bürkert
FLUID CONTROL SYSTEMS

5/2-way solenoid valve for pneumatic applications

- Compact design
- Second connection for shut-off function
- Low power consumption
- Fast switching times

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

Can be combined with

Type 8640 ▸
Modular valve island for pneumatics

Type 8644 ▸
AirLINE SP electropneumatic automation system

Type MKRS ▸
Redundancy valve block for safety-related shut-off function

Type 8647 ▸
AirLINE SP – electropneumatic automation system

Type 2505 ▸
10 mm socket for Bürkert small solenoid valves

Type description

Type 6525 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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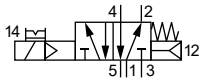
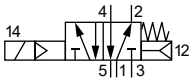
1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "5. Dimensions" on page 5.
Material	
Seal	FKM, NBR and PUR
Body	PPS, Polyamide
Weight	21 g
Manual override	Standard
Orifice	DN 4.0
Pneumatic module	With plug-in coupling, Ø 6 mm, Ø ¼"
Circuit function	H Further information can be found in chapter "2. Circuit functions" on page 3.
Performance data	
Duty cycle	100 % continuous operation
Switching frequency	Approx. 1000 c.p.m.
Switching time [1.]	Opening: < 10 ms Closing: < 10 ms
Electrical data	
Operating voltage	24 V DC [2.]
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	-10 °C...+ 50 °C
Process/Port connection & communication	
Electrical connection	Rectangular plug with raster 5.08 mm
Approvals and conformities	
Degree of protection	IP40 with rectangular cable plug
Protection class	3 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
Mounting	With 2 screws M2 × 20
Ambient temperature	-10 °C...+ 55 °C

1.) Measurement according to ISO 12238
2.) 10 % residual ripple permissible

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

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 versions 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

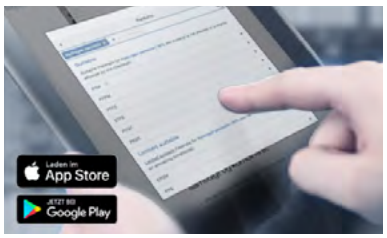
3.5. North America (USA/Canada)

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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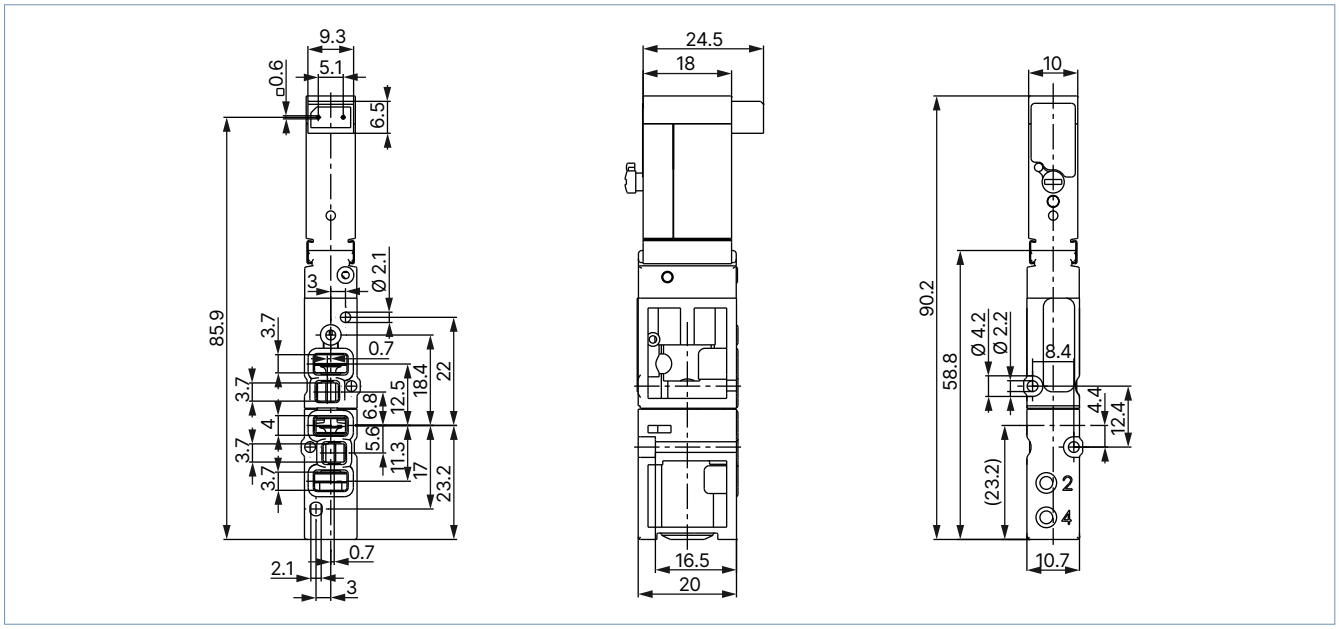
5. Dimensions

5.1. Standard version 5/2-way

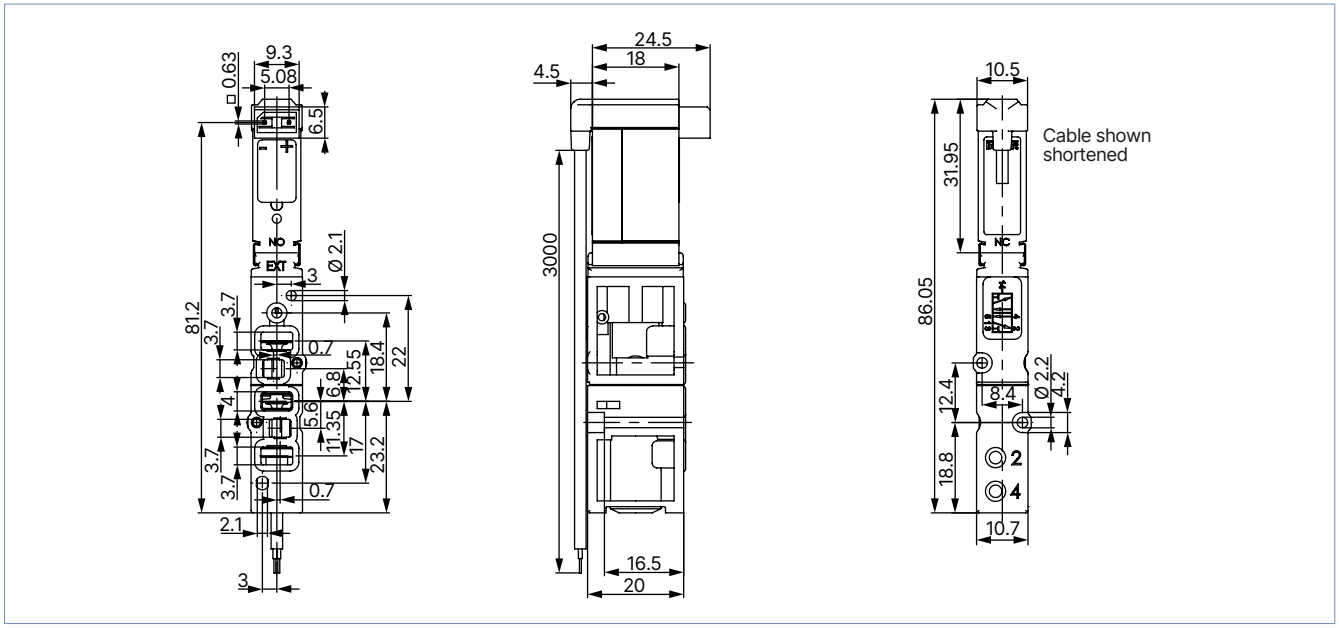
Note:

- Dimensions in mm
- The pneumatic flange pattern has been standardised for Type 6525, 5/2-way.
- There is a difference in the flange pattern versions (REV. 1/REV. 2). The external dimensions remain identical.



5.2. Second connection shut-off function 5/2-way

Note:
Dimensions in mm



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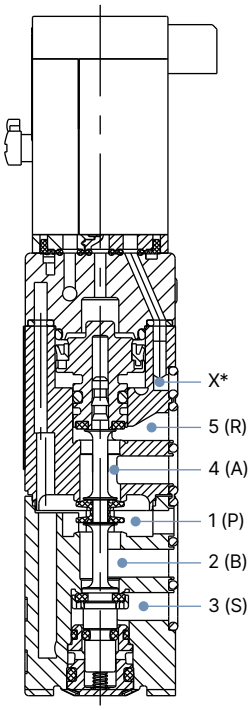
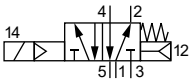
6. Product design and assembly

6.1. Product assembly

Standard version 5/2-way

Sectional drawing	Connection overview	Circuit function
		**CF H** 

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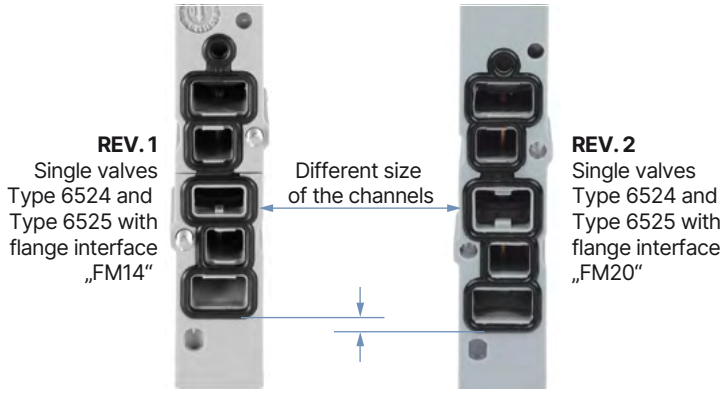
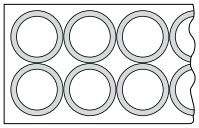
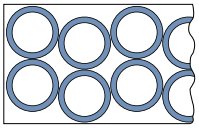
6.2. Distinguishing features valve revisions

Note:

- The pneumatic flange pattern has been standardised for Type 6525, 5/2-way.
- There is a difference in the flange pattern versions (REV. 1/REV. 2). The external dimensions remain identical.
- Before the pneumatic installation, the compatibility with the present valve island must be checked (see operating instructions of the corresponding valve island).

The valve revisions can be distinguished by the following features:

Valves Type 6525	Valve REV. 1	Valve REV. 2
Article no.	Distinguishing by Article no. see "7. Ordering information" on page 7	
Visual distinction		
Information label	There is a corresponding information label on the relevant valve which indicates that the valve has been overhauled. This information label must be removed before assembly.	
Compatibility with the pneumatic modules of the island by means of the working ports	 black parallel	 blue wavy

7. Ordering information

7.1. 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

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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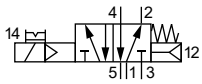
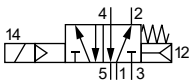
7.3. Ordering chart standard version

Circuit function	Orifice	Q_{Nn} value air	Switching times		Voltage/ Frequency	Pressure range	Article no.	
	[mm]	[l/min] 1.)	Opening [ms]	Closing [ms]	[V/Hz]	[bar] 2.)	Valves REV. 1	Valves REV. 2
5/2-way								
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. 	4	300	< 10	< 10	24 V DC 3.)	1...10 4.)	20029914 (186271 5.)	20029922 (20013117 5.)
			< 10	< 10	24 V DC 3.)	2.5...10	20029912 (179938 5.)	20029920 (365610 5.)

1.) Measurement at + 20 °C, 6 bar at the valve inlet and 1 bar differential pressure
2.) Pressure data: overpressure to atmospheric pressure
3.) 10 % residual ripple permissible
4.) Version with auxiliary pilot air
5.) The Article no. can no longer be ordered. Order the superior set instead.

7.4. Ordering chart second connection for shut-off function

Circuit function	Orifice	Q_{Nn} value air	Switching times		Voltage/ Frequency	Pressure range	Article no.	
	[mm]	[l/min] 1.)	Opening [ms]	Closing [ms]	[V/Hz]	[bar] 2.)	Valves REV. 1	Valves REV. 2
5/2-way, without manual override								
CF H 5/2-way solenoid valve Servo-controlled Pressure applied via port (1), therefore one of the two ports (2) or (4) is under pressure. 	4	300	< 10	< 10	24 V DC 3.)	1...10 4.)	o. r.	o. r.
			< 10	< 10	24 V DC 3.)	2.5...10	20029917 (285544 5.)	20029925 (20013137 5.)

o. r. = on request
1.) Measurement at + 20 °C, 6 bar at the valve inlet and 1 bar differential pressure
2.) Pressure data: overpressure to atmospheric pressure
3.) 10 % residual ripple permissible
4.) Version with auxiliary pilot air
5.) The Article no. can no longer be ordered. Order the superior set instead.

7.5. Ordering chart for accessories

Description	Article no.
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
Cover plate for solenoid valves Type 6524/6525 (REV. 1) for 5/2-way valve position	650373
Spare valve seals FM14 for Type 6525, 5/2-way solenoid valve, REV. 1, 12 seals	20024334
Spare valve seals FM20 for Type 6524, 2 × 3/2-way solenoid valve, REV. 2, 12 seals	20016305

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