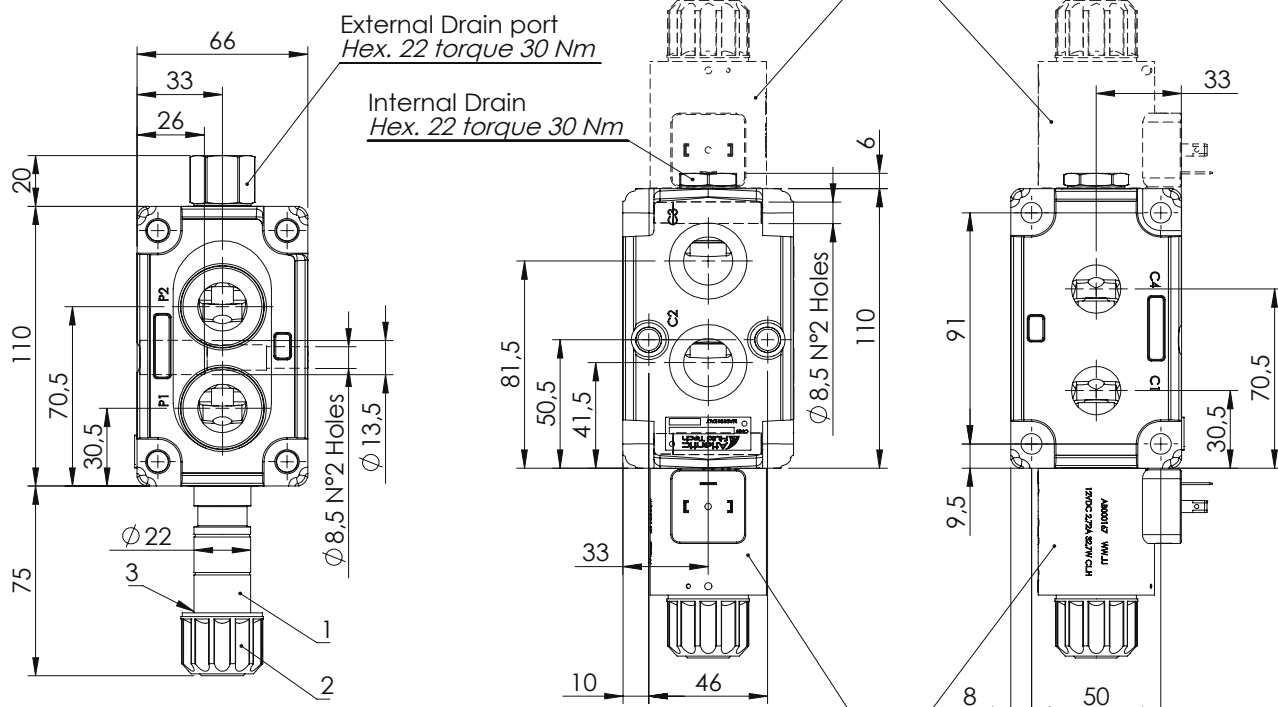
Mounting example



Technical data

Rated flow		l/min	100
Operating pressure	with internal drain "N"	bar	250
	with external drain "E"	bar	350
	on port D	bar	210
Valve weight		Kg	3,8

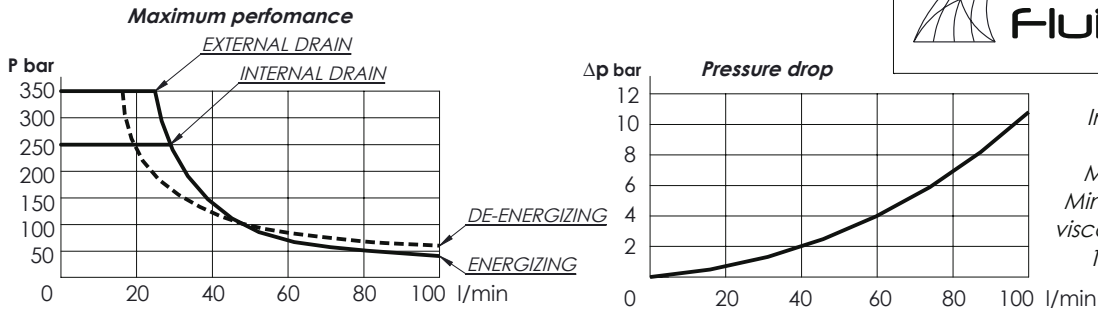
OVERALL DIMENSIONS

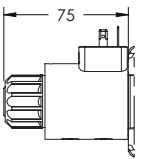
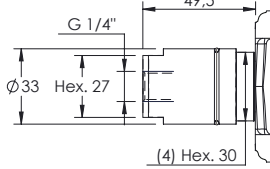
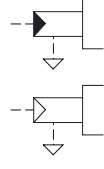


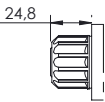
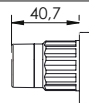
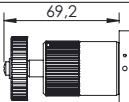
- (1) Solenoid tube hex.19 - Torque 30 Nm
- (2) Ring nut for coil locking - Torque 5-6 Nm
- (3) O-Ring Ø 21,5 x 2

Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40° ± 5°C



*	OPERATED	Circuit
E	Electric 	
N	Hydraulic/pneumatic  (4) Hydraulic or pneumatic pilot connector: hex 30 mm - Torque 20-22 Nm With external drain Pilot Pressure Min. 5 bar With internal drain Pilot Pressure is 1/10 of the working pressure	

*	MANUAL OVERRIDE
S	Standard 
P	Push-button 
V	Screw 
N	Without manual override

*	DRAIN	Circuit
N	Internal	
E	External	

PORTS		
***	Main (C)	Drain (D)
G12	1/2" Gas	1/4" Gas
J12	1/2" JIS	1/4" JIS
S10	7/8-14 UNF	7/16-20 UNF
Other port sizes available		

N - Seals in NBR
V - Seals in VITON

CIRCUIT

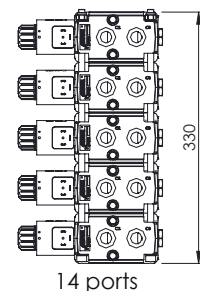
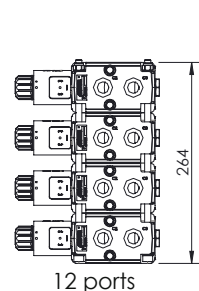
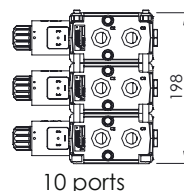
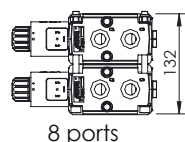
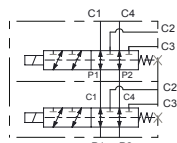
ESFB - 100 - * * D * - ** - * - * ** * ****

*	Voltage (V)	Resistance (Ω) ± 7%	Power (W)	Current (A)
-	Without coil			
A	12 DC	4,41	32,7	2,72
B	24 DC	18,6	31	1,29
Other voltages available on request				

*	COIL	Type	Protection class
-	Without coil		
HR	 DIN 43650 - ISO 4400 Class H	M12	IP65
AJ	 AMP JUNIOR Class H	M12	IP65
DT	 DEUTSCH DT04-2P-L Class H	M12	IP69

TYPE OF MOUNTING

*	Port number	Screw Tie rods	Installation torque
-	6	-	-
08	8	M8x130	15-17 Nm
10	10	M8x190	15-17 Nm
12	12	M8x255	15-17 Nm
14	14	M8x320	15-17 Nm



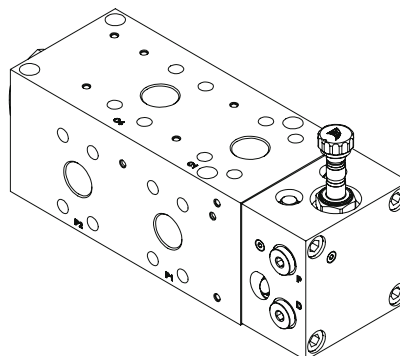
FLOW DIVERTERS

ELFB-400

6 WAYS SINGLE IN LINE
FLOW DIVERTERS

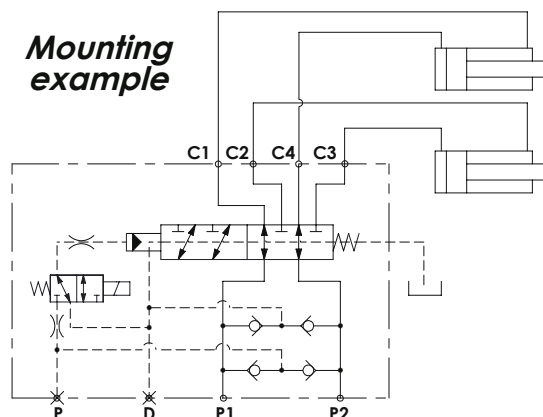


**	Circuit	Transit position
01		

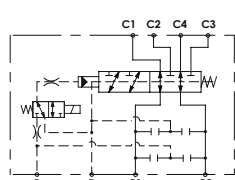


Technical data			
Rated flow		l/min	400
Operating pressure	with internal drain "N"	bar	210
	with external drain "E"	bar	420
Minimum pilot pressure		bar	20
Valve weight		Kg	17,2
Standard Ports		1" SAE 6000	

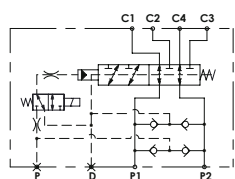
Mounting example



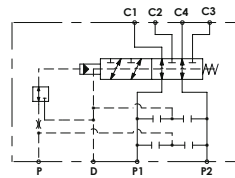
OVERALL DIMENSIONS



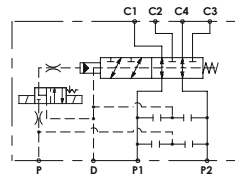
Configuration with external drain and electric pilot



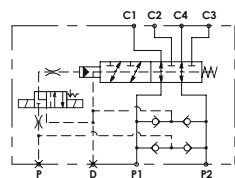
Configuration with internal drain and electric pilot



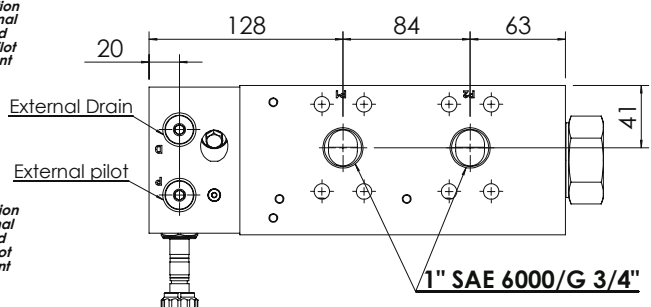
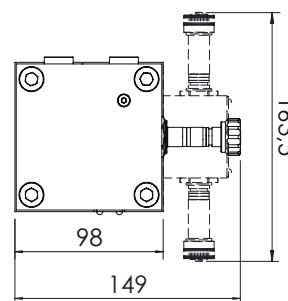
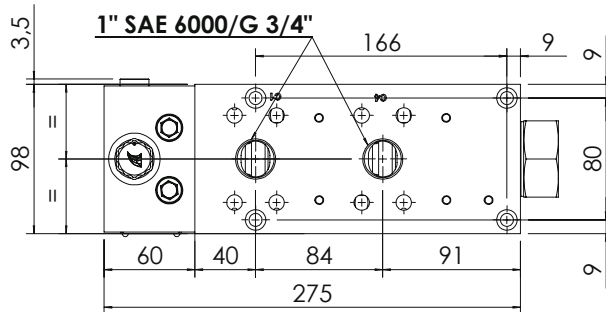
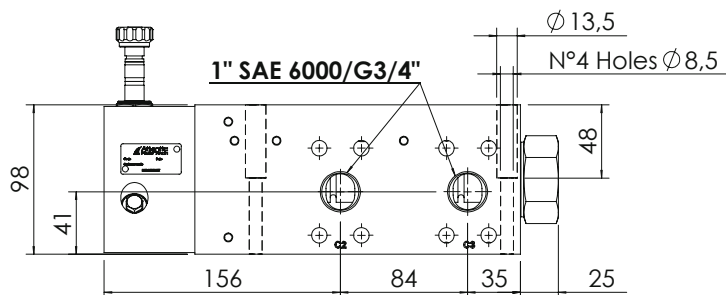
Configuration with external drain and hydraulic pilot



Configuration with external drain and electric pilot with detent



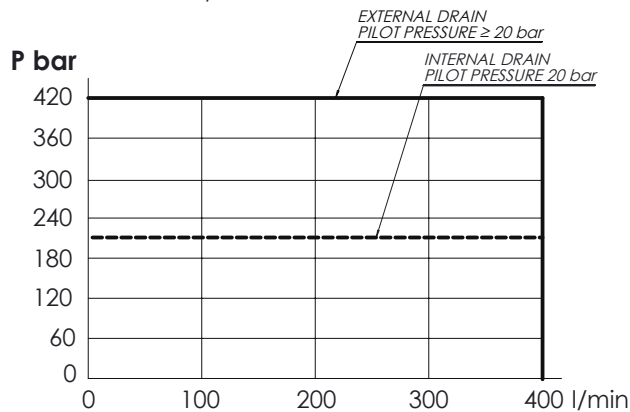
Configuration with internal drain and electric pilot with detent



Characteristic curves

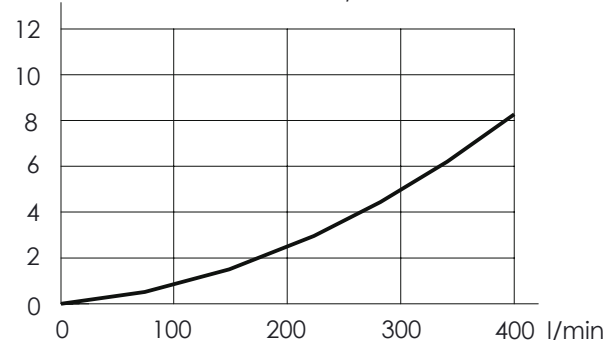
With pressure and flow in P1 or P2 and C4 and C1 without pressure

Maximum performance



Δp bar

Pressure drop



* OPERATED	Circuit
H Hydraulic 	
E Electric 	
D Electric with detent 	

Max. pilot pressure with external drain: 250 bar

* DRAIN	Circuit
N Internal	
E External	

* COIL	Type	Protection class
- Without coil		
HR DIN 43650 - ISO 4400 Class H	M7	IP65
AJ AMP JUNIOR Class H	M7	IP65
DT DEUTSCH DT04-2P-L Class H	M7	IP69

PORTS		
***	Main (C)	Drain (D) Pilot (P)
S10 G34	1" SAE 6000 G3/4"	1/4" Gas

Special port sizes available

CIRCUIT

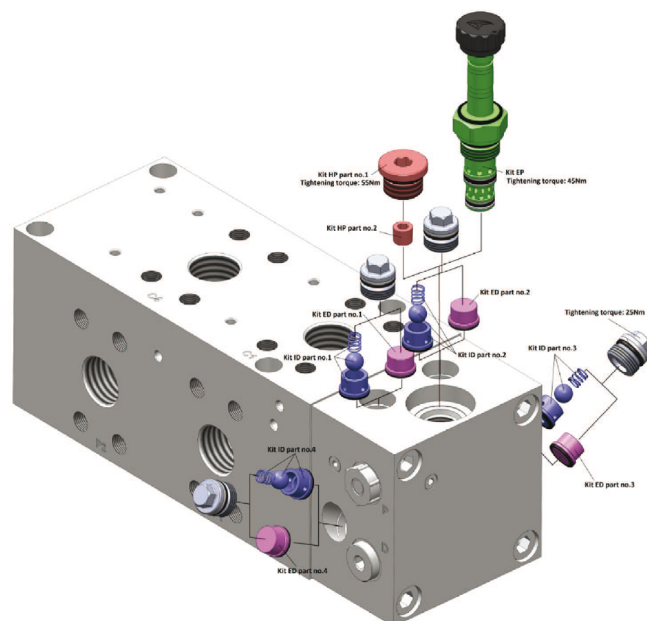
V - Seals in VITON

ELFB - 400 - * S F * - 01 - * - * ** ***

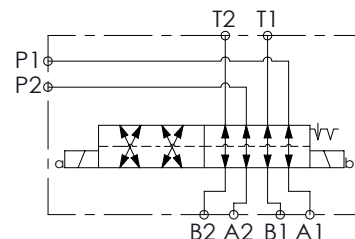
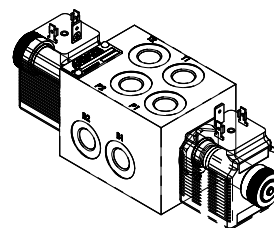
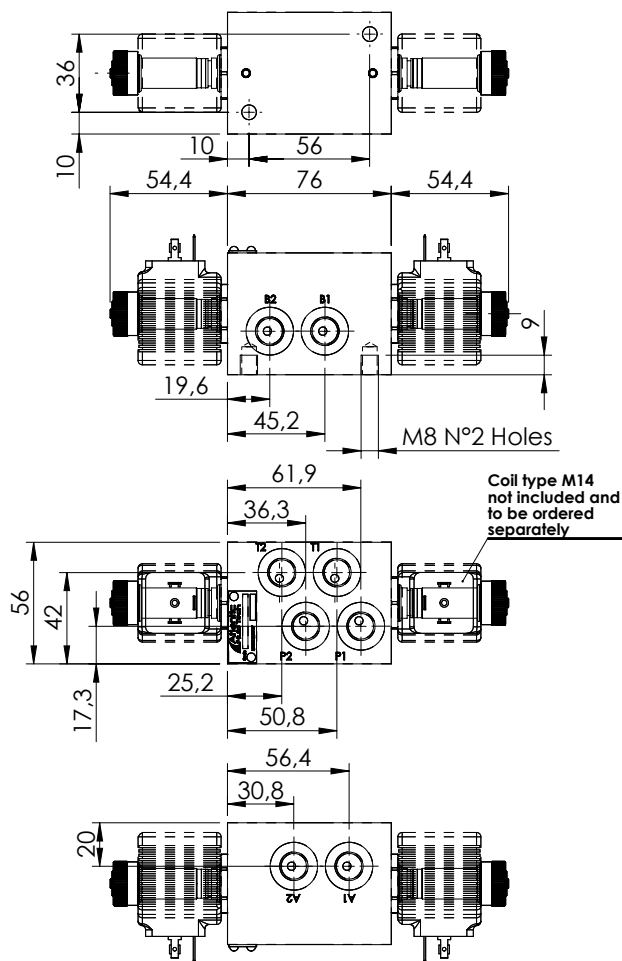
* Voltage (V)	Resistance (Ω) $\pm 7\%$	Power (W)	Current (A)
- Without coil			
A 12 DC	7,2	20	1,67
B 24 DC	28,7	20	0,84

Special voltages available on request

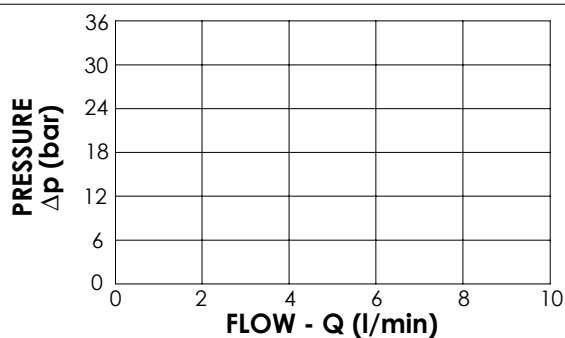
KIT	Type	Ordering code
HP	Hydraulic pilot	RG100032
EP	Electrical pilot	CE000824
ID	Internal drain	RG100033
ED	External drain	RG100034



EXCAVATORS VALVE

ELHB-010-DSGN**8 WAYS
WITH DETENT****SPECIFICATIONS**

Max. operating pressure:	210 bar
Rated flow:	10 l/min
Body:	Cast Iron
Weight:	1,82 kg
Coil type:	M14 type

**NOTES**

See the chapter 18.00.000 for coil.

ORDERING CODES

Quick code	Description	Ports size	
ES000390	ELHB-010-DSGN-39-G14-N	G 1/4"	