DATA SHEET

Type 6511

5/2-way solenoid valve for pneumatic applications

- Compact design
- Fast switching times
- Low power consumption

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

Can be combined with

Type 2031
2/2-way diaphragm valve with pneumatic plastic actuator (Type CLASSIC)

Type description

Type 6511 consists of a pilot flipper solenoid valve Type 6144 and a pneumatic seat valve. The flipper action system allows the switching of high pressures combined with low power consumption and short switching times. All the valves are equipped with manual override as standard.

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Visit product website

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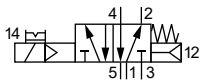
1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "5. Dimensions" on page 5.
Material	
Seal	FKM, NBR
Body	PPS, Polyamide
Manual override	Standard
Orifice	DN 2.5
Pneumatic module	MP02
Circuit function	H Further information can be found in chapter "2. Circuit functions" on page 3.
Performance data	
Duty cycle	100 % continuous operation
Switching time [1.)]	Opening: < 15 ms Closing: < 10 ms
Electrical data	
Operating voltages	24 V DC
Nominal power	0.8 W
Voltage tolerance	± 10 %
Medium data	
Operating medium	Lubricated or oil-free compressed dry air, neutral gases (5 µm filter recommended)
Medium temperature	0 °C...+ 50 °C
Product connections	
Electrical connection	Rectangular plug, 2-pin, with raster 5.08 mm
Port connection	Flange for MP02
Approvals and conformities	
Degree of protection	IP40
Protection class	III according to VDE 0580
Explosion protection	Further information can be found in chapter "3.4. Explosion protection" on page 4.
North America (USA/Canada)	Further information can be found in chapter "3.5. North America (USA/Canada)" on page 4.
Environment and installation	
Installation position	As required, preferably with actuator upright
Ambient temperature	0 °C...+ 55 °C

1.) Measurement according to ISO 12238

2. Circuit functions

Symbol	Description
	**Circuit function H (CF H)** 5/2-way solenoid valve Servo-controlled, with manual override Pressure applied via port (1), therefore one of the two ports (2) or (4) is under pressure.

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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 EU type examination certificate: PTB 07 ATEX 2048 X / IECEx PTB 07.0063 X As a category 2 device suitable for zone 1 and zone 2 (optional). **ATEX:** PTB 07 ATEX 2048 X II 2G Ex ia IIC T6...T4 Gb **IECEx:** IECEx PTB 07.0063 X Ex ia IIC T6...T4 Gb

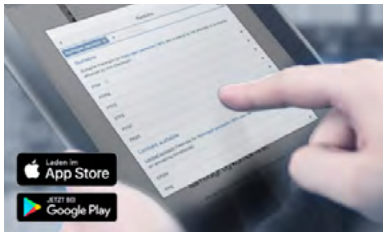
3.5. North America (USA/Canada)

Approval	Description
	Optional (valid for pilot control valve): UL Recognized for the USA and Canada [1.)] The pilot control valves are UL Recognized for the USA and Canada according to: • UL 429 (electrically operated valves) • CAN/CSA-C22.2 No. 139

1.) This device is intended to be used with a NEC Class 2 power source or NEC Class 2 transformer in accordance with UL1310 or UL1585.

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

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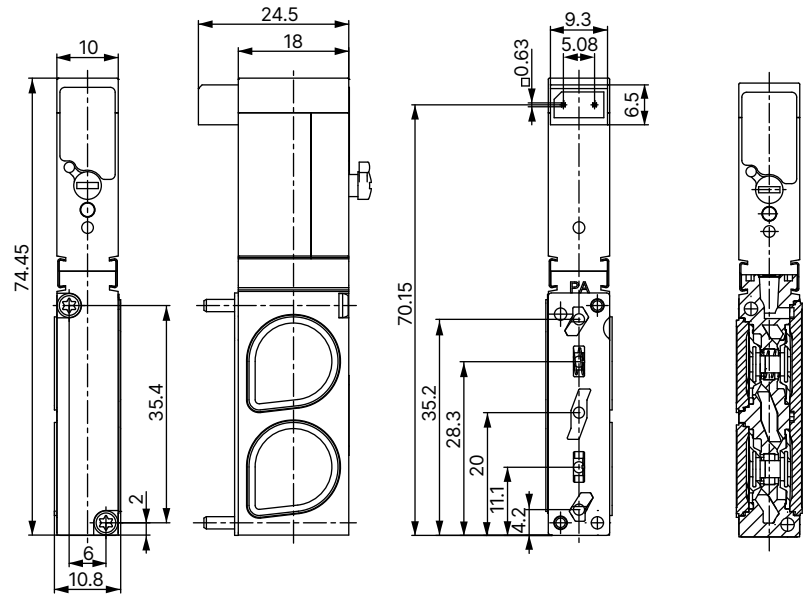
5. Dimensions

5.1. 5/2-way solenoid valve

Note:
Dimensions in mm



6. Ordering information

6.1. 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

6.2. 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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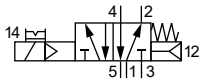
6.3. Ordering chart 5/2-way solenoid valve

Circuit function	Orifice	Q_{Nn} value air [1.]	Voltage/ Frequency	Pressure range [2.]	Manual override	Article no. plug contact at rear [3.]	Article no. plug contact in front [4.]
	[mm]	[l/min]	[V/Hz]	[bar]			
CF H 5/2-way solenoid valve Servo-controlled, with manual override Pressure applied via port (1), therefore one of the two ports (2) or (4) is under pressure.  	2.5	130	24 V DC	2.5...10	with	187604	184315
					none	184310	187603

1.) Measurement at + 20 °C, 6 bar at valve inlet, 1 bar differential pressure
2.) Pressure data: overpressure to atmospheric pressure
3.) At rear: plug connection on flange side
4.) In front: plug connection offset at 180° to flange

6.4. Ordering chart accessories

Description	Article no.
Sealing plug for plug-in coupling Ø 4 mm	781664
Sealing plug G ⅛	631019
Cable plug 10 mm with cable, 2-pin, rectangular plug, straight, cable length: 3 m (Type 2505)	133486
Cable plug 10 mm with cable, 2-pin, rectangular plug, straight, cable length: 0.3 m (Type 2505)	644068
Cable plug 10 mm, 2-pin, rectangular plug, straight (Type 2505)	644067

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