

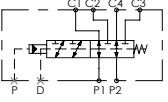
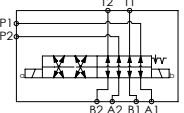


ATLANTIC
Fluid Tech

**SECTION
17**

Diverter
Valves

DIVERTER VALVES

Hydraulic scheme	Valve description	Valve type	Rated flow l/min (gpm)	Max. pressure bar (psi)	Installation	Main port size or cavity type	Page
	ESCB-025	Three ports	25 (7)	250-310 (3600-4500)	In line	G 1/4"	17.01. 010
	ELCB-050	Three ports	50 (13)		In line	G 3/8"	17.01. 020
	ELCB-100	Three ports	100 (26)		In line	G 1/2"	17.01. 030
	ELFB-025	Six ports single	25 (7)	250-310 (3600-4500)	In line	G 1/4"	17.02. 040
	ESFB-025	Six ports single and bankable	25 (7)	250-310 (3600-4500)	In line/Flanged	G 1/4"	17.03. 050
	ESFB-050	Six ports single and bankable	50 (13)	250-350 (3600-5000)	In line/Flanged	G 3/8"	17.03. 060
	ESFB-100	Six ports single and bankable	100 (26)	250-350 (3600-5000)	In line/Flanged	G 1/2"	17.03. 070
	ELFB-400	Six ports single	400 (106)	210-420 (3000-6000)	In line	G 3/4" - 1" SAE 6000	17.04. 080
	ELHB-010	Eight ports, with detent	10 (3)	210 (3000)	In line	G 1/4"	17.05. 090

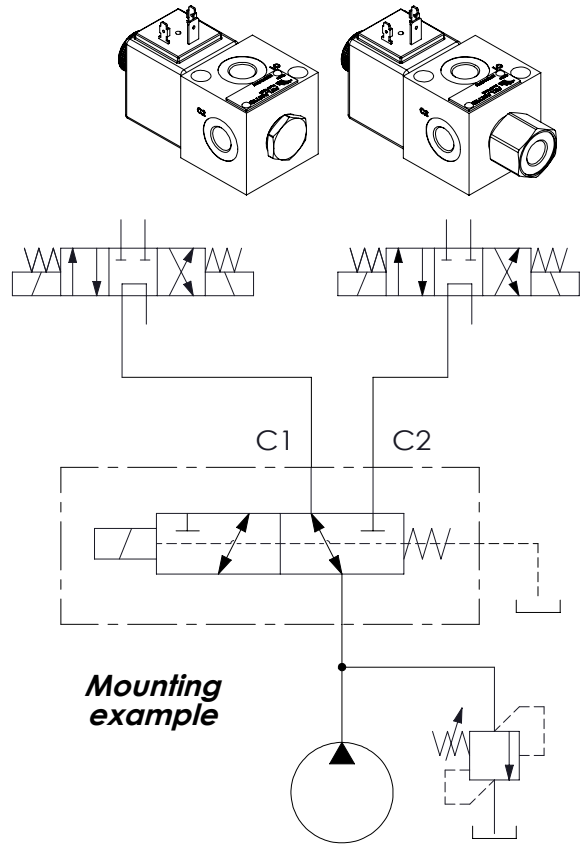
FLOW DIVERTERS

ELCB-025

3 WAYS FLOW DIVERTERS

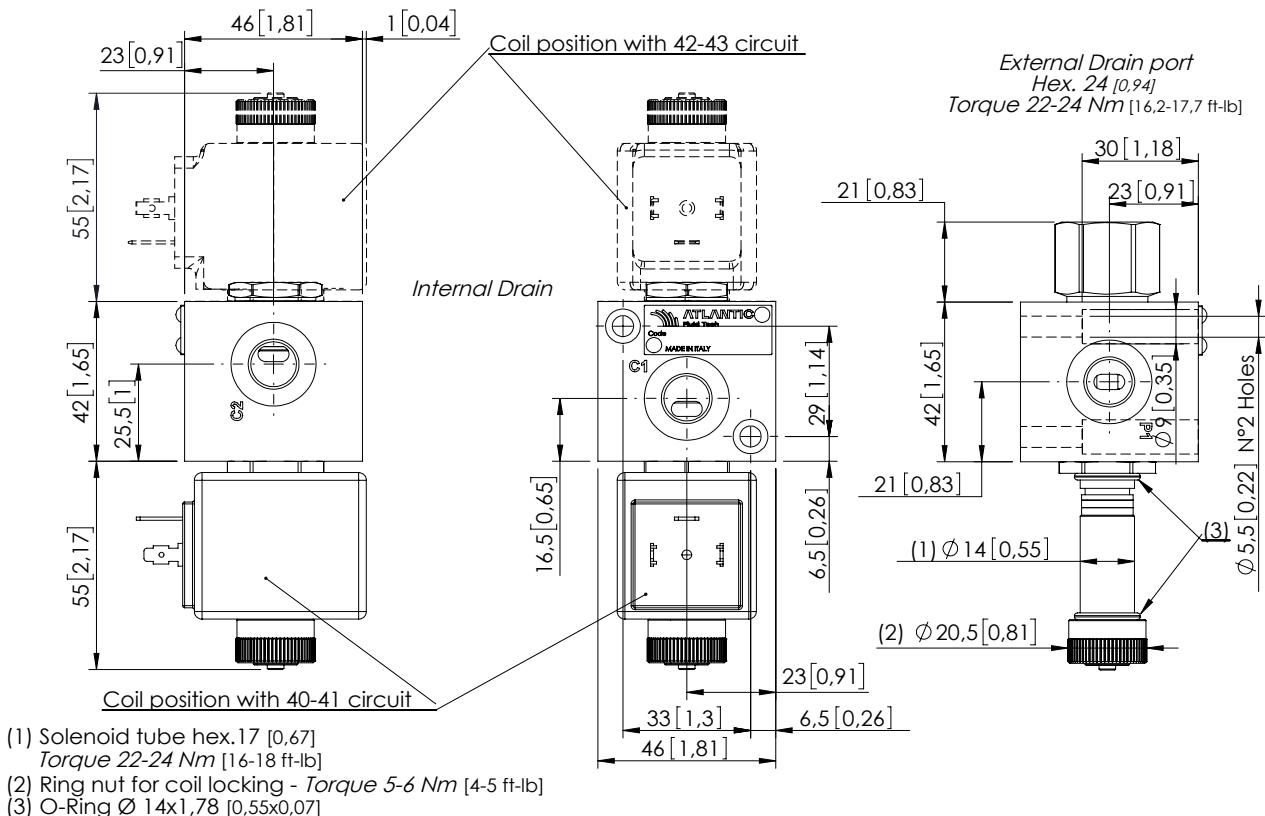


**	Circuit	Transit position
40		
41		
42		
43		



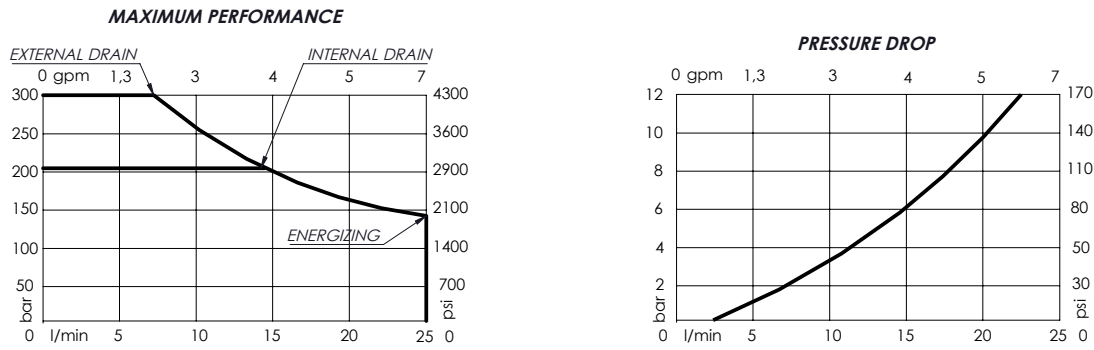
Technical data		
Rated flow	l/min (gpm)	25 (7)
Operating pressure	with internal drain "N"	bar (psi) 250 (3600)
	with external drain "E"	bar (psi) 310 (4500)
Valve weight	Kg (lb)	1,1 (1.8)

OVERALL DIMENSIONS

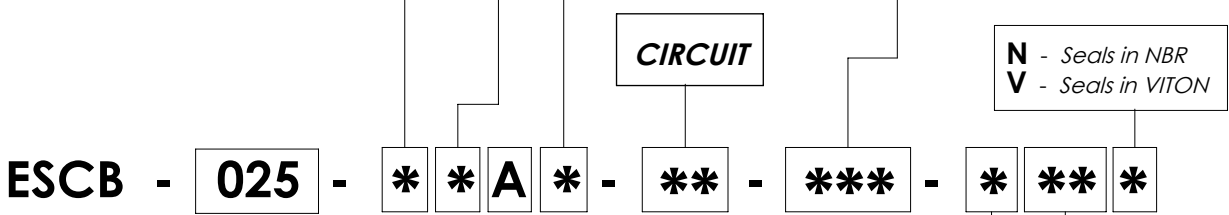
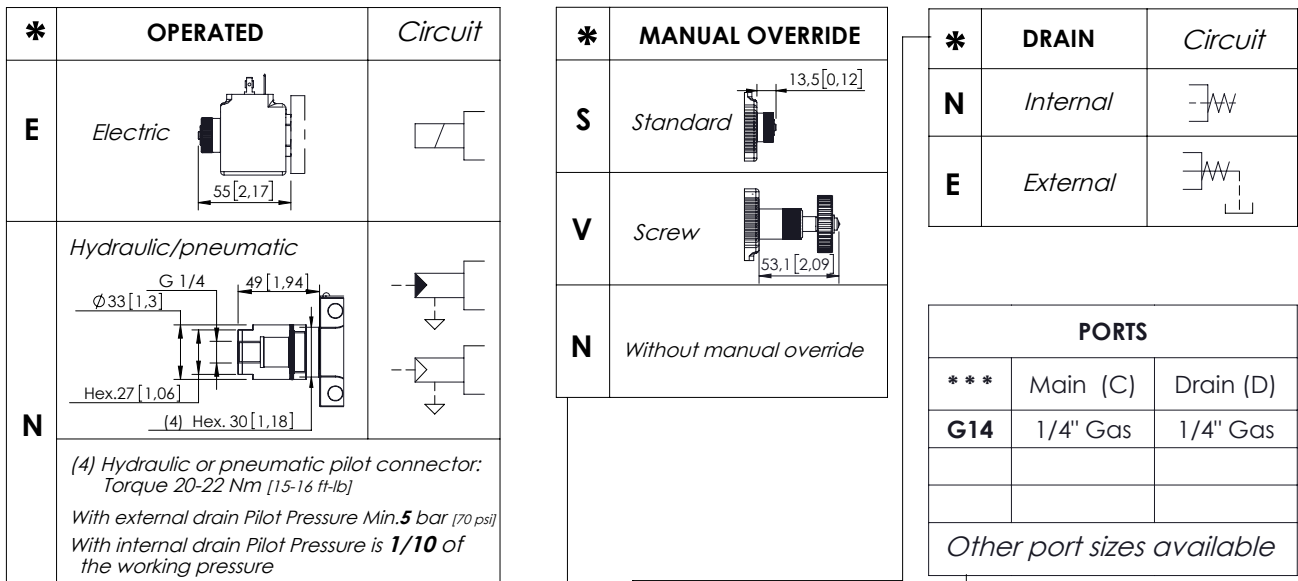


Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40°±5°C (104° F ±41°F)



Internal leakage on C ports: MAX 15 cm³/min (0,91 in³/min) Mineral oil with 32 cSt viscosity, at 40° C (104° F) and 100 bar (1400 psi) pressure.



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

*	COIL	Type	Protection class
-	<i>Without coil</i>		
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

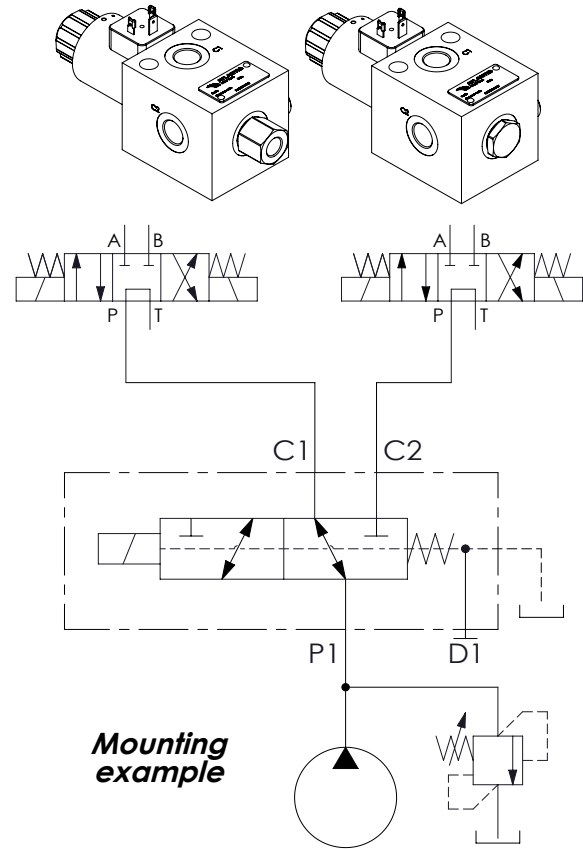
FLOW DIVERTERS

ELCB-050

3 WAYS FLOW DIVERTERS



**	Circuit	Transit position
40		
41		
42		
43		

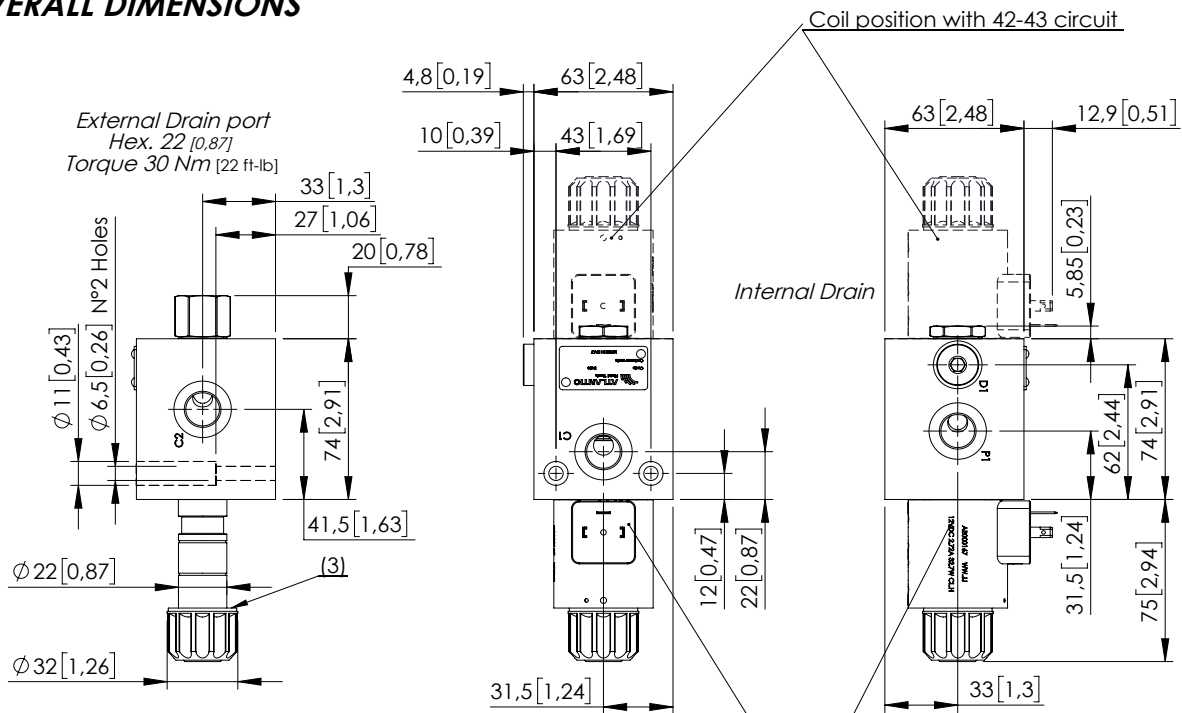


Technical data

Rated flow		l/min (gpm)	50 (13)
Operating pressure	with internal drain "N"	bar (psi)	250 (3600)
	with external drain "E"	bar (psi)	310 (4500)
Valve weight		Kg (lb)	2,6 (5,7)

Dimensions: mm [inches]

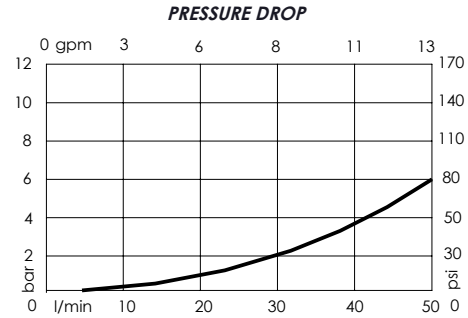
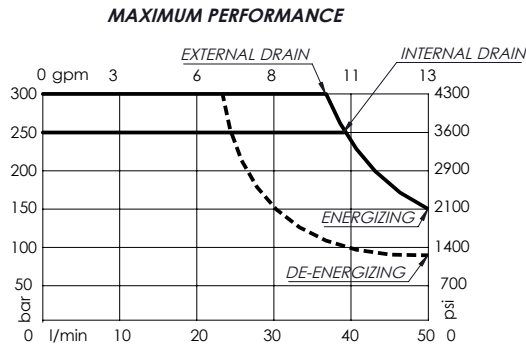
OVERALL DIMENSIONS



- (1) Solenoid tube hex.19 [0,75] - Torque 30 Nm [22 ft-lb]
- (2) Ring nut for coil locking - Torque 5-6 Nm [4-5 ft-lb]
- (3) O-Ring Ø 21,5x2 [0,85x0,08]

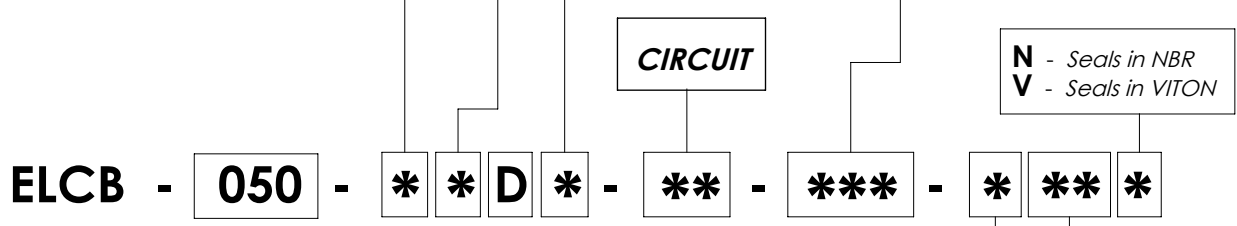
Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40°±5°C (104° F ± 41° F)



Internal leakage on C ports: MAX 25 cm³/min (1,5 in³/min) Mineral oil with 32 cSt viscosity, at 40° C (104° F) and 100 bar (1400 psi) pressure.

*	OPERATED	<i>Circuit</i>	*	MANUAL OVERRIDE	*	DRAIN	<i>Circuit</i>											
E	Electric 		S	Standard 	N	Internal 												
N	Hydraulic/pneumatic 		V	Screw 	E	External 												
	<p>(4) Hydraulic or pneumatic pilot connector: Torque 20-22 Nm [15-16 ft-lb]</p> <p>With external drain Pilot Pressure Min. 5 bar [70 psi]</p> <p>With internal drain Pilot Pressure is 1/10 of the working pressure</p>		N	Without manual override	<p>PORTS</p> <table border="1"> <tr> <td>***</td> <td>Main (C)</td> <td>Drain (D)</td> </tr> <tr> <td>G38</td> <td>3/8" Gas</td> <td>1/4" Gas</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table> <p>Other port sizes available</p>		***	Main (C)	Drain (D)	G38	3/8" Gas	1/4" Gas						
***	Main (C)	Drain (D)																
G38	3/8" Gas	1/4" Gas																



*	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				

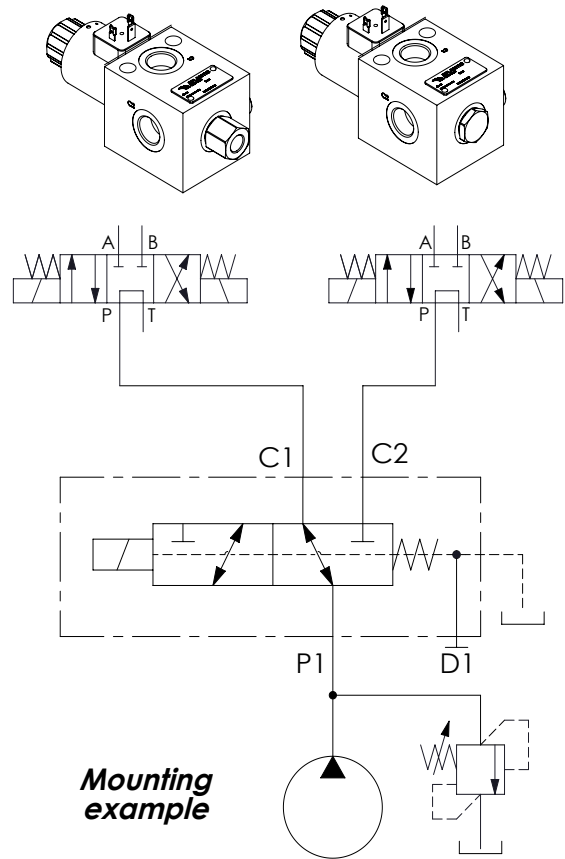
*	COIL	Type	Protection class
-	Without coil		
HR	DIN 43650 - ISO 4400 Class H	M12	IP65
AJ	AMP JUNIOR Class H	M12	IP65
DT	DEUTSCH DT04-2P-L Class H	M12	IP69

ELCB-100

3 WAYS FLOW DIVERTERS



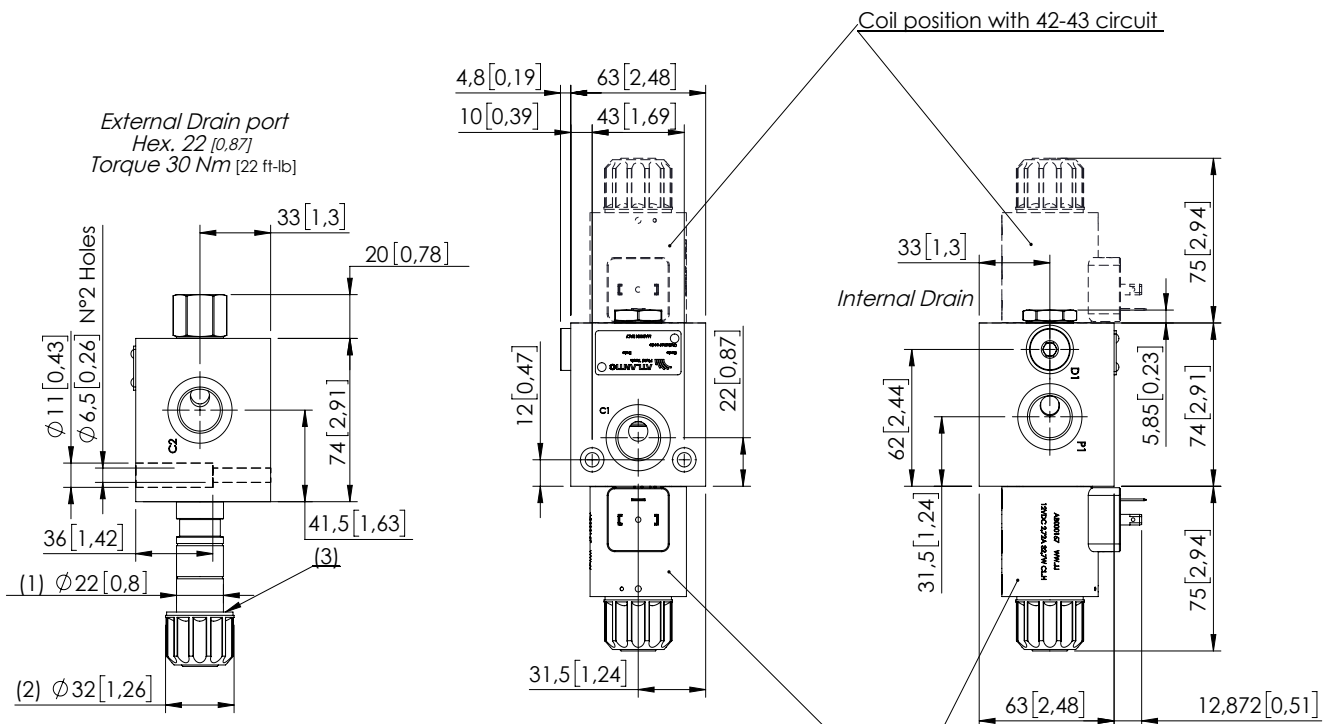
**	Circuit	Transit position
40		
41		
42		
43		



Technical data		
Rated flow	l/min (gpm)	100 (26)
Operating pressure	with internal drain "N"	bar (psi) 250 (3600)
	with external drain "E"	bar (psi) 310 (4500)
Valve weight	Kg (lb)	2,6 (5,7)

OVERALL DIMENSIONS

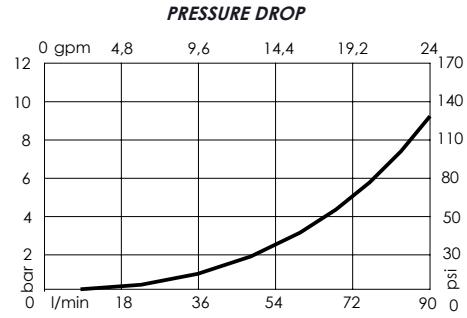
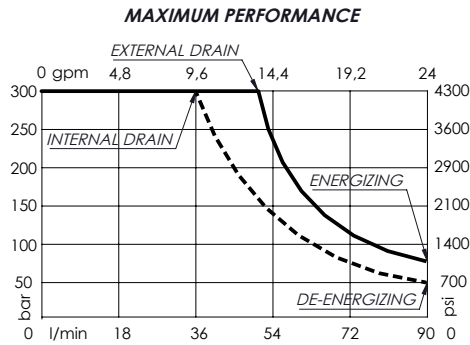
Dimensions: mm [inches]



- (1) Solenoid tube hex.19 [0,75] - Torque 30 Nm [22 ft-lb]
- (2) Ring nut for coil locking - Torque 5-6 Nm [4-5 ft-lb]
- (3) O-Ring Ø 21,5x2 [0,85x0,08]

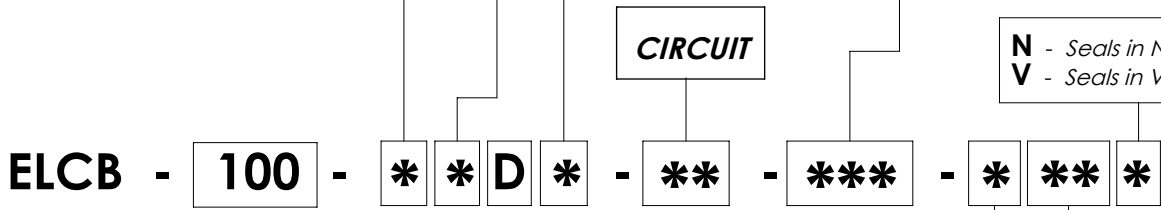
Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40°±5°C (104° F ±41°F)



Internal leakage on C ports: MAX 25 cm³/min (1,5 in³/min) Mineral oil with 32 cSt viscosity, at 40° C (104° F) and 100 bar (1400 psi) pressure.

*	OPERATED	<i>Circuit</i>	*	MANUAL OVERRIDE	*	DRAIN	<i>Circuit</i>											
E	Electric 		S	Standard 	N	Internal 												
N	Hydraulic/pneumatic 		V	Screw 	E	External 												
<p>(4) Hydraulic or pneumatic pilot connector: Torque 20-22 Nm [15-16 ft-lb] With external drain Pilot Pressure Min. 5 bar [70 psi] With internal drain Pilot Pressure is 1/10 of the working pressure</p>			N	Without manual override	<p>PORTS</p> <table border="1"> <tr> <td>***</td> <td>Main (C)</td> <td>Drain (D)</td> </tr> <tr> <td>G12</td> <td>1/2" Gas</td> <td>1/4" Gas</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table> <p>Other port sizes available</p>		***	Main (C)	Drain (D)	G12	1/2" Gas	1/4" Gas						
***	Main (C)	Drain (D)																
G12	1/2" Gas	1/4" Gas																



*	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

FLOW DIVERTERS

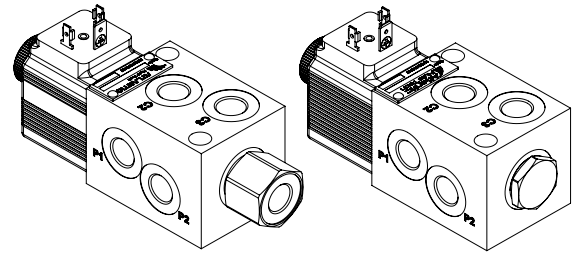
ELFB-025

6 WAYS SINGLE IN LINE
FLOW DIVERTERS

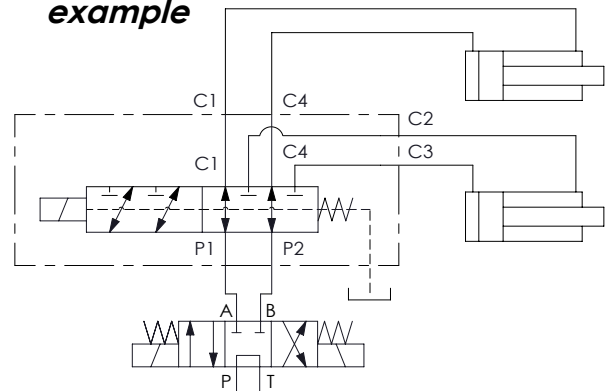


**	Circuit	Transit position
01		
02		
03		

*Only external drain



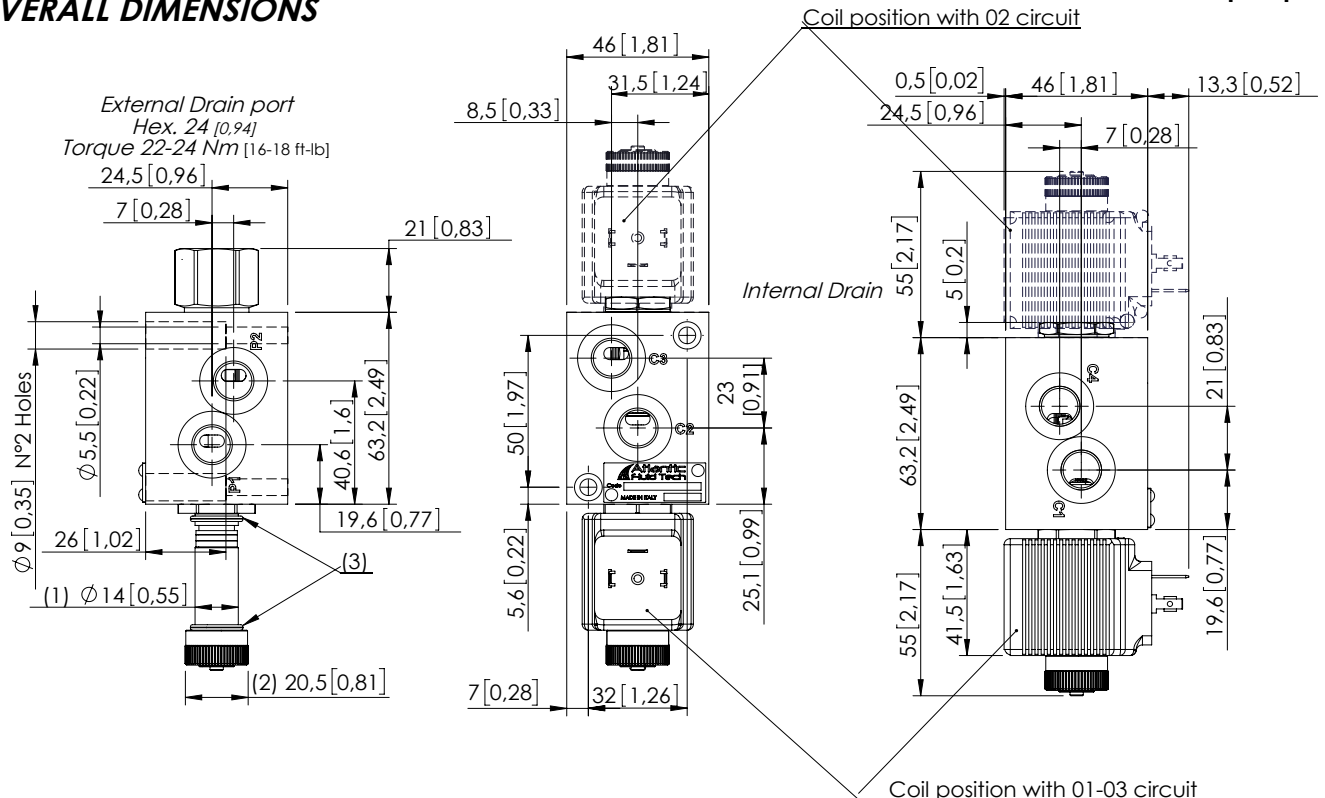
Mounting example



Technical data			
Rated flow		l/min (gpm)	25 (7)
Operating pressure	with internal drain "N"	bar (psi)	250 (3600)
	with external drain "E"	bar (psi)	310 (4500)
Valve weight		Kg (lb)	1,1 (2,4)

OVERALL DIMENSIONS

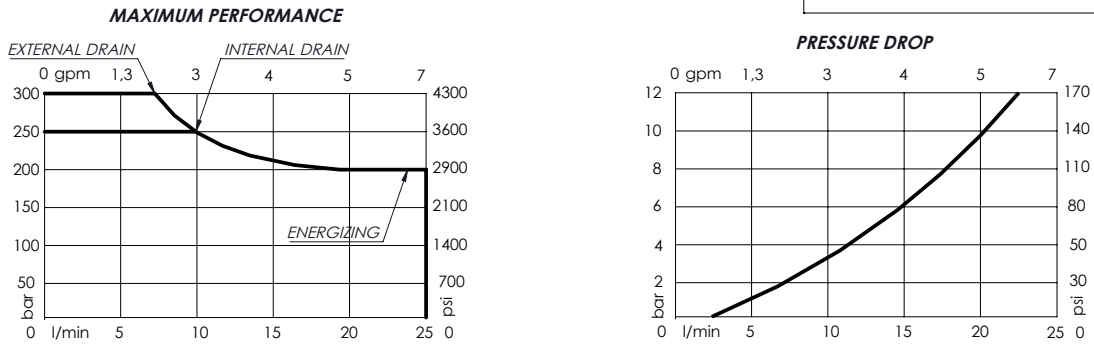
Dimensions: mm [inches]



- (1) Solenoid tube hex.17 [0,67] - Torque 22-24 Nm [16-18 ft-lb]
- (2) Ring nut for coil locking - Torque 5-6 Nm [4-5 ft-lb]
- (3) O-Ring Ø 14x1,78 [0,55x0,07]

Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40°±5°C (104°F ±41°F)



Internal leakage on C ports: MAX 15 cm³/min (0,91 in³/min) Mineral oil with 32 cSt viscosity, at 40° C (104° F) and 100 bar (1400 psi) pressure.

* OPERATED	Circuit	* MANUAL OVERRIDE	* DRAIN	Circuit															
E Electric 		S Standard 	N Internal 																
		V Screw 																	
N Hydraulic/pneumatic 		N Without manual override	<table border="1"> <thead> <tr><th colspan="3">PORTS</th></tr> <tr> <th>***</th> <th>Main (C)</th> <th>Drain (D)</th> </tr> </thead> <tbody> <tr> <td>G14</td> <td>1/4" Gas</td> <td>1/4" Gas</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td colspan="3">Other port sizes available</td> </tr> </tbody> </table>	PORTS			***	Main (C)	Drain (D)	G14	1/4" Gas	1/4" Gas				Other port sizes available			
		PORTS																	
***	Main (C)	Drain (D)																	
G14	1/4" Gas	1/4" Gas																	
Other port sizes available																			
(4) Hydraulic or pneumatic pilot connector: Torque 20-22 Nm [15-16 ft-lb] With external drain Pilot Pressure Min. 5 bar [70 psi] With internal drain Pilot Pressure is 1/10 of the working pressure																			

N - Seals in NBR
V - Seals in VITON

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

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

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

FLOW DIVERTERS

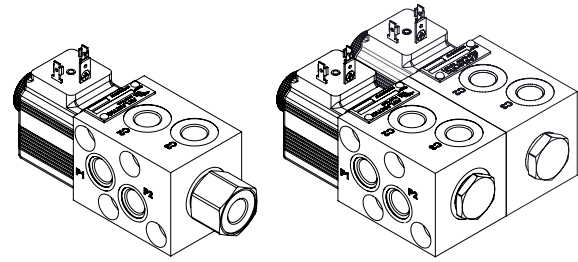
ESFB-025

6 WAYS SINGLE & BANKABLE
FLOW DIVERTERS

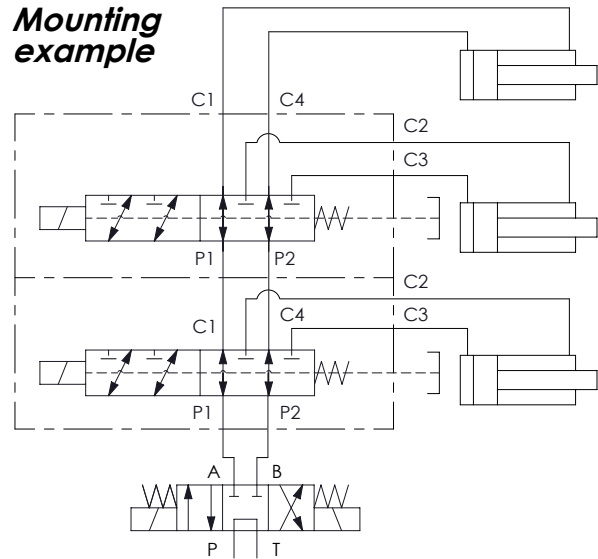


**	Circuit	Transit position
01		
02		
03		

*Only external drain



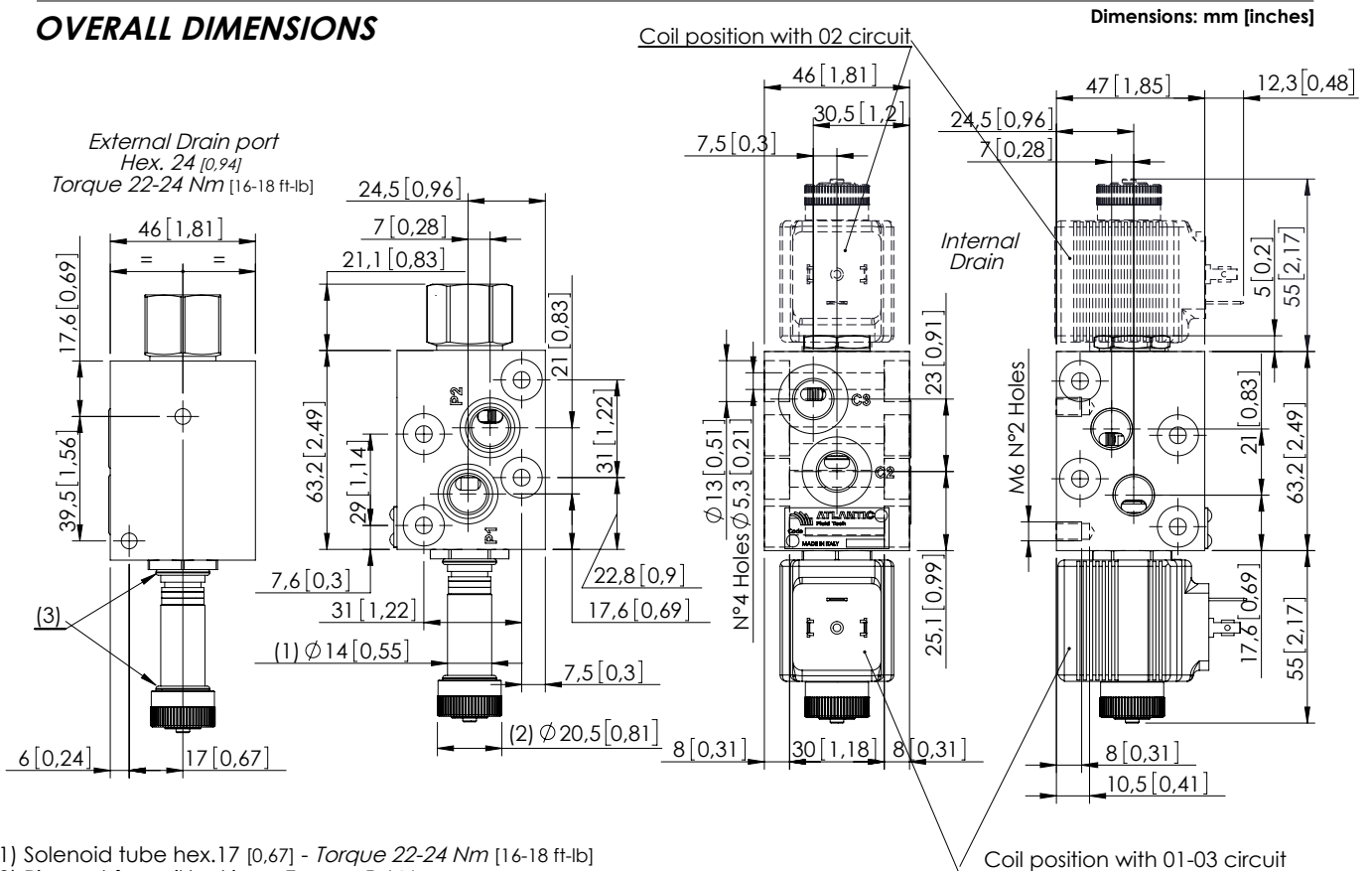
Mounting example



Technical data

Rated flow		l/min (gpm)	25 (7)
Operating pressure	with internal drain "N"	bar (psi)	250 (3600)
	with external drain "E"	bar (psi)	310 (4500)
Valve weight		Kg (lb)	1 (2)

OVERALL DIMENSIONS



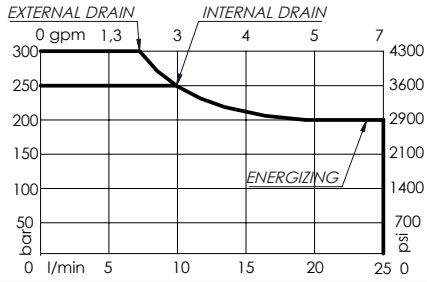
- (1) Solenoid tube hex.17 [0,67] - Torque 22-24 Nm [16-18 ft-lb]
- (2) Ring nut for coil locking - Torque 5-6 Nm [4-5 ft-lb]
- (3) O-Ring ϕ 14x1,78 [0,55x0,07]

Characteristic curves

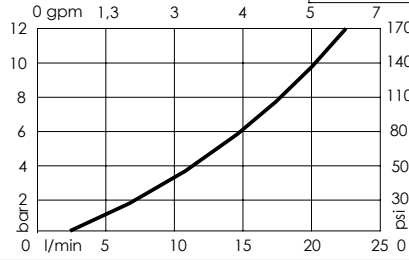
Measured with hydraulic fluid ISO-VG46 at 40°±5°C (104°F±41°F)



MAXIMUM PERFORMANCE



PRESSURE DROP



Internal leakage on C ports:
 MAX 15 cm³/min (0.91 in³/min)
 Mineral oil with 32 cSt viscosity, at 40° C (104° F) and 100 bar (1400 psi) pressure.

* OPERATED	Circuit
E Electric 	
N Hydraulic/pneumatic <p>(4) Hydraulic or pneumatic pilot connector: Torque 20-22 Nm [15-16 ft-lb] With external drain Pilot Pressure Min. 5 bar [70 psi] With internal drain Pilot Pressure is 1/10 of the working pressure</p>	

* MANUAL OVERRIDE	Circuit
S Standard 	
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			

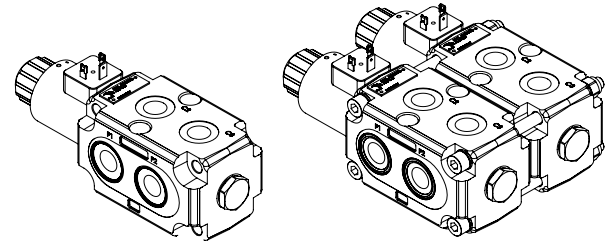
* COIL	Type	Protection class
-	Without coil	
HR	DIN 43650 - ISO 4400 Class H	M14 IP65
AJ	AMP JUNIOR Class H	M14 IP65
DT	DEUTSCH DT04-2P-L Class H	M14 IP69

TYPE OF MOUNTING

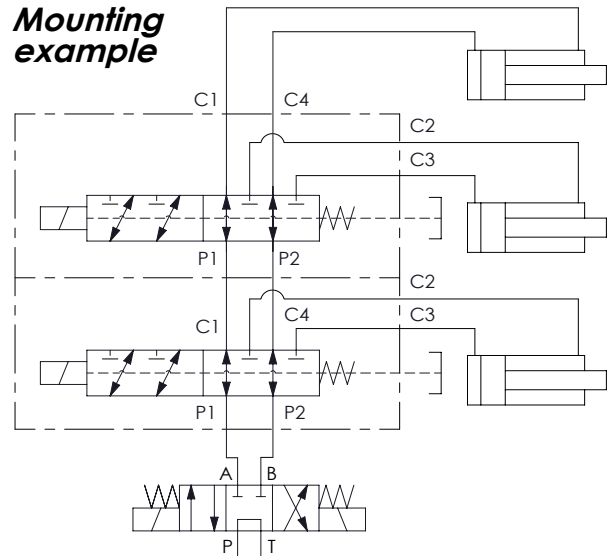
* Port number	Screw Tie rods	Installation torque	
-	-	-	
08	M5x92 [M5x3,62]	5-6 Nm [4-5 ft-lb]	
10	M5x138 [M5x5,43]	5-6 Nm [4-5 ft-lb]	
12	M5x184 [M5x7,24]	5-6 Nm [4-5 ft-lb]	
14	-	-	

**	Circuit	Transit position
01		
02		
03		

*Only external drain



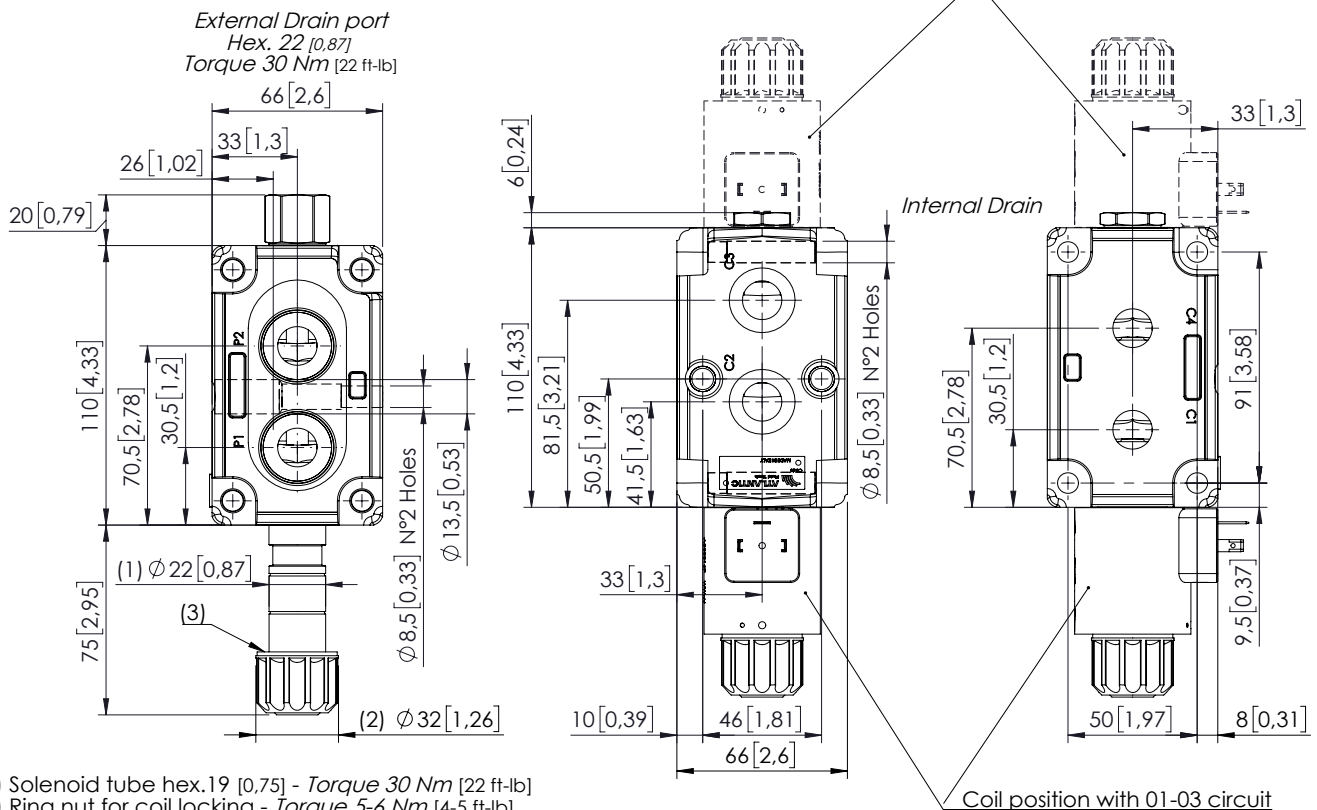
Mounting example



Technical data			
Rated flow		l/min (gpm)	50 (13)
Operating pressure	with internal drain "N"	bar (psi)	250 (3600)
	with external drain "E"	bar (psi)	350 (5000)
	on port D	bar (psi)	210 (2900)
Valve weight		Kg (lb)	3,8 (8,3)

OVERALL DIMENSIONS

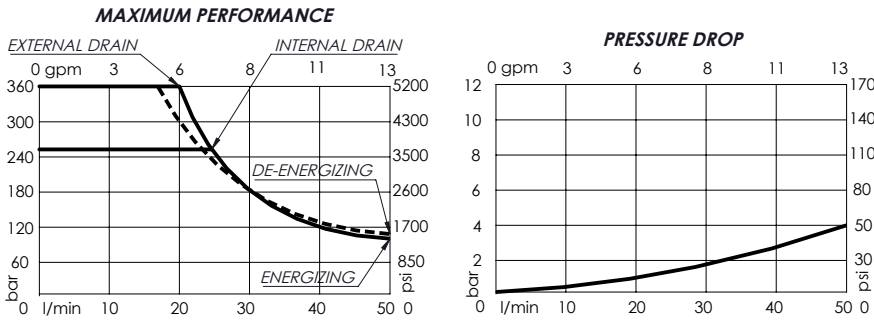
Dimensions: mm [inches]



- (1) Solenoid tube hex.19 [0,75] - Torque 30 Nm [22 ft-lb]
- (2) Ring nut for coil locking - Torque 5-6 Nm [4-5 ft-lb]
- (3) O-Ring Ø 21,5x2 [0,85x0,08]

Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40°±5°C (104°F ± 41°F)



Internal leakage on C ports:
 MAX 25 cm³/min (1.5 in³/min)
 Mineral oil with 32 cSt viscosity,
 at 40° C (104° F) and
 100 bar (1400 psi) pressure.

*	OPERATED	<i>Circuit</i>	*	MANUAL OVERRIDE	<i>Circuit</i>	*	DRAIN	<i>Circuit</i>
E	Electric 		S	Standard 		N	Internal 	
N	Hydraulic/pneumatic 		V	Screw 		E	External 	
(4) Hydraulic or pneumatic pilot connector: Torque 20-22 Nm [15-16 ft-lb] With external drain Pilot Pressure Min. 5 bar [70 psi] With internal drain Pilot Pressure is 1/10 of the working pressure			(4) Hex. 27 [0,32] (4) Hex. 30 [0,35]			*** Main (C) Drain (D) PORTS 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		

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

*	Port number	Screw Tie rods	Installation torque
-	6	-	-
08	8	M8x125 [M8x5,2]	15-17 Nm [11-13 ft-lb]
10	10	M8x190 [M8x7,8]	15-17 Nm [11-13 ft-lb]
12	12	M8x255 [M8x10,39]	15-17 Nm [11-13 ft-lb]
14	14	M8x320 [M8x12,99]	15-17 Nm [11-13 ft-lb]

FLOW DIVERTERS

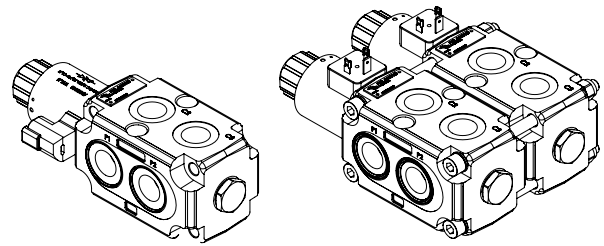
ESFB-100

6 WAYS SINGLE & BANKABLE
FLOW DIVERTERS

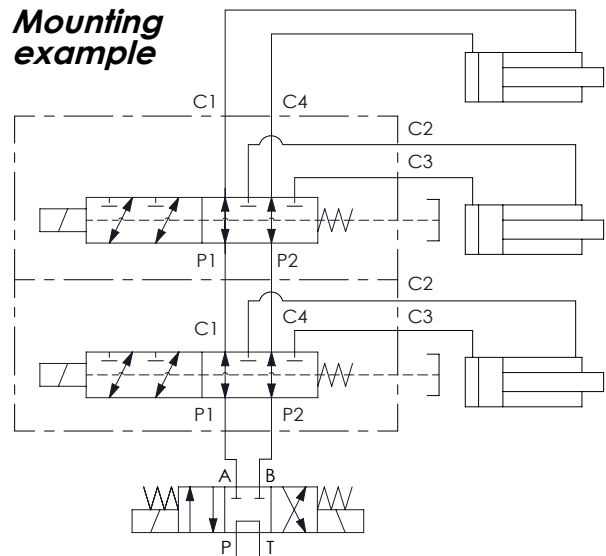


**	Circuit	Transit position
01		
02		
03		

*Only external drain



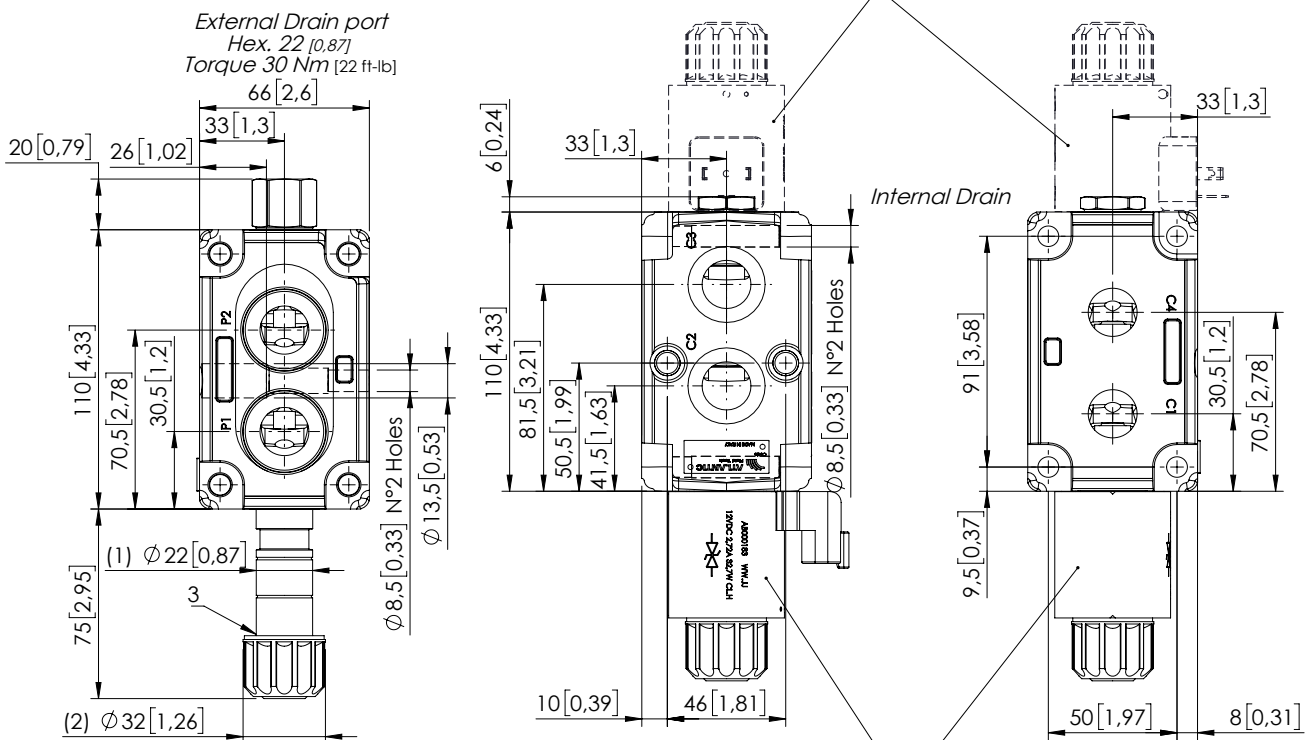
Mounting example



Technical data			
Rated flow		l/min (gpm)	100 (26)
Operating pressure	with internal drain "N"	bar (psi)	250 (3600)
	with external drain "E"	bar (psi)	350 (5000)
	on port D	bar (psi)	210 (2900)
Valve weight		Kg (lb)	3,8 (8,3)

OVERALL DIMENSIONS

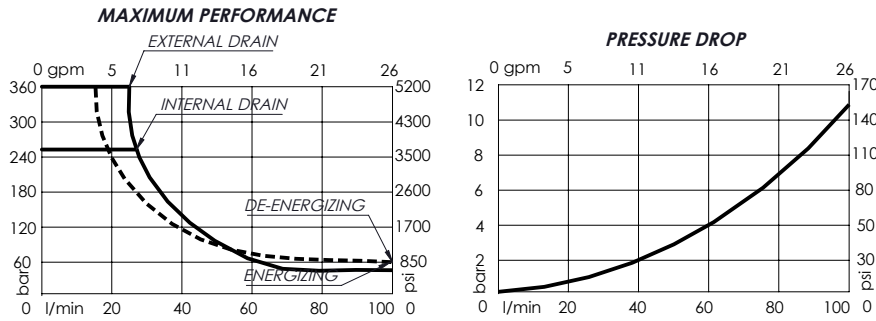
Dimensions: mm [inches]



- (1) Solenoid tube hex.19 [0,75] - Torque 30 Nm [22 ft-lb]
- (2) Ring nut for coil locking - Torque 5-6 Nm [4-5 ft-lb]
- (3) O-Ring Ø 21,5x2 [0,85x0,08]

Characteristic curves

Measured with hydraulic fluid ISO-VG46 at 40°±5°C (104° F ± 41°F)



Internal leakage on C ports:
 MAX 25 cm³/min (1.5 in³/min)
 Mineral oil with 32 cSt viscosity,
 at 40° C (104° F) and 100 bar (1400 psi) pressure.

*	OPERATED	<i>Circuit</i>
E	Electric	
	Hydraulic/pneumatic	

Technical drawings for electric and hydraulic/pneumatic versions with dimensions: 75 [2,95], 49,5 [1,95], G 1/4", Ø 33 [1,3], Hex. 27 [0,32], (4) Hex. 30 [0,35].

(4) Hydraulic or pneumatic pilot connector:
 Torque 20-22 Nm [15-16 ft-lb]

With external drain Pilot Pressure Min. 5 bar [70 psi]
 With internal drain Pilot Pressure is 1/10 of the working pressure

*	MANUAL OVERRIDE
S	Standard
V	Screw
N	Without manual override

*	DRAIN	<i>Circuit</i>
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

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

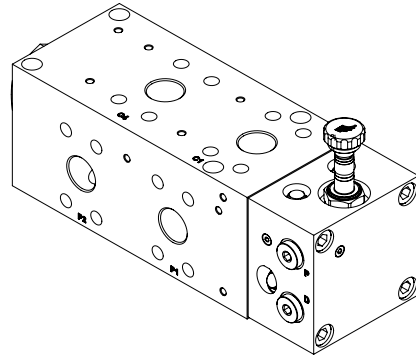
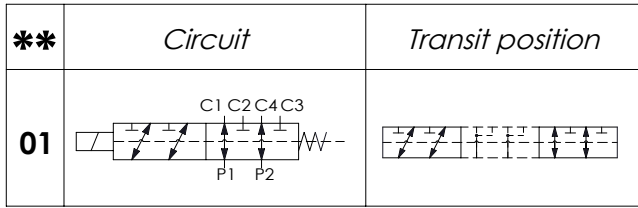
TYPE OF MOUNTING

*	Port number	Screw Tie rods	Installation torque
-	6	-	-
08	8	M8x125 [M8x5,2]	15-17 Nm [11-13 ft-lb]
10	10	M8x190 [M8x7,8]	15-17 Nm [11-13 ft-lb]
12	12	M8x255 [M8x10,39]	15-17 Nm [11-13 ft-lb]
14	14	M8x320 [M8x12,99]	15-17 Nm [11-13 ft-lb]

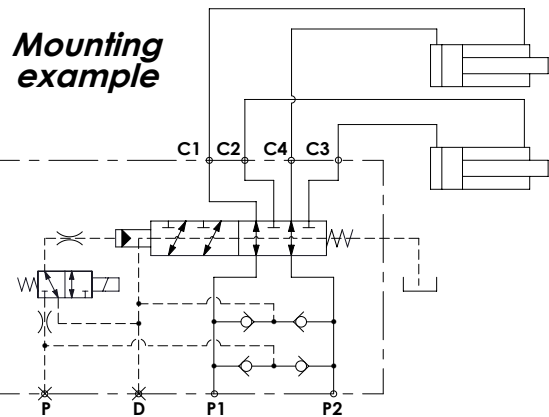
FLOW DIVERTERS

ELFB-400

6 WAYS SINGLE IN LINE
FLOW DIVERTERS

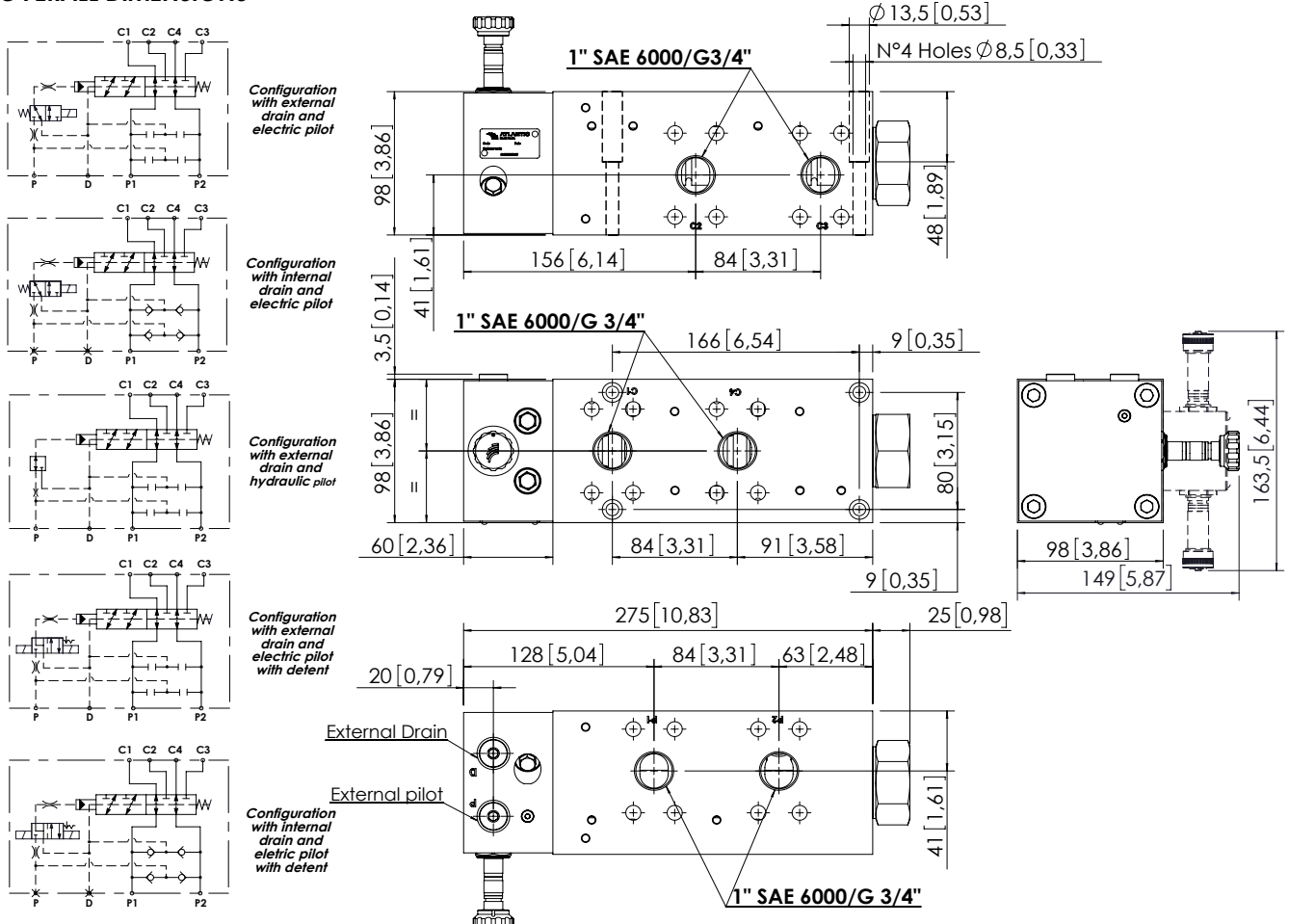


Technical data			
Rated flow		l/min (gpm)	400 (106)
Operating pressure	with internal drain "N"	bar (psi)	210 (3000)
	with external drain "E"	bar (psi)	420 (6000)
Minimum pilot pressure		bar (psi)	20 (290)
Valve weight		Kg (lb)	17,2 (38)
Standard Ports	1" SAE 6000		



OVERALL DIMENSIONS

Dimensions: mm [inches]

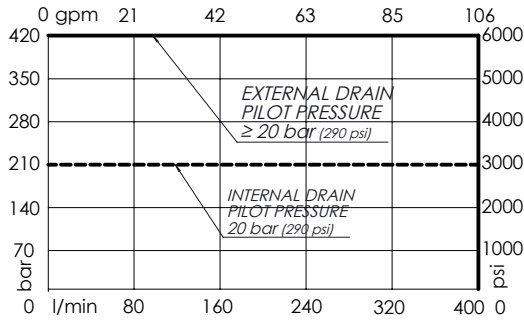


Characteristic curves

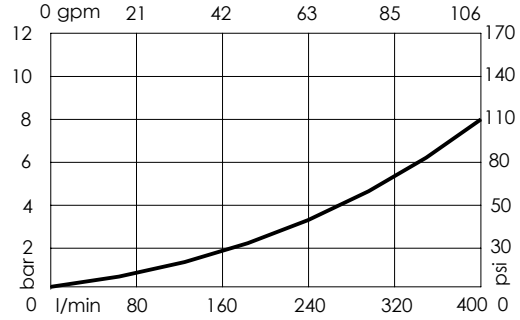
With pressure and flow in P1 or P2 and C4 and C1 without pressure



MAXIMUM PERFORMANCE



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

* or M3 coil type

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

Special port sizes available

CIRCUIT

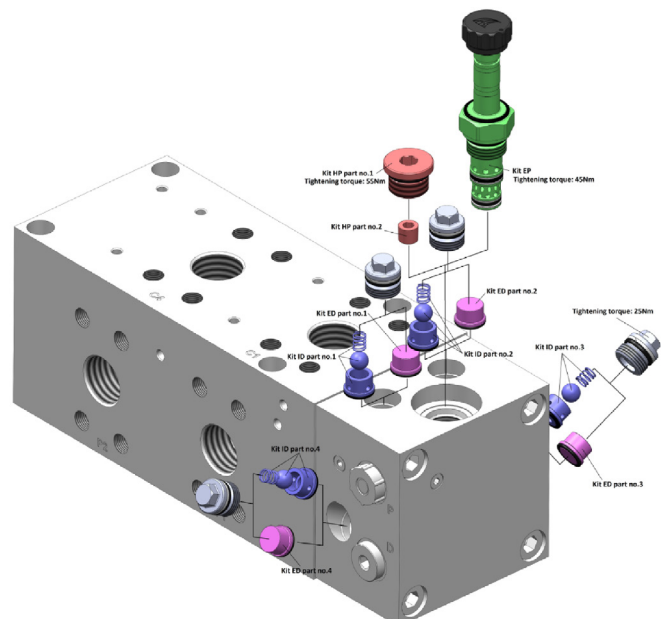
V - Seals in VITON

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

* Voltage (V)	Resistance (Ω) ± 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

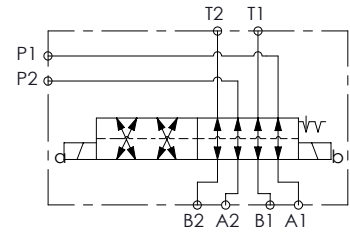
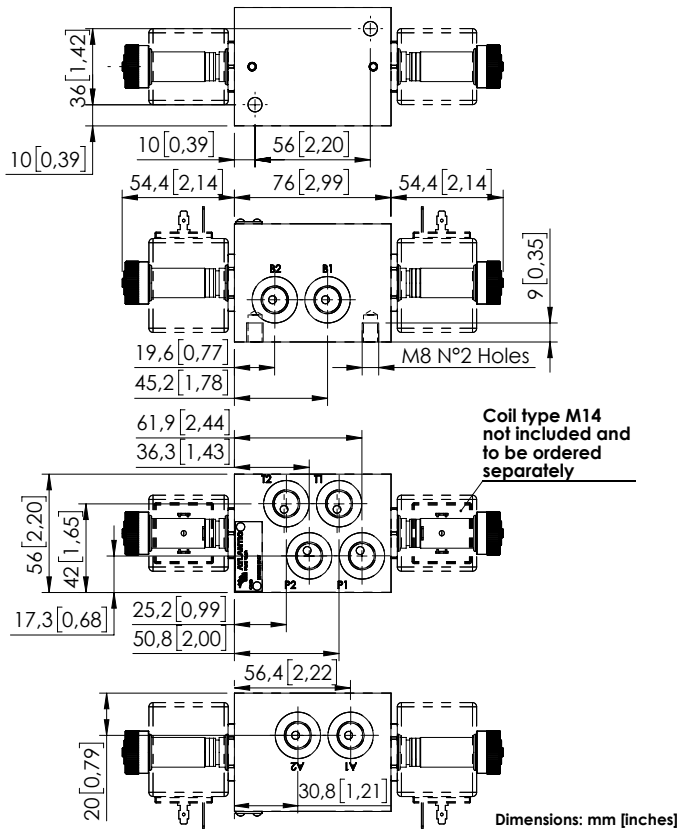
KIT	Type	Ordering code
HP	Hydraulic pilot	RG100032
EP	Electrical pilot	CE000824
ID	Internal drain	RG100033
ED	External drain	RG100034



EXCAVATORS VALVE

ELHB-010-DSGN

8 WAYS
WITH DETENT



SPECIFICATIONS

Max. operating pressure:	210 bar (3000 psi)
Rated flow:	10 l/min (3 gpm)
Weight:	1,82 kg (4 lbs)
Manifold:	Cast iron
Coil type:	M14
Contamination class to ISO 4406:	See technical spec.
MTTF:	150 - 1200 years: See technical spec.

NOTES

See the chapter 21.00.000 for coil.

CURVES

ORDERING CODES

Quick code	Description	Ports	
ES000390	ELHB-010-DSGN-39-G14-N	P,A,B,T: G 1/4"	