

2/2 NC



25 x 25 mm

Page 3.3

Ex

2/2 NO



25 x 25 mm

Page 3.5

Ex

3/2 NC



25 x 25 mm

Page 3.7

Ex

3/2 NO



25 x 25 mm

Page 3.9

Ex

2/2 LATCHING



25 x 25 mm

Page 3.11

Ex

22 mm



Series A

Page 15.2

UL US
CSA C22.2

30 mm



Series B

Page 15.3

UL US
CSA C22.2



Connectors

Page 15.8 - 15.10

UL US
CSA C22.2

**DIRECT ACTING SOLENOID VALVES WITH FLANGE
FIXING AND BRASS CW510L BODY - PB ≤ 0.1%**

CW510L / Pb ≤ 0.1%

Ex
II 2 G/D Ex h

UL US
CSA C22.2



Series F1F

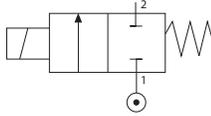
Series F1F

DIRECT ACTING SOLENOID VALVES WITH FLANGE FIXING AND BRASS CW510L BODY

2/2 NC

25 x 25 mm

CW510L
Pb ≤ 0.1%



Component Parts and Materials

- 1 Body: Brass CW510L - Pb ≤ 0.1%
- 2 Seals: NBR - EPDM - FKM - CR - NBR ❄️
- 3 Armature tube: Stainless steel
- 4 Fixed and mobile core: Stainless steel AISI 430FR
- 5 Springs: Stainless steel



General features - F1F

- Universal mounting position
- Operator kit Ø 10 mm
- ATEX II 2G/D Ex h certification
- Coils: Class H - - CSA C22.2



Maximum allowable pressure

580 psi (40 bar)



Compatibility and materials table

Page 0.13 - 0.14



Room temperature with coil class H

+14°F +176°F
-10°C +80°C



Applications

- Food industry
- Coffee & vending
- Compressors
- Water and Neutral liquids
- Air and Inert gases
- Oils, Steam, Vacuum



Ordering codes

Series	Port size	Functions	Orifice inch (mm)	Sealing materials	Version	Suitable coils
F 1 F	J 4 J4 = □ 25x25 mm	1 1 = 2/2 NC	1 5 15 = 1/16 (1.5) 02 = 5/64 (2) 25 = 3/32 (2.5)	N N = NBR E = EPDM V = FKM C = CR F = NBR ❄️	0 0 = Standard	A A A = A series - SOL10 A = 12V DC B = B series - SOL11 B = 24V DC 1 = 24V AC 2 = 110V AC 3 = 220V AC

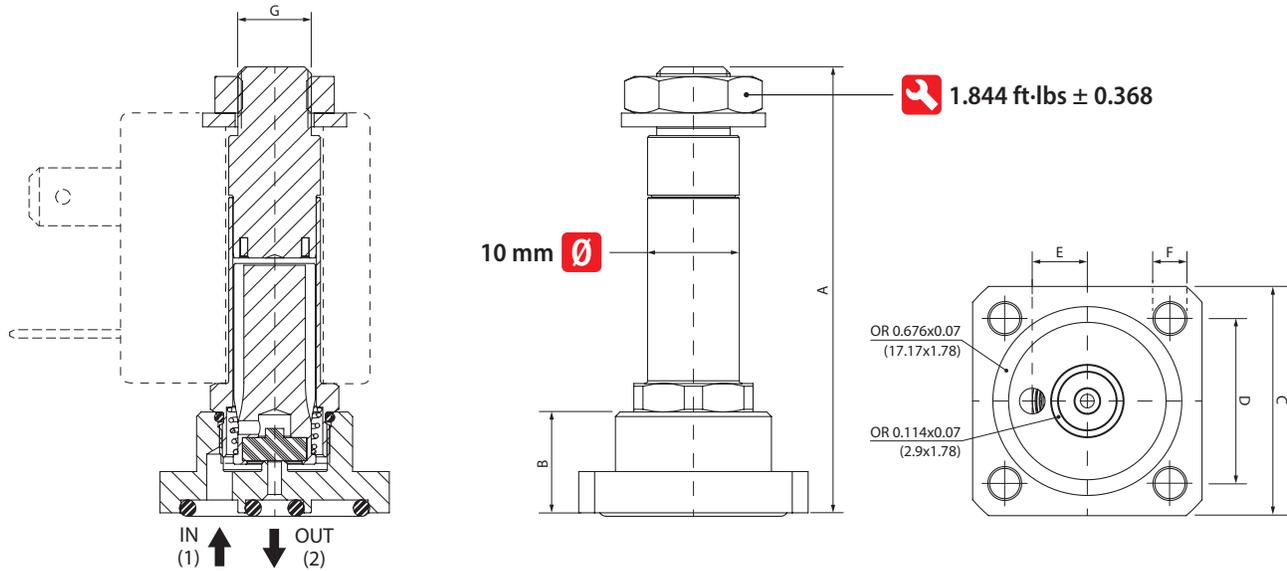
Valves and coils are supplied separately. Upon commercial agreements can be supplied assembled.

Code	Sealing materials	Port size	Ø Orifice	Viscosity	Cv (Kv)	Differential pressure (OPD)			Power		Coils				
						inch (mm)	cSt	gpm (m³/h)	psi (bar)			DC	AC	Size	Series
									Min	Max DC	Max AC	W	VA	mm	A - Page 15.2 B - Page 15.3
F1F J4 1 15 _0	N = NBR +14°F +194°F (-10°C +90°C)	□ 25x25 mm	1/16 (1.5)	25	0.07 (0.06)	0	232 (16)	435 (30)	6.5	7.5	22	A - SOL10			
F1F J4 1 02 _0	V = FKM +14°F +284°F (-10°C +140°C)						580 (40)	580 (40)	8	11	30	B - SOL11			
F1F J4 1 25 _0	E = EPDM +14°F +284°F (-10°C +140°C)		5/64 (2)	37	0.10 (0.09)	0	174 (12)	363 (25)	6.5	7.5	22	A - SOL10			
							435 (30)	580 (40)	8	11	30	B - SOL11			
F1F J4 1 25 _0	C = CR -31°F +212°F (-35°C +100°C)		3/32 (2.5)	53	0.17 (0.15)	0	65 (4.5)	261 (18)	6.5	7.5	22	A - SOL10			
							189 (13)	435 (30)	8	11	30	B - SOL11			
	F = NBR ❄️ -40°F +194°F (-40°C +90°C)														

① Select seal material

With steam: EPDM - P max = 36 psi (2.5 bar)

Coil not included



Size	A	B	C	D	E	F	G
	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	
□ 25x25 mm	1.915 (48.65)	0.433 (11)	0.984 (25)	0.708 (18)	0.236 (6)	0.129 (3.3)	M8 x 0.75

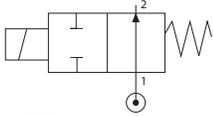
Series F1F

DIRECT ACTING SOLENOID VALVES WITH FLANGE FIXING AND BRASS CW510L BODY

2/2 NO

25 x 25 mm

**CW510L
Pb ≤ 0.1%**



Component Parts and Materials

- 1 Body: Brass CW510L - Pb ≤ 0.1%
- 2 Seals: NBR - EPDM - FKM - CR
- 3 Armature tube: Stainless steel
- 4 Fixed and mobile core: Stainless steel AISI 430FR
- 5 Springs: Stainless steel



General features - F1F

- Universal mounting position
- Operator kit Ø 10 mm
- ATEX II 2G/D Ex h certification
- Coils: Class H - - CSA C22.2



Maximum allowable pressure

580 psi (40 bar)



Compatibility and materials table

Page 0.13 - 0.14



Room temperature with coil class H

+14°F +176°F
-10°C +80°C



Applications

- Food industry
- Coffee & vending
- Compressors
- Water and Neutral liquids
- Air and Inert gases
- Oils, Steam, Vacuum



Ordering codes

Series	Port size	Functions	Orifice inch (mm)	Sealing materials	Version	Suitable coils
F 1 F	J 4 J4 = □ 25x25 mm	2 2 = 2/2 NO	1 5 15 = 1/16 (1.5) 02 = 5/64 (2) 25 = 3/32 (2.5)	N N = NBR E = EPDM V = FKM C = CR	0 0 = Standard	A A A = A series - SOL10 A = 12V DC B = B series - SOL11 B = 24V DC 1 = 24V AC 2 = 110V AC 3 = 220V AC

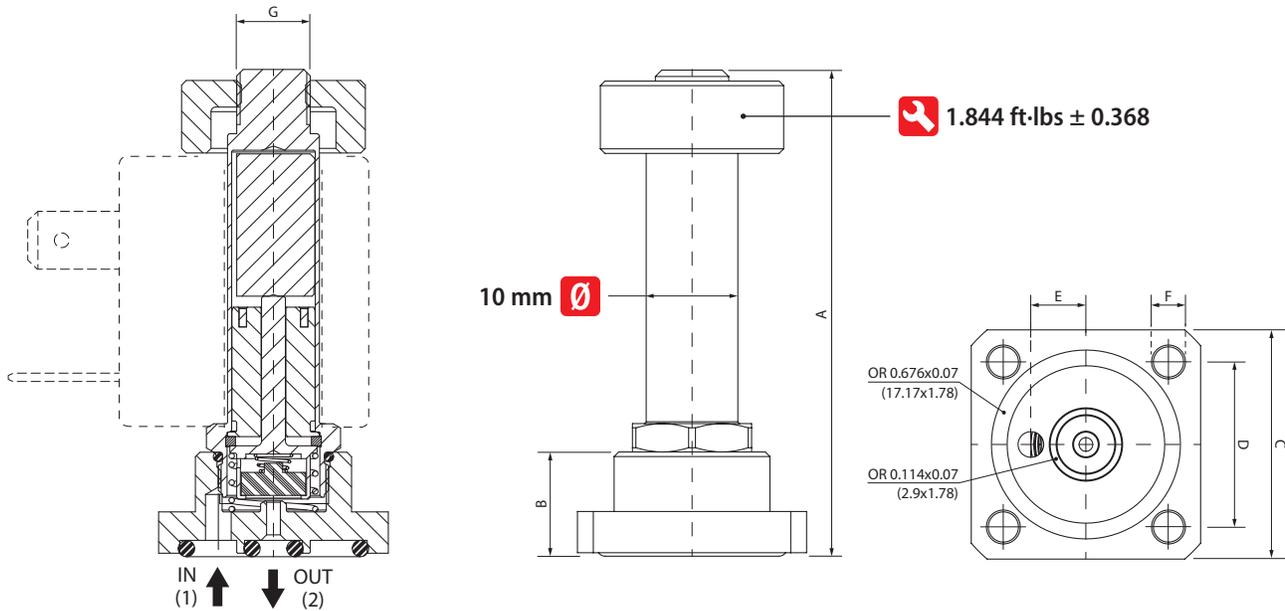
Valves and coils are supplied separately. Upon commercial agreements can be supplied assembled.

Code	Sealing materials	Port size	Ø Orifice	Viscosity	Cv (Kv)	Differential pressure (OPD)			Power		Coils				
						inch (mm)	cSt	gpm (m³/h)	psi (bar)			DC	AC	Size	Series
									Min	Max DC	Max AC	W	VA	mm	A - Page 15.2 B - Page 15.3
F1F J4 2 15 _0	N = NBR +14°F +194°F (-10°C +90°C)	□ 25x25 mm	1/16 (1.5)	25	0.07 (0.06)	0	-	261 (18)	-	7.5	22	A - SOL10			
F1F J4 2 02 _0	V = FKM +14°F +284°F (-10°C +140°C)		5/64 (2)	37	0.10 (0.09)	0	-	145 (10)	8	11	30	B - SOL11			
F1F J4 2 25 _0	E = EPDM +14°F +284°F (-10°C +140°C)		3/32 (2.5)	53	0.17 (0.15)	0	-	94 (6.5)	-	7.5	22	A - SOL10			
	C = CR -31°F +212°F (-35°C +100°C)						94 (6.5)	94 (6.5)	8	11	30	B - SOL11			

① Select seal material

With steam: EPDM - P max = 36 psi (2.5 bar)

Coil not included



Size	A	B	C	D	E	F	G
	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	
□ 25x25 mm	2.271 (57.7)	0.433 (11)	0.984 (25)	0.708 (18)	0.236 (6)	0.129 (3.3)	M8 x 1

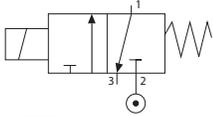
Series F1F

DIRECT ACTING SOLENOID VALVES WITH FLANGE FIXING AND BRASS CW510L BODY

3/2 NC

25 x 25 mm

CW510L
Pb ≤ 0.1%



Component Parts and Materials

- 1 Body: Brass CW510L - Pb ≤ 0.1%
- 2 Seals: NBR - EPDM - FKM
- 3 Armature tube: Stainless steel
- 4 Fixed and mobile core: Stainless steel AISI 430FR
- 5 Springs: Stainless steel



General features - F1F

- Universal mounting position
- Operator kit Ø 10 mm
- ATEX II 2G/D Ex h certification
- Coils: Class H - - CSA C22.2



Maximum allowable pressure

580 psi (40 bar)



Compatibility and materials table

Page 0.13 - 0.14



Room temperature with coil class H

+14°F +176°F
-10°C +80°C



Applications

- Food industry
- Coffee & vending
- Compressors
- Water and Neutral liquids
- Air and Inert gases
- Oils, Steam, Vacuum



Ordering codes

Series	Port size	Functions	Orifice inch (mm)	Sealing materials	Version	Suitable coils
F 1 F	J 4 J4 = □ 25x25 mm	3 3 = 3/2 NC	1 5 15 = 1/16 (1.5) 02 = 5/64 (2) 25 = 3/32 (2.5)	N N = NBR E = EPDM V = FKM	0 0 = Standard	A A A = A series - SOL10 A = 12V DC B = B series - SOL11 B = 24V DC 1 = 24V AC 2 = 110V AC 3 = 220V AC

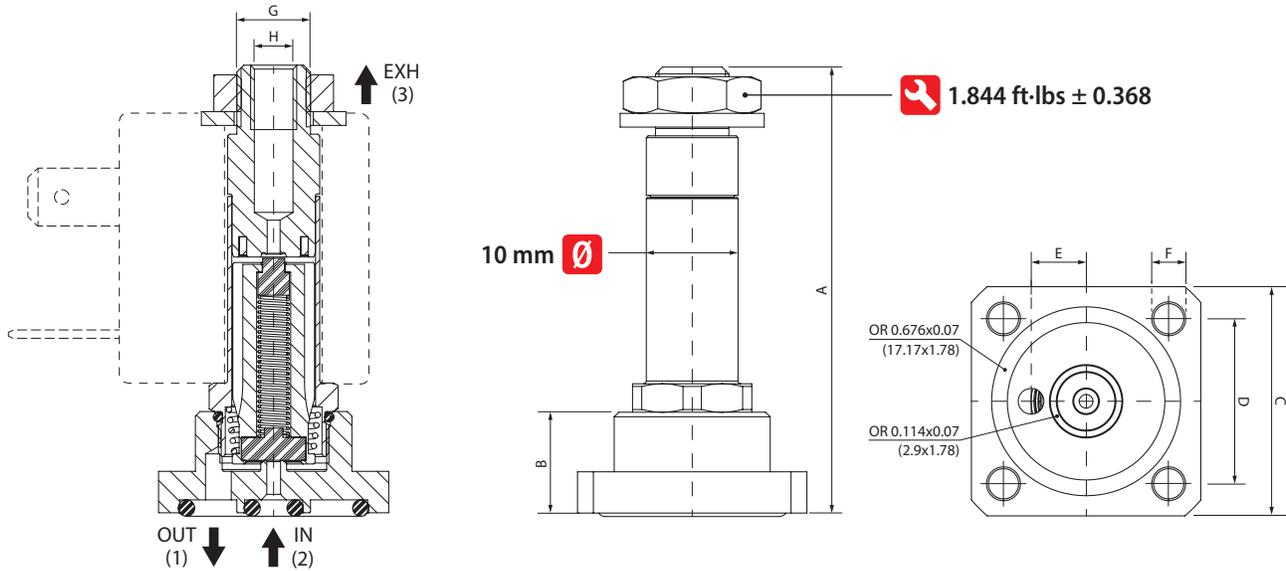
Valves and coils are supplied separately. Upon commercial agreements can be supplied assembled.

Code	Sealing materials	Port size	Ø Orifice		Viscosity	Cv (Kv)		Differential pressure (OPD)			Power		Coils		
			inch (mm)			cSt	gpm (m ³ /h)		psi (bar)			DC	AC	Size	Series
			IN	EXH			IN	EXH	Min	Max DC	Max AC	W	VA	mm	A - Page 15.2 B - Page 15.3
F1F J4 3 15 _0	N = NBR +14°F +194°F (-10°C +90°C)	□ 25x25 mm	1/16 (1.5)	1/16 (1.4)	25	0.07 (0.06)	0.06 (0.05)	0	145 (10)	145 (10)	6.5	7.5	22	A - SOL10	
F1F J4 3 02 _0	V = FKM +14°F +284°F (-10°C +140°C)		5/64 (2)	1/16 (1.4)	25	0.10 (0.09)	0.06 (0.05)	0	87 (6)	87 (6)	8	11	30	B - SOL11	
F1F J4 3 25 _0	E = EPDM +14°F +284°F (-10°C +140°C)		3/32 (2.5)	1/16 (1.4)	25	0.17 (0.15)	0.06 (0.05)	0	58 (4)	58 (4)	6.5	7.5	22	A - SOL10	
									58 (4)	58 (4)	8	11	30	B - SOL11	

① Select seal material

With steam: EPDM - P max = 36 psi (2.5 bar)

Coil not included



Size	A	B	C	D	E	F	H	G
	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)		
□ 25x25 mm	1.915 (48.65)	0.433 (11)	0.984 (25)	0.708 (18)	0.236 (6)	0.129 (3.3)	M5	M8 x 0.75

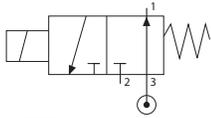
Series F1F

DIRECT ACTING SOLENOID VALVES WITH FLANGE FIXING AND BRASS CW510L BODY

3/2 NO

25 x 25 mm

CW510L
Pb ≤ 0.1%



Component Parts and Materials

- 1 Body: Brass CW510L - Pb ≤ 0.1%
- 2 Seals: NBR - EPDM - FKM
- 3 Armature tube: Stainless steel
- 4 Fixed and mobile core: Stainless steel AISI 430FR
- 5 Springs: Stainless steel



General features - F1F

- Universal mounting position
- Operator kit Ø 10 mm
- ATEX II 2G/D Ex h certification
- Coils: Class H - - CSA C22.2



Maximum allowable pressure

580 psi (40 bar)



Compatibility and materials table

Page 0.13 - 0.14



Room temperature with coil class H

+14°F +176°F
-10°C +80°C



Applications

- Food industry
- Coffee & vending
- Compressors
- Water and Neutral liquids
- Air and Inert gases
- Oils, Steam, Vacuum



Ordering codes

Series	Port size	Functions	Orifice inch (mm)	Sealing materials	Version	Suitable coils
F 1 F	J 4 J4 = □ 25x25 mm	4 4 = 3/2 NO	1 5 15 = 1/16 (1.5) 02 = 5/64 (2) 25 = 3/32 (2.5)	N N = NBR E = EPDM V = FKM	0 0 = Standard	A A A = A series - SOL10 A = 12V DC B = B series - SOL11 B = 24V DC 1 = 24V AC 2 = 110V AC 3 = 220V AC

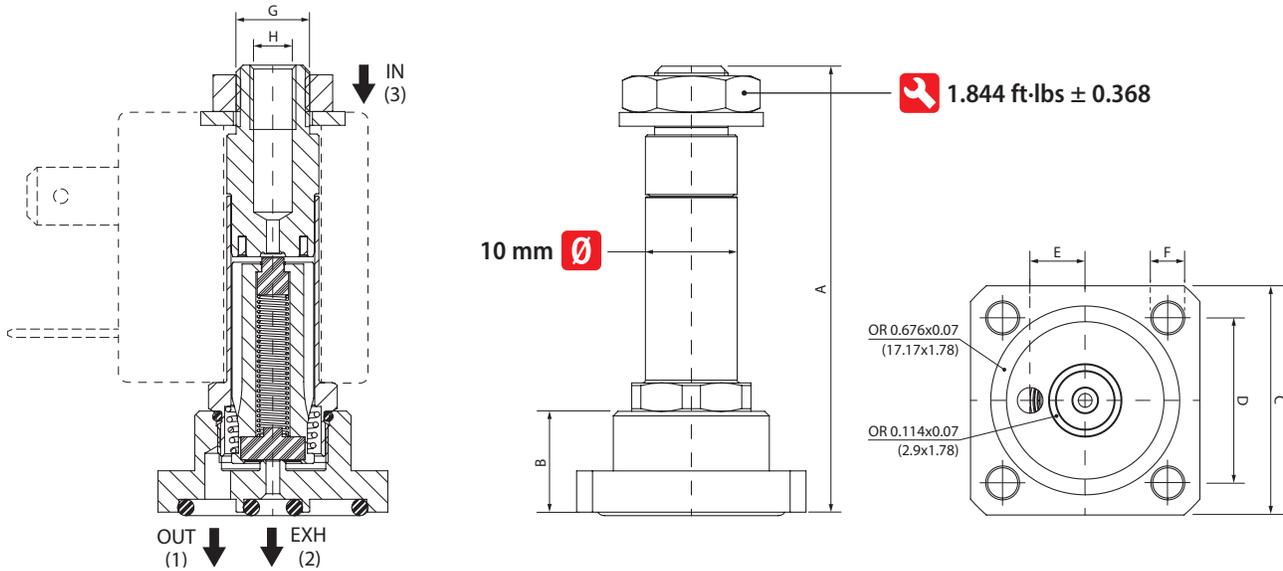
Valves and coils are supplied separately. Upon commercial agreements can be supplied assembled.

Code	Sealing materials	Port size	Ø Orifice		Viscosity	Cv (Kv)		Differential pressure (OPD)			Power		Coils		
			inch (mm)			cSt	gpm (m ³ /h)		psi (bar)			DC	AC	Size	Series
			IN	EXH			IN	EXH	Min	Max DC	Max AC	W	VA	mm	A - Page 15.2 B - Page 15.3
F1F J4 4 15 _ 0	N = NBR +14°F +194°F (-10°C +90°C)	□ 25x25 mm	1/16 (1.4)	1/16 (1.5)	25	0.06 (0.05)	0.07 (0.06)	0	145 (10)	145 (10)	6.5	7.5	22	A - SOL10	
F1F J4 4 02 _ 0	V = FKM +14°F +284°F (-10°C +140°C)		1/16 (1.4)	5/64 (2)	25	0.06 (0.05)	0.10 (0.09)	0	145 (10)	145 (10)	8	11	30	B - SOL11	
F1F J4 4 25 _ 0	E = EPDM +14°F +284°F (-10°C +140°C)		1/16 (1.4)	3/32 (2.5)	25	0.06 (0.05)	0.17 (0.15)	0	58 (4)	145 (10)	6.5	7.5	22	A - SOL10	
									145 (10)	145 (10)	8	11	30	B - SOL11	

① Select seal material

With steam: EPDM - P max = 36 psi (2.5 bar)

Coil not included



Size	A	B	C	D	E	F	H	G
	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)		
□ 25x25 mm	1.915 (48.65)	0.433 (11)	0.984 (25)	0.708 (18)	0.236 (6)	0.129 (3.3)	M5	M8 x 0.75

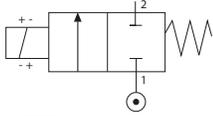
Series F1F

DIRECT ACTING SOLENOID VALVES WITH FLANGE FIXING AND BRASS CW510L BODY

2/2 LATCHING

25 x 25 mm

CW510L
Pb ≤ 0.1%



Pulse switching ≥20 ms, polarity reversed

Ordering codes



Series	Port size	Functions	Orifice inch (mm)	Sealing materials	Version	Suitable coils
F 1 F	J 4 J4 = □ 25x25 mm	B B = 2/2 Latching	1 5 15 = 1/16 (1.5) 02 = 5/64 (2) 25 = 3/32 (2.5)	N N = NBR E = EPDM V = FKM C = CR	0 0 = Standard	A A A = A series - SOL10 B = B series - SOL11 A = 12V DC B = 24V DC F = 3V DC H = 9V DC

Valves and coils are supplied separately. Upon commercial agreements can be supplied assembled.



Component Parts and Materials

- 1 Body: Brass CW510L - Pb ≤ 0.1%
- 2 Seals: NBR - EPDM - FKM - CR
- 3 Armature tube: Stainless steel
- 4 Fixed and mobile core: Stainless steel AISI 430FR
- 5 Springs: Stainless steel



General features - F1F

- Universal mounting position
- Operator kit Ø 10 mm
- ATEX II 2G/D Ex h certification
- Coils: Class H - - CSA C22.2



Maximum allowable pressure

580 psi (40 bar)



Compatibility and materials table

Page 0.13 - 0.14



Room temperature with coil class H

+14°F +176°F
-10°C +80°C



Applications

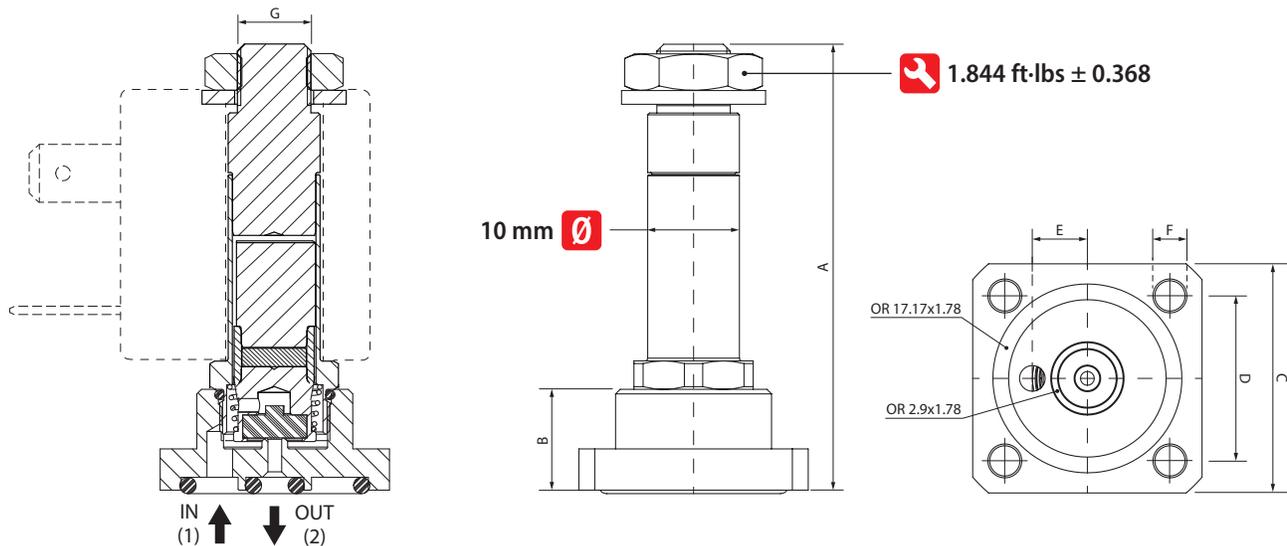
- Food industry
- Coffee & vending
- Compressors
- Water and Neutral liquids
- Air and Inert gases
- Oils, Steam, Vacuum

Code	Sealing materials	Port size	Ø Orifice	Viscosity	Cv (Kv)	Differential pressure (OPD)		Power	Coils					
						inch (mm)	cSt		gpm (m³/h)	psi (bar)		DC	Size	Series
										Min	Max DC			
F1F J4 B 15 _0	N = NBR +14°F +194°F (-10°C +90°C)	 25x25 mm	1/16 (1.5)	25	0.07 (0.06)	0	145 (10)	2	22	A - SOL10				
							290 (20)							
							507 (35)							
F1F J4 B 02 _0	V = FKM +14°F +284°F (-10°C +140°C)	 25x25 mm	5/64 (2)	25	0.10 (0.09)	0	94 (6.5)	2	22	A - SOL10				
							188 (13)							
							333 (23)							
F1F J4 B 25 _0	C = CR -31°F +212°F (-35°C +100°C)	 25x25 mm	3/32 (2.5)	25	0.17 (0.15)	0	36 (2.5)	2	22	A - SOL10				
							72 (5)							
							145 (10)							

① Select seal material

With steam: EPDM - P max = 36 psi (2.5 bar)

Coil not included



Size	A	B	C	D	E	F	G
	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	
25x25 mm	1.915 (48.65)	0.433 (11)	0.984 (25)	0.708 (18)	0.236 (6)	0.129 (3.3)	M8 x 0.75