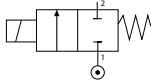




**2/2 NC**



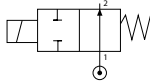
**□ 32 x 32 mm**

Page 8.2

**Ex**



**2/2 NO**



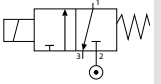
**□ 32 x 32 mm**

Page 8.4

**Ex**



**3/2 NC**



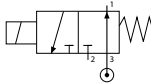
**□ 32 x 32 mm**

Page 8.6

**Ex**



**3/2 NO**



**□ 32 x 32 mm**

Page 8.8

**Ex**

## Series F2F

## Coils & Connectors



**30 mm**

**Series C**

Page 17.4

**UL US**  
**CSA C22.2**



**30 mm**

**Series D**

Page 17.5

**UL US**  
**CSA C22.2**



**36 mm**

**Series E**

Page 17.6

**UL US**  
**CSA C22.2**



**Connectors**

Page 17.8 - 17.10

**UL US**  
**CSA C22.2**

**DIRECT ACTING SOLENOID VALVES WITH FLANGE  
FIXING AND BRASS CW510L BODY -  $P_b \leq 0.1\%$**

**CW510L /  $P_b \leq 0.1\%$**

**Ex**  
**II 2 G/D Ex h**

**C US**  
**CSA C22.2**

**Series F2F**



**F2F**

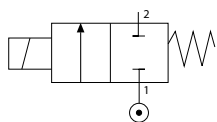
## Series F2F

DIRECT ACTING SOLENOID VALVES WITH FLANGE FIXING AND BRASS CW510L BODY

**2/2 NC**

**32 x 32 mm**

**CW510L  
Pb ≤ 0.1%**



### Component Parts and Materials

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



### General features - F2F

- Universal mounting position
- Operator kit Ø 13 mm
- Valve certification: ATEX II 2G/D Ex h
- Coils: Class H - - CSA C22.2



### Maximum allowable pressure

**725 psi (50 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<br>inch (mm)                                                                 | Sealing materials                                                           | Version                                                  | Suitable coils                                                       |                                                                      |
|--------------|---------------|------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>F 2 F</b> | <b>J 9</b>    | <b>1</b>   | <b>1 5</b>                                                                           | <b>N</b>                                                                    | <b>0</b>                                                 | <b>C</b>                                                             | <b>A</b>                                                             |
|              | J9 = 32x32 mm | 1 = 2/2 NC | 15 = 1/16 (1.5)<br>02 = 5/64 (2)<br>25 = 3/32 (2.5)<br>03 = 1/8 (3)<br>04 = 5/32 (4) | N = NBR<br>F = NBR<br>E = EPDM<br>V = FKM<br>P = PTFE<br>R = RUBY<br>C = CR | 0 = Standard<br>3 = Stainless Steel seat<br>(on request) | C = C series - SOL20<br>D = D series - SOL20<br>E = E series - SOL21 | A = 12V DC<br>B = 24V DC<br>1 = 24V AC<br>2 = 110V AC<br>3 = 220V AC |

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

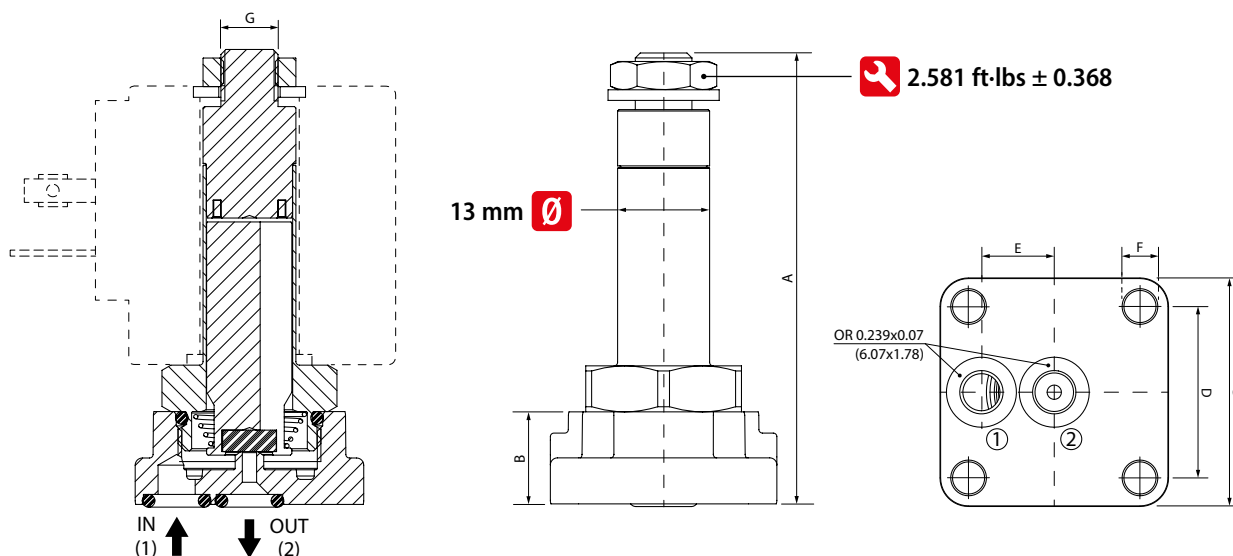
| Code                   | Sealing materials                                                                                          | Port size | Ø Orifice     | Viscosity | Cv<br>(Kv)                 | Differential pressure (OPD) |          |          | Power |    | Coils |                                                 |
|------------------------|------------------------------------------------------------------------------------------------------------|-----------|---------------|-----------|----------------------------|-----------------------------|----------|----------|-------|----|-------|-------------------------------------------------|
|                        |                                                                                                            |           |               |           |                            | psi (bar)                   |          |          | DC    | AC | Size  | Series                                          |
|                        |                                                                                                            |           | inch<br>(mm)  | cSt       | gpm<br>(m <sup>3</sup> /h) | Min                         | Max DC   | Max AC   | W     | VA | mm    | C - Page 17.4<br>D - Page 17.5<br>E - Page 17.6 |
| <b>F2F J9 1 15 _ 0</b> | <b>N = NBR</b><br>+14°F +194°F<br>(-10°C +90°C)                                                            | 32x32 mm  | 1/16<br>(1.5) | 25        | 0.07<br>(0.06)             | 0                           | 725 (50) | 725 (50) | 8     | 14 | 30    | C - SOL20                                       |
| <b>F2F J9 1 02 _ 0</b> | <b>F = NBR</b>                                                                                             |           | 5/64<br>(2)   | 37        | 0.12<br>(0.10)             | 0                           | 725 (50) | 725 (50) | 14    | 21 | 30    | D - SOL20                                       |
| <b>F2F J9 1 25 _ 0</b> | <b>V = FKM</b><br>+14°F +284°F<br>(-10°C +140°C)                                                           |           | 3/32<br>(2.5) | 53        | 0.17<br>(0.15)             | 0                           | 725 (50) | 725 (50) | 22    | 31 | 36    | E - SOL21                                       |
| <b>F2F J9 1 03 _ 0</b> | <b>E = EPDM</b><br>+14°F +284°F<br>(-10°C +140°C)                                                          |           | 1/8<br>(3)    | 53        | 0.24<br>(0.21)             | 0                           | 305 (21) | 508 (35) | 8     | 14 | 30    | C - SOL20                                       |
| <b>F2F J9 1 04 _ 0</b> | <b>C = CR</b><br>-31°F +212°F<br>(-35°C +100°C)                                                            |           | 5/32<br>(4)   | 53        | 0.41<br>(0.35)             | 0                           | 435 (30) | 580 (40) | 14    | 21 | 30    | D - SOL20                                       |
|                        |                                                                                                            |           |               |           |                            |                             | 653 (45) | 725 (50) | 22    | 31 | 36    | E - SOL21                                       |
| <b>F2F J9 1 15 _ 3</b> | <b>P = PTFE</b><br>-40°F +356°F<br>(-40°C +180°C)<br><br><b>R = RUBY</b><br>-40°F +356°F<br>(-40°C +180°C) | 32x32 mm  | 1/16<br>(1.5) | 25        | 0.07<br>(0.06)             | 0                           | 145 (10) | 305 (21) | 8     | 14 | 30    | C - SOL20                                       |
| <b>F2F J9 1 02 _ 3</b> |                                                                                                            |           | 5/64<br>(2)   | 37        | 0.12<br>(0.10)             | 0                           | 362 (25) | 435 (30) | 14    | 21 | 30    | D - SOL20                                       |
| <b>F2F J9 1 25 _ 3</b> |                                                                                                            |           | 3/32<br>(2.5) | 53        | 0.17<br>(0.15)             | 0                           | 580 (40) | 580 (40) | 22    | 31 | 36    | E - SOL21                                       |
| <b>F2F J9 1 03 P 3</b> |                                                                                                            |           | 1/8<br>(3)    | 53        | 0.24<br>(0.21)             | 0                           | 44 (3)   | 145 (10) | 8     | 14 | 30    | C - SOL20                                       |
| <b>F2F J9 1 04 P 3</b> |                                                                                                            |           | 5/32<br>(4)   | 53        | 0.41<br>(0.35)             | 0                           | 87 (6)   | 203 (14) | 14    | 21 | 30    | D - SOL20                                       |
|                        |                                                                                                            |           |               |           |                            |                             | 218 (15) | 290 (20) | 22    | 31 | 36    | E - SOL21                                       |

① Select seal material

With steam: EPDM - P max = 36 psi (2.5 bar) / PTFE & RUBY - P max = 145 psi (10 bar)

Allowable leakage: PTFE & RUBY = max 0.08 gph (300 cm<sup>3</sup>/h)

Coil not included



| Size     | A            | B          | C          | D          | E            | F           | G      |
|----------|--------------|------------|------------|------------|--------------|-------------|--------|
|          | inch (mm)    | inch (mm)  | inch (mm)  | inch (mm)  | inch (mm)    | inch (mm)   |        |
| 32x32 mm | 2.507 (63.7) | 0.511 (13) | 1.259 (32) | 0.944 (24) | 0.401 (10.2) | 0.177 (4.5) | M8 x 1 |

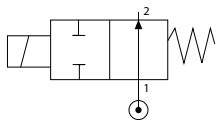
## Series F2F

DIRECT ACTING SOLENOID VALVES WITH FLANGE FIXING AND BRASS CW510L BODY

2/2 NO

32 x 32 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: Brass
- 4 Fixed and mobile core: Stainless steel AISI 430FR
- 5 Springs: Stainless steel



### General features - F2F

- Universal mounting position
- Operator kit Ø 13 mm
- Valve certification: ATEX II 2G/D Ex h
- Coils: Class H -  - CSA C22.2



### Maximum allowable pressure

725 psi (50 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



### Stainless Steel armature tube on request



### Ordering codes

| Series       | Port size                    | Functions              | Orifice<br>inch (mm)                                                                               | Sealing materials                                    | Version                  | Suitable coils                                                                   |                                                                                  |
|--------------|------------------------------|------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <b>F 2 F</b> | <b>J 9</b><br>J9 = □32x32 mm | <b>2</b><br>2 = 2/2 NO | <b>1 5</b><br>15 = 1/16 (1.5)<br>02 = 5/64 (2)<br>25 = 3/32 (2.5)<br>03 = 1/8 (3)<br>04 = 5/32 (4) | <b>N</b><br>N = NBR<br>E = EPDM<br>V = FKM<br>C = CR | <b>0</b><br>0 = Standard | <b>C</b><br>C = C series - SOL20<br>D = D series - SOL20<br>E = E series - SOL21 | <b>A</b><br>A = 12V DC<br>B = 24V DC<br>1 = 24V AC<br>2 = 110V AC<br>3 = 220V AC |

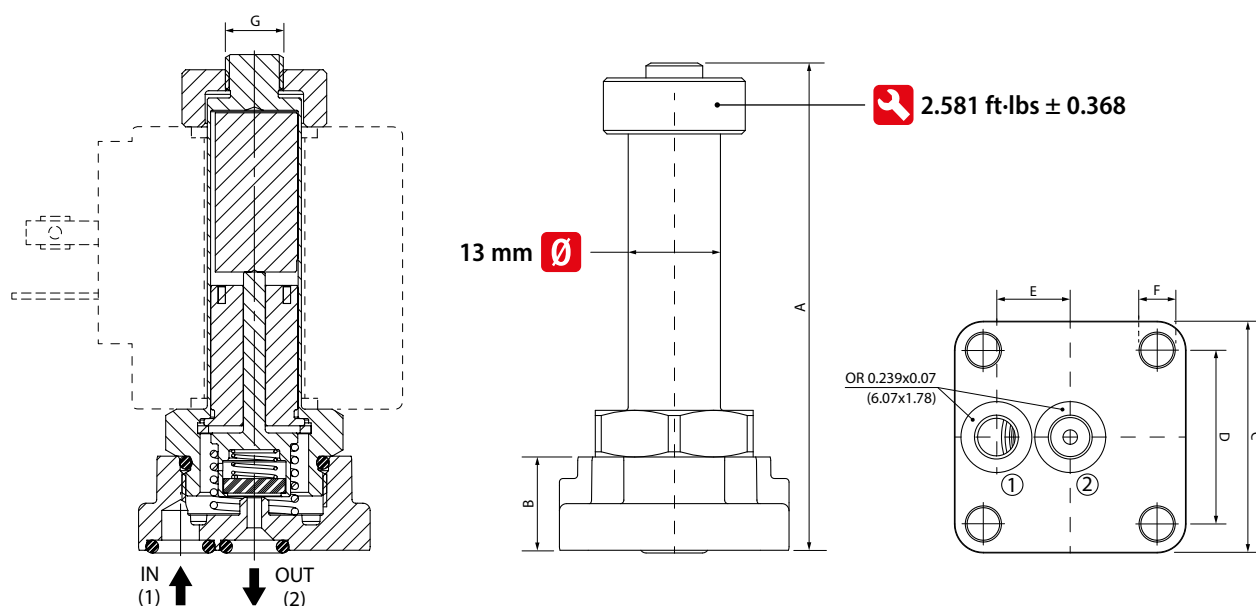
Valves and coils are supplied separately.  
Upon commercial agreements can be supplied assembled.

| Code            | Sealing materials                                                                                                                                                                                                       | Port size           | Ø Orifice     | Viscosity | Cv<br>(Kv)                 | Differential pressure (OPD) |                             |           | Power |    | Coils |                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|-----------|----------------------------|-----------------------------|-----------------------------|-----------|-------|----|-------|-------------------------------------------------|
|                 |                                                                                                                                                                                                                         |                     |               |           |                            | psi (bar)                   |                             |           | DC    | AC | Size  | Series                                          |
| ①               | ①                                                                                                                                                                                                                       |                     | inch<br>(mm)  | cSt       | gpm<br>(m <sup>3</sup> /h) | Min                         | Max DC                      | Max AC    | W     | VA | mm    | C - Page 17.4<br>D - Page 17.5<br>E - Page 17.6 |
| F2F J9 2 15 _ 0 | <b>N = NBR</b><br>+14°F +194°F<br>(-10°C +90°C)<br><br><b>V = FKM</b><br>+14°F +284°F<br>(-10°C +140°C)<br><br><b>E = EPDM</b><br>+14°F +284°F<br>(-10°C +140°C)<br><br><b>C = CR</b><br>-31°F +212°F<br>(-35°C +100°C) | <br><b>32x32 mm</b> | 1/16<br>(1.5) | 25        | 0.07<br>(0.06)             | 0                           | -<br>363 (25)<br>363 (25)   | 363 (25)  | -     | 14 | 30    | C - SOL20                                       |
| F2F J9 2 02 _ 0 |                                                                                                                                                                                                                         |                     | 5/64<br>(2)   | 37        | 0.12<br>(0.10)             | 0                           | -<br>261 (18)<br>261 (18)   | 261 (18)  | -     | 14 | 30    | D - SOL20                                       |
| F2F J9 2 25 _ 0 |                                                                                                                                                                                                                         |                     | 3/32<br>(2.5) | 53        | 0.17<br>(0.15)             | 0                           | -<br>174 (12)<br>174 (12)   | 174 (12)  | -     | 14 | 30    | E - SOL21                                       |
| F2F J9 2 03 _ 0 |                                                                                                                                                                                                                         |                     | 1/8<br>(3)    | 53        | 0.24<br>(0.21)             | 0                           | -<br>109 (7.5)<br>109 (7.5) | 109 (7.5) | -     | 14 | 30    | C - SOL20                                       |
| F2F J9 2 04 _ 0 |                                                                                                                                                                                                                         |                     | 5/32<br>(4)   | 53        | 0.41<br>(0.35)             | 0                           | -<br>65 (4.5)<br>65 (4.5)   | 65 (4.5)  | -     | 14 | 30    | D - SOL20                                       |
|                 |                                                                                                                                                                                                                         |                     |               |           |                            |                             |                             |           | 22    | 31 | 36    | E - SOL21                                       |

① Select seal material

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

Coil not included



| Size     | A<br>inch (mm) | B<br>inch (mm) | C<br>inch (mm) | D<br>inch (mm) | E<br>inch (mm) | F<br>inch (mm) | G      |
|----------|----------------|----------------|----------------|----------------|----------------|----------------|--------|
| 32x32 mm | 2.696 (68.5)   | 0.511 (13)     | 1.259 (32)     | 0.944 (24)     | 0.401 (10.2)   | 0.177 (4.5)    | M8 x 1 |

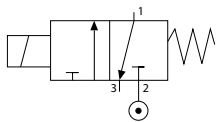
## Series F2F

DIRECT ACTING SOLENOID VALVES WITH FLANGE FIXING AND BRASS CW510L BODY

3/2 NC

32 x 32 mm

CW510L  
Pb ≤ 0.1%



### Component Parts and Materials

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



### General features - F2F

- Universal mounting position
- Operator kit Ø 13 mm
- Valve certification: ATEX II 2G/D Ex h
- Coils: Class H - - CSA C22.2



### Maximum allowable pressure

725 psi (50 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<br>inch (mm)                                                                 | Sealing materials                                    | Version                                               | Suitable coils                                                       |                                                                      |
|-------------------------------------------------------------------------------------------------|-------------------|------------|--------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>F</b> <b>2</b> <b>F</b>                                                                      | <b>J</b> <b>9</b> | <b>3</b>   | <b>1</b> <b>5</b>                                                                    | <b>N</b>                                             | <b>0</b>                                              | <b>C</b>                                                             | <b>A</b>                                                             |
|                                                                                                 | J9 = □ 32x32 mm   | 3 = 3/2 NC | 15 = 1/16 (1.5)<br>02 = 5/64 (2)<br>25 = 3/32 (2.5)<br>03 = 1/8 (3)<br>04 = 5/32 (4) | N = NBR<br>E = EPDM<br>V = FKM<br>R = RUBY<br>C = CR | 0 = Standard<br>3 = Stainless Steel seat (on request) | C = C series - SOL20<br>D = D series - SOL20<br>E = E series - SOL21 | A = 12V DC<br>B = 24V DC<br>1 = 24V AC<br>2 = 110V AC<br>3 = 220V AC |
| Valves and coils are supplied separately. Upon commercial agreements can be supplied assembled. |                   |            |                                                                                      |                                                      |                                                       |                                                                      |                                                                      |

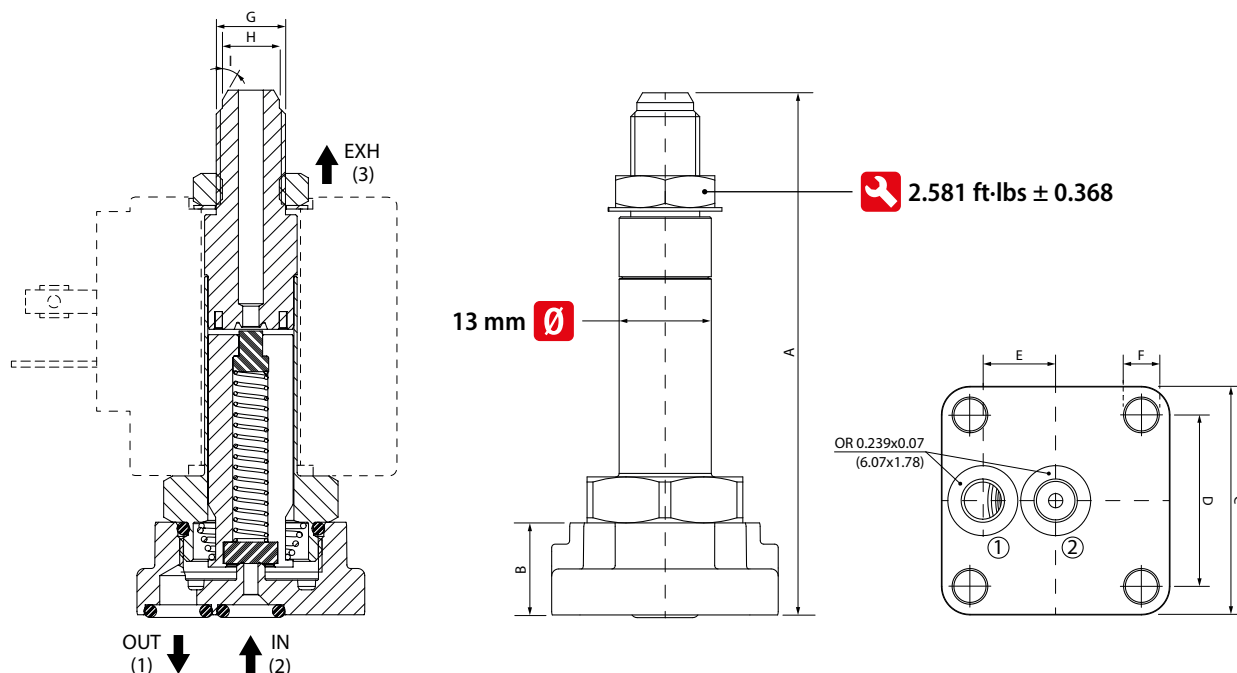
| Code            | Sealing materials                                                                                                                                                                                                       | Port size | Ø Orifice  |            | Viscosity | Cv (Kv)     |             | Differential pressure (OPD) |          |          | Power |    | Coils |                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|------------|-----------|-------------|-------------|-----------------------------|----------|----------|-------|----|-------|-------------------------------------------------|
| ①               | ①                                                                                                                                                                                                                       |           | inch (mm)  |            | cSt       | gpm (m³/h)  |             | psi (bar)                   |          |          | DC    | AC | Size  | Series                                          |
|                 |                                                                                                                                                                                                                         |           | IN         | EXH        |           | IN          | EXH         | Min                         | Max DC   | Max AC   | W     | VA | mm    | C - Page 17.4<br>D - Page 17.5<br>E - Page 17.6 |
| F2F J9 3 15 _ 0 | <b>N = NBR</b><br>+14°F +194°F<br>(-10°C +90°C)<br><br><b>V = FKM</b><br>+14°F +284°F<br>(-10°C +140°C)<br><br><b>E = EPDM</b><br>+14°F +284°F<br>(-10°C +140°C)<br><br><b>C = CR</b><br>-31°F +212°F<br>(-35°C +100°C) | 32x32 mm  | 1/16 (1.5) | 3/32 (2.3) | 25        | 0.07 (0.06) | 0.15 (0.13) | 0                           | 363 (25) | 363 (25) | 8     | 14 | 30    | C - SOL20                                       |
| F2F J9 3 02 _ 0 |                                                                                                                                                                                                                         |           | 5/64 (2)   | 3/32 (2.3) | 37        | 0.12 (0.10) | 0.15 (0.13) | 0                           | 363 (25) | 363 (25) | 14    | 21 | 30    | D - SOL20                                       |
| F2F J9 3 25 _ 0 |                                                                                                                                                                                                                         |           | 3/32 (2.5) | 3/32 (2.3) | 37        | 0.17 (0.15) | 0.15 (0.13) | 0                           | 363 (25) | 363 (25) | 22    | 31 | 36    | E - SOL21                                       |
| F2F J9 3 03 _ 0 |                                                                                                                                                                                                                         |           | 1/8 (3)    | 3/32 (2.3) | 37        | 0.24 (0.21) | 0.15 (0.13) | 0                           | 261 (18) | 261 (18) | 8     | 14 | 30    | C - SOL20                                       |
| F2F J9 3 04 _ 0 |                                                                                                                                                                                                                         |           | 5/32 (4)   | 3/32 (2.3) | 37        | 0.41 (0.35) | 0.15 (0.13) | 0                           | 261 (18) | 261 (18) | 14    | 21 | 30    | D - SOL20                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 189 (13) | 189 (13) | 22    | 31 | 36    | E - SOL21                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 189 (13) | 189 (13) | 8     | 14 | 30    | C - SOL20                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 189 (13) | 189 (13) | 14    | 21 | 30    | D - SOL20                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 145 (10) | 145 (10) | 22    | 31 | 36    | E - SOL21                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 145 (10) | 145 (10) | 8     | 14 | 30    | C - SOL20                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 145 (10) | 145 (10) | 14    | 21 | 30    | D - SOL20                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 87 (6)   | 87 (6)   | 22    | 31 | 36    | E - SOL21                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 87 (6)   | 87 (6)   | 8     | 14 | 30    | C - SOL20                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 87 (6)   | 87 (6)   | 14    | 21 | 30    | D - SOL20                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 87 (6)   | 87 (6)   | 22    | 31 | 36    | E - SOL21                                       |
| F2F J9 3 15 R 3 | <b>R = RUBY</b><br>-40°F +356°F<br>(-40°C +180°C)                                                                                                                                                                       | 32x32 mm  | 1/16 (1.5) | 3/32 (2.3) | 25        | 0.07 (0.06) | 0.15 (0.13) | 0                           | 217 (15) | 217 (15) | 8     | 14 | 30    | C - SOL20                                       |
| F2F J9 3 02 R 3 |                                                                                                                                                                                                                         |           | 5/64 (2)   | 3/32 (2.3) | 37        | 0.12 (0.10) | 0.15 (0.13) | 0                           | 217 (15) | 217 (15) | 14    | 21 | 30    | D - SOL20                                       |
| F2F J9 3 25 R 3 |                                                                                                                                                                                                                         |           | 3/32 (2.5) | 3/32 (2.3) | 37        | 0.17 (0.15) | 0.15 (0.13) | 0                           | 217 (15) | 217 (15) | 22    | 31 | 36    | E - SOL21                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 145 (10) | 145 (10) | 8     | 14 | 30    | C - SOL20                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 145 (10) | 145 (10) | 14    | 21 | 30    | D - SOL20                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 145 (10) | 145 (10) | 22    | 31 | 36    | E - SOL21                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 87 (6)   | 87 (6)   | 8     | 14 | 30    | C - SOL20                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 87 (6)   | 87 (6)   | 14    | 21 | 30    | D - SOL20                                       |
|                 |                                                                                                                                                                                                                         |           |            |            |           |             |             |                             | 87 (6)   | 87 (6)   | 22    | 31 | 36    | E - SOL21                                       |

① Select seal material

With steam: EPDM - P max = 36 psi (2.5 bar) / RUBY - P max = 145 psi (10 bar)

Allowable leakage: RUBY = max 0.08 gph (300 cm³/h)

Coil not included



| Size     | A            | B          | C          | D          | E            | F           | G    | H   | I   |
|----------|--------------|------------|------------|------------|--------------|-------------|------|-----|-----|
|          | inch (mm)    | inch (mm)  | inch (mm)  | inch (mm)  | inch (mm)    | inch (mm)   |      |     |     |
| 32x32 mm | 2.901 (73.7) | 0.511 (13) | 1.259 (32) | 0.944 (24) | 0.401 (10.2) | 0.177 (4.5) | 1/8" | Ø 8 | 30° |

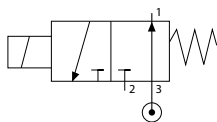
## Series F2F

DIRECT ACTING SOLENOID VALVES WITH FLANGE FIXING AND BRASS CW510L BODY

3/2 NO

32 x 32 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 - F2F

- Universal mounting position
- Operator kit Ø 13 mm
- Valve certification: ATEX II 2G/D Ex h
- Coils: Class H - - CSA C22.2



### Maximum allowable pressure

725 psi (50 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

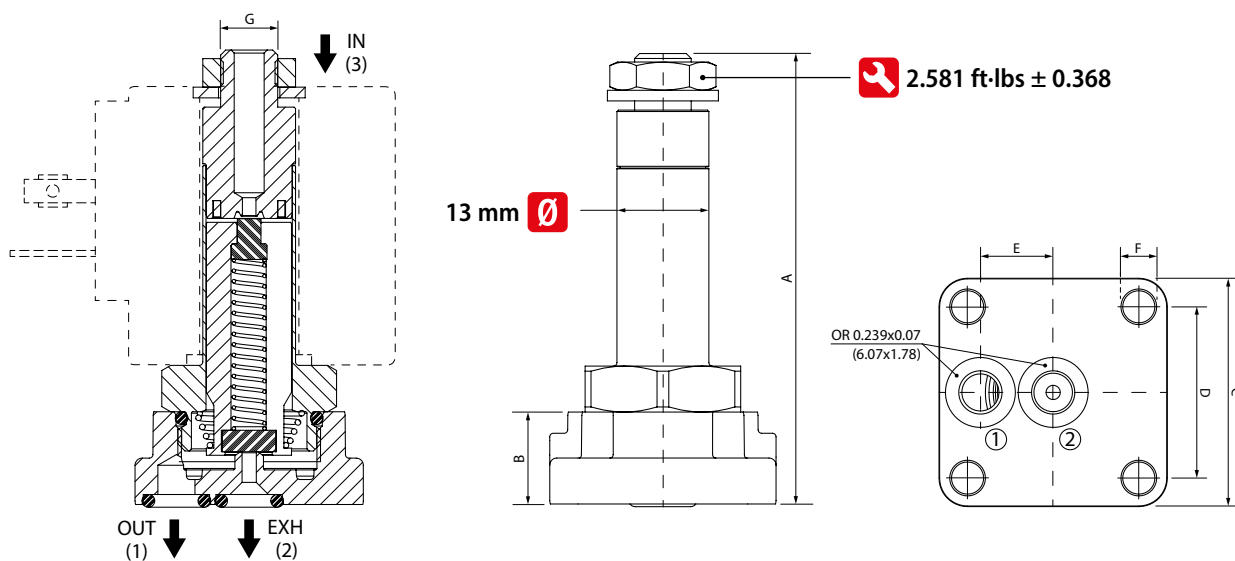
| Series                                                                                          | Port size         | Functions  | Orifice<br>inch (mm)                                                                 | Sealing materials                        | Version      | Suitable coils                                                       |                                                                      |
|-------------------------------------------------------------------------------------------------|-------------------|------------|--------------------------------------------------------------------------------------|------------------------------------------|--------------|----------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>F</b> <b>2</b> <b>F</b>                                                                      | <b>J</b> <b>9</b> | <b>4</b>   | <b>1</b> <b>5</b>                                                                    | <b>N</b>                                 | <b>0</b>     | <b>C</b>                                                             | <b>A</b>                                                             |
|                                                                                                 | J9 = □32x32 mm    | 4 = 3/2 NO | 15 = 1/16 (1.5)<br>02 = 5/64 (2)<br>25 = 3/32 (2.5)<br>03 = 1/8 (3)<br>04 = 5/32 (4) | N = NBR<br>E = EPDM<br>V = FKM<br>C = CR | 0 = Standard | C = C series - SOL20<br>D = D series - SOL20<br>E = E series - SOL21 | A = 12V DC<br>B = 24V DC<br>1 = 24V AC<br>2 = 110V AC<br>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 |                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------|---------------|-----------|-------------------------|----------------|-----------------------------|----------|----------|-------|----|-------|-------------------------------------------------|
| ①                      | ①                                                                                                                                                                 |                              | inch (mm)     |               | cSt       | gpm (m <sup>3</sup> /h) |                | psi (bar)                   |          |          | DC    | AC | Size  | Series                                          |
|                        |                                                                                                                                                                   |                              | IN            | EXH           |           | IN                      | EXH            | Min                         | Max DC   | Max AC   | W     | VA | mm    | C - Page 17.4<br>D - Page 17.5<br>E - Page 17.6 |
| <b>F2F J9 4 15 _ 0</b> | <b>N = NBR</b><br>-10°C +90°C<br><br><b>V = FKM</b><br>-10°C +140°C<br><br><b>E = EPDM</b><br>-10°C +140°C<br><br><b>C = CR</b><br>-31°F +212°F<br>(-35°C +100°C) | <div>□</div> <b>32x32 mm</b> | 5/64<br>(1.9) | 1/16<br>(1.5) | 25        | 0.12<br>(0.10)          | 0.07<br>(0.06) | 0                           | 218 (15) | 218 (15) | 8     | 14 | 30    | <b>C</b> - SOL20                                |
| <b>F2F J9 4 02 _ 0</b> |                                                                                                                                                                   |                              | 5/64<br>(1.9) | 5/64<br>(2)   | 37        | 0.12<br>(0.10)          | 0.12<br>(0.10) | 0                           | 218 (15) | 218 (15) | 14    | 21 | 30    | <b>D</b> - SOL20                                |
| <b>F2F J9 4 25 _ 0</b> |                                                                                                                                                                   |                              | 5/64<br>(1.9) | 3/32<br>(2.5) | 37        | 0.12<br>(0.10)          | 0.17<br>(0.15) | 0                           | 218 (15) | 218 (15) | 22    | 31 | 36    | <b>E</b> - SOL21                                |
| <b>F2F J9 4 03 _ 0</b> |                                                                                                                                                                   |                              | 5/64<br>(1.9) | 1/8<br>(3)    | 37        | 0.12<br>(0.10)          | 0.24<br>(0.21) | 0                           | 218 (15) | 218 (15) | 8     | 14 | 30    | <b>C</b> - SOL20                                |
| <b>F2F J9 4 04 _ 0</b> |                                                                                                                                                                   |                              | 5/64<br>(1.9) | 5/32<br>(4)   | 37        | 0.12<br>(0.10)          | 0.41<br>(0.35) | 0                           | 218 (15) | 218 (15) | 14    | 21 | 30    | <b>D</b> - SOL20                                |
|                        |                                                                                                                                                                   |                              |               |               |           |                         |                |                             | 189 (13) | 218 (15) | 22    | 31 | 36    | <b>E</b> - SOL21                                |

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      | H  |
|-------------------|--------------|------------|------------|------------|--------------|-------------|--------|----|
| inch (mm)         | inch (mm)    | inch (mm)  | inch (mm)  | inch (mm)  | inch (mm)    | inch (mm)   |        |    |
| <b>□ 32x32 mm</b> | 2.507 (63.7) | 0.511 (13) | 1.259 (32) | 0.944 (24) | 0.401 (10.2) | 0.177 (4.5) | M8 x 1 | M5 |