



Servo-assisted 2/2-way diaphragm valve

- Servo-assisted diaphragm valve with nominal diameter of up to DN 40
- Spring coupled diaphragm opens without differential pressure
- Damped design for low noise
- High flow rate with compact design
- 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 1087 Timer, form A according to DIN EN 175301-803	►
	Type 2509 Cable plug, form A according to DIN EN 175301-803	►

Type description

Valve 6213 EV is a servo-assisted diaphragm valve. The spring coupling of the diaphragm supports the opening process in the valve. In its standard variant, the valve is suitable for deployment with liquids. A minimum differential pressure is required for full opening. For gas and vacuum applications, a special variant is available (HP00) that opens the valve without differential pressure. Various diaphragm materials are available depending on the actual application. The body is available in brass, stainless steel and gunmetal. For other markets, dezincification-resistant brass is available. To reduce electrical power consumption during operation, coils with integrated Kick-and-Drop (KD) electronics featuring double coil technology are available.

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1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "5. Dimensions" on page 8.
Material	
Seal	NBR, FKM, EPDM
Body	Brass acc. to DIN EN 50930 - 6 Stainless steel 1.4408/316L
Coil	Polyamide, epoxy (insulation class H)
Valve inner parts	Brass body: brass, stainless steel and PPS Stainless steel body: stainless steel and PPS
Orifice	Standard: DN 10...DN 40 HP00: DN 13...DN 20
Circuit function	A Further information can be found in chapter "2. Circuit functions" on page 4.
Thermal insulation class of solenoid coil	Epoxy coil class H
Performance data	
Duty cycle	100 % continuous operation; KD coil max. 6 switching cycles/minute
Switching time¹⁾ AC/DC	
DN 10...DN 13	Opening: 10...100 ms Closing: 100...200 ms
DN 20	Opening: 200...300 ms Closing: 400...700 ms
DN 25...DN 40	Opening: 300...400 ms Closing: 800...1400 ms
Electrical data	
Operating voltage	Standard: 24 V DC, 24 V 60 Hz, 120 V 60 Hz, 240 V 60 Hz HP00: 24 V DC, 24 V 50/60 Hz, 110/120 V 50/60 Hz, 230/240 V 50/60 Hz Others on request
Power consumption	Depending on orifice and coil size Further information can be found in chapter "6. Performance specifications" on page 12
Voltage tolerance	± 10 %
Medium data	
Operating medium	Medium that does not attack the housing and sealing materials Further information can be found in chapter "4.1. Bürkert resistApp" on page 7.
Medium temperature	
With NBR	- 14 °F...+ 176 °F
With FKM	+ 32 °F...+ 194 °F with polyamide coil + 32 °F...+ 248 °F with epoxy coil
With EPDM	- 22 °F...+ 194 °F with polyamide coil - 22 °F...+ 212 °F with epoxy coil
Viscosity	Max. 21 cSt (21 mm²/s)
Product connections	
Electrical connection	- Plug contacts according to DIN EN 175 301 - 803 form A for cable plug Type 2518 ►. Further information can be found in chapter "Cable plug Type 2518, form A according to DIN EN 175301 - 803" on page 17. - Plug contacts according to DIN EN 175 301 - 803 form A for cable plug Type 2509 ►. Further information can be found in chapter "Cable plug Type 2509, form A according to DIN EN 175301 - 803" on page 17.
Port connection	G ¼, G ⅜, G ½, G ¾, G 1, G 1¼, G 1½, G 2 NPT ¼, NPT ⅜, NPT ½, NPT ¾, NPT 1, NPT 1¼, NPT 1½, NPT 2 (Rc on request)

Approvals and conformities

Directives	CE, EAC
Degree of protection	IP65 with cable plug Type 2518 ▶, (IP67 on request) cFMus approved coil (with Code PR05) on request
Explosion protection	Further information can be found in chapter "3.4. Explosion protection" on page 5.
North America (USA/Canada)	Further information can be found in chapter "3.5. North America (USA/Canada)" on page 5.
Drinking water	Further information can be found in chapter "3.6. Drinking water" on page 5.
Others	Further information can be found in chapter "3.7. Others" on page 6.

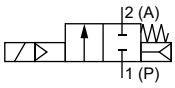
Environment and installation

Installation	As required, preferably with actuator upright
Ambient temperature^{2.)}	
Standard variant	Max. + 131 °F
AC10	10 switching cycles/min
20/2,0 W	Max. + 158 °F
AC19	10 switching cycles/min
44/6,5 W	Max. + 158 °F
85/8,5 W	Max. + 131 °F

1.) Measurement at + 68 °F, 87 psi at the valve inlet and free outlet, opening: pressure reduction to 90 % of the difference to the flow pressure, closing: pressure build-up to 90 % of the inlet pressure

2.) The temperature specifications correspond to the specified switchable differential pressures. Higher temperatures are possible on request, depending on the differential pressure, duty cycle and number of switching cycles. Further information can be found in chapter "6.1. Temperature diagram" in the ACKD data sheet on the website of **Type 6213** ▶.

2. Circuit functions

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

3. Approvals and conformities

3.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available variants can be supplied with the below mentioned approvals or conformities.

3.2. Conformity

In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.

3.3. Standards

The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

3.4. Explosion protection

Approval	Description			
 	Optional: Explosion protection according to category 2 (zone 1/21) Ex marking of the components according to the following table:			
	Coil Type AC10			
	<table> <tr> <th>Coils with cable outlet</th><th>Coils with terminal box</th></tr> <tr> <td> ATEX: EPS 18 ATEX 1232 X II 2G Ex mb IIC T4 Gb II 2D Ex mb IIIC T130 °C Db IECEx: IECEx EPS 18.0110 X Ex mb IIC T4 Gb Ex mb IIIC T130 °C Db </td><td> ATEX: EPS 18 ATEX 1232 X II 2G Ex eb mb IIC T4 Gb II 2D Ex mb tb IIIC T130 °C Db IECEx: IECEx EPS 18.0110 X Ex eb mb IIC T4 Gb Ex mb tb IIIC T130 °C Db </td></tr> </table>	Coils with cable outlet	Coils with terminal box	ATEX: EPS 18 ATEX 1232 X II 2G Ex mb IIC T4 Gb II 2D Ex mb IIIC T130 °C Db IECEx: IECEx EPS 18.0110 X Ex mb IIC T4 Gb Ex mb IIIC T130 °C Db
Coils with cable outlet	Coils with terminal box			
ATEX: EPS 18 ATEX 1232 X II 2G Ex mb IIC T4 Gb II 2D Ex mb IIIC T130 °C Db IECEx: IECEx EPS 18.0110 X Ex mb IIC T4 Gb Ex mb IIIC T130 °C Db	ATEX: EPS 18 ATEX 1232 X II 2G Ex eb mb IIC T4 Gb II 2D Ex mb tb IIIC T130 °C Db IECEx: IECEx EPS 18.0110 X Ex eb mb IIC T4 Gb Ex mb tb IIIC T130 °C Db			

3.5. North America (USA/Canada)

Approval	Description
	Optional: UL Listed for the USA The products are UL Listed for the USA according to: UL 429 (electrically operated valves)
	Optional (valid for coils): UL Hazardous Locations – Explosion Protection UL Listed for Hazardous Locations for USA and Canada Class I, Zone 1 Class I, Division 2, Group A, B, C and D Class II + III, Division 2, Group F and G
	Optional (valid for valves): UL Recognized for the USA The valves are UL Recognized for the USA according to: UL 429 (electrically operated valves)
	Optional (valid for valves): CSA for Canada The valves are CSA approved for Canada according to: CSA 139 (electrically operated valves)
	Optional: FM (Factory Mutual) – Explosion Protection (valid for coils) FM for Hazardous Locations for USA and Canada Class I, Zone 1 Class I, Division 1, Groups A, B, C and D Class II + III, Division 1, Groups E, F and G

3.6. Drinking water

Conformity	Description
	Suitable for use in drinking water applications The materials comply with the assessment principles (UBA) for materials in contact with drinking water (TrinkwasserV). PF36: Suitable for products with a maximum temperature of + 60 °C (warm water) PF40: Suitable for products with a maximum temperature of + 23 °C (cold water)
Approval	Description
	French ACS approval for drinking water products (valid for the variable code PY23) The products are approved according to French ACS approval for drinking water products („Attestation de conformité sanitaire“).

3.7. Others

Fire protection on railway vehicles

Approval	Description
DIN EN 45545	Optional: Fire protection on railway vehicles in accordance with DIN EN 45545 applicable parts 2 and 5: requirements for fire behaviour of materials and components The products comply with the fire protection requirements in accordance with applicable parts 2 and 5 of DIN EN 45545 for use in the interior of railway vehicles for operating classes 1-3 (OC1-3) in conjunction with hazard levels 1-2 (HL1-2) in accordance with the manufacturer's declaration.

Safety shut-off valves

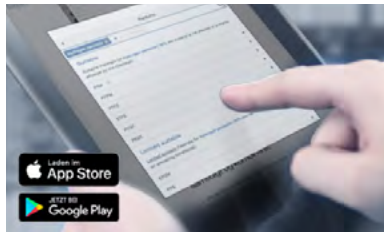
Approval	Description
	Safety shut-off valves as a piece of equipment with safety function according to DIN EN ISO 23553-1 (valid for the variable code PD22) The automatic and semi-automatic valves are suitable for use with oil, according to the manufacturer's declaration.

VDE – Certificate of conformity with factory surveillance

Approval	Description
	Optional: Certificate of conformity with factory surveillance (VDE Testing and Certification Institute) (valid for the variable code PW01 and PW02) The electrically operated water valves are tested and certified according to: • DIN EN 60730-1 (VDE 0631-1) • EN 60730-1 • DIN EN IEC 60730-2-8 (VDE 0631-2-8) The electrically operated water valves also fulfill the requirements of: • IEC 60730-1 • IEC 60730-2-8

4. Materials

4.1. Bürkert resistApp



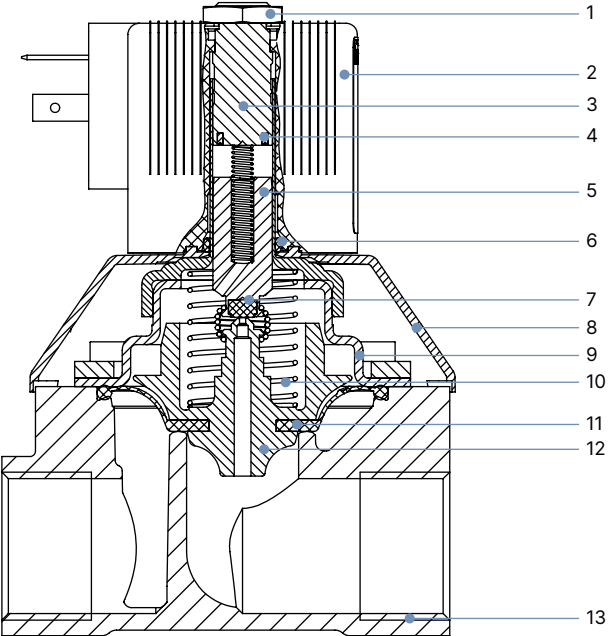
Bürkert resistApp – Chemical resistance chart

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](#)

4.2. Material specifications

Note:
The sectional view shown corresponds to the standard variant (DN 20). For other variants and nominal diameters, the sectional view varies.



No.	Element	Material
1	Nut	Steel (thick-film passivated according to RoHS) Stainless steel 1.4305, PTFE-coated
2	Coil	Polyamide or epoxy
3	Stopper	Stainless steel 1.4113/434 ^{1.)}
4	Shading ring (only AC variant)	with brass body: copper (Cu) with stainless steel body: silver (Ag)
5	Magnetic core	Stainless steel 1.4113/434 ^{1.)}
6	O-ring	FKM
7	Plunger seal	NBR, FKM, EPDM
8	Bonnet	PA6
9	Cover	DN 10...DN 25: stainless steel 1.4301 DN 40: brass, stainless steel 1.4408/316L
10	Spring	Stainless steel 1.4310
11	Diaphragm	NBR, FKM, EPDM
12	Diaphragm support	PPSGF40 in combination with brass and accordingly stainless steel parts
13	Valve body	Brass, stainless steel 1.4408/316L (CF3M) Gunmetal with external thread

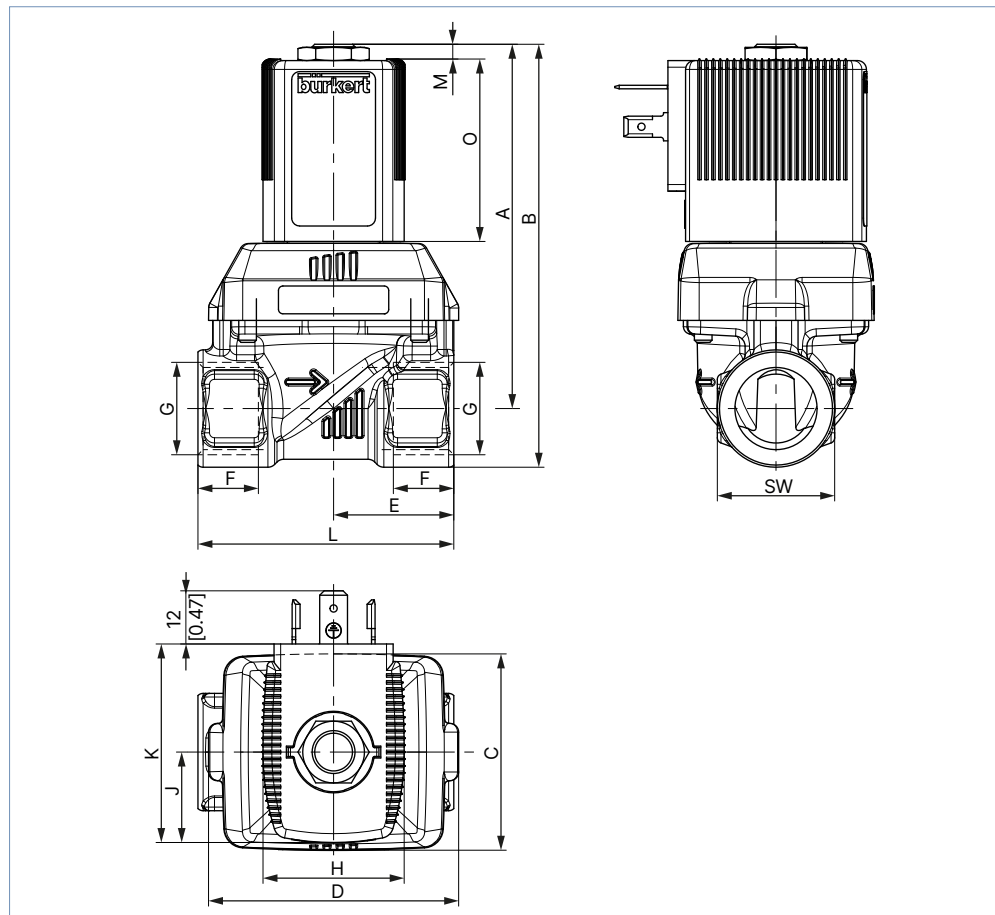
1.) Material designation according to AISI

5. Dimensions

5.1. Standard variant with brass and stainless steel body

Note:

Dimensions in mm [inch]

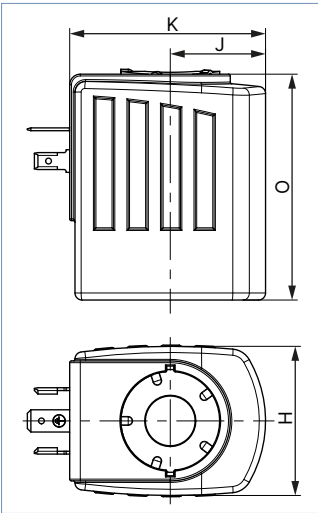


DN	A		B		C		D		E		F		G	L		SW		Coil size
	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[inch]	[mm]	[inch]	[mm]	[inch]	
10	71.1	2.80	82.1	3.23	36	1.42	46	1.81	22	0.87	10.0	0.39	NPT ¼	50	1.97	22	0.87	5 and 6
											10.3	0.41	NPT ⅜					
10 ¹⁾	73.1	2.88	86.6	3.41					24.5	0.96	13.7	0.54	NPT ½	50	1.97	27	1.06	
10 ²⁾														55	2.17			5 and 6
13 ¹⁾	82.6	3.25	95.9	3.78	44.5	1.75	56.7	2.23	27.25	1.07	13.7	0.54	NPT ½	58	2.28	27	1.06	
13 ²⁾									32.5	1.28				65	2.56			
13	84.6	3.33	100.6	3.96					32.5	1.28	14	0.55	NPT ¾	65	2.56	32	1.26	5 and 6
20	97.1	3.82	113.1	4.45	65	2.56	76.6	3.02	37	1.46	14	0.55	NPT ¾	80	3.15	32	1.26	
20	99.6	3.92	120.1	4.73					37.5	1.48	16.8	0.66	NPT 1	80	3.15	41	1.61	
13 ¹⁾	109.3	4.30	122.8	4.83	44.5	1.75	56	2.23	27.25	1.07	13.7	0.54	NPT ½	58	2.28	27	1.06	K and L
13 ²⁾									32.5	1.28				65	2.56			
13	111.3	4.38	127.3	5.01					32.5	1.28	14	0.55	NPT ¾	65	2.56	32	1.26	
20	123.9	4.88	139.9	5.51	65	2.56	76.6	3.02	37	1.46	14	0.55	NPT ¾	80	3.15	32	1.26	K and L
20	126.4	4.98	146.9	5.78					37.5	1.48	16.8	0.66	NPT 1	80	3.15	41	1.61	
25	143.4	5.65	163.4	6.43	77	3.03	88	3.46	46	1.81	16.8	0.66	NPT 1	95	3.74	41	1.61	K and L
25	148.3	5.84	173.3	6.82					46	1.81	17.3	0.68	NPT 1¼	95	3.74	50	1.97	
40 ¹⁾	153.9	6.06	178.9	7.04	104.5	4.11	117	4.61	61	2.40	17.3	0.68	NPT 1¼	126	4.96	50	1.97	K and L
40	159.4	6.28	189.4	7.46					61	2.40	17.3	0.68	NPT 1½	126	4.96	60	2.36	
40	165.4	6.51	200.4	7.89					64	2.52	17.6	0.69	NPT 2	132	5.20	70	2.76	

1.) Only threaded brass connection

2.) Only threaded stainless steel connection

5.2. Coil dimension

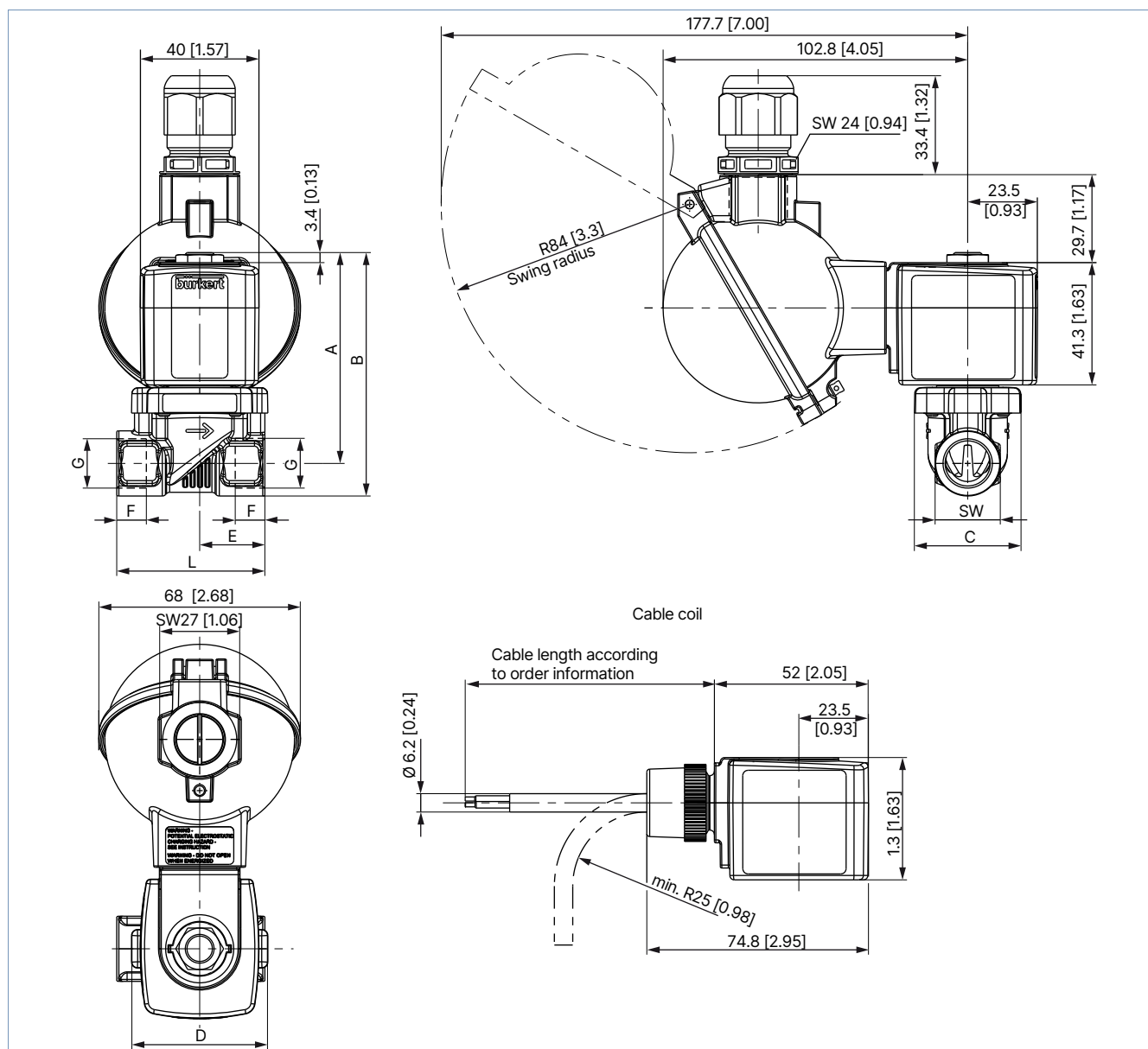


Coil size	H		J		K		O		M	
	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]
5	32	1.26	20.5	0.81	45	1.77	41	1.61	3.4	0.13
6	40	1.57	23.5	0.93	51	2.01	41	1.61	3.4	0.13
K	42	1.65	27	1.06	55.5	2.19	64	2.52	7	0.28
L	65	2.56	37.5	1.48	72	2.83	64	2.52	7	0.28

5.3. Coil UL Listed (cULus) for hazardous locations, Class I, Division 2

Note:

- Dimensions in mm [inch]
- Coil with terminal box and cable gland or coil with cable connection are available on request.

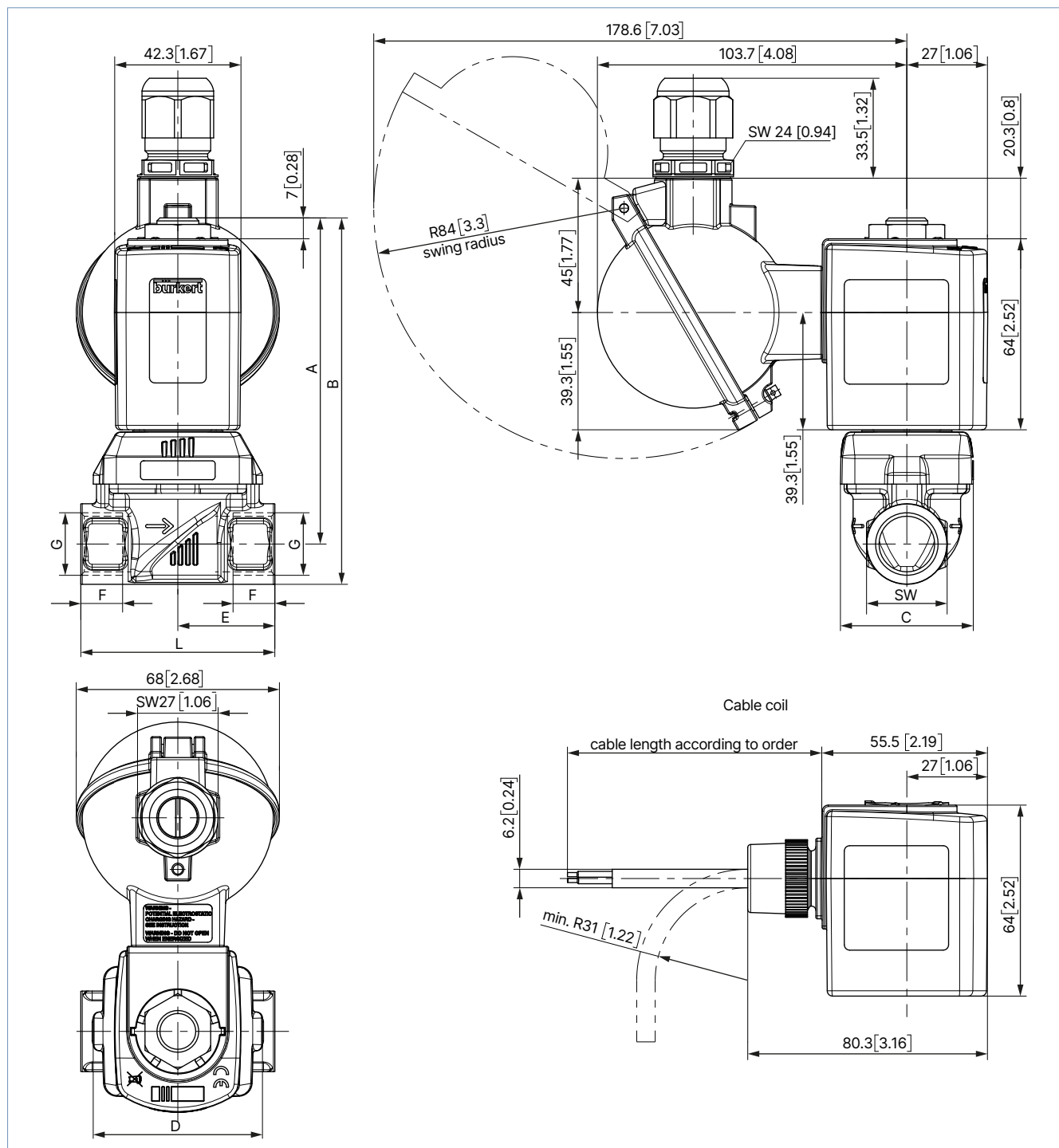


DN	A		B		C		D		E		F		G	L		SW	
	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[inch]	[mm]	[inch]	[mm]	[inch]
10	71.2	2.80	82.2	3.24	36	1.42	45.6	1.8	22	0.87	10	0.39	NPT ¼	50	0.97	22	0.87
											10.3	0.41	NPT ⅜				
	73.2	2.88	86.7	3.41							24.5	0.96	13.7	0.54	NPT ½	55	2.17
13	82.7	3.26	96	3.78	44.5	1.75	56.7	2.23	27.25	1.07	13.7	0.54	NPT ½	58	2.28	27	1.06
	84.7	3.34	100.7	3.96							32.5	1.28	14	0.55	NPT ¾	65	2.56
20	97.2	3.83	113.2	4.46	65	2.56	76.6	3.02	37	1.46	14	0.55	NPT ¾	80	3.15	41	1.6
	99.7	3.93	120.2	4.73							37.5	1.48	16.8				

5.4. Coil UL Listed (cULus) for hazardous locations, Class I, Division 2 (HP00 variant)

Note:

Dimensions in mm [inch]



DN	A		B		C		D		E		F		G	L		SW	
	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[inch]	[mm]	[inch]	[mm]	[inch]
13 ^{1.)}	109.3	4.3	122.8	4.83	44.5	1.75	56.7	2.23	27.25	1.07	13.7	0.54	NPT ½	58	2.28	27	1.06
13 ^{2.)}									32.5	1.28				65	2.56		
20	123.9	4.88	139.9	5.51	65	2.56	76.6	3.02	37	1.46	14	0.55	NPT ¾	80	3.15	32	1.26

1.) Only threaded brass connection

2.) Only threaded stainless steel connection

6. Performance specifications

6.1. Power consumption

Standard variant

Nominal size	Coil size		AC			DC		AC/DC ATEX/IECEX
			Inrush power	Holding power		Cold power	Warm power	Nominal power
[mm]	[mm]	SG	[VA]	[VA]	[W]	[W]	[W]	[W]
10	32	5	34	14	8	–	–	–
10	40	6	–	–	10	11	10	9
13	32	5	36	14	8	–	–	–
13	40	6	–	–	10	11	10	9
13	42	K	125	37	16	21	16	–
20	32	5	38	14	8	–	–	–
20	40	6	–	–	10	11	10	9
20	42	K	140	37	16	21	16	–
25	42	K	150	37	16	–	–	–
25	65	L	–	–	–	28	21	–
40	42	K	190	37	16	–	–	–
40	65	L	–	–	–	28	21	–

With Kick and Drop coil

Nominal size	Coil size		Kick and Drop coil AC/DC ¹⁾		
			Cold power Inrush power (500 ms)	Cold power Holding power	Warm power Holding power
[mm]	[mm]	SG	[W]	[W]	[W]
10...13	40	6	20	2	–
13...20	42	K	44	6,5	5,5
13...20	42 (ATEX)	K	44	6.5	5.5
13...40	42	K	85	8.5	7

1.) Kick and drop coil: integrated electronics assembly for temporarily increased performance for inrush (approx. 500 ms) in double coil technology

7. Product accessories

7.1. Special tool to turn the terminal box

Note:

Further ordering information can be found in chapter [“Special tool to turn the terminal box” on page 18](#)

8. Ordering information

8.1. Bürkert eShop



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](#)

8.2. Bürkert product filter

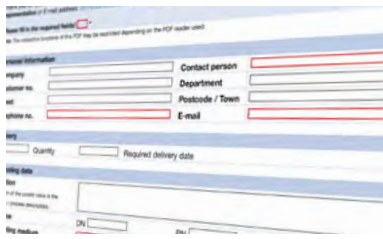


Bürkert product filter – Get quickly to the right product

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](#)

8.3. Bürkert Product Enquiry Form



Bürkert Product Enquiry Form – Your enquiry quickly and compactly

Would you like to make a specific product enquiry based on your technical requirements? Use our Product Enquiry Form for this purpose. There you will find all the relevant information for your Bürkert contact. This will enable us to provide you with the best possible advice.

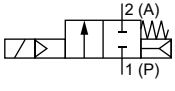
[Fill out the form now](#)

8.4. Ordering chart

UL Listed standard variant with brass body

Note:

- Please note that the cable plug **Type 2509** ▶ is included. UL Recognized and other variants are available on request.
For details see **"Cable plug Type 2509, form A according to DIN EN 175301 - 803" on page 17.**
- Further variants are available on request.

Circuit function	Port connection	Orifice	C _v value water ^{1.)2.)}	Pressure range ^{3.)} water (MAWP) ^{4.)}	Weight ^{5.)}	Article no.		
						024/DC ^{6.)}	024/60	120/60
		[mm]	[gal/min]	[psi]	[kg]	[V/Hz]	[V/Hz]	[V/Hz]
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	Seal material NBR, epoxy coil, medium temperature - 14... + 176 °F							
	NPT 1/4	10	1.5	0...145	0.3 (0.5)	263095 ☒	263094 ☒	334235 ☒
	NPT 3/8	10	2.2	0...145	0.3 (0.5)	280512 ☒	276336 ☒	334626 ☒
	NPT 1/2	10	2.2	0...145	0.4 (0.5)	280496 ☒	o. r.	o. r.
	NPT 1/2	13	4.2	0...145	0.4 (0.5)	280508 ☒	276337 ☒	263096 ☒
	NPT 3/4	13	4.2	0...145	0.5 (0.6)	280492 ☒	276386 ☒	334624 ☒
	NPT 3/4	20	9.6	0...145	0.7 (0.8)	280502 ☒	276385 ☒	334625 ☒
	NPT 1	20	9.6	0...145	0.9 (1.0)	280486 ☒	o. r.	o. r.
	Seal material FKM, epoxy coil, medium temperature 32... + 248 °F							
	NPT 1/4	10	1.5	0...145	0.3 (0.5)	280483 ☒	263474 ☒	334614 ☒
	NPT 3/8	10	2.2	0...145	0.3 (0.5)	280483 ☒	o. r.	o. r.
	NPT 1/2	10	2.2	0...145	0.4 (0.5)	o. r.	o. r.	o. r.
	NPT 1/2	13	4.2	0...145	0.4 (0.5)	280469 ☒	o. r.	o. r.
	NPT 3/4	13	4.2	0...145	0.5 (0.6)	o. r.	276386 ☒	334624 ☒
	NPT 3/4	20	9.6	0...145	0.7 (0.8)	o. r.	o. r.	o. r.
	NPT 1	20	9.6	0...145	0.9 (1.0)	o. r.	o. r.	o. r.
	Seal material EPDM, epoxy coil, medium temperature - 22... + 212 °F							
	NPT 1/4	10	1.5	0...145	0.3 (0.4)	334231 ☒	334232 ☒	o. r.
	NPT 3/8	10	2.2	0...145	0.3 (0.4)	268281 ☒	268289 ☒	o. r.
	NPT 1/2	13	4.2	0...145	0.4 (0.5)	280461 ☒	276388 ☒	o. r.
	NPT 3/4	13	4.2	0...145	0.5 (0.6)	o. r.	o. r.	o. r.

o. r. = on request

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A differential pressure of 7.25 psi is required to open the full cross section.

3.) Pressure data: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

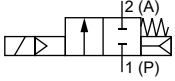
5.) The values in brackets apply to the weight of the DC variants.

6.) For gas and vacuum applications, a minimum pressure of 7.25 psi is required for DC variants. Alternatively, HP00 variants can be used.

UL Listed HP00 variant with brass body

Note:

- Please note that the cable plug **Type 2509** ▶ is included. UL Recognized and other variants are available on request. Further information can be found in chapter "**Cable plug Type 2509, form A according to DIN EN 175301 - 803**" on page 17.
- Preferably used for gas and vacuum applications as well as for liquids with increased flow and tightness requirements at low differential pressure.
- The Kick and Drop coil (AC/DC) features integrated electronics for short-term power increase and decrease in double coil technology.
- Kick and Drop coil max. 6 switching cycles/minute

Circuit function	Port connection	Orifice	C _v value water ^{1.)}	Pressure range ^{2.)} water (MAWP) ^{3.)}	Weight	Article no.		
		[mm]	[gal/min]	[psi]	[kg]	024/DC or 24/50...60	110...120/50...60	230...240/50...60
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	Seal material NBR, epoxy coil, medium temperature 32...+ 248 °F							
	NPT 1/2	13	4.2	0...145	0.8	333650	333651	333652
	NPT 3/4	20	9.6	0...145	1.3	333665	333666	333667
	Seal material FKM, epoxy coil, medium temperature - 22...+ 212 °F							
	NPT 1/2	13	4.2	0...145	0.8	333656	333657	333658
	NPT 3/4	20	9.6	0...145	1.3	333671	333674	333672

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi

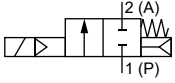
2.) Pressure data: overpressure to atmospheric pressure

3.) Maximum allowable working pressure

UL Listed standard variant with stainless steel body

Note:

Please note that the cable plug **Type 2509** ▶ is included. UL Recognized and other variants are available on request. Further information can be found in chapter "**Cable plug Type 2509, form A according to DIN EN 175301 - 803**" on page 17.

Circuit function	Port connection	Orifice	C _v value water ^{1.)2.)}	Pressure range ^{3.)} water (MAWP) ^{4.)}	Weight ^{5.)}	Article no.		
		[mm]	[gal/min]	[psi]	[kg]	024/DC ^{6.)}	024/60	120/60
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	Seal material FKM, epoxy coil, medium temperature - 14...+ 176 °F							
	NPT 1/4	10	1.5	0...145	0.3 (0.5)	280432	334234	334619
	NPT 3/8	10	2.2	0...145	0.3 (0.5)	280426	276390	334836
	NPT 1/2	13	4.2	0...145	0.4 (0.5)	280420	276391	334617
	NPT 3/4	20	9.6	0...145	0.7 (0.8)	280415	276392	334616
	NPT 1	20	9.6	0...145	0.9 (1.0)	280411	276393	334615
	Seal material EPDM, epoxy coil, medium temperature 32...+ 248 °F							
	NPT 1/4	10	1.5	0...145	0.3 (0.5)	280455	o. r.	334237
	NPT 3/8	10	2.2	0...145	0.3 (0.5)	284861	o. r.	334227
	NPT 1/2	13	4.2	0...145	0.4 (0.5)	280454	o. r.	334621
	NPT 3/4	20	9.6	0...145	0.7 (0.8)	334226	o. r.	334842
	NPT 1	20	9.6	0...145	0.9 (1.0)	280447	o. r.	o. r.

o. r. = on request

1.) Flow coefficient at + 60 °F and pressure drop of 1 psi^{2.)}

2.) A differential pressure of 7.25 psi is required to open the full cross section.

3.) Pressure data: overpressure to atmospheric pressure

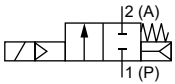
4.) Maximum allowable working pressure

5.) The values in brackets apply to the weight of the DC variants.

6.) For gas and vacuum applications, a minimum pressure of 7.25 psi is required for DC variants. Alternatively, HP00 variants can be used.

UL Listed HP00 variant with stainless steel body
Note:

- Please note that the cable plug **Type 2509** ▶ is included. UL Recognized and other variants are available on request. Further information can be found in chapter **"Cable plug Type 2509, form A according to DIN EN 175301-803"** on page 17.
- Preferably used for gas and vacuum applications as well as for liquids with increased flow and tightness requirements at low differential pressure.
- The Kick and Drop coil (AC/DC) features integrated electronics for short-term power increase and decrease in double coil technology.
- Kick and Drop coil max. 6 switching cycles/minute

Circuit function	Port connection	Orifice	C _v value water ^{1.)}	Pressure range ^{2.)} water (MAWP) ^{3.)}	Weight	Article no. per voltage/frequency [V/Hz]		
						024/DC or 24/50...60	110...120/50...60	230...240/50...60
		[mm]	[gal/min]	[psi]	[kg]	[V/Hz]	[V/Hz]	[V/Hz]
CF A 2/2-way solenoid valve Servo-controlled Normally closed 	Seal material NBR, epoxy coil, medium temperature 32...+248 °F							
	NPT 1/2	13	4.2	0...145	0.8	333662 ㉞	333663 ㉞	333664 ㉞
	NPT 3/4	20	9.6	0...145	1.3	333678 ㉞	333680 ㉞	333681 ㉞
	Seal material FKM, epoxy coil, medium temperature -22...+212 °F							
	NPT 1/2	13	4.2	0...145	0.8	333659 ㉞	333660 ㉞	333661 ㉞
	NPT 3/4	20	9.6	0...145	1.3	333675 ㉞	333676 ㉞	333677 ㉞

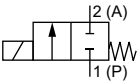
1.) Flow coefficient at +60 °F and pressure drop of 1 psi

2.) Pressure data: overpressure to atmospheric pressure

3.) Maximum allowable working pressure

Standard variant with Kick and Drop UL recognized (cURus) coil
Note:

- The Kick and Drop coil (AC/DC) features integrated electronics for short-term power increase and decrease in double coil technology.
- Kick and Drop coil max. 6 switching cycles/minute

Circuit function	Port connection	Orifice	C _v value water ^{1.)2.)}	Coil power		Pressure range ^{3.)} water (MAWP) ^{4.)}	Article no.	
				Inrush power	Holding power		24 / AC/DC	120/AC
		[mm]	[gal/min]	[W]	[W]	[psi]	[V/Hz]	[V/Hz]
Brass body, NPT internal thread, seal material FKM/FKM								
CF A 2/2-way solenoid valve Direct-acting Normally closed 	NPT ⅜	10.0	2.2	20	2	0...145	20047795 ㉞	20047798 ㉞
	NPT ½	13.0	4.2	20	2	0...145	20047796 ㉞	20047799 ㉞
				44 ^{5.)}	6.5 ^{5.)}		20047801 ㉞	20047803 ㉞
	NPT ¾	20.0	9.6	20	2	0...145	20047797 ㉞	20047800 ㉞
				44 ^{5.)}	6.5 ^{5.)}		20047802 ㉞	20047804 ㉞
	NPT 1	25.0	13	85	8.5	0...145	333893 ㉞	333894 ㉞
	NPT 1¼						333908 ㉞	333909 ㉞
	NPT 1½	40.0	35	85	8.5	0...145	333923 ㉞	333924 ㉞
NPT 2	333926 ㉞						333927 ㉞	

 1.) Flow coefficient at +60 °F and pressure drop of 1 psi^{2.)}

2.) A differential pressure of 7.25 psi is required to open the full cross section.

3.) Pressure data: overpressure to atmospheric pressure

4.) Maximum allowable working pressure

5.) Recommended for gas and vacuum applications

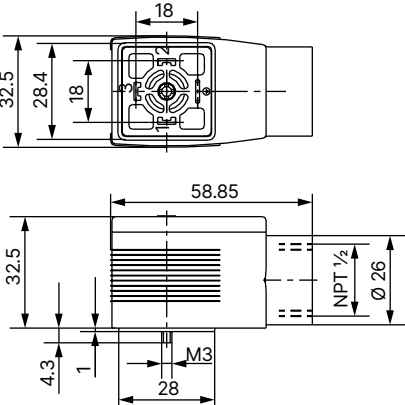
Further variants on request			
	Approval Further information can be found in chapter "3. Approvals and conformities" on page 4.		Coil Kick and Drop variant: Coil with energy-saving Kick and Drop electronics in double-coil technology (CZ05)
	Temperature - EPDM variant up to + 212 °F with epoxy coil (NA38) - FKM variant up to + 248 °F with epoxy coil (NA38)		Material - Brass dezincification resistant (MZ) - Nickel-plated brass (5 µm) (AF43) - Gunmetal with external thread (DN 10, DN 13, DN 20)
	Process connection Threaded port G, NPT, Rc, manifold, welded connection		Voltage Further Voltages available

8.5. Ordering chart accessories

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

Note:

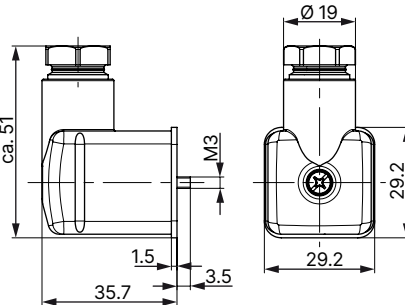
- Dimensions in mm
- Without wiring (standard)
- The cable plug Type 2509 meets the requirements of UL hazloc Div. 2.
- The cable plug Type 2509 meets the requirements of UL Listed (UL 429) in assembly with a Bürkert solenoid valve.
- Refer to data sheet **Type 2509** ▶ for more information about the cable plug.

Cable plug	Dimensions	Variant	Voltage	Article no.
		Without wiring	0...250 V AC/DC	137943 𐀀

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

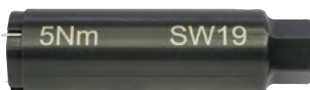
Note:

- Dimensions in mm
- For further variants see data sheet **Type 2518** ▶.

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

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 tool - Service manual	293488 

Timer Type 1087, form A according to DIN EN 175301 - 803
Note:

 Refer to data sheet **Type 1087**  for more information about the timer.

Timer	Approval	Product code	Voltage range	Article no.
Analogue variant 	–	1087-A-BCH-UC - 28	10...30 V AC/DC	348828 
	–	1087-A-BDK-UC - 28	24...240 V AC/DC	348829 
	cURus	1087-A-BCH-UC- 28*PU01	10...30 V AC/DC	348906 
	cURus	1087-A-BDK-UC- 28*PU01	24...240 V AC/DC	348907 
Digital variant 	–	1087-A-BFW-UC - 29	10...48 V AC/DC	348830 
	–	1087-A-BDX-UC - 29	110...240 V AC/DC	348831 
	cURus	1087-A-BFW-UC- 29*PU01	10...48 V AC/DC	348908 
	cURus	1087-A-BDX-UC- 29*PU01	110...240 V AC/DC	348909 