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Direct-acting plunger solenoid valves

D.EV series

6011, 6012, 6013, 6014

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bürkert
FLUID CONTROL SYSTEMS

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Solenoid valves

Direct-acting plunger solenoid valves of the D.EV series

The direct-acting plunger valves of the D.EV series are designed for operation in machine construction, instrument engineering and pneumatics. The robust construction and compact design allow use even under harsh climatic and mechanical conditions. The fully welded body concept with a plunger guide tube and stopper provide for a highly leak-proof system.

The D.EV series comprises four plunger valve types. First, there are the 2/2-way valves 6011 and 6013. They differ essentially in their diameter and coil power.

The valve types 6012 and 6014 are designed as 3/2-way valves. Here again the smaller type number designates the smaller diameters and the lower power of the coil. In the 3/2-way valves of the D.EV series the third process connection is always above the coil.

Overview of valves		
Type	Switch function	up to diameter (DN)
6011	2/2-way	2.4 mm
6013	2/2-way	6.0 mm
6012	3/2-way	1.6 mm
6014	3/2-way	3.0 mm

Overview of versions and properties

6011

The following versions are available:

- Switching pressure: 0 … 21 bar
- Media temperatures: –30 … +100 °C
- Seal material: FKM
- Diameters: DN 1… 2.4 mm
- Body materials: Brass, polyamide (PA), stainless steel 1.4105
- Process connections: M5, G 1/8, flange
- Max. Kv value: 0.13 m³/h
- Normally closed (NC)

Type 6011 in sleeve and push-in version with coil AC07

6013

The following versions are available:

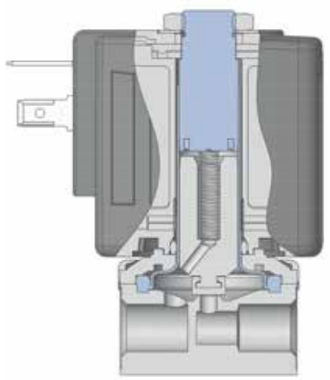
- Switching pressure: 0 … 25 bar
- Media temperatures: –40 … 180 °C
- Sealing materials: FKM, PTFE / graphite, EPDM on request
- Diameters: DN 2 … 6 mm
- Body materials: Brass, stainless steel 1.4105
- Process connections: G 1/8, G 1/4, G 3/8, flange
- Max. Kv value: 0.55 m³/h
- Normally Closed (NC) and Normally Open (NO)

Type 6013 in sleeve and flange version (SFB) with coil AC10

Standard versions optimized for the application are also available, which makes it easier to choose the right valve. The following table gives an overview of the available options, certifications and certificates.

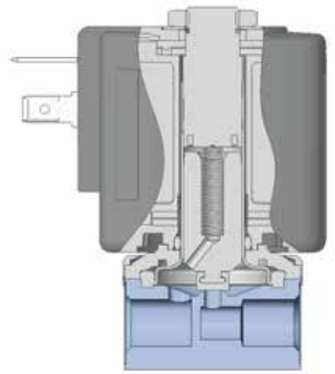
		6011	6013
Certifications	UL 429	–	✓
	UR 429	✓	✓
	Watermark	✓	
	ATEX / IEC Ex	–	✓
	DVGW DIN EN 161	–	✓
	NSF	–	✓
Certificates	KTW W270	✓	✓
	FDA	✓	✓
	Oxygen suitability	✓	✓
Options	Helium leak test	✓	✓
	Highly sealed version	✓	✓
	Direct cable outlet	–	✓
	Strand versions	✓	–
	High-temperature version	–	✓
	Free of oil, grease and silicon	✓	✓
	Pulse coil	–	✓
	Normally open	–	✓

Versions and benefits



Fully welded core guide tube – for additional reliability

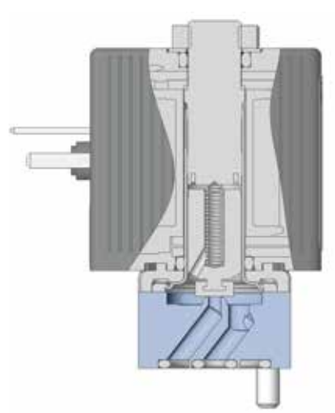
In all valves of the D.EV series the stopper and core guide tube are welded together for a gas-tight construction. This makes the system more leak-proof, especially in the case of critical media.



Variable threaded connection technology

The brass version of the valve is suitable for controlling neutral liquids and gases in pressure and vacuum applications. The available connections are G, M and NPT threaded.

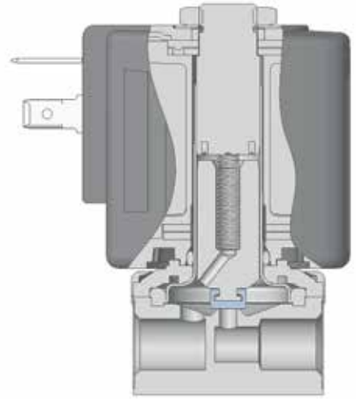
Special features:
stainless steel and nickel-plated brass versions enable use in mildly acidic and alkaline solutions and with ultra pure water and drinking water. Valves of this type are free of non-ferrous metals.



Space-saving flange connection

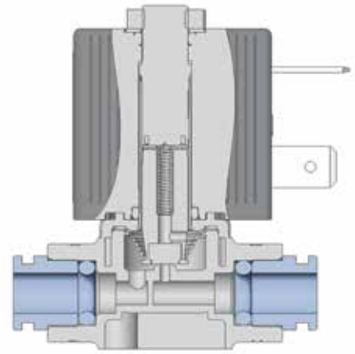
When mounting the valves in customised applications a compact design of the overall system is often desirable. It helps to use a block flange, which can be mounted directly on the customer-specific fluidic components.

Customised geometries that are compatible with the standard block flange (SFB) from Bürkert are also possible. The available materials are brass, stainless steel and PPS.



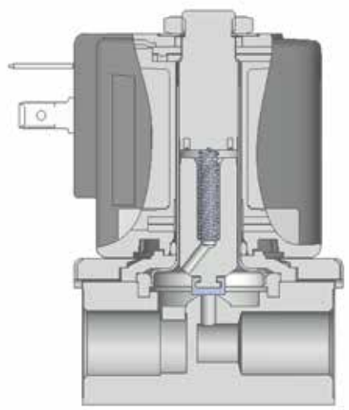
Sterilisers and steam

In steam applications, the requirements for the seat seals are especially stringent, since they are exposed to extreme mechanical loads from the effects of pressure and temperature. Especially material combinations of FKM and PTFE ensure reliable switching behaviour.



Hose connections

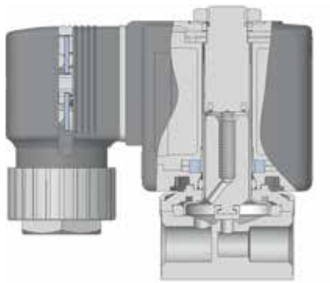
For fast and reliable connection to the process, the valve type 6011 is also available with push-in hose connections. This type of connection eliminates the need for tools and enables space-saving installation within the system or device.



Fuel gases and gas transport (EN161/DIN 3394-1)

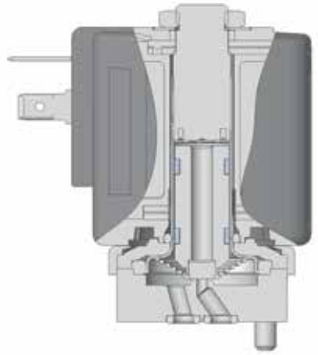
The versions for fuel gases are subject to special tests. Back pressure tightness and testing of the drop-out voltage are an integral part of the production process, for example. The valves can be used as safety shut-off valves.

Versions and benefits



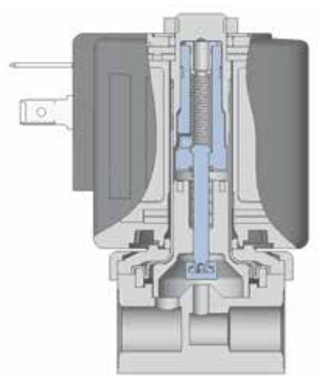
Energy-saving pulse version

For saving electrical energy, pulse versions are the right solution.
A short current pulse is sufficient to open or close the valve.
A permanent magnet keeps the valve open following the starting pulse. Therefore, no energy is needed and the valve does not heat up. The valves are designed with two-wire technology and are also available on request with switching electronics (pole reversal) in the connector plug (see accessories).



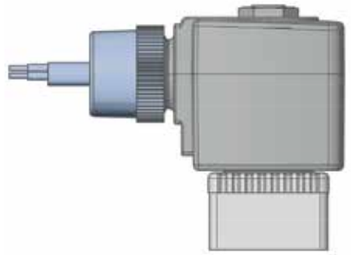
Sliding ring bearing for dry gases

For applications in gases the 6013 valve is available with PTFE sliding rings, which ensure low-wear operation and long maintenance intervals even when used with dry gases. The “oil and grease-free” version can be used in oxygen applications.



Normally Open (NO) or Normally Closed (NC)

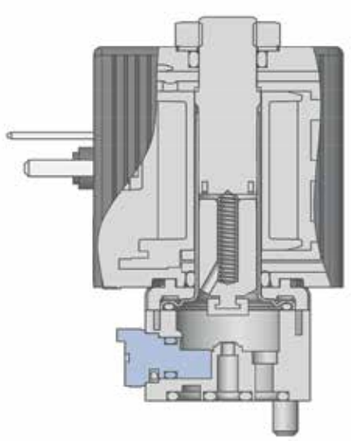
The normally open version of the 6013 is suitable as a safety valve for evacuation, pressure relief, or as a drain valve. The damping spring increases the service life and allows low-wear operation.



Explosion protection through encapsulation

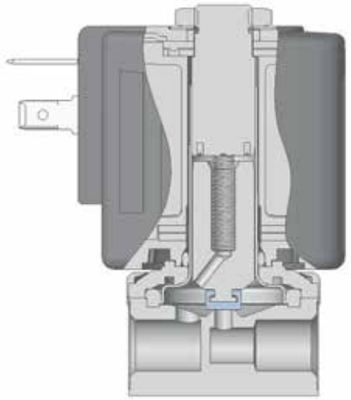
The Ex versions of the 6013 valve with the coil system (AC10) are suitable for use in areas with explosive gas-air mixtures and dust-air mixtures in Zone 1/21. The electrical connection and the suppressor circuit of the coil (AC10) are encapsulated for this purpose. The connection cable is available in different lengths.

A terminal connection box is available for direct connection of the connection cable.



Service-friendly manual operation

For easier commissioning, for emptying the system or for checking the fluid paths the valve can be opened manually by means of a hand lever. The hand lever is available in all sleeve and flange designs.



Low temperatures down to –40 °C with 6013

In cooling technology applications with ambient and media temperatures down to minus 40 °C, a special seal material is available for the seat seal. The elastomer material used for the seal features excellent elasticity and is adapted to the valve behaviour.

The 6011 product spectrum at a glance

Standard version, normally closed (NC) Sealing material **FKM,** form C for connector socket type 2506 or: form B for connector socket type 2507 available												
Line connection	Diameter (mm)	Kv value water (m³/h)	Pressure range (bar)		Brass				Stainless steel			
					Voltage / frequency (V/Hz)				Voltage / frequency (V/Hz)			
			DC	AC	24/DC	24/50	110/50	230/50	24/DC	24/50	110/50	230/50
M5	**1.2**	0.045	0–12	0–21	X	X	X	X	–	–	–	–
	1.6	0.06	0–6	0–12	X	X	X	X	–	–	–	–
G1/8	**1.6**	0.06	0–6	0–12	X	X	X	X	X	X	X	X
	2	0.11	0–4.5	0–8	X	X	X	X	X	X	X	X
	2.4	0.13	0–3	0–6	X	X	X	X	X	X	X	X
Flanged	**1.2**	0.045	0–12	0–21	X	X	X	X	–	–	–	–
	1.6	0.06	0–6	0–12	X	X	X	X	X	X	X	X
	2	0.11	0–4.5	0–8	X	X	X	X	X	X	X	X
	2.4	0.13	0–3	0–6	X	X	X	X	–	–	–	–

x = available in standard version

Photo at right: Gas control in surface finishing systems

The 6013 product spectrum at a glance

Functioning principle NC
Seal material **FKM,** polyamide coil

Line connection	Diameter (mm)	Kv value water (m³/h)	Pressure range (bar)		Brass				Stainless steel			ATEX
					Voltage / frequency (V/Hz)				Voltage / frequency (V/Hz)			
			DC	AC	24/DC	24/50	230/50	AVAILABLE WITH VA SEAT	24/DC	24/50	230/50	
G 1/8	**2**	0.12	0–12	0–25	X	X	X	–	X	X	X	1;
	2.5	0.16	0–10	0–16	X	X	X	–	–	–	–	1
	3	0.23	0–6	0–10	X	X	X	–	X	X	X	1
G 1/4	**2**	0.12	0–12	0–25	X	X	X	–	X	X	X	1
	3	0.23	0–6	0–10	X	X	X	–	X	X	X	1
	4	0.3	0–1.5	0–4	X	X	X	–	X	X	X	1
	6	0.55	0–1.5	0–4	X	X	X	–	X	X	X	1
G 3/8	**3**	0.23	0–8	0–14	X	X	X	X	–	–	–	–
	4	0.3	0–2.5	0–6	X	X	X	X	–	–	–	–
	6	0.55	0–0.75	0–2.5	X	X	X	X	–	–	–	–
Flanged	**2**	0.12	0–12	0–25	X	X	X	–	X	X	X	1
Functioning principle NO FKM seal, epoxy coil, available respectively with coil power of 7 or 8 W												
G 1/8	**2**	0.12	0–16	0–16	X	X	X	–	X	X	X	–
	3	0.23	0–8	0–8	X	X	X	–	X	X	X	–
G 1/4	**3**	0.23	0–8	0–8	X	X	X	–	X	X	X	–
	4	0.3	0–4	0–4	X	X	X	–	X	X	X	–
	6	0.55	0–2	0–2	X	X	X	–	X	X	X	–
High-temperature use up to +180, PTFE seat seal												
G 1/4	**2**	0.12	0–12	0–25	X	X	X	X	X	X	X	–
	3	0.23	0–6	0–10	X	X	X	X	X	X	X	–
G 3/8	**3**	0.23	0–8	0–14	X	X	X	X	X	X	X	–

1) Ex mb II T4, moulded cable, –30…+60 °C

Functioning principle NC
Pulse version, seal material **FKM,** epoxy coil, media temperature –10…+120 °C

Line connection	Diameter (mm)	Kv value water (m³/h)	Pressure range (bar)	Brass	
				Voltage / frequency (V/Hz)	
			DC	12/DC	24/DC
G 1/8	**2**	0.12	0–16	X	X
	2.5	0.16	0–10	X	X
	3	0.23	0–6	X	X
Flanged	**2**	0.12	0–16	X	X
	2.5	0.16	0–10	X	X
	3	0.23	0–6	X	X

DVGW version EN 161
NC, brass body, seal material **NBR**

Line connection	Diameter (mm)	Kv value water (m³/h)	Pressure range (bar)		Brass			
					Voltage/frequency (V/Hz)			
			DC	AC	24/DC	24/50	110/50	230/50
G 1/4	**2.5**	0.16	0–5	0–5	X	X	X	X
	3	0.23	0–5	0–5	X	X	X	X
	4	0.3	0–1.5	0–4	X	X	X	X
	6	0.55	0–0.5	0–1.5	X	X	X	X
G 3/8	**6**	0.55	0–0.75	0–2.5	X	X	X	X

Examples of applications

Lab and medical technology

In lab and medical technology the requirements placed on the media-contacting parts of the valves are especially high. Contaminations due to the material used and the production or assembly processes must be avoided in any case. The valve 6013 fulfils these requirements especially well. All media-contacting parts are made of high-quality stainless steel. After completion of production the valve is cleaned in a special cleaning process, in which all residue is completely removed.

Plasma systems

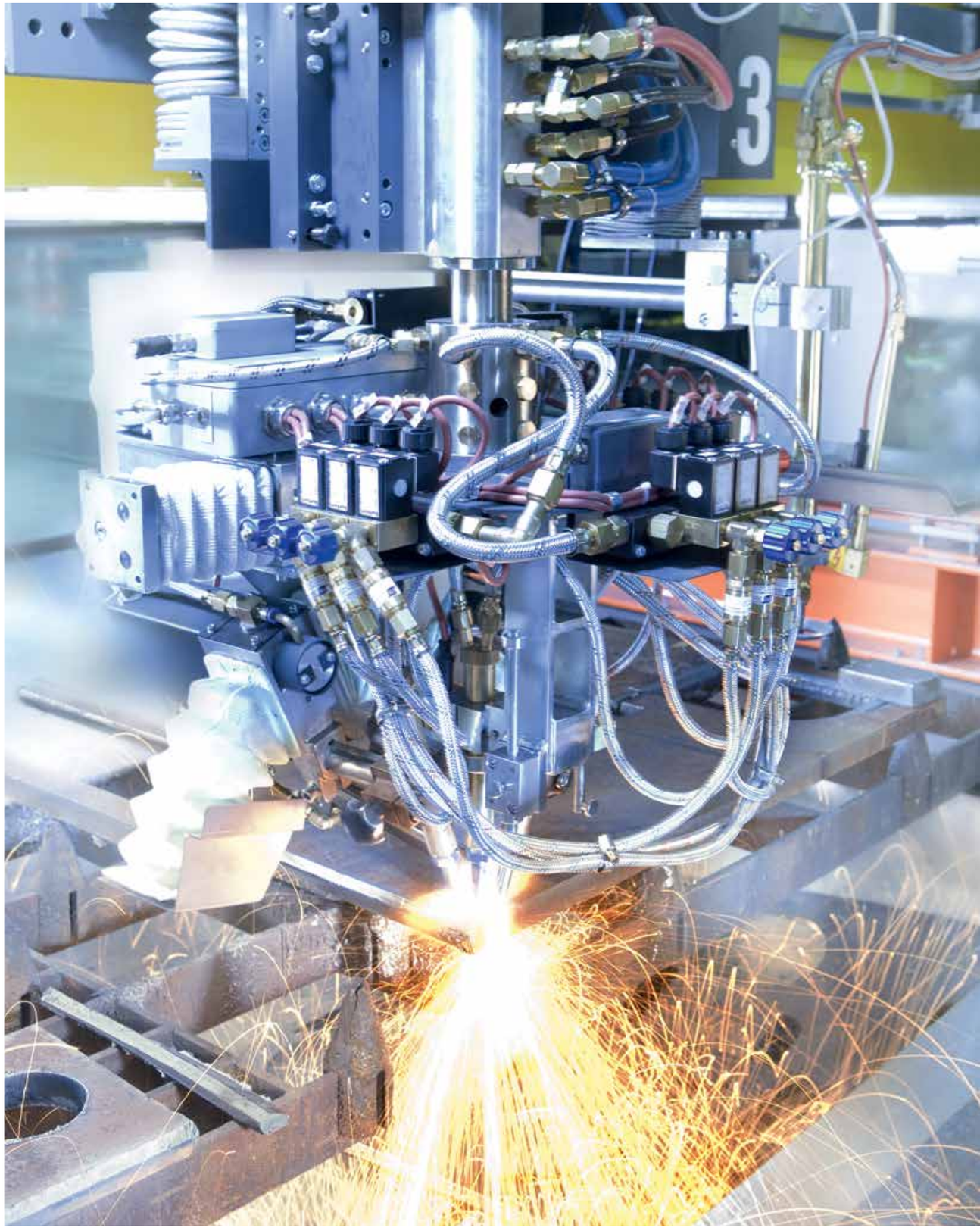
Plasma systems are used primarily for surface finishing. Plasma is a reactive gas that has been ionised through the supply of energy. In reaction with the workpiece, surfaces can be coated, cleaned, etched or otherwise finished. Gases such as NH3, H2, N2 or CO2 that are blown onto the surface of the workpiece at a pressure of 4 ... 10 bar form the basis of this process. The welded core guide tube, cleaned internal parts and a sliding ring bearing of the type 6013 valve increase the service life and the working cycles, in addition to ensuring low-maintenance operation.

Inkjet printers

Industrial inkjet printers have an operating pressure of 1...5 bar. While the print head shoots the ink droplets onto the paper at approx. 5 bar, the upstream ink preparation and supply functions use a pressure of about 1.5 bar. Chemical resistance and flushability are necessary for trouble-free operation. The stainless steel versions of valve types 6011 and 6013 with highly resistant EPDM, FFKM as the seal material are optimal for performing this task.

Irrigation systems

Irrigation by means of sprinkler or hose systems is necessary for the natural growth of plants in soil. The irrigation takes place at regular intervals with a small quantity of water at a water pressure of 1...6 bar. To save electrical power during the irrigation intervals the switching valves 6013 are designed as energy-saving pulse versions. A short current pulse is sufficient to open or close the valves. This allows energy savings of up to 95 percent.



Overview of versions and properties

6012

The following versions are available:

- Switching pressure: 0 …10 bar
- Media temperatures: –30 °C …+100 °C
- Sealing materials: FKM, EPDM
- Diameters: DN 1.2 …1.6 mm
- Body materials: Brass, stainless steel 1.4105, polyamide (PA)
- Process connections: M5, G 1/8, flange, push-in hose connection (P)
- Max. Kv value: 0.06 m³/h
- Normally Open (NO), Normally Closed (NC)

Type 6012 in sleeve version with coil AC07

6014

The following versions are available:

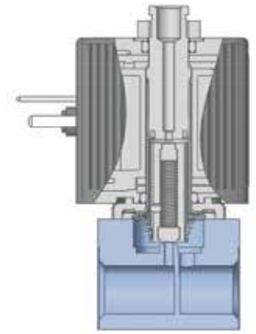
- Switching pressure: 0 …16 bar
- Media temperatures: –40 °C …+120 °C
- Sealing materials: FKM (EPDM on request)
- Diameters: DN 1.5 …DN 3.0
- Body materials: Brass, stainless steel 1.4105, polyamide (flange)
- Process connections: G 1/8, G 1/4, flange
- Max. Kv value: 0.16 m³/h
- Normally Open (NO), Normally Closed (NC)

Type 6014 in sleeve version with coil AC10

Standard versions optimized for the application are also available, which makes it easier to choose the right valve. The following table gives an overview of the available options, certifications and certificates.

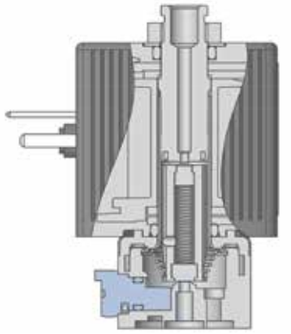
		6012	6014
Certifications	UL 429	–	✓
	UR 429	✓	✓
	Railway	–	✓
Certificates	KTW W270	✓	✓
	FDA	✓	✓
	Oxygen suitability	✓	✓
Options	Different strand versions	✓	–
	High-temperature version	–	✓
	Free of oil, grease and silicon	✓	✓
	Epoxy as coil material	✓	✓
	Manual control	✓	✓
	Pulse coil	–	✓

Versions and benefits



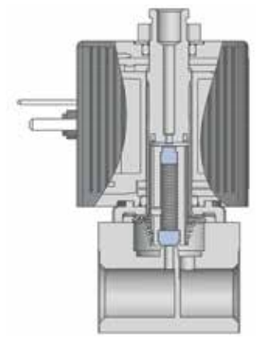
Standard version

In the standard version the fluid element is made of brass and is suitable for the control of neutral liquids and gases. For non-ferrous metal applications or aggressive media, versions are available in stainless steel or plastic.



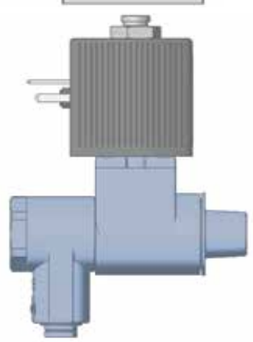
Service-friendly manual operation 6014

For easier commissioning, for emptying the system or for checking the fluid paths the valve can be opened manually by means of a hand lever. The hand lever is available in all brass sleeve and flange versions.



High-temperature version 6014

The high-temperature version of the valve is equipped with a temperature-resistant FKM seal. This allows use at media temperatures up to 140 °C.

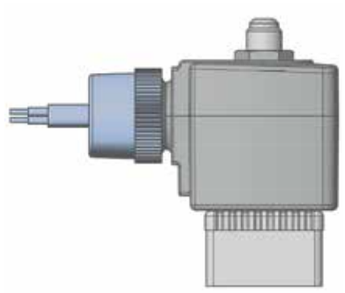


Banjo connection with flexible alignment 6012

For fast, space-saving and economical installation of the pilot control valve 6012 it is equipped with a “banjo” connection. The compact connection features manual actuation and allows not only space-saving assembly, but also ideal alignment of the pilot valve on the main valve.

Banjo version 6014

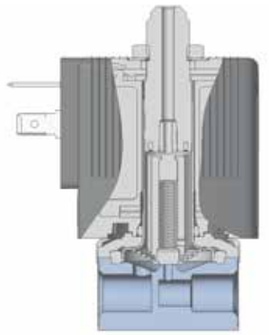
The banjo versions especially suitable for pilot control. For easier mounting on the main valve or for row mounting on a mounting plate the banjo valve 6014 is equipped with a connecting block. The pilot valve is delivered with service-friendly manual actuation as a standard feature.



Explosion protection 6014

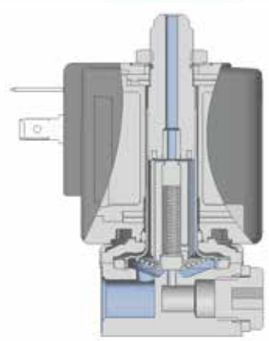
The Ex version of the coil system AC 10 is suitable for use in areas with explosive gas-air mixtures in Zone 1. The electrical connection and the coil are encapsulated for this purpose. Within the encapsulation there are recovery diodes that short-circuit when the coil winding is switched off.

A terminal connection box is available for direct connection of the connection cable.



Oxygen, painting lines and test facilities

These applications have special requirements for the purity and quality of the materials used. The valves are available free of oil, grease and silicon. Highly sealed versions that have been tested in a helium leak check are available for test bench or analysis facilities.



Normally open

The normally open version of the 6014 is suitable as a safety valve for evacuation, pressure relief, or as a drain valve. The conical spring increases the service life and allows low-wear operation.

The 6012 product spectrum at a glance

Functioning principle C
Sealing material **FKM,** form C for connector socket type 2506 or: form B for connector socket type 2507 available

Line connection	Diameter (mm)	Kv value water (m³/h)	Pressure range (bar)		Brass					Stainless steel			
					Voltage / frequency (V/Hz)					Voltage / frequency (V/Hz)			
			DC	AC	24/DC	24/50	110/50	230/50	OPTION: MANUAL ACTUA-TION	24/DC	24/50	110/50	230/50
M5	**1.2**	0.045	0 … 10	0 … 10	X	X	X	X	–	–	–	–	–
	1.6	0.06	0 … 6	0 … 6	X	X	X	X	–	–	–	–	–
G 1/8	**1.2**	0.045	0 … 10	0 … 10	X	X	X	X	X	X	X	X	–
	1.6	0.06	0 … 6	0 … 6	X	X	X	X	X	X	X	X	–
Flanged	**1.2**	0.045	0 … 10	0 … 10	X	X	X	X	–	X	X	X	X

Functioning principle D
Seal material FKM, plug form C or B available

M5	**1.2**	0.045	0 … 12	0 … 10	X	X	X	X	–	–	–	–	–
	1.6	0.06	0 … 6	0 … 6	X	X	X	X	–	–	–	–	–
G 1/8	**1.2**	0.045	0 … 12	0 … 10	X	X	X	X	–	X	X	X	–
	1.6	0.06	0 … 6	0 … 6	X	X	X	X	–	X	X	X	–

Pneumatic version, functioning principle C,
Sealing material **NBR,** manual actuation standard, form C for connector socket type 2506 or form B for connector socket type 2507 available

Pressure connection P Valve body	Working connection A Banjo bolt	Diameter (mm)	QN_n value air (l/min)	Pressure range (bar)		PA			
						Voltage / frequency (V/Hz)			
				DC	AC	24/DC	24/50	110/50	230/50
G 1/8	**G 1/8**	1.2	48	0 … 10	0 … 10	X	X	X	X
G 1/4	**G 1/8**	1.2	48	0 … 10	0 … 10	X	X	X	X
	G 1/4	1.2	48	0 … 10	0 … 10	X	X	X	X
Push-in hose connector	**G 1/8**	1.2	48	0 … 10	0 … 10	X	X	X	X
	G 1/4	1.2	48	0 … 10	0 … 10	X	X	X	X

The 6014 product spectrum at a glance

Functioning principle C (NC), seal material FKM													
Line connection	Diameter (mm)	Kv value water (m³/h)	Pressure range (bar)		Brass				Stainless steel				ATEX a) b)
					Voltage / frequency (V/Hz)				Voltage / frequency (V/Hz)				
			DC	AC	24/DC	24/50	230/50	OPTION: MANUAL ACTUATION	24/DC	24/50	230/50	OPTION: MANUAL ACTUATION	
G 1/8	**1.5**	0.07	0…16	0…16	X	X	X	X	X	X	X	X	–
	2	0.11	0…10	0…10	X	X	X	X	X	X	X	X	2
	2.5	0.16	0…6	0…6	X	X	X	X	X	X	X	X	2
G 1/4	**2**	0.11	0…10	0…10	X	X	X	X	X	X	X	X	2
	2.5	0.16	0…6	0…6	X	X	X	X	X	X	X	X	2
	1.5	0.07	0…16	0…16	X	X	X	X	X	X	X	X	1
	2	0.11	0…10	0…10	X	X	X	X	X	X	X	X	1
Functioning principle D (NO)													
G 1/8	**1.5**	0.07	0…16	0…16	X	X	X	–	X	X	X	–	X
	2	0.11	0…10	0…10	X	X	X	–	X	X	X	–	X
	2.5	0.16	0…6	0…6	X	X	X	–	X	X	X	–	X
G 1/4	**2**	0.11	0…10	0…10	X	X	X	–	X	X	X	–	X
	2.5	0.16	0…6	0…6	X	X	X	–	X	X	X	–	X
Functioning principle T (Universal)													
G 1/8	**1.5**	0.07	0…7	0…7	X	X	X	–	X	X	X	–	2
G 1/4	**1.5**	0.07	0…7	0…7	X	X	X	–	X	X	X	–	2

For flange connection:
Coils with different power outputs

1) Ex mb II T4, seal material FKM, moulded cable, –30…+40 °C with manual actuation
2) Ex mb II T4, seal material FKM, moulded cable, for single mounting only, –30…+60 °C, without/with manual actuation
Remark:
a) Ex ia IIC T6 on request
b) Pressure ranges may vary

Polyamide body material, functioning principle C (NC)							
Line connection	Diameter (mm)	Kv value water (m³/h)	Pressure range (bar)		Polyamide		
					Voltage / frequency (V/Hz)		
			DC	AC	24/DC	24/50	230/50
Flanged	1.5	0.07	0…16	0…16	X	X	X
	With manual actuation				X	X	X

Functioning principle NC Pulse version, seal material **FKM,** epoxy coil, media temperature –10… +120 °C					
Line connection	Diameter (mm)	Kv value water (m³/h)	Pressure range (bar)	Brass	
				Voltage / frequency (V/Hz)	
			DC	012/DC	024/DC
G 1/8	1.5	0.07	0…16	X	X
	2	0.11	0…10	X	X
Flanged	1.5	0.07	0…16	X	X
	2	0.11	0…10	X	X

Examples of applications

Control of pneumatic consumers

The small, compact design of the valve type 6012 with its banjo connection is ideal for the control of pneumatic cylinders and valves. The banjo screw facilitates mounting on the valve and alignment of the electrical connection. The protection type IP65 enables its use in humid and wet areas in the food and pharmaceutical industries.

Coffee makers and beverage dispensers

Valves control and dose fluids such as water, syrup or steam in beverage dispensers. The valves used in these applications must comply with national and international hygiene standards, in addition to being able to withstand the stringent conditions of the cleaning cycles. Hot water up to 95 °C, steam up to 140 °C and pressures up to 15 bar are standard parameters in beverage technology. Neutral behaviour in contact with the beverage and resistance to cleaning agents place very stringent requirements on the valve types 6012 and 6014 used in these applications. Adapted FKM and EPDM materials, as well as high-alloy stainless steels guarantee maximum functionality, hygiene and cleaning properties.

Universal use

For applications requiring the reliable mixing and distribution of media, the valve type 6014 is the right choice. Designed for liquids and gases, this 3/2-way valve features 2 high-quality seat seals is ideal for use as a universal single or pilot valve. The main areas of application are in vehicle and rail traffic as well as robust plant engineering.

Accessories: Connector sockets form A

(DIN EN 175301-803)

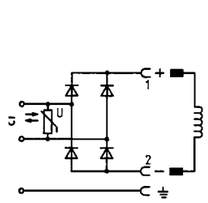
The connector sockets 2508 and 2507 available as accessories supplement and expand the application spectrum. Besides visualization of the switching state and various standard functions, an energy-saving reduced power version (2508 LR) is available for extended duty cycles.

Without circuitry, 2-pin + protective conductor

Voltage	Constant current	Order no. without cable
0 to 250 V/AC/DC	max. 6 A	008 376
Technical data		Order no.
with conduit threads		137 943

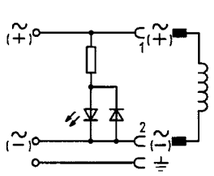
With rectifier and varistor

Voltage	Constant current	Order no. without cable
12 to 240 V/AC/DC	max. 1 A	008 374



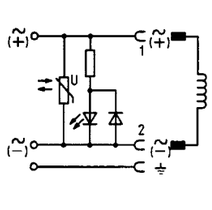
With LED

Voltage	Constant current	Order no. without cable	Order no. 3 m cable
12 to 24 V/AC/DC	max. 6 A	008 360	783 575
100 to 120 V/AC/DC	max. 6 A	008 361	–
200 to 240 V/AC/DC	max. 6 A	008 362	783 577



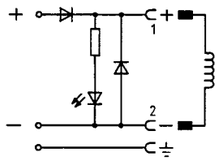
With LED and varistor

Voltage	Constant current	Order no. without cable	Order no. 3 m cable
12 to 24 V/AC/DC	max. 6 A	008 360	783 579
100 to 120 V/AC/DC	max. 6 A	008 361	783 581
200 to 240 V/AC/DC	max. 6 A	008 362	783 583
Technical data			Order no.
with conduit threads 12-24V/ACDC			137 944
with conduit threads 100-120V/ACDC			137 945
with conduit threads 200-240V/ACDC			137 946



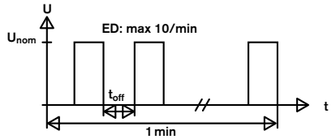
With polarity protection, recovery diode and LED

Voltage	Constant current	Order no. without cable	Order no. 3 m cable
12 to 24 V/DC	max. 1 A	008 373	783 587



With power reduction type 2508 LR

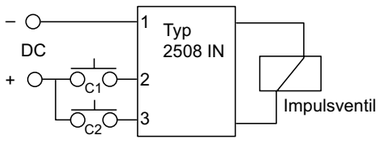
Technical data		Order no.
Operating voltage U_{nom}	12 – 24 VDC Supply voltage according to IEC 364-4-41 (PELV)	212 511
Max. current	1.5 A (starting), 0.4 A (holding)	
Starting power (P_{nom}) depends on valve	max. 36 W at 24 V (18 W at 12 V)	
Holding power (¼ x P_{nom}) depends on valve	max. 9 W at 24 V (4.5 W at 12 V)	
Over-excitation time	ca. 350 ms	
Max. duty cycle LED	10/min	
Off time t_{off} between two start-ups	min. 1 sec	



See also data sheet for type 2508

Switching electronics type 2508 IN

Technical data		Order no.
Operating voltage U_{nom}	6 – 24 VDC Supply voltage according to IEC 364-4-41 (PELV)	212 512
Max. coil current	0.6 A (100 % ED); 1.2 A (50 % ED)	
Max. pulse length	300 ms (at >0.6 A)	



The swichting electronics type 2508 IN is used for controlling pulse valves with reverse polarity actuation by means of 3 control signals (OPEN, CLOSED and GND). The switching takes place by reversing the polarity of the supply voltage to the valve.

With respect to suitable solenoids, please contact us for the responsible Bürkert sales agency.

Accessories:
Connector sockets form B

(DIN EN 175301-803)

Without circuitry

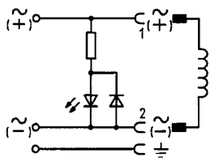
Voltage	Constant current	Order no. without cable
0 to 250 V/AC/DC	max. 6 A	423 845

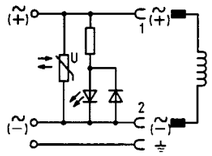
With LED

Voltage	Constant current	Order no. without cable
24 V/AC/DC	max. 6 A	423 849
250 V/AC/DC	max. 6 A	423 850

With LED and varistor

Voltage	Constant current	Order no. without cable
24 V/DC	max. 1.5 A	423 851

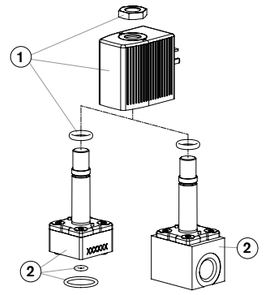




Accessories:
Spare parts and wear parts sets

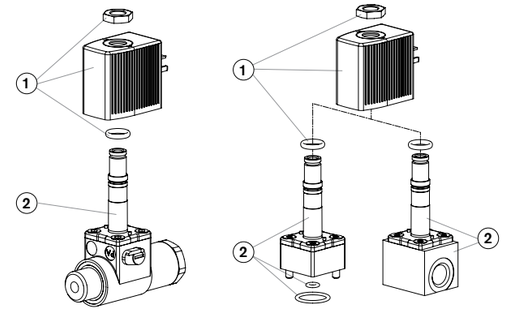
1. Coil set

2. Fluid set, sleeve
Fluid set, flange



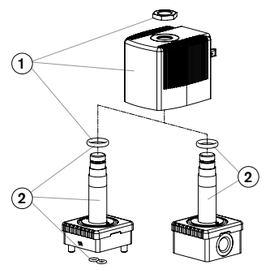
1. Coil set

2. Fluid set, sleeve
Fluid set, flange
Fluid set, banjo



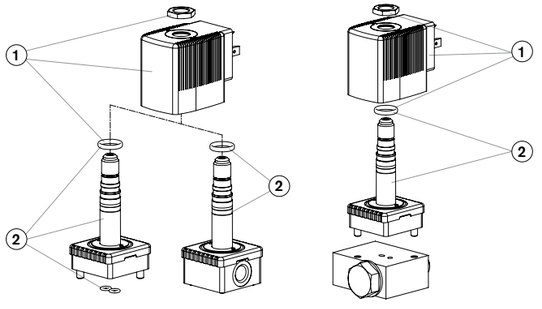
1. Coil set

2. Fluid set, sleeve
Fluid set, flange

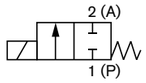


1. Coil set

2. Fluid set, sleeve
Fluid set, flange
Fluid set, banjo

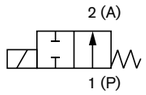


Explanation of operating principle



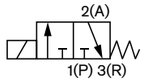
2/2-way valve, normally closed | Bürkert operating principle A

In de-energized state the armature presses the valve seal onto the valve seat by spring force, closing the valve. Under voltage, the armature is attracted by magnetic force to the coil and the valve opens.



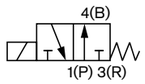
2/2-way valve, normally open | Bürkert operating principle B

The valve is opened in currentless state, since the armature is held by the spring force of the pull-back spring. If voltage is present, the armature closes the valve seat and the flow is blocked.



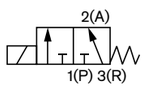
3/2-way valve, normally closed | Bürkert operating principle C

The inlet P is connected with the pressurized fluid or gas in currentless state. The connections A and R constitute the outlets. The armature blocks the inlet P and the valve therefore closed; A and R are opened. Under voltage the armature is in contact with outlet R; the fluid can flow from P to A.



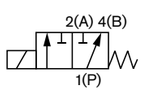
3/2-way valve, normally open | Bürkert operating principle D

In de-energized state the armature is in contact with connection R. Therefore, a fluid or gas can flow from P to A. If current is flowing, the armature is attracted to outlet P. P is closed, A and R are opened.



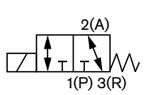
3/2-way mixing valve, pressure connection in de-energized state | Bürkert operating principle E

The 3/2-way mixing valve can mix two fluids together by switching of the armature. Outlet A is constantly open. Constant pressure is present at P and R. In currentless state R is open and P is closed. If current is applied the armature opens P and closes R.



3/2-way distributor valve, pressure connection in de-energized state | Bürkert operating principle F

A 3/2-way distributor valve has a constantly open connection A. By switching the valve the fluid can be conveyed to P. In currentless state the medium flows from A to R.



3/2-way valve, for universal applications | Bürkert operating principle T

A valve with this operating principle can be used as a NO (normally open) or NC (normally closed) version by changing the mounting direction.

Bürkert – Close to You

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www.burkert.com.

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