
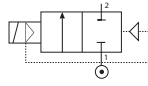



2/2 NC


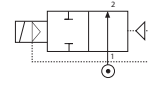



1/4" → 1"

Page 10.3




2/2 NO


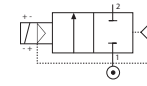



1/4" → 1"

Page 10.5




2/2 LATCHING

1/4" → 1"

Page 10.7



22 mm



Series A

Page 15.2



30 mm



Series B

Page 15.3




Connectors

Page 15.8 - 15.10



**SERVO-ASSISTED SOLENOID VALVES WITH BODY
IN STAINLESS STEEL AISI 316L**

Ex
II 2 G/D Ex h

UL
C US
CSA C22.2

AISI 316L



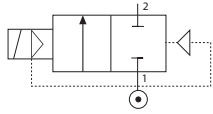
Series X4F

Series X4F

SERVO-ASSISTED SOLENOID VALVES IN STAINLESS STEEL AISI 316L

2/2 NC

1/4" → 1"



Component Parts and Materials

- 1 Body: Stainless steel AISI 316L
- 2 Seals: NBR - EPDM - FKM
- 3 Armature tube: Stainless steel
- 4 Fixed and mobile core: Stainless steel AISI 430FR
- 5 Springs: Stainless steel
- 6 Shading ring: Copper



General features - X4F

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



Maximum allowable pressure

363 psi (25 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

- Water, Oils, Neutral and corrosive liquids
- Water management, Water treatment
- Food industry, Washing systems
- Industrial processes, Refrigeration
- Air, Inert and aggressive gases
- Oxygen, Steam
- Chemical and Petrochemical industry



Silver-plated shading ring on request



Ordering codes

Series	Port size	Functions	Orifice inch (mm)	Sealing materials	Version	Thread	Suitable coils
X 4 F	0 3	1	1 0	N	H	N	A A
	03 = 1/4"	1 = 2/2 NC	10 = 25/64 (10)	N = NBR	H = Without manual override	N = NPTF	A = A series - SOL10 A = 12V DC
	04 = 3/8"		14 = 35/64 (14)	E = EPDM	O = With manual override		B = B series - SOL11 B = 24V DC
	05 = 1/2"		18 = 45/64 (18)	V = FKM			1 = 24V AC
	07 = 3/4"		25 = 1 (25)				2 = 110V AC
	09 = 1"						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)		
						psi (bar)	Min	Max DC
		NPTF	inch (mm)	cSt	gpm (m ³ /h)			

Power		Coils	
DC	AC	Size	Series
W	VA	mm	A - Page 15.2 B - Page 15.3

H

Without manual override

X4F 03 1 10 _ H N	N = NBR +14°F +194°F (-10°C +90°C)	1/4"	25/64 (10)	25	2.19 (1.88)	2 (0.15)	232 (16) 261 (18)	232 (16) 261 (18)	6.5	7.5	22	A - SOL10
		3/8"	35/64 (14)	25	3.87 (3.32)	2 (0.15)	232 (16) 261 (18)	232 (16) 261 (18)	8	11	30	B - SOL11
X4F 04 1 14 _ H N	V = FKM -22°F +302°F (-30°C +150°C)	1/2"	35/64 (14)	25	4.11 (3.53)	2 (0.15)	232 (16) 261 (18)	232 (16) 261 (18)	6.5	7.5	22	A - SOL10
		3/4"	45/64 (18)	25	6.48 (5.56)	2 (0.15)	232 (16) 261 (18)	232 (16) 261 (18)	8	11	30	B - SOL11
X4F 07 1 18 _ H N	E = EPDM +14°F +284°F (-10°C +140°C)	1"	1 (25)	25	12.78 (10.97)	2 (0.15)	232 (16) 261 (18)	232 (16) 261 (18)	6.5	7.5	22	A - SOL10
									8	11	30	B - SOL11

O

With manual override

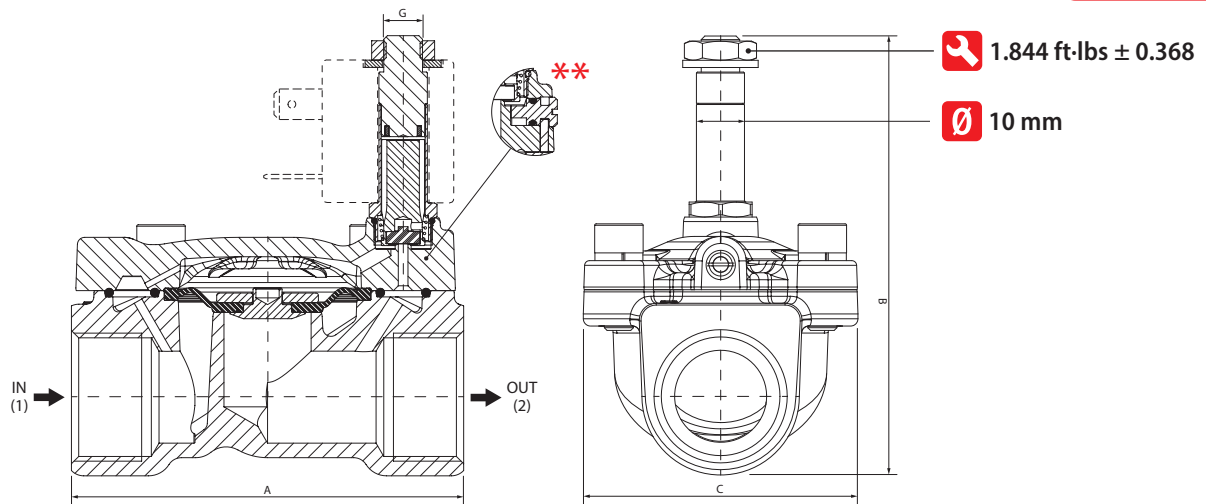
X4F 03 1 10 _ O N	N = NBR +14°F +194°F (-10°C +90°C)	1/4"	25/64 (10)	25	2.19 (1.88)	2 (0.15)	232 (16) 261 (18)	232 (16) 261 (18)	6.5	7.5	22	A - SOL10
		3/8"	35/64 (14)	25	3.87 (3.32)	2 (0.15)	232 (16) 261 (18)	232 (16) 261 (18)	8	11	30	B - SOL11
X4F 04 1 14 _ O N	V = FKM -22°F +302°F (-30°C +150°C)	1/2"	35/64 (14)	25	4.11 (3.53)	2 (0.15)	232 (16) 261 (18)	232 (16) 261 (18)	6.5	7.5	22	A - SOL10
		3/4"	45/64 (18)	25	6.48 (5.56)	2 (0.15)	232 (16) 261 (18)	232 (16) 261 (18)	8	11	30	B - SOL11
X4F 07 1 18 _ O N	E = EPDM +14°F +284°F (-10°C +140°C)	1"	1 (25)	25	12.78 (10.97)	2 (0.15)	232 (16) 261 (18)	232 (16) 261 (18)	6.5	7.5	22	A - SOL10
									8	11	30	B - SOL11

① Select seal material

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

Coil not included

** Manual override



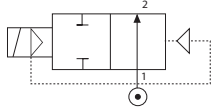
Size	A inch (mm)	B inch (mm)	C inch (mm)	G
1/4"	2.185 (55.5)	2.854 (72.5)	1.385 (35.2)	M8 x 0.75
3/8"	2.570 (65.3)	3.153 (80.1)	1.826 (46.4)	M8 x 0.75
1/2"	2.570 (65.3)	3.153 (80.1)	1.826 (46.4)	M8 x 0.75
3/4"	3.188 (81)	3.578 (90.9)	2.232 (56.7)	M8 x 0.75
1"	3.740 (95)	3.818 (97)	2.559 (65)	M8 x 0.75

Series X4F

SERVO-ASSISTED SOLENOID VALVES IN STAINLESS STEEL AISI 316L

2/2 NO

1/4" → 1"



Component Parts and Materials

- 1 Body: Stainless steel AISI 316L
- 2 Seals: NBR - EPDM - FKM
- 3 Armature tube: Stainless steel
- 4 Fixed and mobile core: Stainless steel AISI 430FR
- 5 Springs: Stainless steel
- 6 Shading ring: Copper



General features - X4F

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



Maximum allowable pressure

363 psi (25 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

- Water, Oils, Neutral and corrosive liquids
- Water management, Water treatment
- Food industry, Washing systems
- Industrial processes, Refrigeration
- Air, Inert and aggressive gases
- Oxygen, Steam
- Chemical and Petrochemical industry



Silver-plated shading ring on request



Ordering codes

Series	Port size	Functions	Orifice inch (mm)	Sealing materials	Version	Thread	Suitable coils
X 4 F	0 3	2	1 0	N	0	N	A A
	03 = 1/4"	2 = 2/2 NO	10 = 25/64 (10)	N = NBR	0 = Without manual override	N = NPTF	A = A series - SOL10 A = 12V DC
	04 = 3/8"		14 = 35/64 (14)	E = EPDM			B = B series - SOL11 B = 24V DC
	05 = 1/2"		18 = 45/64 (18)	V = FKM			1 = 24V AC
	07 = 3/4"		25 = 1 (25)				2 = 110V AC
	09 = 1"						3 = 220V AC

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

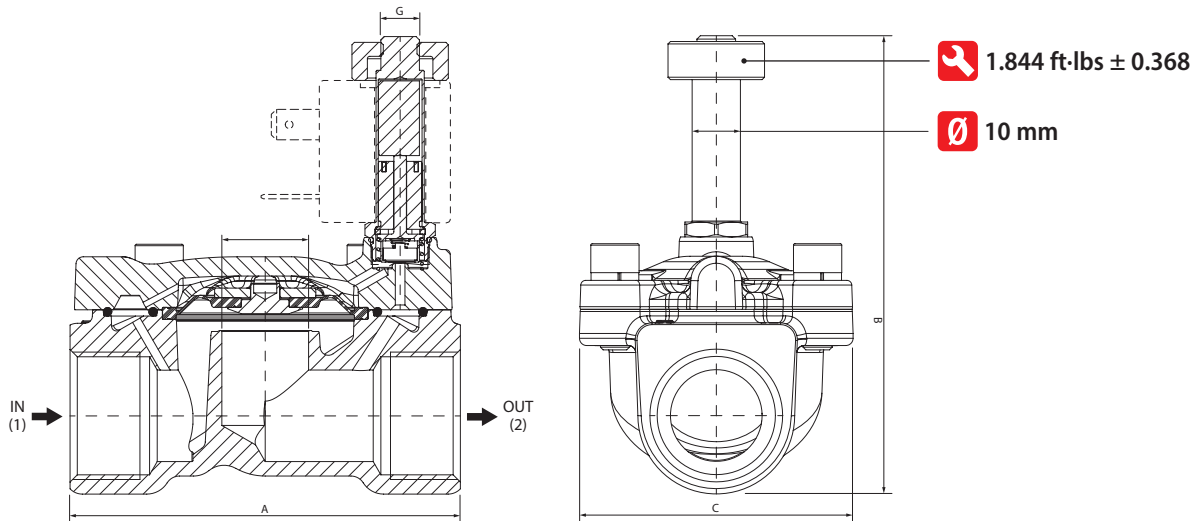
Code	Sealing materials	Port size	Ø Orifice	Viscosity	Cv (Kv)	Differential pressure (OPD)			Power		Coils	
						gpm (m ³ /h)	psi (bar)		DC	AC	Size	Series
							Min	Max DC	Max AC	W	VA	mm
①	①	NPTF	inch (mm)	cSt								

0 Without manual override												
X4F 03 2 10 _ 0 N	N = NBR +14°F +194°F (-10°C +90°C)	1/4"	25/64 (10)	25	2.19 (1.88)	2 (0.15)	-	145 (10)	-	7.5	22	A - SOL10
X4F 04 2 14 _ 0 N		3/8"	35/64 (14)	25	3.87 (3.32)	2 (0.15)	-	145 (10)	8	11	30	B - SOL11
X4F 05 2 14 _ 0 N	V = FKM -22°F +302°F (-30°C +150°C)	1/2"	35/64 (14)	25	4.11 (3.53)	2 (0.15)	-	145 (10)	-	7.5	22	A - SOL10
X4F 07 2 18 _ 0 N		3/4"	45/64 (18)	25	6.48 (5.56)	2 (0.15)	-	145 (10)	8	11	30	B - SOL11
X4F 09 2 25 _ 0 N	E = EPDM +14°F +284°F (-10°C +140°C)	1"	1 (25)	25	12.78 (10.97)	2 (0.15)	-	145 (10)	-	7.5	22	A - SOL10
									8	11	30	B - SOL11

① Select seal material

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

Coil not included



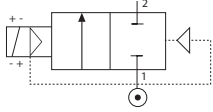
Size	A inch (mm)	B inch (mm)	C inch (mm)	G
1/4"	2.185 (55.5)	3.015 (76.6)	1.385 (35.2)	M8 x 1
3/8"	2.570 (65.3)	3.314 (84.2)	1.826 (46.4)	M8 x 1
1/2"	2.570 (65.3)	3.314 (84.2)	1.826 (46.4)	M8 x 1
3/4"	3.188 (81)	3.740 (95)	2.232 (56.7)	M8 x 1
1"	3.740 (95)	3.980 (101.1)	2.559 (65)	M8 x 1

Series X4F

SERVO-ASSISTED SOLENOID VALVES IN STAINLESS STEEL AISI 316L

2/2 LATCHING

1/4" → 1"



Pulse switching ≥20 ms, polarity reversed



Ordering codes

Series	Port size	Functions	Orifice inch (mm)	Sealing materials	Version	Thread	Suitable coils
X 4 F	0 3	B	1 0	N	H	N	A A
	03 = 1/4"	B = 2/2 Latching	10 = 25/64 (10)	N = NBR	H = Without manual override	N = NPTF	A = A series - SOL10 A = 12V DC
	04 = 3/8"		14 = 35/64 (14)	E = EPDM	O = With manual override		B = B series - SOL11 B = 24V DC
	05 = 1/2"		18 = 45/64 (18)	V = FKM			F = 3V DC
	07 = 3/4"		25 = 1 (25)				H = 9V DC
	09 = 1"						

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



Component Parts and Materials

- 1 Body: Stainless steel AISI 316L
- 2 Seals: NBR - EPDM - FKM
- 3 Armature tube: Stainless steel
- 4 Fixed and mobile core: Stainless steel AISI 430FR
- 5 Springs: Stainless steel
- 6 Shading ring: Copper



General features - X4F

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



Maximum allowable pressure

363 psi (25 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

- Water, Oils, Neutral and corrosive liquids
- Water management, Water treatment
- Food industry, Washing systems
- Industrial processes, Refrigeration
- Air, Inert and aggressive gases
- Oxygen, Steam
- Chemical and Petrochemical industry

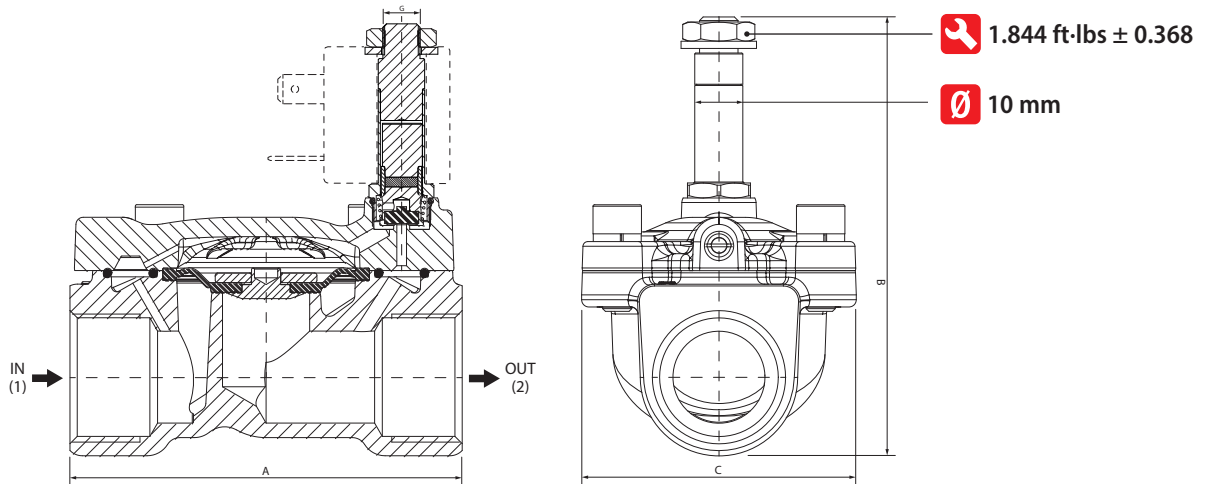
Code	Sealing materials	Port size	Ø Orifice	Viscosity	Cv (Kv)	Differential pressure (OPD)		Power	Coils	
						Min	Max DC		DC	Size
①	①	NPTF	inch (mm)	cSt	gpm (m ³ /h)			psi (bar)		

H Without manual override										
X4F 03 B 10 _ H N	N = NBR +14°F +194°F (-10°C +90°C) V = FKM -22°F +302°F (-30°C +150°C) E = EPDM +14°F +284°F (-10°C +140°C)	1/4"	25/64 (10)	25	2.19 (1.88)	2 (0.15)	94 (6.5)	2	22	A - SOL10
188 (13)							3	22	A - SOL10	
261 (18)							4	30	B - SOL11	
X4F 04 B 14 _ H N		3/8"	35/64 (14)	25	3.87 (2.32)	2 (0.15)	87 (6)	2	22	A - SOL10
174 (12)							3	22	A - SOL10	
261 (18)							4	30	B - SOL11	
X4F 05 B 14 _ H N		1/2"	35/64 (14)	25	4.11 (3.53)	2 (0.15)	87 (6)	2	22	A - SOL10
174 (12)							3	22	A - SOL10	
261 (18)							4	30	B - SOL11	
X4F 07 B 18 _ H N		3/4"	45/64 (18)	25	6.48 (5.56)	2 (0.15)	87 (6)	2	22	A - SOL10
174 (12)							3	22	A - SOL10	
261 (18)							4	30	B - SOL11	
X4F 09 B 25 _ H N		1"	1 (25)	25	12.78 (10.97)	2 (0.15)	79 (5.5)	2	22	A - SOL10
123 (8.5)							3	22	A - SOL10	
261 (18)							4	30	B - SOL11	

① Select seal material

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

Coil not included



Size	A inch (mm)	B inch (mm)	C inch (mm)	G
1/4"	2.185 (55.5)	2.854 (72.5)	1.385 (35.2)	M8 x 0.75
3/8"	2.570 (65.3)	3.153 (80.1)	1.826 (46.4)	M8 x 0.75
1/2"	2.570 (65.3)	3.153 (80.1)	1.826 (46.4)	M8 x 0.75
3/4"	3.188 (81)	3.578 (90.9)	2.232 (56.7)	M8 x 0.75
1"	3.740 (95)	3.818 (97)	2.559 (65)	M8 x 0.75