



2/2 or 3/2 way Rocker-Solenoid Valve with separating diaphragm

- For maximum chemical resistance requirements
- Compact design with 16 mm width and Cv ratings up to 0.058
- Flexible design for custom manifold assemblies
- High back pressure tightness, excellent cleanability and 100 % duty cycle
- Normally closed, normally open and universal function

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

Can be combined with



Type 2516

Cable plug, form C according to DIN EN 175301-803



Type 2505

10 mm socket for Bürkert small solenoid valves

Type description

The direct-acting rocker solenoid valves with isolating diaphragm of Type 6606 (2/2- and 3/2-way) are high quality valves for analytical technology. They have minimal dead volume and internal volume with few crevices making them easy to flush out. The fluid only comes into contact with the body material and the FFKM seal. The heat transfer to the medium is minimal. The fluid path is isolated from the coil by a stainless steel plate. The valves are ideal for dosing, filling, mixing and distributing of small quantities of fluid for medical, analytical and laboratory applications.

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1. General technical data

1.1. General data

Product properties	
Dimensions	Further information can be found in chapter "5. Dimensions" on page 7.
Material	
Seal	FFKM
Fluidic housing	PEEK (PVDF on request)
Internal volume	Sub-base: starting at 44 µl G 1/8": starting at 100 µl UNF 1/4"- 28: starting at 25 µl Tube connection: starting at 35 µl < 10 µl available on request Further information can be found in chapter "1.4. Internal volume" on page 4
Orifice	DN 0.8...DN 1.6
Circuit function	A, B and T Further information can be found in chapter "2. Circuit functions" on page 5.
Performance data	
Switching time ^{1.)}	Open: approx. 25 ms (pressure build-up 0...10 %) Closing: approx. 25 ms (pressure reduction 100...90 %)
Electrical data	
Operating voltage	12/24 V DC (other voltages on request)
Duty cycle	100 % continuous operation Manifold mounting: If medium or ambient temperatures are above + 40 °C: intermittent operation 40 % (minimum 10 min)
Nominal power	3.4 W
Voltage tolerance	± 10 %
Medium data	
Operating medium	Resistant to neutral and aggressive liquids and gases (see chapter "4.1. Bürkert resistApp" on page 6)
Medium temperature	Max. 0...+ 50 °C Further information can be found in chapter "1.3. Medium temperature" on page 4.
Viscosity	Max. 21 mm ² /s
Process/Port connection & communication	
Electrical connection ^{2.)}	Two FEP-leads 0.2 mm ² (AWG24), length 500 mm Tag connectors according to DIN EN 175301 - 803 form C for cable plug Type 2516 ▶ top/lateral Rectangular cable plug Type 2505 ▶
Port connection	Bürkert sub-base (16 × 27 mm) G 1/8" UNF 1/4"- 28 Tube connection
Approvals and conformities	
Degree of protection	IP65 with flying leads and cable plug Type 2516 ▶ IP30 with rectangular cable plug Type 2505 ▶
Foods and beverages/Hygiene	FDA (on request only with seal material EPDM) Further information can be found in chapter "3.4. Foods and beverages/Hygiene" on page 5.
Environment and installation	
Installation	As required, preferably with actuator upright
Ambient temperature	Max. + 50 °C

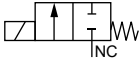
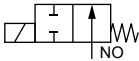
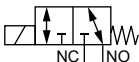
1.) Measurement at + 20 °C, 2 bar at the valve outlet according to DIN ISO 12238:2001

2.) Other electric connectors and other cable lengths are available on request.

1.2. Medium pressure

Note:

- Deviating pressure ranges are possible on request.
- For low dead volume versions, the back pressure is limited to a maximum of 1 bar.

Circuit functions	Orifice	Port connection	Max. differential pressure
	[mm]		[bar] ^{1.)}
CF A 2/2-way solenoid valve Direct-acting Normally closed 	0.8	Sub-base	0...6
	1.2	Sub-base	0...5
	1.6	Sub-base G 1/8" Tube connection UNF 1/4"- 28	Vac...2
CF B 2/2-way solenoid valve Direct-acting Normally open 	0.8	Sub-base	0...6
	1.2	Sub-base	0...5
	1.6	Sub-base G 1/8" Tube connection UNF 1/4"- 28	Vac...2
CFT 3/2-way solenoid valve Direct-acting Flow direction optional Universal 	0.8	Sub-base	0...6
	1.2	Sub-base	0...5
	1.6	Sub-base G 1/8" Tube connection UNF 1/4"- 28	Vac...2

1.) Pressure data: overpressure to atmospheric pressure

1.3. Medium temperature

Note:

The permissible medium temperature depends on the seal material and orifice.

Description	Orifice	Seal material	Temperature range
Medium temperature	DN 0.8	FFKM	+ 5...+ 50 °C
	DN 1.2 and DN 1.6	FFKM	+ 10...+ 50 °C
Medium temperature with limitation on switching time and life expectancy	DN 0.8	FFKM	0...+ 50 °C
	DN 1.2 and DN 1.6	FFKM	+ 5...+ 50 °C

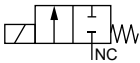
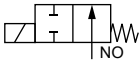
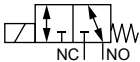
1.4. Internal volume

Note:

The internal volume is depending on fluidic housing.

Body	2-way (low dead volume)		2-way		3-way	
	Fluid chamber	Total	Fluid chamber	Total	Fluid chamber	Total
Sub-base	44 µl	54 µl	97 µl	106 µl	90 µl	106 µl
G 1/8"	–	–	94 µl	207 µl	88 µl	228 µl
UNF 1/4"- 28	25 µl	69 µl	55 µl	79 µl	54 µl	95 µl
Tube connection	35 µl	105 µl	67 µl	135 µl	73 µl	178 µl

2. Circuit functions

Symbol	Description
	Circuit function A (CF A) 2/2-way solenoid valve Direct-acting Normally closed
	Circuit function B (CF B) 2/2-way solenoid valve Direct-acting Normally open
	Circuit function T (CF T) 3/2-way solenoid valve Direct-acting Flow direction optional Universal

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. Foods and beverages/Hygiene

Conformity	Description
FDA	FDA – Code of Federal Regulations (valid for the variable code PL02, PL03) All wetted materials are compliant with the Code of Federal Regulations published by the FDA (Food and Drug Administration, USA) according to the manufacturer's declaration.

4. Materials

4.1. Bürkert resistApp

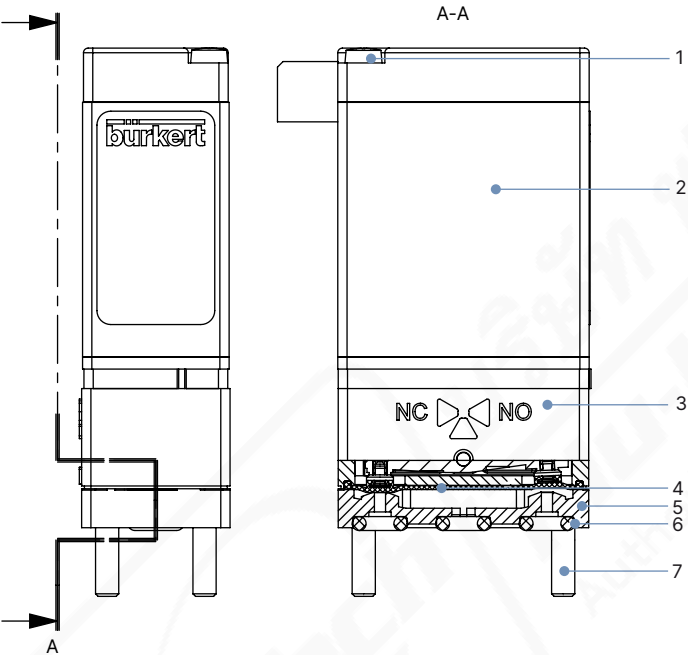


Bürkert resistApp – Chemical resistance chart

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



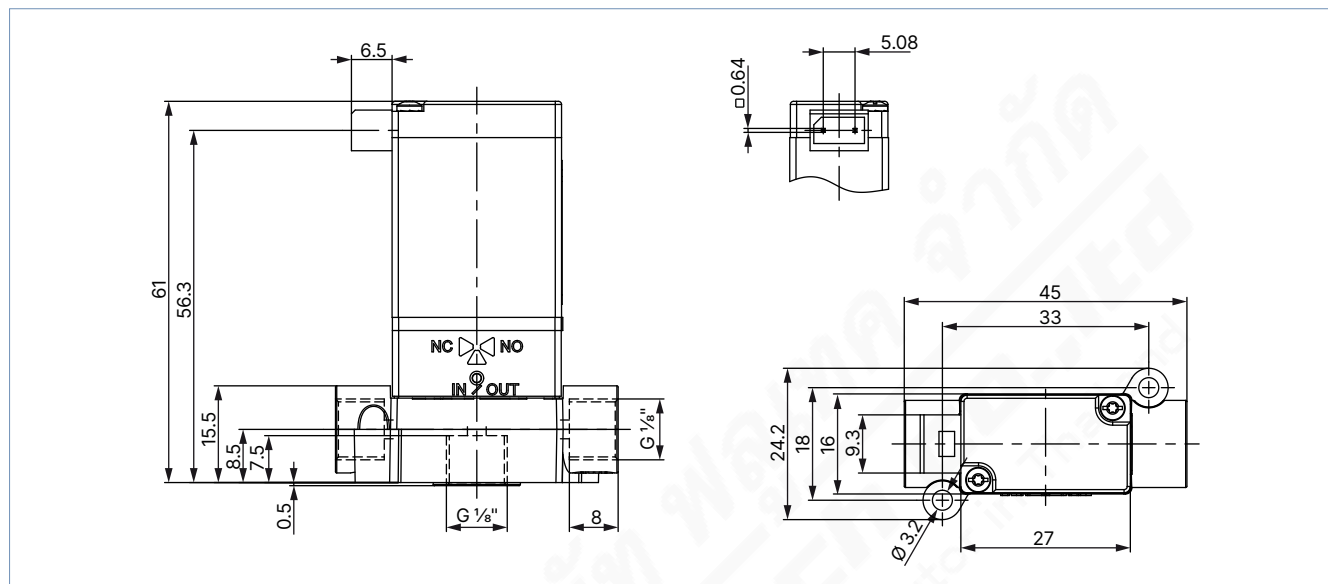
No.	Element	Material
1	Rounded head screw M2	Stainless steel
2	Coil	Epoxy
3	Actuator housing	PPS
4	Diaphragm (medium contact)	FFKM
5	Fluid housing (medium contact)	PEEK (PVDF on request)
6	Sub-base seal (medium contact)	FFKM
7	Rounded head screw M2.5	Stainless steel

5. Dimensions

5.1. Threaded port version G 1/8" with rectangular plug Type 2505

Note:

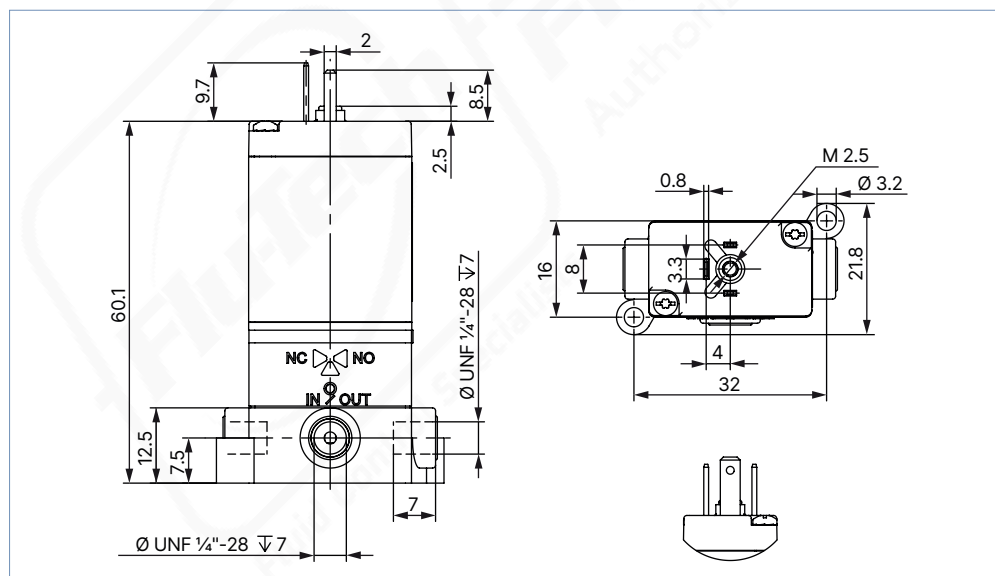
Dimensions in mm



5.2. Threaded port version UNF 1/4"-28 with cable plug on top Type 2516

Note:

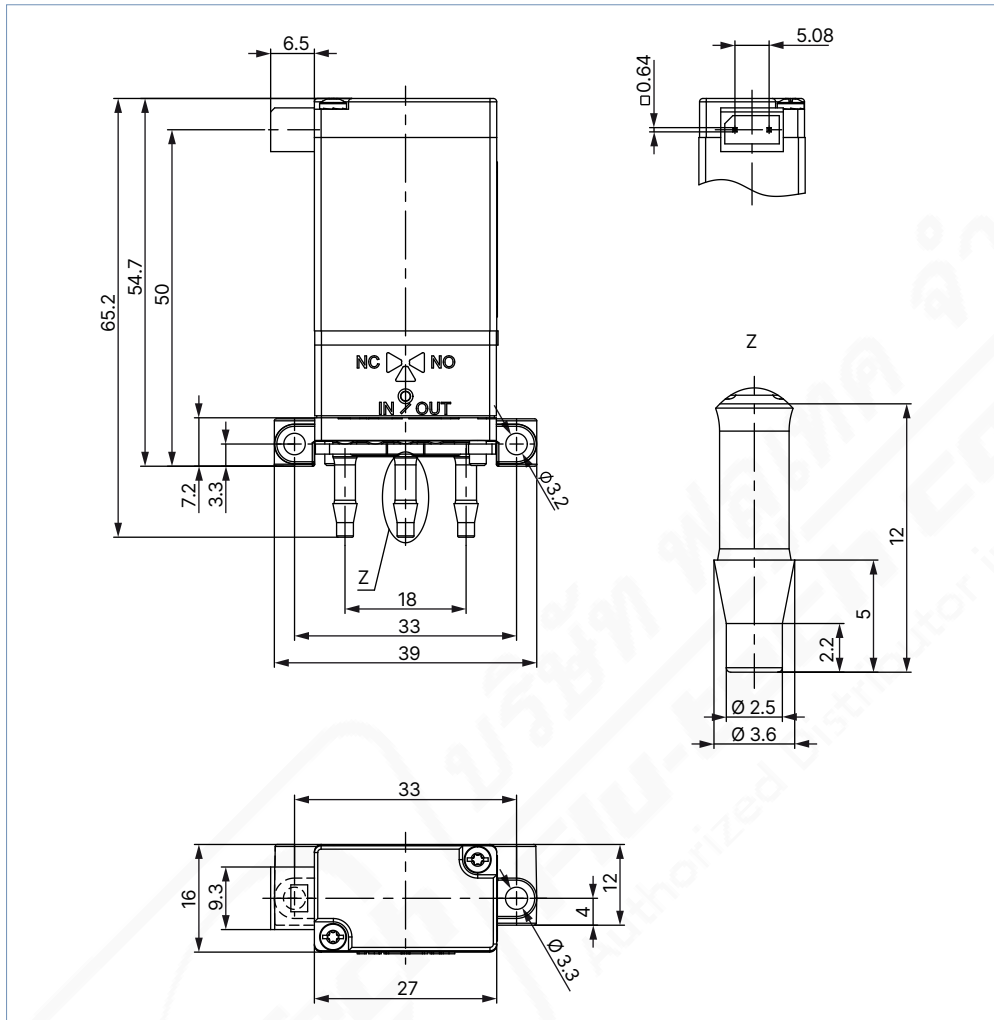
Dimensions in mm



5.3. Tube connector version with rectangular plug Type 2505

Note:

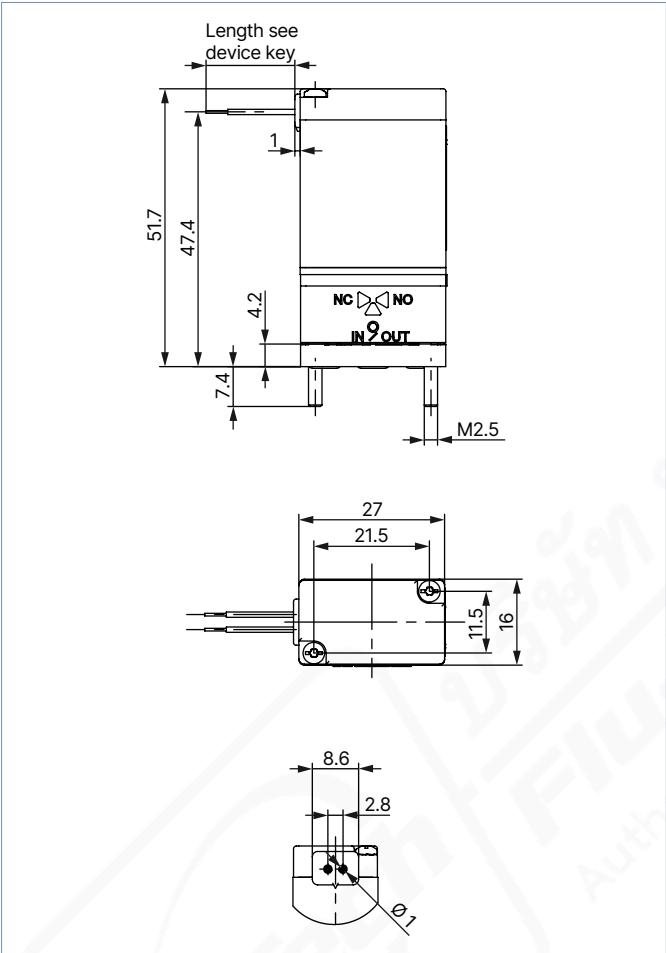
Dimensions in mm



5.4. Sub-base version with flying leads

Note:

- Dimensions in mm
- Other screw lengths are available on request.
- Self-tapping screws are available on request.



Classification of fluid connections

Circuit function A (CF A)

2/2-way solenoid valve
Direct-acting
Normally closed

Circuit function B (CF B)

2/2-way solenoid valve
Direct-acting
Normally open

Circuit function T (CF T)

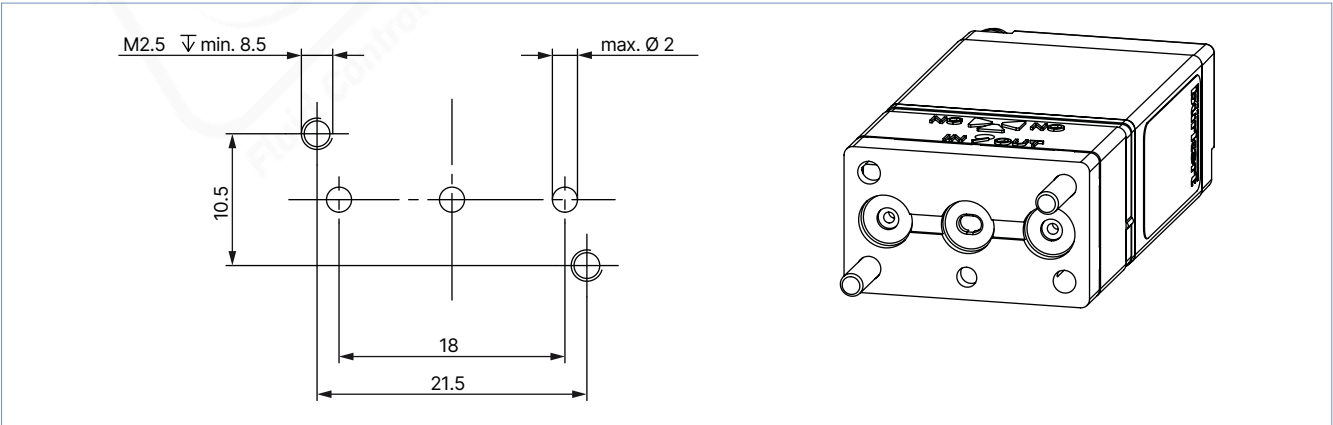
3/2-way solenoid valve
Direct-acting
Flow direction optional
Universal

See chapter "2. Circuit functions" on page 5

5.5. Bürkert sub-base interface, 3-way standard

Note:

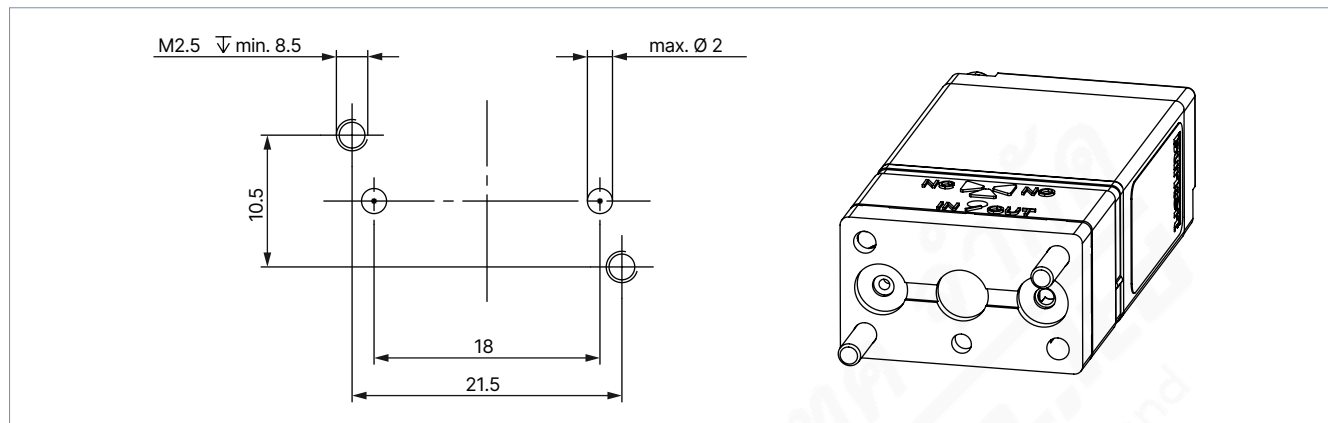
Dimensions in mm



5.6. Bürkert sub-base interface, 2-way standard

Note:

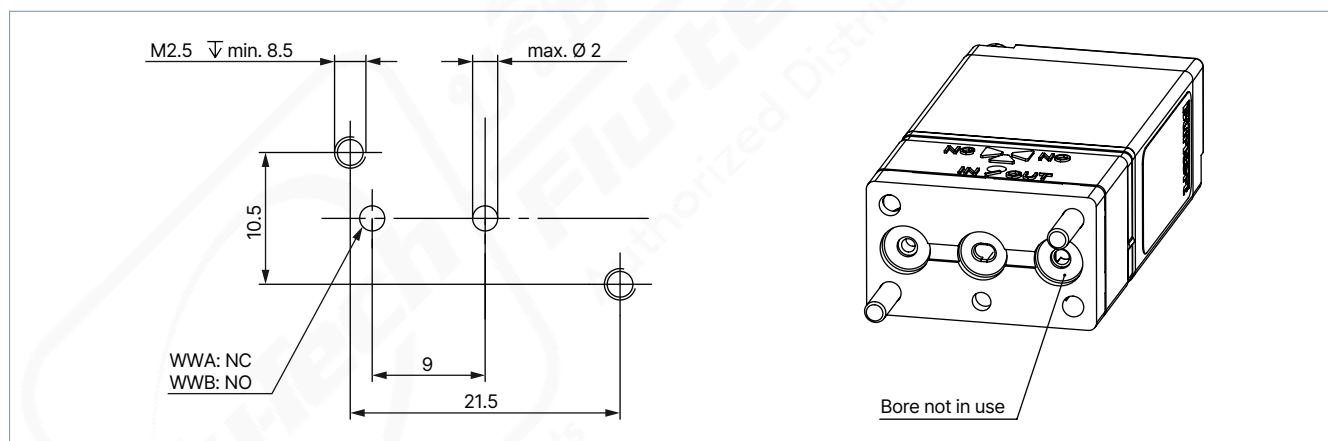
Dimensions in mm



5.7. Bürkert sub-base interface, 2-way (low dead volume)

Note:

- Dimensions in mm
- Available on request



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

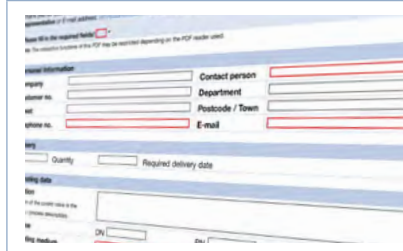


Bürkert product filter – Get quickly to the right product

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](#)

6.3. Bürkert Product Enquiry Form



Bürkert Product Enquiry Form – Your enquiry quickly and compactly

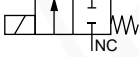
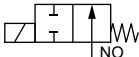
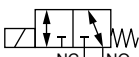
Would you like to make a specific product enquiry based on your technical requirements? Use our Product Enquiry Form for this purpose. There you will find all the relevant information for your Bürkert contact. This will enable us to provide you with the best possible advice.

[Fill out the form now](#)

6.4. Ordering chart

Note:

- Deviating pressure ranges are possible on request.
- 2 x fixing screws M2.5 for sub-base versions are included in the scope of delivery.
- Connectors for rectangular plugs and cable plugs are not included in the delivery and must be ordered separately, see “6.5. Ordering chart accessories” on page 12.

Circuit function	Port connection	Orifice	Q_{Nn} value air	K_v value water	C_v value	Voltage/Frequency	Pressure range	Body material	Seal material	Electrical connection	Article no.
		[mm]	[l/min]	[m³/h]	[gal/min]						
CF A 2/2-way solenoid valve Direct-acting Normally closed 	UNF 1/4"-28	1.6	33	0.03	0.035	024/DC	Vac...2	PEEK	FFKM	Rectangular plug	258410 
	Sub-base	1.6	49	0.045	0.052	012/DC	Vac...2	PEEK	FFKM	Leads, 0.5 m	137744 
						024/DC					137745 
						024/DC				Cable plug, lateral	137741 
CF B 2/2-way solenoid valve Direct-acting Normally open 	UNF 1/4"-28	1.6	33	0.03	0.035	012/DC	Vac...2	PEEK	FFKM	Leads, 0.5 m	270871 
CF T 3/2-way solenoid valve Direct-acting Flow direction optional Universal 	UNF 1/4"-28	1.6	33	0.03	0.035	024/DC	Vac...2	PEEK	FFKM	Rectangular plug	258287 
	Sub-base	1.6	49	0.045	0.052	024/DC	Vac...2	PEEK	FFKM	Leads, 0.5 m	137768 
						024/DC				Rectangular plug	139148 
						012/DC				Cable plug, lateral	137766 
						024/DC					137765 

1.) Pressure data: overpressure to atmospheric pressure

6.5. Ordering chart accessories

Rectangular cable plug Type 2505

Note:

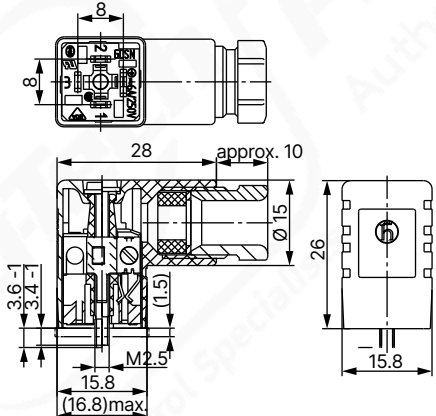
For further versions see data sheet [Type 2505 ▶](#).

Accessories	Description	Article no.
	Cable plug 10 mm with cable, 2-pin, rectangular plug, straight, cable length: 3 m (Type 2505)	252572 
	Cable plug 10 mm with cable, 2-pin, rectangular plug, straight, cable length: 5 m (Type 2505)	255194 
	Cable plug 10 mm with cable, 2-pin, rectangular plug, straight, cable length: 0,3 m (Type 2505)	644068 
	Cable plug 10 mm with cable, 2-pin, rectangular plug, straight, cable length: 0.6 m (Type 2505)	162144 
	Cable plug 10 mm, 2-pin, rectangular plug, straight (Type 2505)	644067 

Cable plug Type 2516, form C according to DIN EN 175301 - 803

Note:

- Dimensions in mm
- Delivery of cable plug includes a flat seal and a fixing screw.
- For further versions see data sheet [Type 2516 ▶](#).

Cable plug	Dimensions	Version	Voltage	Article no.
		Without circuitry	0...250 V AC/DC	303141 
		With LED	12...24 V AC/DC	303145 
		With LED and varistor	12...24 V AC/DC	303148 
		With rectifier, LED and varistor	12...24 V AC/DC	303142 

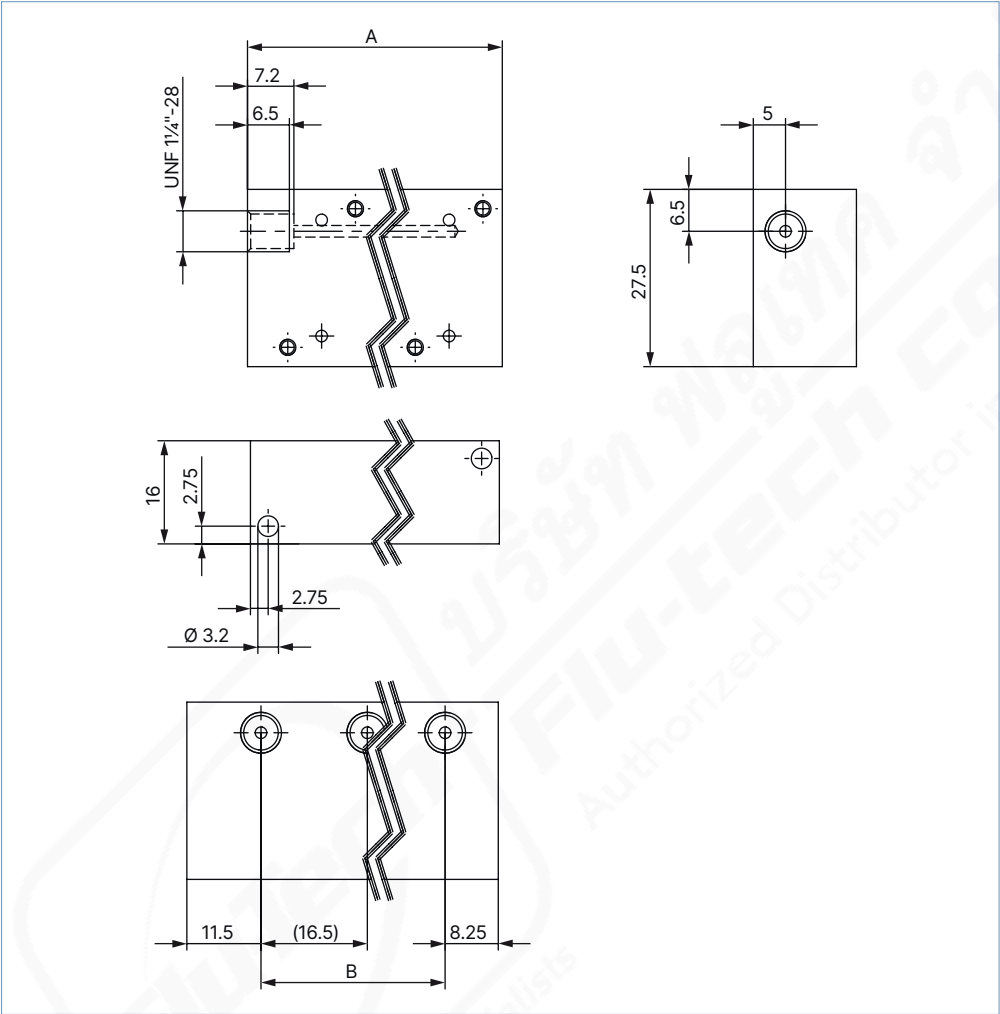
Fittings and hoses

Accessories	Description	Article no.
	Fittings and hoses for UNF connections and hoses see type Type TVU003 ▶ .	see data sheet TVU003 ▶

Multiple manifolds for Bürkert sub-base interface, 2-way

Note:

- Dimensions in mm
- Port connection UNF 1/4"- 28
- Material PEEK
- Pay attention to screw protrusion.
- Other versions are available on request.



Manifold	A	B	n	Article no.
2-fold	36.25	16.5	2	651506
3-fold	52.75	33	3	651510
4-fold	69.25	49.5	4	651507
5-fold	85.75	66	5	651508
6-fold	102.25	82.5	6	651509
7-fold	118.75	99	7	651521
8-fold	135.25	115.5	8	651522