DATA SHEET

Type 5404

bürkert
FLUID CONTROL SYSTEMS

Servo-assisted 2/2-way piston valve

- Servo-assisted piston valve with an orifice up to DN 50
- Explosion proof versions for cat. 2
- Suitable for gas and steam applications up to 180 °C
- Relief valves for compressors
- Energy-saving double coil technology with kick and drop variant

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

Type 2518 ▸
Cable plug,
form A according to
DIN EN 175301-803

Type 2509 ▸
Cable plug,
form A according to
DIN EN 175301-803

Type description

The 5404 valve is a servo-assisted piston valve available in NC and NO versions. A minimum differential pressure is required for the valve switching function. The solenoid coils are moulded with high-quality epoxy resin. To reduce power consumption in operation, coils with "Kick and Drop" (KD) electronics assembly (double coil technology) are available. In combination with a plug to DIN EN 175301-803 Form A, the valves satisfy degree of protection IP65. The cable plug is not included and must be ordered separately.

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Visit product website ▸

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1. General technical data

Product properties	
Dimensions	Detailed information can be found in chapter "4. Dimensions" on page 9.
Material	
Seal	PTFE seat seal + FKM PTFE seat seal + Graphite steam version PTFE seat seal + EPDM on request
Body	Brass
Coil	Epoxy resin (polyamide on request)
Orifice	DN 12…DN 50
Circuit function	A and B Detailed information can be found in chapter "2. Circuit functions" on page 5.
Thermal insulation class of solenoid coil	H (B on request)
Valve internals	Stainless steel, brass
Performance data	
Duty cycle	100 % continuous rating
Switching time	
DN 12…DN 25	Opening: 20…400 ms Closing: 100…1500 ms
DN 32…DN 50	Opening: 200…1500 ms Closing: 1000…3000 ms
Electrical data	
Power consumption	
Circuit function A, DN 12…DN 25 (not in combination with high pressure MX13)	Inrush AC: 24 VA Hold AC (hot coil): 14 VA/8 W Hold DC (hot/cold coil): 8/9.5 W
Circuit function B, DN 12…DN 25	Inrush AC: 24 VA Hold AC (hot coil): 14 VA/8 W Hold DC (hot/cold coil): 8/9.5 W
ATEX/IECEx version	Inrush AC: 9 VA Hold AC (hot coil): 9 VA Hold DC (hot/cold coil): 9 W
Circuit function A, DN 32…DN 50 and DN 12 as high pressure MX13	Inrush AC: 24 VA Hold AC (hot coil): 16 VA/10 W Hold DC (hot/cold coil): 12/13 W
Voltage	24 V/DC, 24 V/50 Hz, 24 V/60 Hz, 110 V/50 Hz, 120 V/60 Hz, 230 V/50 Hz, 240 V/60 Hz Other voltages on request
Voltage tolerance	±10 %
Medium data	
Operating medium	Neutral mediums, compressed air, water, hydraulic oil and steam
Medium temperature	
Standard version	+14 °F…+248 °F (from -40 °F on request)
Steam version	302 °F (at max. ambient temp. 131 °F) 320 °F (at max. ambient temp. 113 °F) "5.1. Temperature/duty cycle derating diagram for steam version NA07" on page 20
Viscosity	Max. 21 cSt
Approvals and certificates	
Degree of protection	IP65 with cable plug **Type 2518** ▸ (IP67 on request) NEMA 4X with cable plug **Type 2509** ▸ with stainless steel screws and epoxy coil
Process/Port connection & communication	
Electrical connection	Tag connector acc. to DIN EN 175301-803 form A
Port connection	G½, G¾, G 1, G 1 ¼, G 1 ½, G 2 NPT ½, NPT ¾, NPT 1, NPT 1 ¼, NPT 1 ½, NPT 2
Environment and installation	
Installation position	As required, preferably with actuator upright
Ambient temperature	+14 °F…+131 °F (from -40 °F on request)

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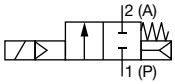
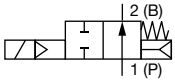
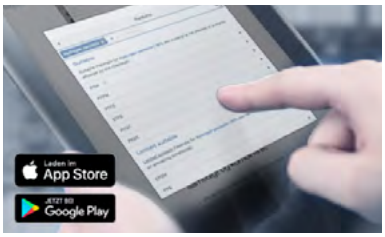
2. Circuit functions

Symbol	Description
	**Circuit function A (CF A)** 2/2-way solenoid valve Servo-controlled Normally closed
	**Circuit function B (CF B)** 2/2-way solenoid valve Servo-controlled Normally open

3. Materials

3.1. Chemical Resistance Chart – Bürkert resistApp



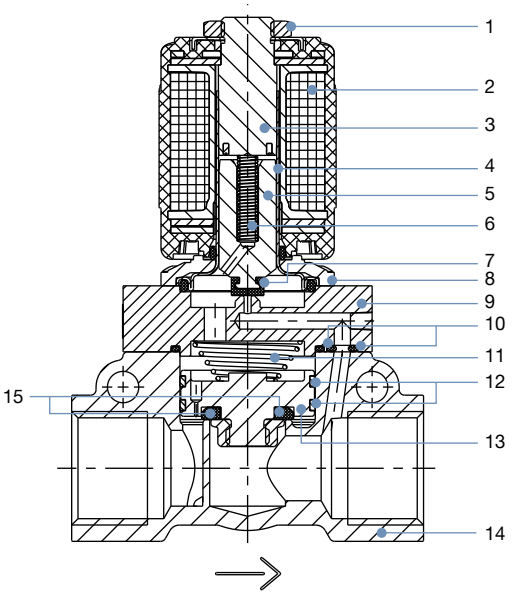
Bürkert resistApp – Chemical Resistance Chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

Start Chemical Resistance Check

3.2. Material specifications standard version

DN 12, Circuit function A



No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Coil	Epoxy (polyamide optional)
3	Stopper	Stainless steel 1.4105/303[1.)]
4	Armature guide tube	Stainless steel 1.4303/305[1.)]/308[1.)]
5	Plunger	Stainless steel 1.4105/430F[1.)]
6	Spring	Stainless steel 1.4310/301[1.)]
7	Plunger seal	FKM (EPDM optional)
8	Flange	Steel (thick-film passivated according to RoHS)
9	Cover	Brass
10	O-Rings	FKM (EPDM optional)
11	Spring	Stainless steel 1.4310/301[1.)]
12	Piston rings	PTFE
13	Piston	Brass
14	Valve body	Brass
15	Piston seal	PTFE

1.) Material designation according to AISI

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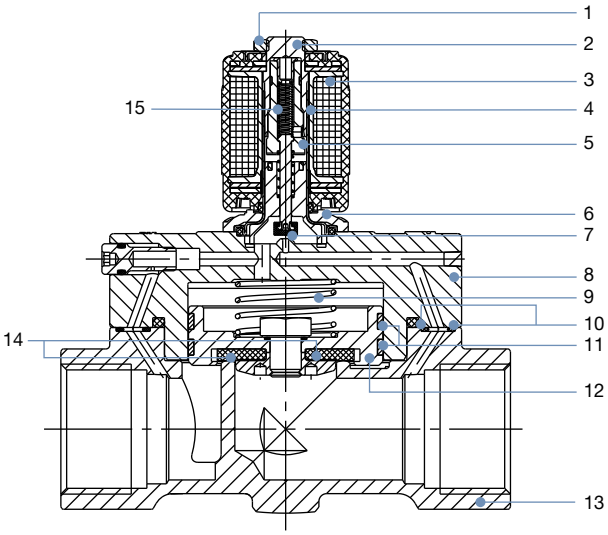
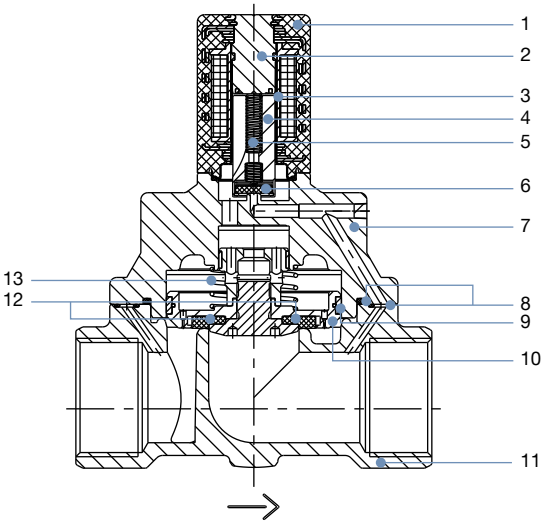
DN 25, Circuit function B



No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Stopper	Stainless steel 1.4113/434[1.)]
3	Coil	Epoxy
4	Armature guide tube	Stainless steel 1.4303/305[1.)]/308[1.)]
5	Plunger	Stainless steel 1.4113/434[1.)]/1.4305/303[1.)]
6	Flange	Steel (thick-film passivated according to RoHS)
7	Plunger seal	FKM (EPDM optional)
8	Cover	Brass
9	Spring	Stainless steel 1.4310/301[1.)]
10	O-Rings	FKM (EPDM optional)
11	Piston rings	PTFE
12	Piston	Brass
13	Valve body	Brass
14	Piston seal	PTFE
15	Spring	Stainless steel 1.4310/301[1.)]

1.) Material designation according to AISI

DN 32, Circuit function A



No.	Element	Material
1	Coil	Epoxy
2	Stopper	Stainless steel 1.4105/430F[1.)]
3	Armature guide tube	Stainless steel 1.4303/305[1.)]/308[1.)]
4	Plunger	Stainless steel 1.4105/430F[1.)]
5	Spring	Stainless steel 1.4310/301[1.)]
6	Plunger seal	FKM
7	Cover	Brass
8	O-Rings	FKM
9	Piston rings	PTFE
10	Piston	Brass
11	Valve body	Brass
12	Piston seal	PTFE
13	Spring	Stainless steel 1.4310/301[1.)]

1.) Material designation according to AISI

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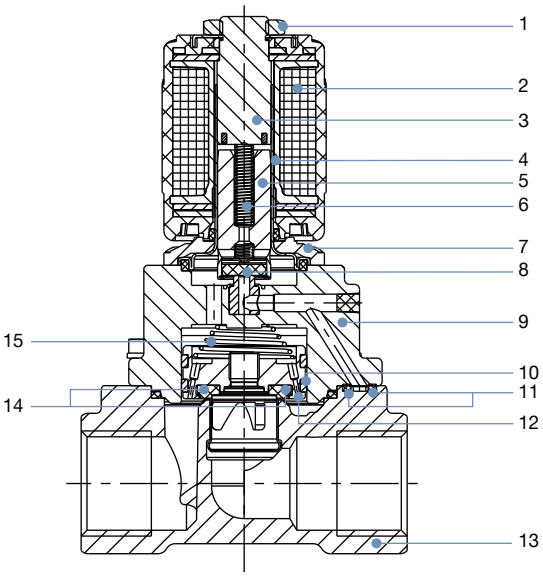
3.3. Material specifications steam version NA07

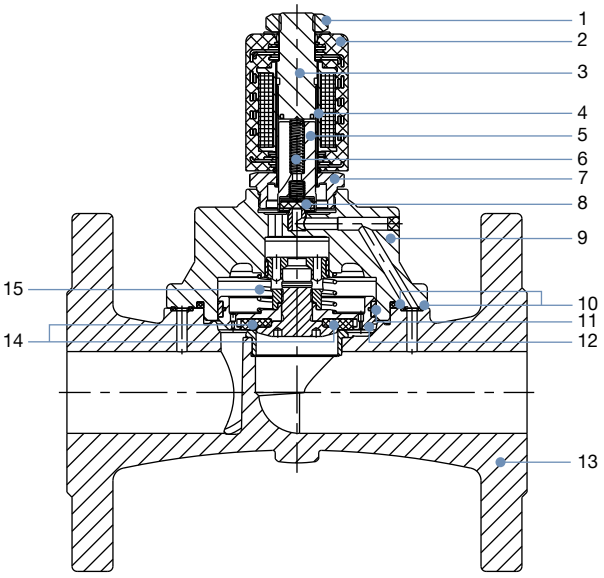
DN 13, Circuit function A



No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Coil	Epoxy
3	Stopper	Stainless steel 1.4113/434[1.)]
4	Armature guide tube	Stainless steel 1.4303/305[1.)]
5	Plunger	Stainless steel 1.4113/434[1.)]
6	Spring	Stainless steel 1.4310/301[1.)]
7	Flange	Steel (thick-film passivated according to RoHS)
8	Plunger seal	PTFE
9	Cover	Brass
10	Piston rings	PTFE
11	O-Rings	Graphite
12	Piston	Brass
13	Valve body	Brass
14	Piston seal	PTFE
15	Spring	Stainless steel 1.4310/301[1.)]

1.) Material designation according to AISI

DN 32, Circuit function A, flange body



No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Coil	Epoxy
3	Stopper	Stainless steel 1.4113/434[1.)]
4	Armature guide tube	Stainless steel 1.4571/316Ti[1.)]
5	Plunger	Stainless steel 1.4113/434[1.)]
6	Spring	Stainless steel 1.4310/301[1.)]
7	Threaded tube	Stainless steel 1.4401/316[1.)] or 1.4571/316Ti[1.)]
8	Plunger seal	PTFE
9	Cover	Brass
10	O-Rings	Graphite
11	Piston rings	PTFE
12	Piston	Brass
13	Valve body	Stainless steel 1.4581/similar 316Ti[1.)]
14	Piston seal	PTFE
15	Spring	Stainless steel 1.4310/301[1.)]

1.) Material designation according to AISI

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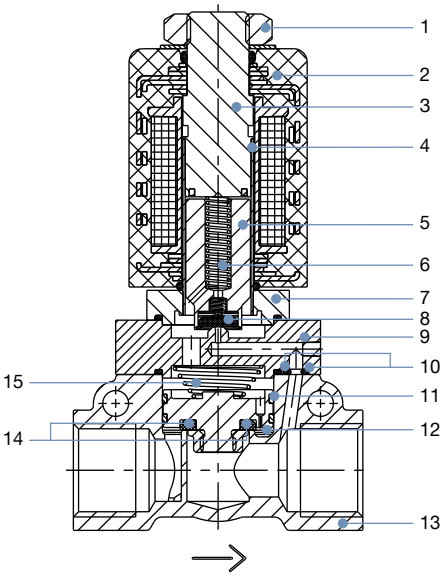
3.4. Material specifications high pressure version MX13

DN 12, Circuit function A

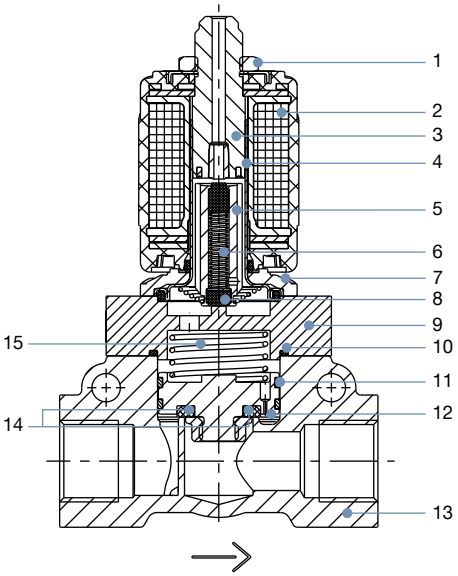


No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Coil	Epoxy (polyamide)
3	Stopper	Stainless steel 1.4113/434[1.)]
4	Armature guide tube	Stainless steel 1.4571/316Ti[1.)]
5	Plunger	Stainless steel 1.4113/434[1.)]
6	Spring	Stainless steel 1.4310/301[1.)]
7	Flange	Stainless steel 1.4401/316[1.)]
8	Plunger seal	PTFE
9	Cover	Brass
10	O-Rings	FKM
11	Piston rings	PTFE
12	Piston	Brass
13	Valve body	Brass
14	Piston seal	PTFE
15	Spring	Stainless steel 1.4310/301[1.)]

1.) Material designation according to AISI

3.5. Material specifications discharge valve for compressor systems CF05

DN 12, Circuit function B



No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS)
2	Coil	Epoxy (polyamide optional)
3	Stopper	Stainless steel 1.4105/430F[1.)]
4	Armature guide tube	Stainless steel 1.4303/305[1.)]
5	Plunger	Stainless steel 1.4105/430F[1.)]
6	Spring	Stainless steel 1.4310/301[1.)]
7	Flange	Steel (thick-film passivated according to RoHS)
8	Plunger seal	FKM
9	Cover	Brass
10	O-Rings	FKM
11	Piston rings	PTFE
12	Piston	Brass
13	Valve body	Brass
14	Piston seal	PTFE
15	Spring	Stainless steel 1.4310/301[1.)]

1.) Material designation according to AISI

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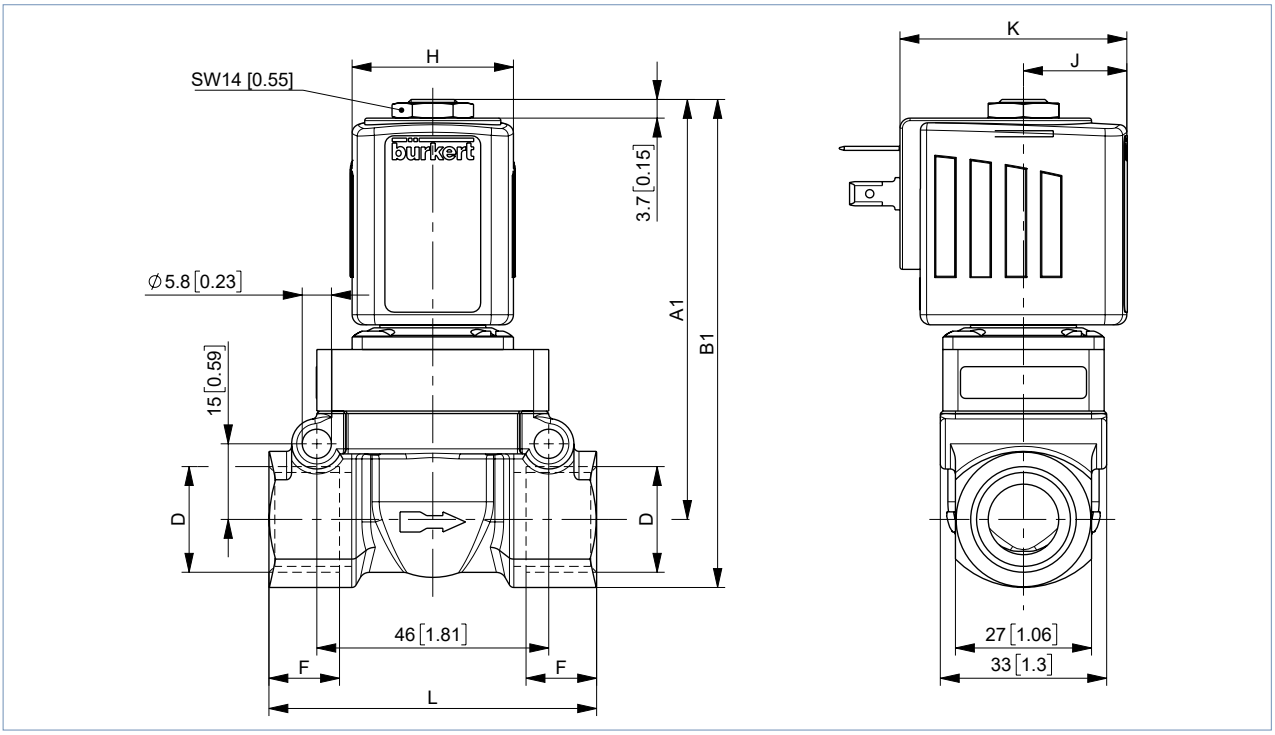
4. Dimensions

4.1. Standard version

Threaded version DN 12

Note:

- Dimensions in mm [inch]
- For G-threads the dimensions D1 and F1 apply
- For NPT-threads the dimensions D2 and F2 apply
- For Rc-threads the dimensions D3 and F3 apply



DN	Coil size	WWA				WWB			
		A1		B1		A1		B1	
		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
12.0	5	83	3.27	97	3.82	86	3.39	100	3.94
	6	83	3.27	97	3.82	86	3.39	100	3.94

DN	Coil size	G thread			NPT thread			Rc thread			L		H		J		K	
		D1	F1		D2	F2		D3	F3									
		[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
12.0	5	G 1/2	14	0.55	NPT 1/2	13.7	0.54	Rc 1/2	13.2	0.52	65	2.56	32	1.26	20.5	0.81	45	1.77
	6	G 1/2	14	0.55	NPT 1/2	13.7	0.54	Rc 1/2	13.2	0.52	65	2.56	40	1.57	23.5	0.93	51	2.01

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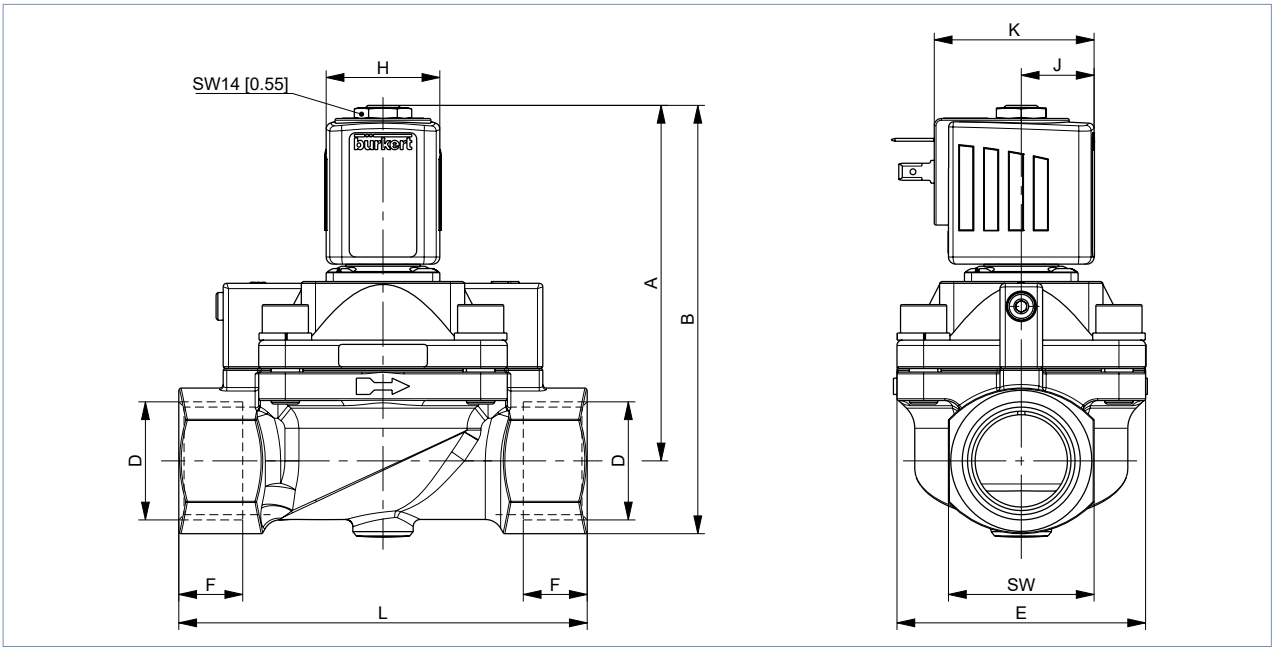
Threaded version DN 20 and DN 25

Note:

- Dimensions in mm [inch]
- For G-threads the dimensions D1 and F1 apply
- For NPT-threads the dimensions D2 and F2 apply
- For Rc-threads the dimensions D3 and F3 apply



Coil size	DN	WWA / WWB				G thread			NPT thread			Rc thread		
		A		B		D1	F1		D2	F2		D3	F3	
		[mm]	[in]	[mm]	[in]	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]
5	20,0	96	3.78	112	4.41	G 3/4	16	0.63	NPT 3/4	14	0.55	–	–	–
	25,0	100	3.94	121	4.76	G 1	18	0.71	NPT 1	16.8	0.66	Rc 1	16.8	0.66
6	20,0	96	3.78	112	4.41	G 3/4	16	0.63	NPT 3/4	14	0.55	–	–	–
	25,0	100	3.94	121	4.76	G1	18	0.71	NPT 1	16.8	0.66	–	–	–

Coil size	DN	E		L		SW		H		J		K	
		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5	20,0	60	2.36	100	3.94	32	1.26	32	1.26	20.5	0.81	45	1.77
	25,0	70	2.76	115	4.53	41	1.61						
6	20,0	60	2.36	100	3.94	32	1.26	40	1.57	23.5	0.93	51	2.01
	25,0	70	2.76	115	4.53	41	1.61						

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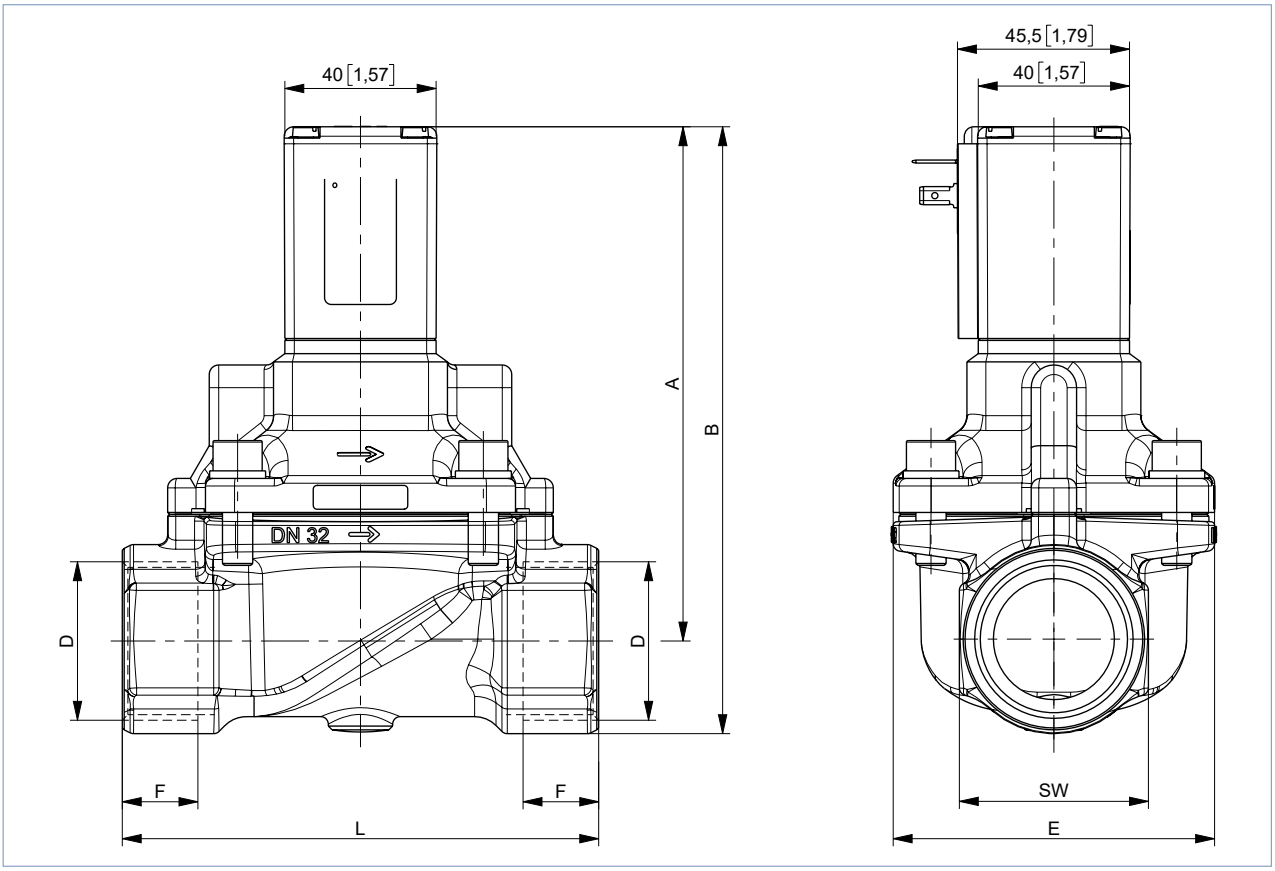
Threaded version DN 32 and DN 50

Note:

- Dimensions in mm [inch]
- For G-threads the dimensions D1 and F1 apply
- For NPT-threads the dimensions D2 and F2 apply



DN	A		B		G thread			NPT thread			E		L		SW	
					D1	F1		D2	F2							
	[mm]	[in]	[mm]	[in]	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
32,0	136	5.35	161	6.34	G 1 1/4	20	0.79	NPT 1 1/4	17.3	0.68	85	3.35	126	4.96	50	1.97
40,0	140	5.51	170	6.69	G 1 1/2	22	0.87	NPT 1 1/2	17.3	0.68	85	3.35	126	4.96	60	2.36
50,0	163	6.42	198	7.80	G 2	24	0.94	NPT 2	17.6	0.69	115	4.53	164	6.46	70	2.76

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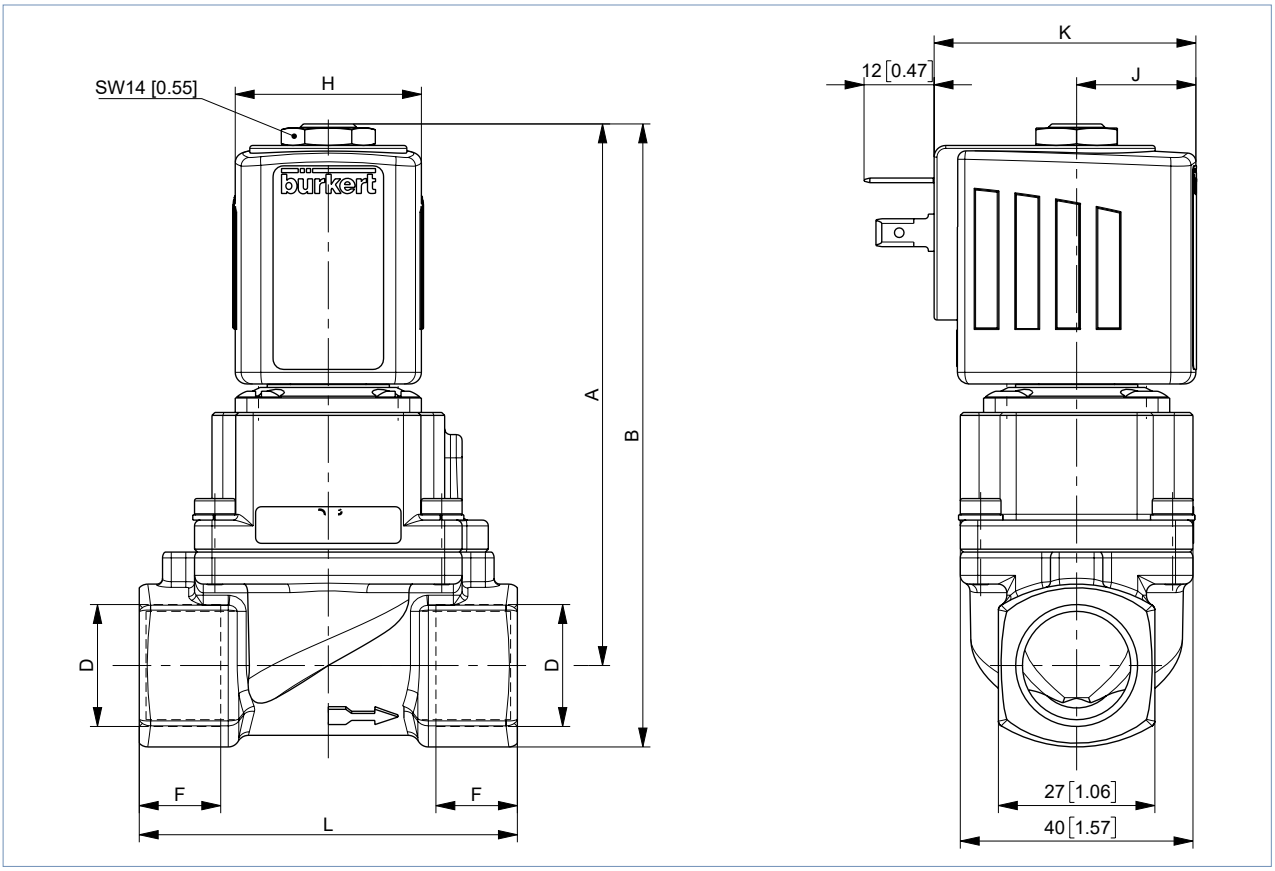
4.2. Steam version NA07

Threaded version DN 13

Note:

- Dimensions in mm [inch]
- The dimensions D1 and F1 apply to G-threads
- The dimensions D2 and F2 apply to NPT-threads
- The dimensions D3 and F3 apply to Rc-threads



Coil size	DN	A		B		G thread			NPT thread			Rc thread		
						D1	F1		D2	F2		D3	F3	
		[mm]	[in]	[mm]	[in]	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]
5	13,0	93.1	3.67	107.1	4.20	G 1/2	14	0.55	NPT 1/2	13.7	0.54	Rc 1/2	13.2	0.52
6		93.1	3.67	107.1	4.20	G 1/2	14	0.55	NPT 1/2	13.7	0.54	Rc 1/2	13.2	0.52

Coil size	DN	L		H		J		K	
		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5	13,0	65	2.56	32	1.26	20.5	0.81	45	1.77
6		65	2.56	40	1.57	23.5	0.93	51	2.01

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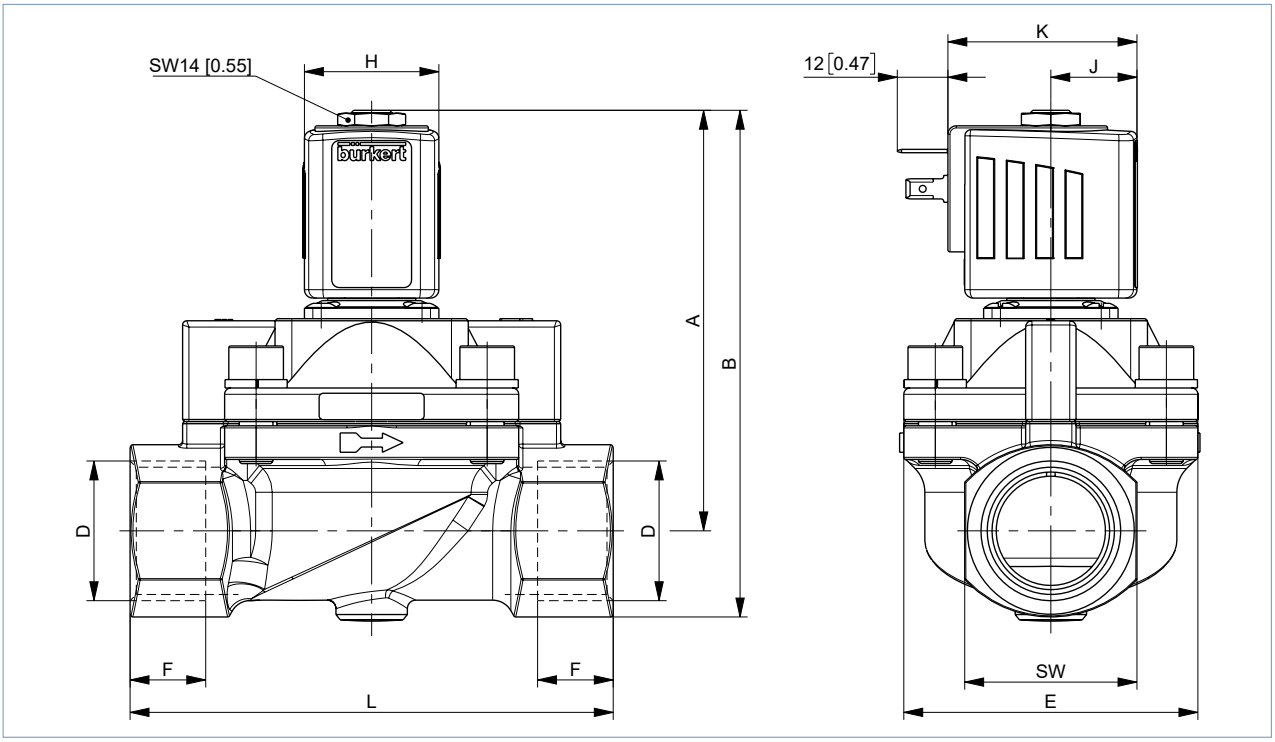
Threaded version DN 20 and DN 25

Note:

- Dimensions in mm [inch]
- The dimensions D1 and F1 apply to G-threads
- The dimensions D2 and F2 apply to NPT-threads
- The dimensions D3 and F3 apply to Rc-threads



Coil size	DN	A		B		G thread			NPT thread			Rc thread		
						D1	F1		D2	F2		D3	F3	
		[mm]	[in]	[mm]	[in]	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]
5	20,0	96.1	3.78	112.1	4.41	G 3/4	16	0.63	NPT 3/4	14	0.55	Rc 3/4	14.5	0.57
	25,0	100.1	3.94	120.6	4.75	G 1	18	0.71	NPT 1	16.8	0.66	Rc 1	16.8	0.66
6	20,0	96.1	3.78	112.1	4.41	G 3/4	16	0.63	NPT 3/4	14	0.55	Rc 3/4	14.5	0.57
	25,0	100.1	3.94	120.6	4.75	G1	18	0.71	NPT 1	16.8	0.66	Rc 1	16.8	0.66

Coil size	DN	E		L		SW		H		J		K	
		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5	20,0	60	2.36	100	3.94	32	1.26	32	1.26	20.5	0.81	45	1.77
	25,0	70	2.76	115	4.53	41	1.61						
6	20,0	60	2.36	100	3.94	32	1.26	40	1.57	23.5	0.93	51	2.01
	25,0	70	2.76	115	4.53	41	1.61						

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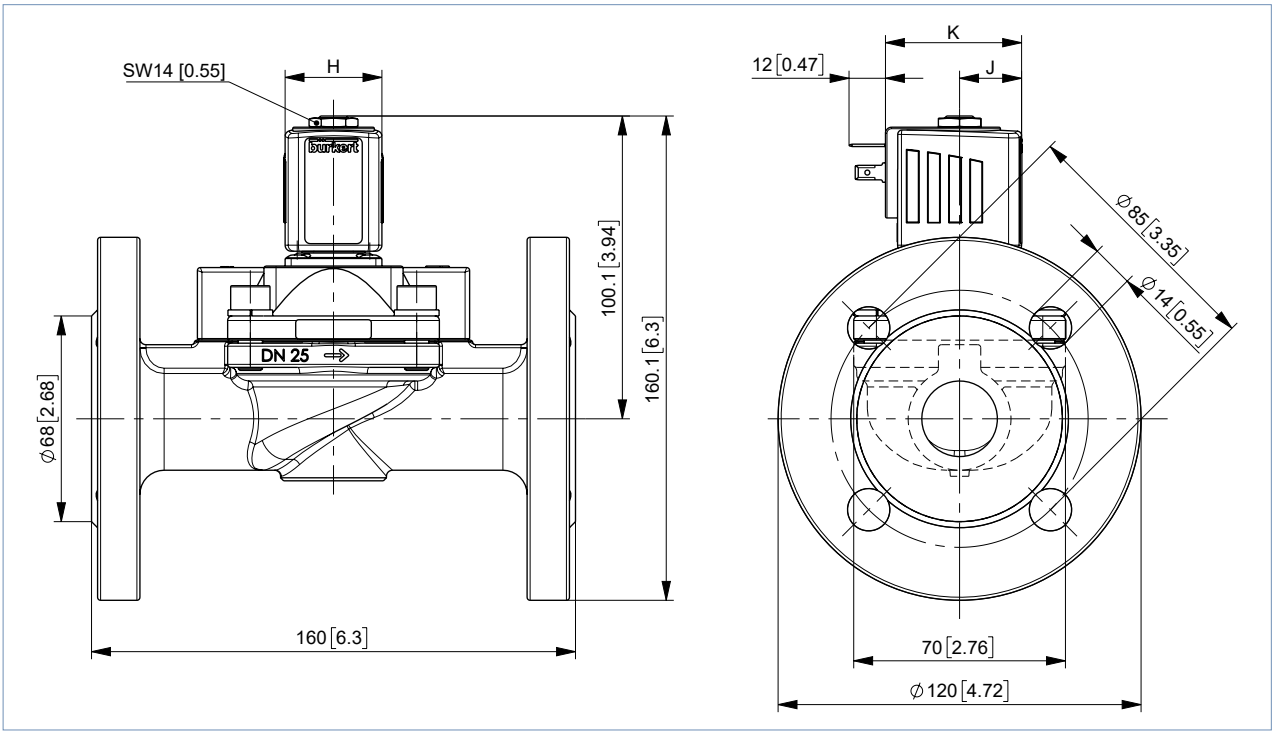
Flange version DN 25

Note:
Dimensions in mm [inch]



Coil size	DN	H		J		K	
		[mm]	[in]	[mm]	[in]	[mm]	[in]
5	25	32	1.26	20.5	0.81	45	1.77
6	25	40	1.57	23.5	0.93	51	2.01

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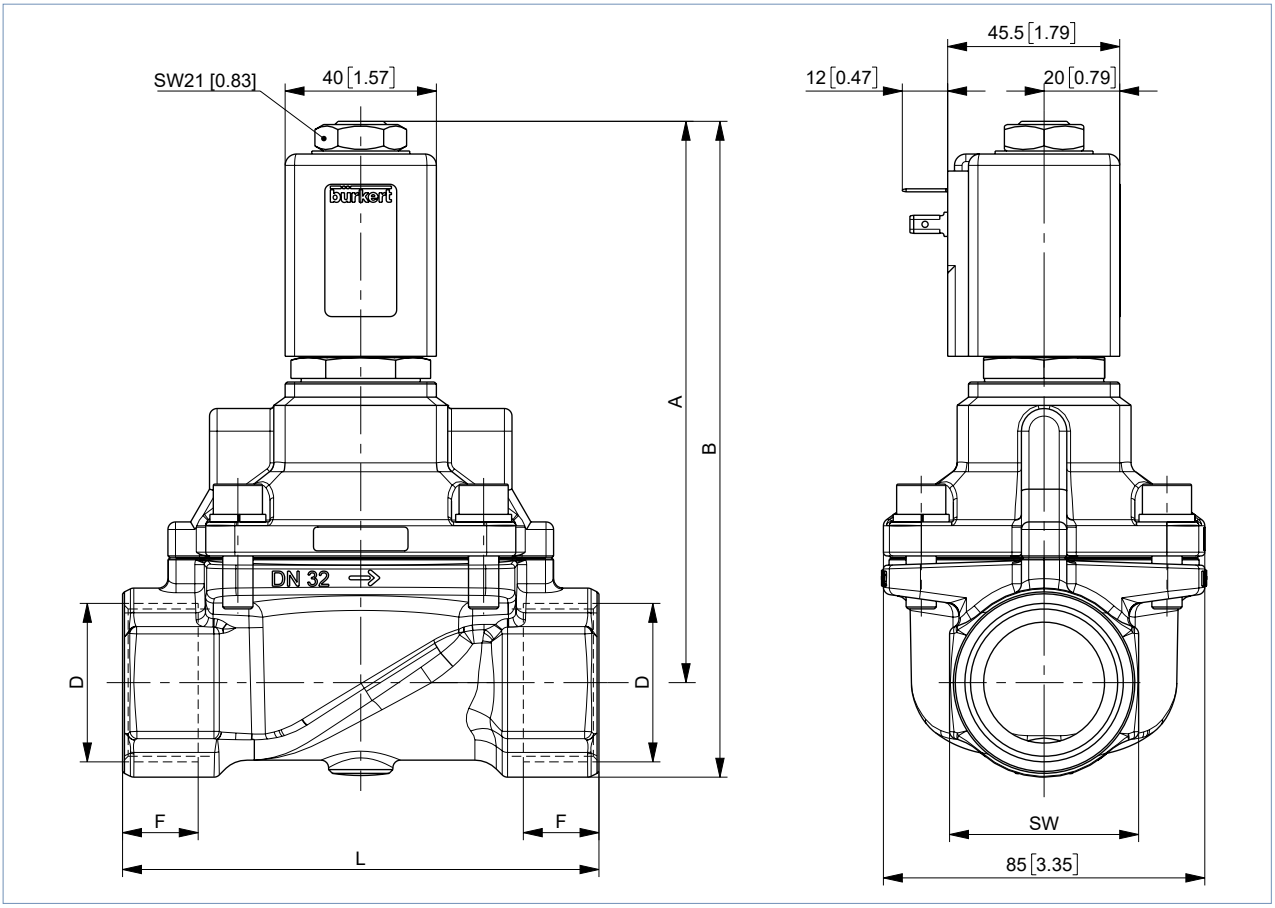
Threaded version DN 32 and DN 40

- Dimensions in mm [inch]
- The dimensions D1 and F1 apply to G-threads
- The dimensions D2 and F2 apply to NPT-threads



Coil size	DN	A		B		G thread			NPT thread			L		SW	
						D1	F1		D2	F2					
		[mm]	[in]	[mm]	[in]	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C	32,0	148	5.83	173	6.81	G 1 1/4	20	0.79	NPT 1 1/4	17.3	0.68	126	4.96	50	1.97
	40,0	153	6.02	181	7.13	G1 1/2	22	0.79	NPT 1 1/2	17.3	0.68			60	2.36

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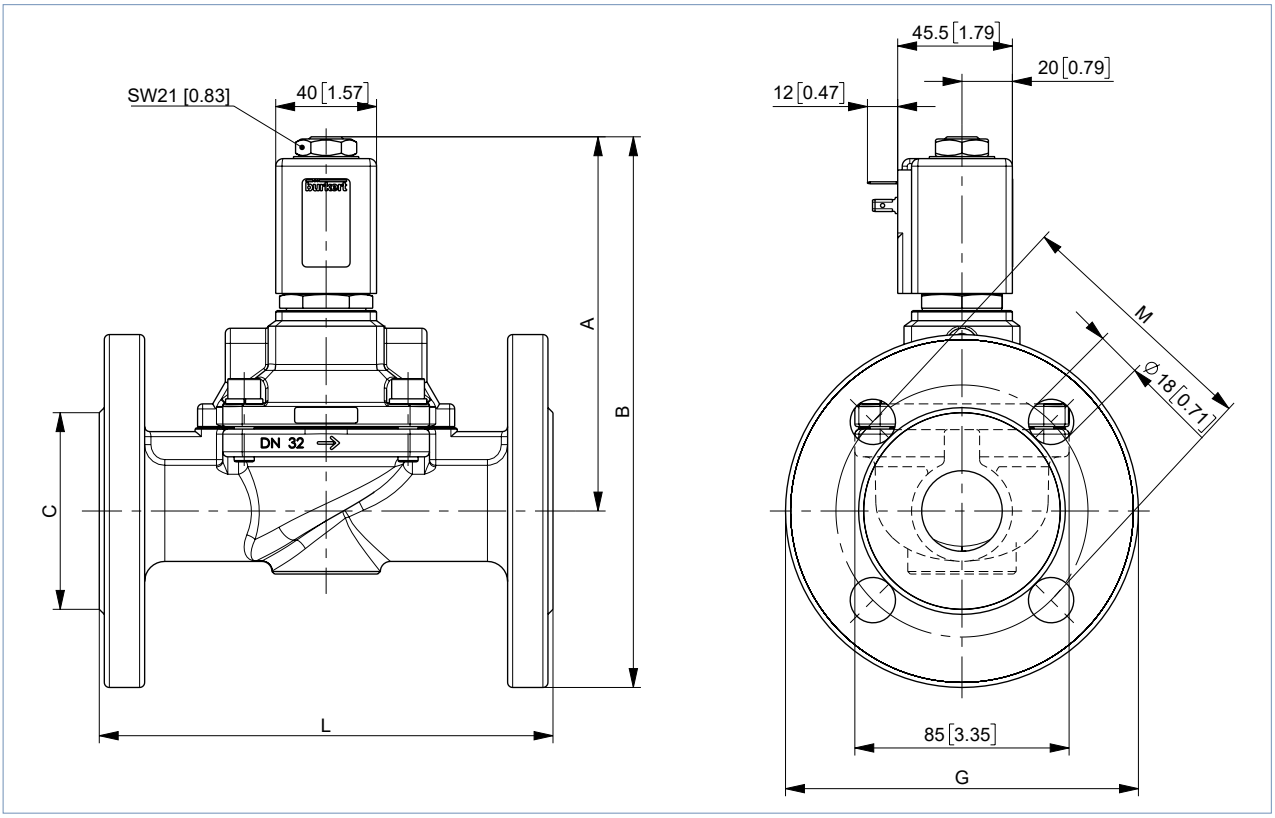
Flange version DN 32 and DN 40

Note:
Dimensions in mm [inch]



Coil size	DN	A		B		C		G		L		M	
		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
C	32	148	5.83	218	8.58	78	3.07	140	5.51	180	7.09	100	3.94
	40	153	6.02	227	8.94	88	3.46	150	5.91	200	7.87	110	4.33

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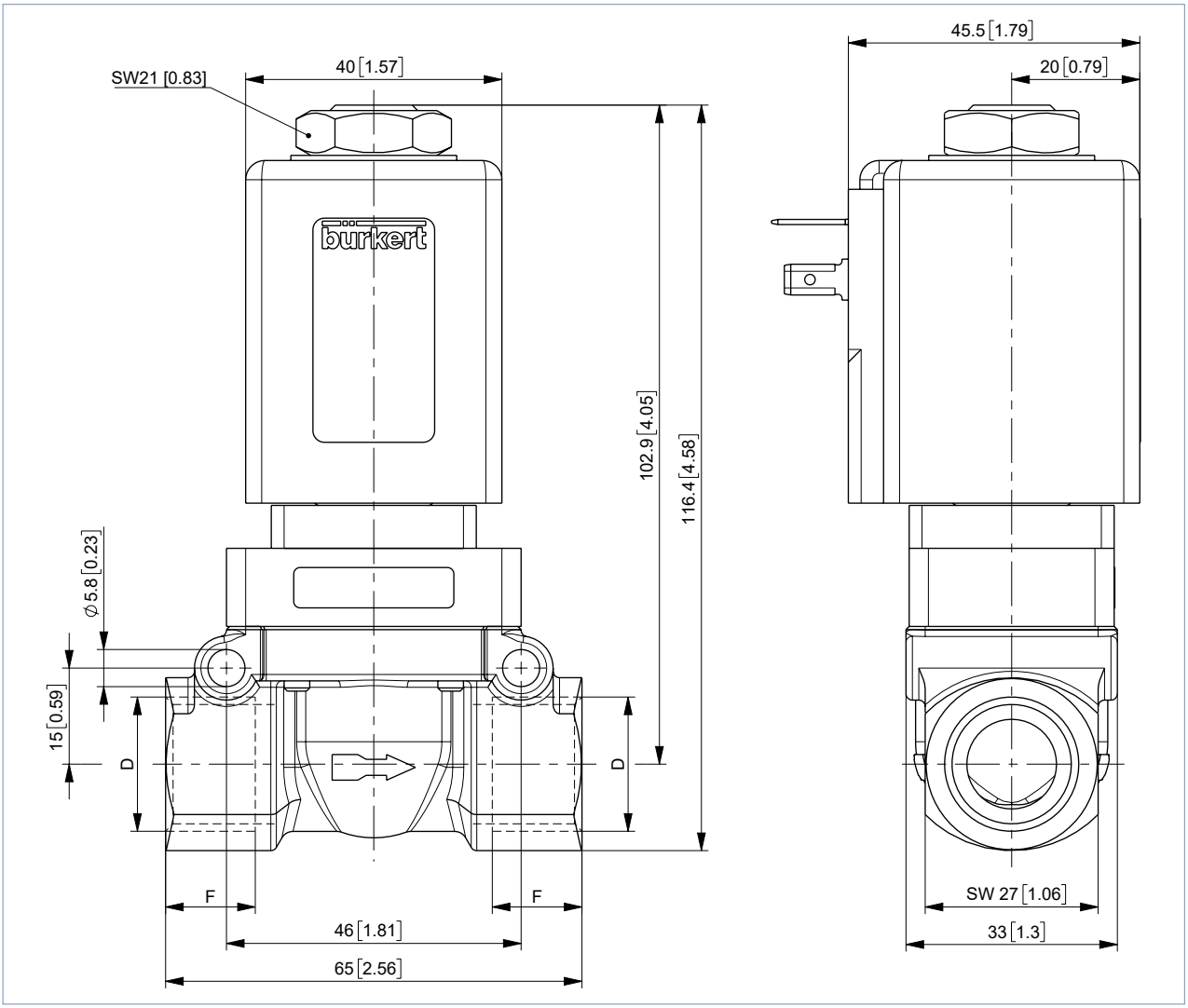
4.3. High pressure version up to 1160 psi (MX13)

Note:

- Dimensions in mm [inch]
- The dimensions D1 and F1 apply to G-threads
- The dimensions D2 and F2 apply to NPT-threads



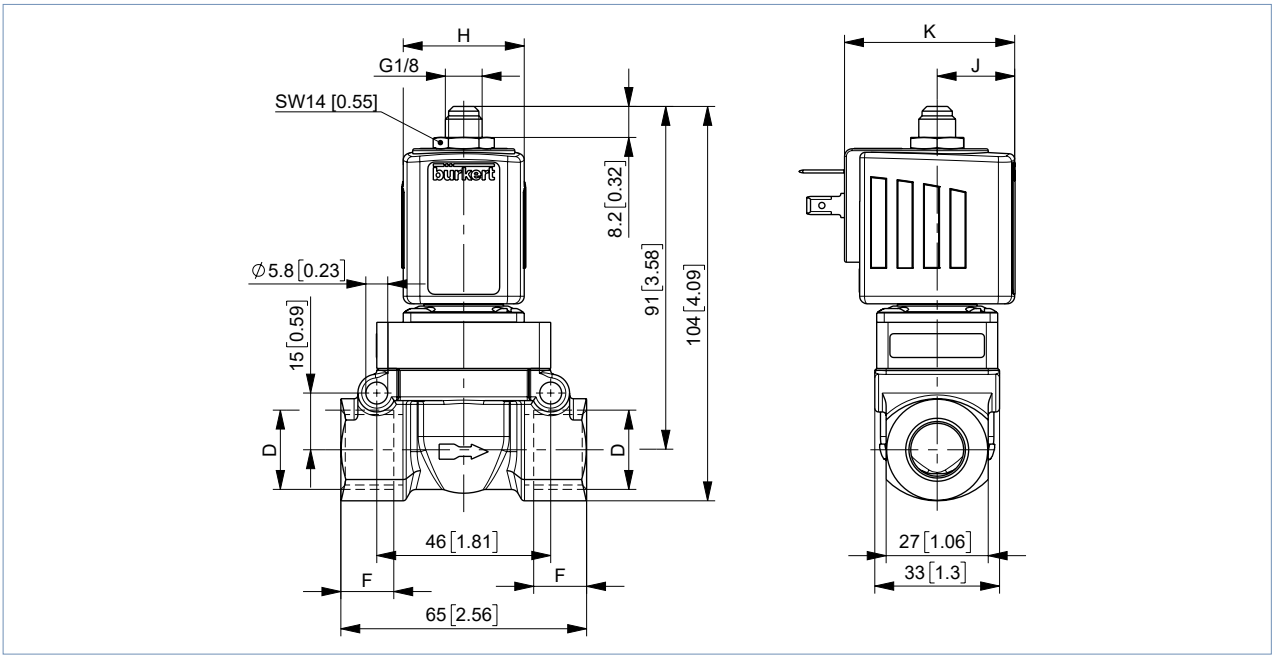
G thread			NPT thread		
D1	F1		D2	F2	
[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]
G 1/2	14	0.55	NPT 1/2	13.7	0.54

4.4. Discharge valve for compressor systems CF05

Plug version with ventilation

Note:

- Dimensions in mm [inch]
- The dimensions D1 and F1 apply to G-threads
- The dimensions D2 and F2 apply to NPT-threads



Coil size	G thread			NPT thread			H		J		K	
	D1	F1		D2	F2							
	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5	G 1/4	12	0.47	NPT 1/4	10	0.39	32	1.26	20.5	0.81	45	1.77
	G 1/2	14	0.55	NPT 1/2	13.7	0.54						
6	G 1/2	14	0.55	NPT 1/2	13.7	0.54	40	1.57	23.5	0.93	51	2.01

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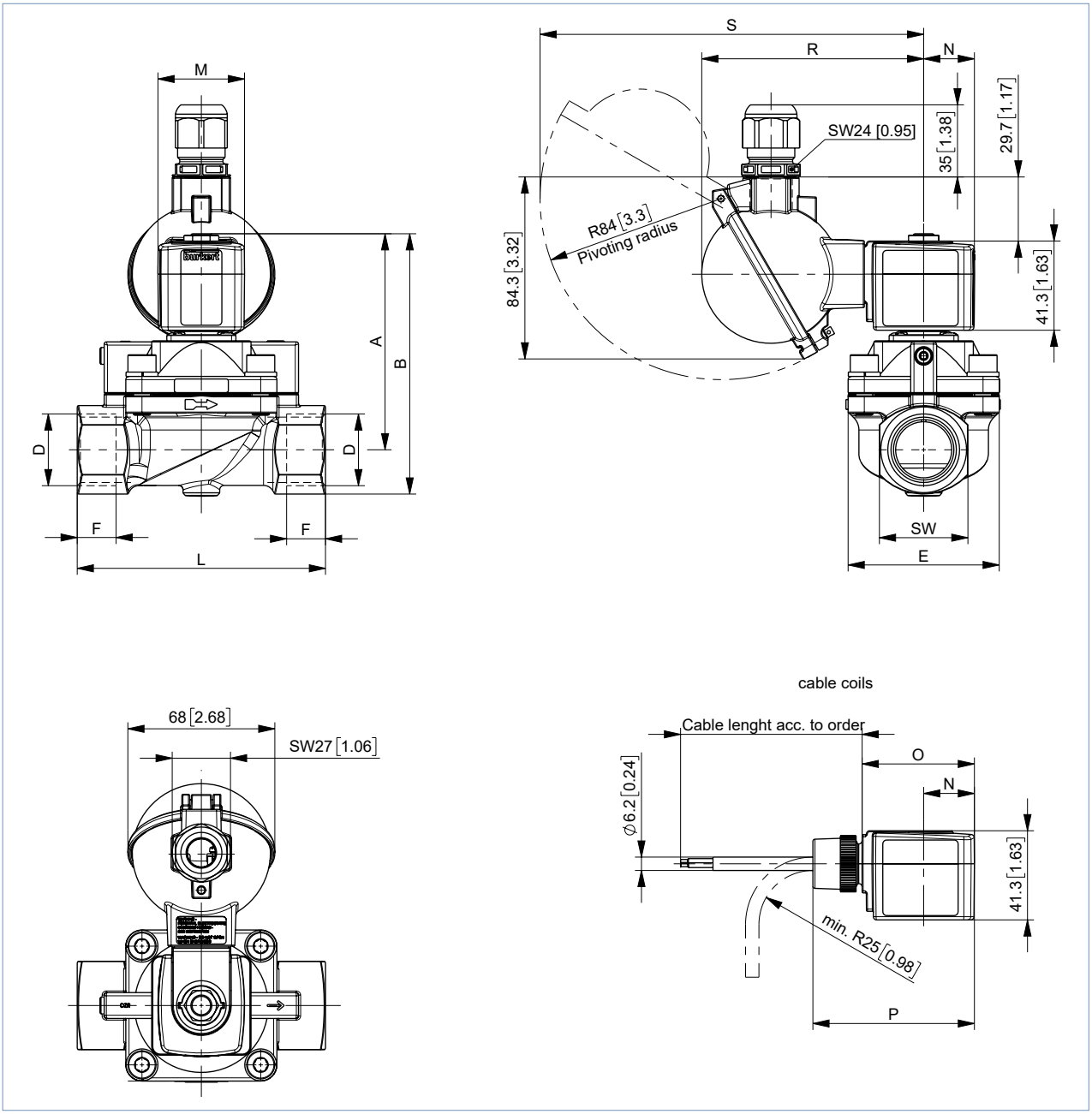
4.5. Coil UL Listed for hazardous locations, Class I, Division 2

Note:

- Dimensions in mm [inch]
- The dimensions D1 and F1 apply to G-threads
- The dimensions D2 and F2 apply to NPT-threads
- The dimensions D3 and F3 apply to Rc-threads



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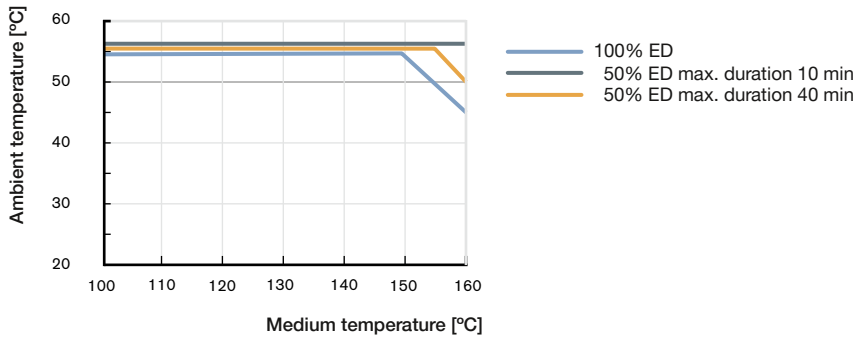
Coil size	DN	WWA				WWB				G thread			NPT thread			Rc thread		
		A		B		A		B		D1	F1		D2	F2		D3	F3	
		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]	[Zoll]	[mm]	[in]
5	12.0	83	3.27	96.5	3.80	90.8	3.57	104.3	4.11	G 1/2	14	0.55	NPT 1/2	13.7	0.54	Rc 1/2	13.2	0.52
	20,0	93	3.66	109	4.29	–	–	–	–	G 3/4	16	0.63	NPT 3/4	14	0.55	Rc 3/4	14.5	0.57
	25,0	99.5	3.92	119	4.69					G 1	18	0.71	NPT 1	16.8	0.66	Rc 1	16.8	0.66
6	12.0	83	3.27	96.5	3.80	90.8	3.57	104.3	4.11	G 1/2	14	0.55	NPT 1/2	13.7	0.54	Rc 1/2	13.2	0.52
	20,0	93	3.66	109	4.29	–	–	–	–	G 3/4	16	0.63	NPT 3/4	14	0.55	Rc 3/4	14.5	0.57
	25,0	99.5	3.92	119	4.69					G1	18	0.71	NPT 1	16.8	0.66	Rc 1	16.8	0.66

Coil size	DN	E		L		SW		M		N		O		P		R		S	
		[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
5	12.0	33	1.30	65	2.56	27	1.06	32	1.26	20.5	0.81	46	1.81	68.8	2.71	99.8	3.93	174.7	6.88
	20,0	60	2.36	100	3.94	32	1.26												
	25,0	70	2.76	115	4.53	41	1.61												
6	12.0	33	1.30	65	2.56	27	1.06	40	1.57	23.5	0.93	52	2.05	74.8	2.94	102,8	4.05	177,7	7.00
	20,0	60	2.36	100	3.94	32	1.26												
	25,0	70	2.76	115	4.53	41	1.61												

5. Performance specifications

5.1. Temperature/duty cycle derating diagram for steam version NA07

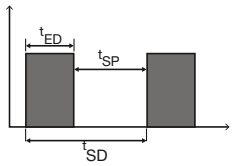


5.2. Characteristic values of intermittent operation

$$t_{SD}[s] = \frac{60}{SH\left[\frac{1}{min}\right]}$$

$$t_{ED}[s] = \frac{ED[\%]}{100} \times t_{SD}[s]$$

$$t_{SP}[s] = t_{SD}[s] - t_{ED}[s]$$



t_{SD} – Cycle time

t_{ED} – Duty cycle

t_{SP} – De-energized pause

ED – Relative duty cycle relative

SH – Switching frequency

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6. Product accessories

6.1. Special tool to turn the terminal box

Note:
Detailed ordering information can be found in chapter **"Special tool to turn the terminal box" on page 29**.

7. Ordering information

7.1. Bürkert eShop – Easy ordering and quick delivery

Bürkert eShop – Easy ordering and quick delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

Order online now

7.2. Bürkert product filter

Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

Try out our product filter

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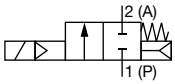
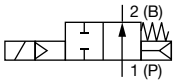
7.3. Ordering chart

Standard version DN 12…DN 25, UL Recognized and CSA certified

Note:

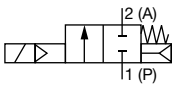
- Please note that the cable plug **Type 2518** ▶ is included. UL Listed and other versions are available on request. For details see **"Cable plug Type 2518, form A according to DIN EN 175301-803" on page 29**.
- Further versions with alternative voltages, G or UN inner thread are available on request.

Circuit function	Port connection	Orifice	C_v value water	Pressure range (MAWP[1.])	Article no.			
					024/DC 9 Watt	024/DC 10 Watt	024/60	120/60
		[mm]	[gal/min]	[psi]	[V/Hz]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material PTFE/FKM								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT 1/2	12	2.31	14.5...363	X	–	–	–
				14.5...464	–	X	X	X
	NPT 3/4	20	8.09	14.5...290	X	X	X	X
	NPT 1	25	11.56	14.5...290	X	X	X	X
CF B 2/2-way solenoid valve Servo-controlled Normally open 	NPT 1/2	12	2.31	14.5...464	–	X	X	X
	NPT 3/4	20	8.09	14.5...290	–	X	X	X
	NPT 1	25	11.56	14.5...290	–	X	X	X

X: on request

1.) Maximum allowable working pressure

Standard version DN 32…DN 50, UL Recognized and CSA certified

Circuit function	Port connection	Orifice	C_v value water	Pressure range (MAWP[1.])	Article no.		
					024/DC	024/60	120/60
		[mm]	[gal/min]	[psi]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material PTFE/FKM							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT 1¼	32	20.81	14.5...232	X	–	–
				14.5...290	–	X	X
	NPT 1½	40	20.81	14.5...232	X	–	–
				14.5...290	–	X	X
	NPT 2	50	41.62	14.5...145	X	–	–
				14.5...290	–	X	X

X: on request

1.) Maximum allowable working pressure

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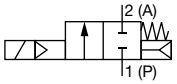
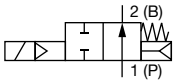
Standard version DN 12...DN 25, UL Listed and CSA certified

Note:

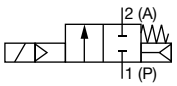
- Please note that the cable plug **Type 2509** ▸ is included. UL Listed and other versions are available on request. For details see "Cable plug Type 2509, form A according to DIN EN 175301-803" on page 29.
- Further versions with alternative voltages, G or UN inner thread are available on request.

Circuit function	Port connection	Orifice	C_v value water	Pressure range (MAWP[1.])	Article no.			
					024/DC 9 Watt	024/DC 10 Watt	024/60	120/60
		[mm]	[gal/min]	[psi]	[V/Hz]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material PTFE/FKM								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT 1/2	12	2.31	14.5...363	X	–	–	–
				14.5...464	–	X	X	X
	NPT 3/4	20	8.09	14.5...290	X	X	X	X
	NPT 1	25	11.56	14.5...290	X	X	X	X
CF B 2/2-way solenoid valve Servo-controlled Normally open 	NPT 1/2	12	2.31	14.5...464	–	X	X	X
	NPT 3/4	20	8.09	14.5...290	–	X	X	X
	NPT 1	25	11.56	14.5...290	–	X	X	X

X: on request

1.) Maximum allowable working pressure

Standard version DN 32...DN 50, UL Listed and CSA certified

Circuit function	Port connection	Orifice	C_v value water	Pressure range (MAWP[1.])	Article no.		
					024/DC	024/60	120/60
		[mm]	[gal/min]	[psi]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material PTFE/FKM							
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT 1¼	32	20.81	14.5...232	X	–	–
				14.5...290	–	X	X
	NPT 1½	40	20.81	14.5...232	X	–	–
				14.5...290	–	X	X
	NPT 2	50	41.62	14.5...145	X	–	–
				14.5...290	–	X	X

X: on request

1.) Maximum allowable working pressure

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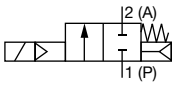
Steam version NA07, DN 13...DN 40, UL Recognized with coil UL Recognized (cURus)

Note:

- Please note that the cable plug **Type 2518** ▶ is included. UL Listed and other versions are available on request. For details see "Cable plug Type 2518, form A according to DIN EN 175301-803" on page 29.
- Due to the temperature range, the cable plug with silicone seal is provided for steam versions NA07.
- Please also note the derating diagram, see "5.1. Temperature/duty cycle derating diagram for steam version NA07" on page 20.
- Further versions with alternative voltages, G or UN inner thread and higher medium temperature are available on request.

Circuit function	Port connection	Orifice	C_v value water	Pressure range (MAWP[1.])	Max. medium temperature	Article no.			
						024/DC	024/60	120/60	240/60
		[mm]	[gal/min]	[psi]	[°F]	[V/Hz]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material PTFE/graphite									
CF A 2/2-way solenoid valve Servo-controlled Normally closed  	NPT ½	13	4.28	14.5...73	302	00342015	–	–	–
				14.5...174		–	00466912	00466911	X
	NPT ¾	20	8.09	14.5...73	302	00466918	–	–	–
				14.5...174		–	00342016	00342017	X
	NPT 1	25	11.56	14.5...73	302	00342018	–	–	–
				14.5...174		–	00342019	00342020	X
	NPT 1 1/4	32	20.81	14.5...58	302	00342021	–	–	–
				14.5...174		–	00342022	00467419	X
	NPT 1 1/2	40	20.81	14.5...58	302	00326598	–	–	–
				14.5...174		–	00342023	00467420	X

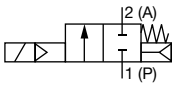
X: on request

1.) Maximum allowable working pressure

Steam version NA07, DN 13...DN 40, UL Listed with coil UL Recognized (cURus)

Note:

- Please note that the cable plug **Type 2509** ▶ is included. UL Listed and other versions are available on request. For details see "Cable plug Type 2509, form A according to DIN EN 175301-803" on page 29.
- Please also note the derating diagram, see "5.1. Temperature/duty cycle derating diagram for steam version NA07" on page 20.
- Further versions with alternative voltages, G or UN inner thread and higher medium temperature are available on request.

Circuit function	Port connection	Orifice	C_v value water	Pressure range (MAWP[1.])	Max. medium temperature	Article no.			
						024/DC	024/60	120/60	240/60
		[mm]	[gal/min]	[psi]	[°F]	[V/Hz]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material PTFE/graphite									
CF A 2/2-way solenoid valve Servo-controlled Normally closed  	NPT ½	13	4.28	14.5...73	302	X	–	–	–
				14.5...174		–	X	X	X
	NPT ¾	20	8.09	14.5...73	302	X	–	–	–
				14.5...174		–	X	X	X
	NPT 1	25	11.56	14.5...73	302	X	–	–	–
				14.5...174		–	X	X	X
	NPT 1 1/4	32	20.81	14.5...58	302	X	–	–	–
				14.5...174		–	X	X	X
	NPT 1 1/2	40	20.81	14.5...58	302	X	–	–	–
				14.5...174		–	X	X	X

X: on request

1.) Maximum allowable working pressure

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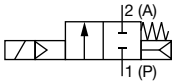
Fire Protection service valve, UL Recognized with Fire Protection / UL Listed with Fire Protection

Note:

- Please note that for UL recognized version the cable plug **Type 2518** ▶ is included. UL Listed and other versions are available on request. For details see **"Cable plug Type 2518, form A according to DIN EN 175301-803" on page 29**.
- Please note that for UL listed version the cable plug **Type 2509** ▶ is included. For details see **"Cable plug Type 2509, form A according to DIN EN 175301-803" on page 29**.
- Further versions with G inner thread are available on request.

Circuit function	Port connection	Orifice	C_v value water	Pressure range (MAWP[1.])	Medium temp. range	Ambient temp. range	Certification	Article no.	
								024/DC	024/56
		[mm]	[gal/min]	[psi]	[°F]	[°F]		[V/Hz]	[V/Hz]
Seal material PTFE/graphite									
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT ½	12	2.31	14.5...363	41...194	41...131	UL recognized	X	X
							UL listed	00324566	X

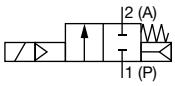
X: on request

1.) Maximum allowable working pressure

High pressure version up to 1160 psi (MX13), coil UL Recognized (cURus)

Note:

- Please note that the cable plug **Type 2518** ▶ is included. UL Listed and other versions are available on request. For details see **"Cable plug Type 2518, form A according to DIN EN 175301-803" on page 29**.
- High shut off levels may occur with liquids and high differential pressure!

Circuit function	Port connection	Orifice	C_v value water	Pressure range (MAWP[1.])	Article no.			
					024/DC	024/60	120/60	240/60
		[mm]	[gal/min]	[psi]	[V/Hz]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material PTFE/FKM								
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT ½	12	2.31	14.5…1160	X	X	X	X

X: on request

1.) Maximum allowable working pressure

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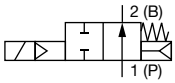
Discharge valve for compressor systems (CF05), UL Recognized and CSA certified

Note:

- Please note that the cable plug **Type 2518** ▶ is included. UL Listed and other versions are available on request. For details see **"Cable plug Type 2518, form A according to DIN EN 175301-803" on page 29**.
- Further versions with alternative voltages and G inner thread are available on request.

Circuit function	Port connection	Orifice	C_v value water	Pressure range (MAWP[1.])	Article no.		
					024/DC	024/60	120/60
		[mm]	[gal/min]	[psi]	[V/Hz]	[V/Hz]	[V/Hz]
CF B 2/2-way solenoid valve Servo-controlled Normally open 	NPT ½	12	2.31	14.5…464	X	X	X

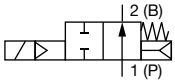
X: on request

1.) Maximum allowable working pressure

Discharge valve for compressor systems (CF05), UL Listed and CSA certified

Note:

- Please note that for UL listed version the cable plug **Type 2509** ▶ is included. For details see **"Cable plug Type 2509, form A according to DIN EN 175301-803" on page 29**.
- Further versions with alternative voltages and G inner thread are available on request.

Circuit function	Port connection	Orifice	C_v value water	Pressure range (MAWP[1.])	Article no.		
					024/DC	024/60	120/60
		[mm]	[gal/min]	[psi]	[V/Hz]	[V/Hz]	[V/Hz]
CF B 2/2-way solenoid valve Servo-controlled Normally open 	NPT ½	12	2.31	14.5…464	X	X	X

X: on request

1.) Maximum allowable working pressure

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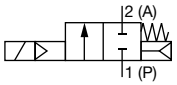
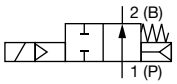
Coil UL Listed (cULus) for hazardous locations, Class 1, Division 2 cable version

Note:

- Further versions with G inner thread on request.
- With 3 m/9'10" cable as standard. Other lengths on request.

Circuit function	Port connection	Orifice	C_V value water	Pressure range (MAWP[1.])		Article no.			
				Liquids	Gases	12/AC/DC	24/AC/DC	120/AC	240/AC
		[mm]	[gal/min]	[psi]	[psi]	[V/Hz]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material PTFE/FKM									
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	NPT ½	12	2.31	14.5…725	14.5…725	X	X	X	X
	NPT ¾	20	8.09	14.5…362	14.5…464	X	X	X	X
	NPT 1	25	11.56	14.5…362	14.5…464	X	20027923	X	X
CF B 2/2-way solenoid valve Servo-controlled Normally open 	NPT ½	12	2.31	14.5…464	14.5…464	X	X	X	X
	NPT ¾	20	8.09	14.5…362	14.5…362	X	X	X	X
	NPT 1	25	11.56	14.5…362	14.5…362	X	X	X	X

X: on request

1.) Maximum allowable working pressure

Labeling explosion protection cable coil	
NEC 500	Class I, Division 2, Groups A,B,C,D T4 Class I,II, Division 2, Groups F,G T4
NEC 505 CEC 18	Class I, Zone 1, AEx mb IIC T4 Gb Zone 21, AEx mb IIC T275 °F Db

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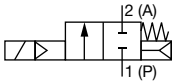
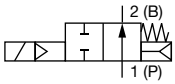
Coil UL Listed (cULus) for hazardous locations, Class 1, Division 2 terminal box version

Note:
Further versions with G inner thread on request.

Circuit function	Port connection	Orifice	C_v value water	Pressure range (MAWP[1.])		Article no.			
				Liquids	Gases	12/AC/DC	24/AC/DC	120/AC	240/AC
		[mm]	[gal/min]	[psi]	[psi]	[V/Hz]	[V/Hz]	[V/Hz]	[V/Hz]
Seal material PTFE/FKM									
CF A 2/2-way solenoid valve Servo-controlled Normally closed  	NPT ½	12	2.31	14.5…725	14.5…725	X	X	X	X
	NPT ¾	20	8.09	14.5…362	14.5…464	X	X	X	X
	NPT 1	25	11.56	14.5…362	14.5…464	X	X	X	X
CF B 2/2-way solenoid valve Servo-controlled Normally open  	NPT ½	12	2.31	14.5…464	14.5…464	X	X	X	X
	NPT ¾	20	8.09	14.5…362	14.5…362	X	X	X	X
	NPT 1	25	11.56	14.5…362	14.5…362	X	X	X	X

X: on request

1.) Maximum allowable working pressure

Labeling explosion protection terminal box	
NEC 500	Class I, Division 2, Groups A,B,C,D T4 Class I,II, Division 2, Groups F,G T4
NEC 505 CEC 18	Class I, Zone 1, AEx eb mb IIC T4 Gb Zone 21, AEx mb tb IIC T275 °F Db

Further versions on request

Approvals
- Versions for oxygen applications
- Coil cFMus approved Class 1, Division 1
- Coil UL Listed cULus Class 1, Division 2 (zone 2)

Process connection
- G
- UN

Voltage
110/50, non-standard voltages

Temperature
Special temperature ranges

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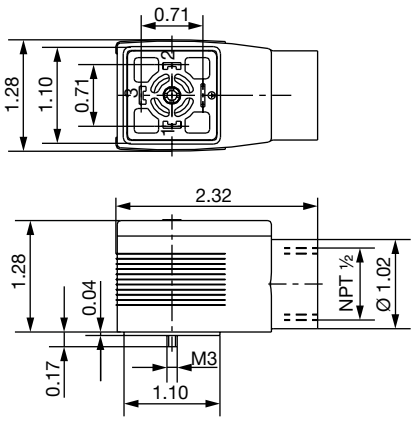
7.4. Ordering chart accessories

Cable plug Type 2509, form A according to DIN EN 175301 - 803

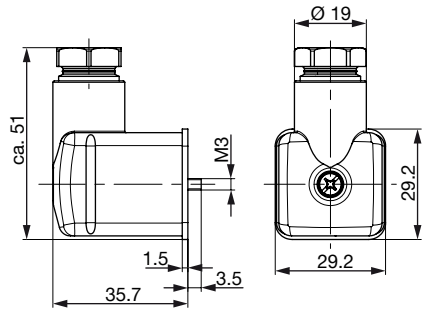
Note:

- The cable plug meets the requirements for UL hazloc Div. 2.
- Without circuitry (Standard)
- For more information on the cable plug, see data sheet **Type 2509** ▶.

Cable plug	Dimensions	Version	Voltage	Article no.
		Without circuitry	0…250 V AC/DC	137943

Cable plug Type 2518, form A according to DIN EN 175301 - 803

Note:
For further versions see data sheet **Type 2518** ▶.

Cable plug	Dimensions	Version	Voltage	Article no.
		Without circuitry (AC/DC)	0…250 V AC/DC	314802
		With LED (AC/DC)	12…24 V AC/DC	314812
		With LED and varistor (AC/DC)	12…24 V AC/DC	314820
		With rectifier, LED and varistor	12…24 V AC/DC	314816
		Without circuitry (AC/DC) with silicone seal for higher ambient temperature, e.g. steam version (NA07)	0…250 V AC/DC	361687

Special tool to turn the terminal box

Note:
This special tool is not supplied with the valve.

Description	Components of the set	Article no.
Set SC02-AC10 	• Special wrench • Service manual	293488

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