DATA SHEET

Type 6606

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 DIN EN 175301-803 - form C

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	Detailed information can be found in chapter "4. Dimensions" on page 6.
Material	
Seal	FFKM
Fluid housing	PEEK (PVDF on request)
Internal volume	Sub-base: starting at 44 µl G ⅛": starting at 100 µl UNF ¼"-28: starting at 25 µl Tube connection: starting at 35 µl <10 µl available on request Detailed information can be found in chapter "1.4. Internal volume" on page 4
Orifice	DN 0.8…DN 1.6
Circuit function	Detailed information can be found in chapter "2. Circuit functions" on page 5.
Performance data	
Switching time[1.)]	Open: ca. 25 ms (Pressure rise 0…10 %) Closing: ca. 25 ms (Pressure drop 100…90 %)
Electrical data	
Operating voltage	12/24 V DC, (other voltages on request)
Duty cycle	100 % continuous rating Manifold mounting: If media 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 "3.1. Chemical Resistance Chart – Bürkert resistApp" on page 5)
Medium temperature	Max. 0…50 °C Detailed information can be found in chapter "1.3. Medium temperature" on page 4.
Process/Port connection & communication	
Electrical connection[2.)]	Tag connectors according to DIN EN 175301-803 Form C for cable plug **Type 2516** ▶ top/lateral Two FEP-leads 0.2 mm² (AWG24), length 500 mm Rectangular cable plug, **Type 2505** ▶
Port connection	Bürkert sub-base (16×27 mm) G ⅛" UNF ¼"-28 Tube connection
Approvals and certificates	
Protection class	IP65 with flying leads and cable plug **Type 2516** ▶ IP30 with Rectangular plug **Type 2505** ▶
Environment and installation	
Installation	As required, preferably with actuator upright
Ambient temperature (max.)	50 °C

1.) Measured at valve outlet at 2 bar and +20 °C acc. to DIN ISO 12238:2001

2.) Other electric connectors and other cable lengths upon request.

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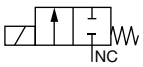
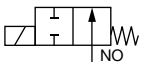
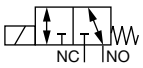
1.2. Medium pressure

Note:

- Overpressure to atmospheric pressure
- Other pressure ranges available on request
- For low dead volume versions, the back pressure is limited to a maximum of 1 bar.

Circuit functions	Orifice [mm]	Port connection	Max. differential pressure [bar]
A, solenoid valve 2/2 way Direct-acting 	0.8	Sub-base	0…6
	1.2	Sub-base	0…5
	1.6	Sub-base G ⅛" Tube connection UNF ¼"-28	Vac…2
B, solenoid valve 2/2 way Direct-acting Normally opened 	0.8	Sub-base	0…6
	1.2	Sub-base	0…5
	1.6	Sub-base G ⅛" Tube connection UNF ¼"-28	Vac…2
T, solenoid valve 3/2 way Direct-acting Flow direction optional Universal 	0.8	Sub-base	0…6
	1.2	Sub-base	0…5
	1.6	Sub-base G ⅛" Tube connection UNF ¼"-28	Vac…2

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 fluid 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 ⅛"	–	–	94 µl	207 µl	88 µl	228 µl
UNF ¼"-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

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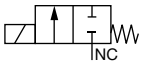
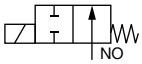
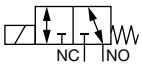
2. Circuit functions

Circuit functions	Description
	**Type: A, solenoid valve** 2/2 way Direct-acting Normally closed
	**Type: B, solenoid valve** 2/2 way Direct-acting Normally opened
	**Type: T, solenoid valve** 3/2 way Direct-acting Flow direction optional Universal

3. Materials

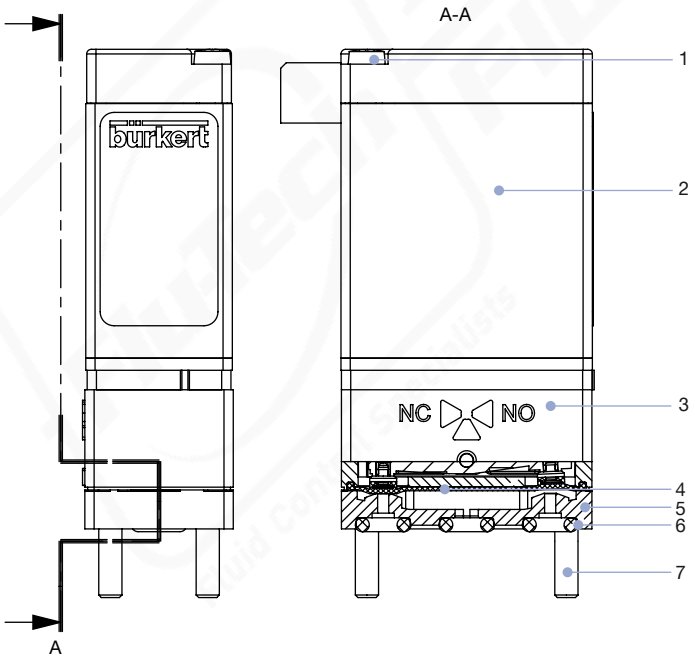
3.1. Chemical Resistance Chart – Bürkert resistApp

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

3.2. 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	Flange seal (medium contact)	FFKM
7	Rounded head screw M2.5	Stainless steel

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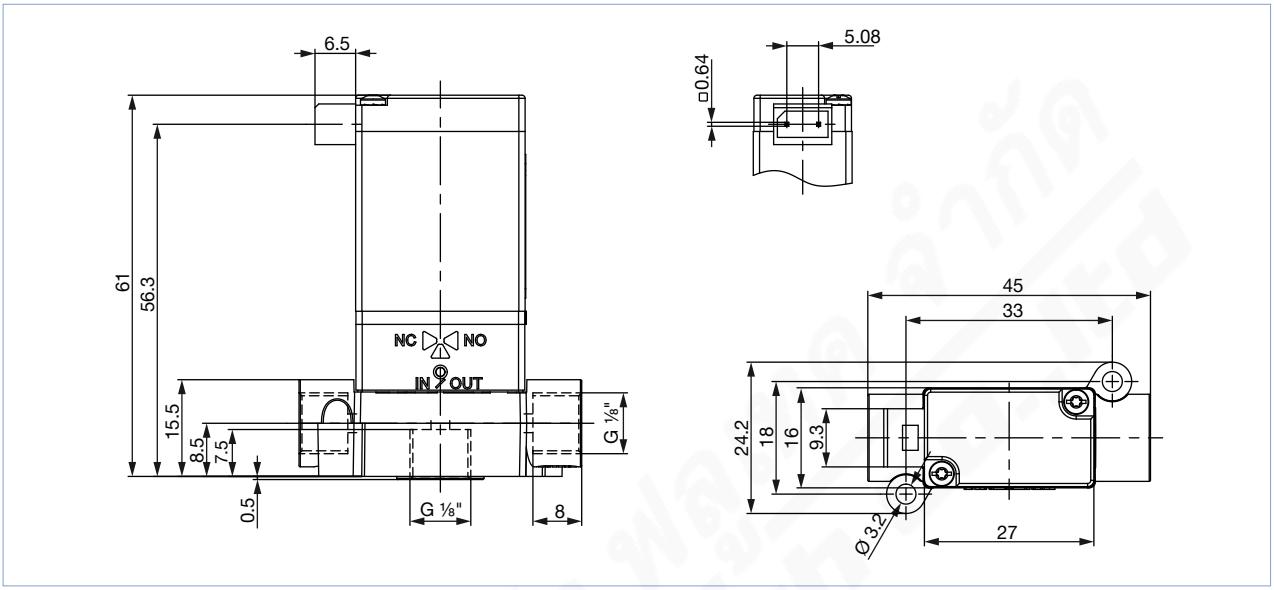
4. Dimensions

4.1. Threaded port version G ⅛" with rectangular plug Type 2505

Note:

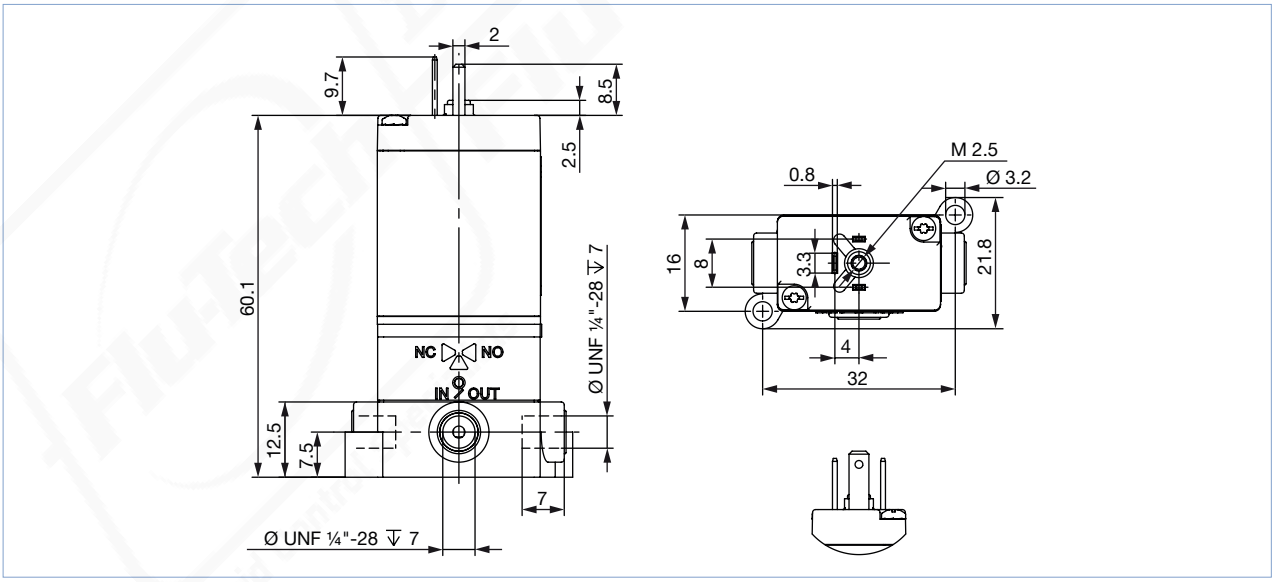
- Dimensions in mm



4.2. Threaded port version UNF ¼"-28 cable plug on top Type 2516

Note:

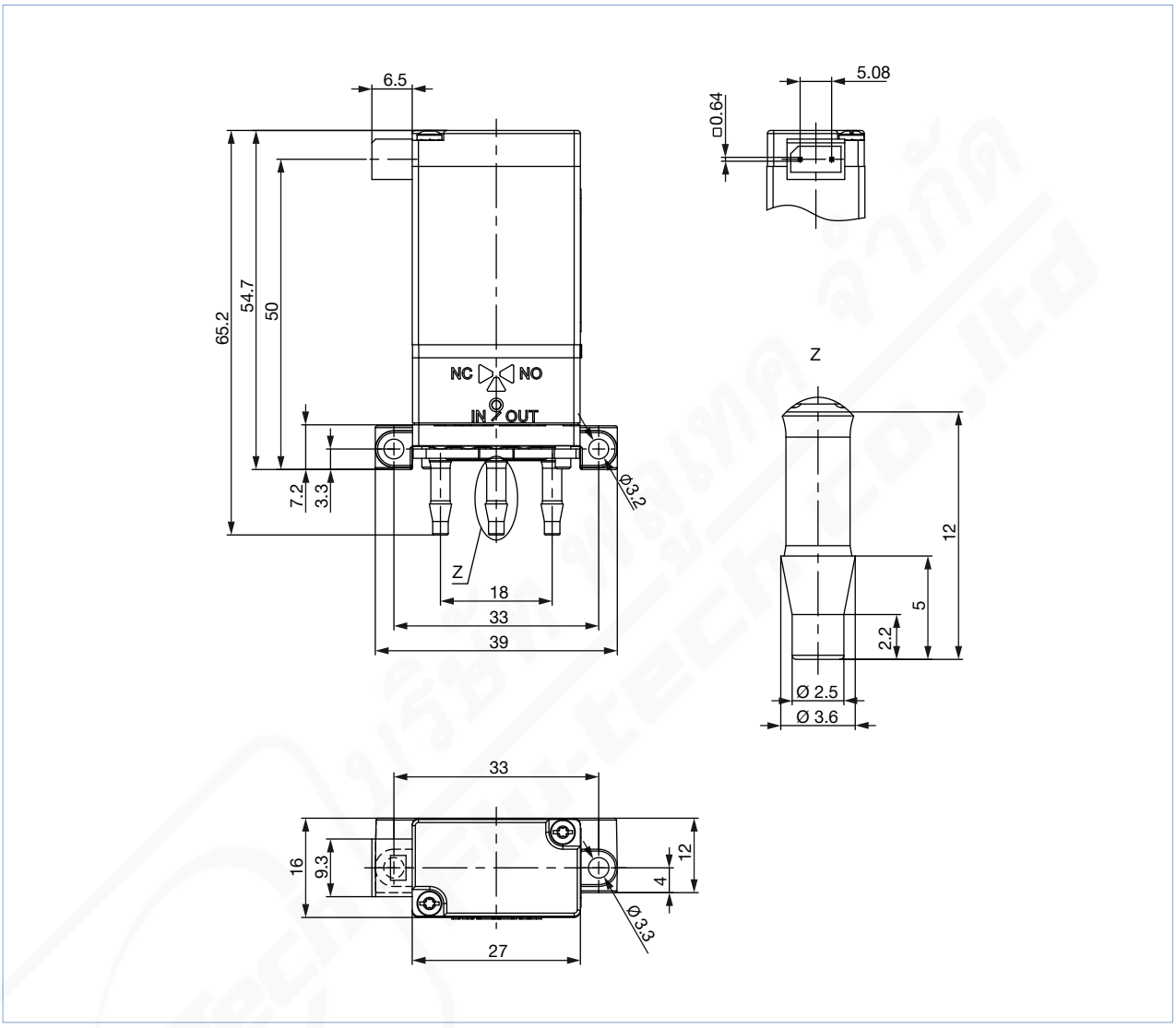
- Dimensions in mm



4.3. Tube connection with Rectangular plug Type 2505

Note:

- Dimensions in mm



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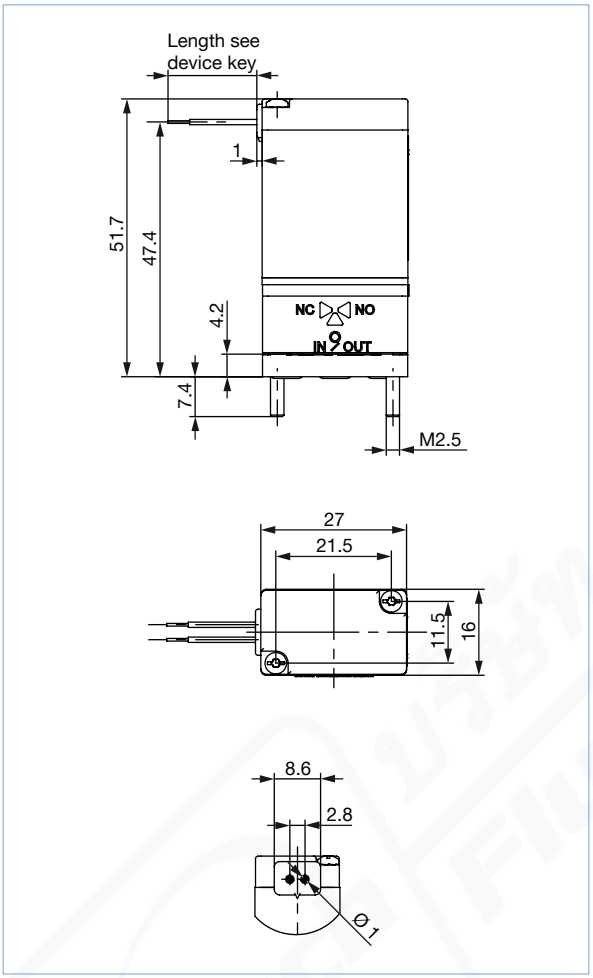
4.4. Sub-base version with flying leads

Note:

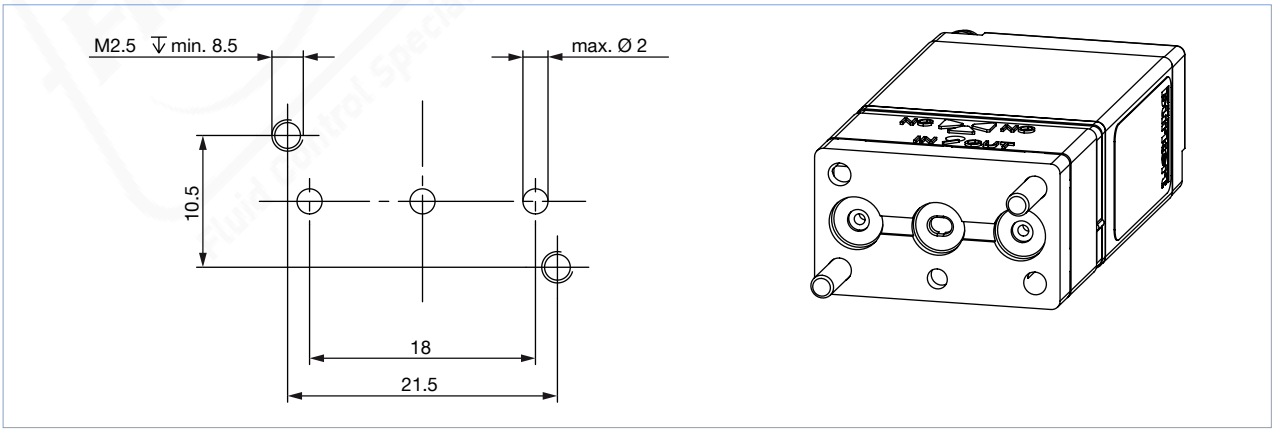
- Dimensions in mm
- Other screw length on request
- Self-tapping screws on request



Classification of fluid connections
WWA (circuit function: Type A) 2/2 way, direct-acting, normally closed energized at NC connection
WWB (circuit function: Type B) 2/2 way, direct-acting, normally opened energized at NO connection
WWT (circuit function: Type T) 3/2 way, direct-acting, flow direction optional, universal
See chapter "2. Circuit functions" on page 5

Bürkert sub-base interface 3-way standard

Note:
Dimensions in mm



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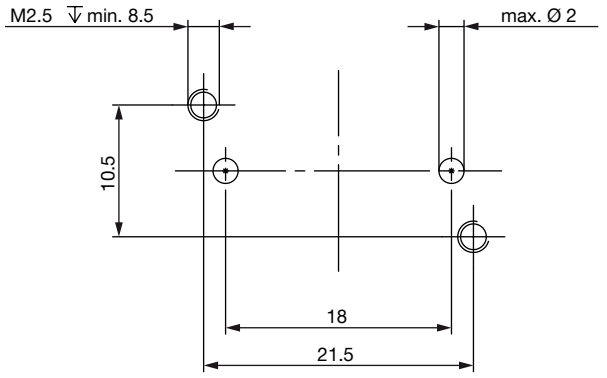
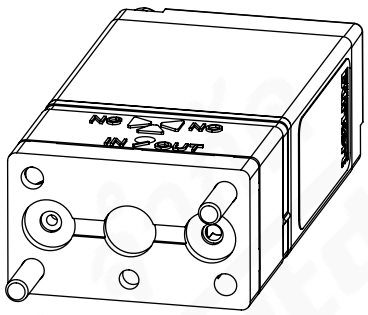
Bürkert sub-base interface 2-way standard

Note:
Dimensions in mm

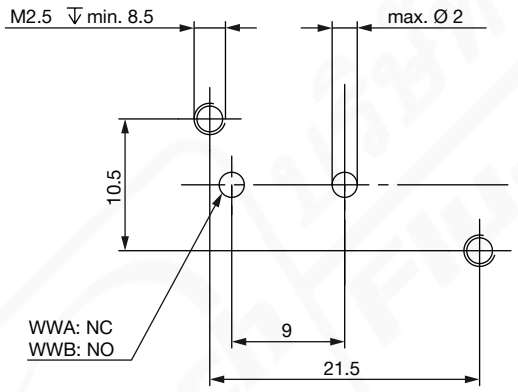


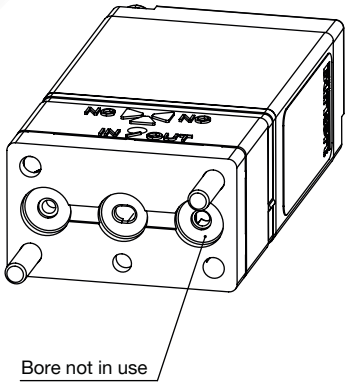


Bürkert sub-base interface 2-way (low dead volume)

Note:

- Dimensions in mm
- Available on request





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5. Ordering information

5.1. Bürkert eShop – Easy ordering and quick delivery

Bürkert eShop – Easy ordering and fast 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

5.2. Bürkert product filter

Bürkert product filter – Get quickly to the right product

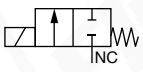
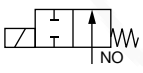
You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

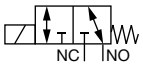
Try out our product filter

5.3. Ordering chart

Note:

- Overpressure with respect to atmospheric pressure
- On request different pressure ranges available
- 2 x M2.5 fixing screws for sub-base versions are included in the scope of delivery.
- Connectors for rectangular plugs and cable plugs are not included in the scope of delivery and must be ordered separately, see "5.4. Ordering chart accessories" on page 11.

Circuit function	Orifice	Port connection	K_v value water	C_v value	Q_{Nn} value air	Pressure range	Seal material	Fluid housing material	Electrical connection	Voltage/ Frequency	Article no.
	[mm]		[m³/h]	[gal/min]	[l/min]	[bar]				[V/Hz]	
A, solenoid valve 2/2 way Direct-acting Normally closed 	1.6	UNF ¼"-28	0.03	0.035	33	Vac…2	FFKM	PEEK	Rectangular plug	024/DC	258410
	1.6	Sub-base	0.045	0.052	49	Vac…2	FFKM	PEEK	Leads, 0.5 m	012/DC	137744
										024/DC	137745
									Spade connector sidewards	024/DC	137741
B, solenoid valve 2/2 way Direct-acting Normally opened 	1.6	UNF ¼"-28	0.03	0.035	33	Vac…2	FFKM	PEEK	Leads, 0.5 m	012/DC	270871

Circuit function	Orifice	Port connection	K_V value water	C_V value	Q_{Nn} value air	Pressure range	Seal material	Fluid housing material	Electrical connection	Voltage/ Frequency	Article no.
	[mm]		[m³/h]	[gal/min]	[l/min]	[bar]				[V/Hz]	
T, solenoid valve 3/2 way Direct-acting Flow direction optional Universal 	1.6	UNF ¼"-28	0.03	0.035	33	Vac…2	FFKM	PEEK	Rectangular plug	024/DC	258287
	1.6	Sub-base	0.045	0.052	49	Vac…2	FFKM	PEEK	Leads, 0.5 m	024/DC	137768
									Rectangular plug	024/DC	139148
									Spade connector sidewards	012/DC	137766
										024/DC	137765

5.4. Ordering chart accessories

Rectangular cable plug Type 2505

Note:
For further versions see data sheet **Type 2505** ▶.

Accessories	Description	Article no.
	Rectangular cable plug Type 2505 with 3 m cable	252572
	Rectangular cable plug Type 2505 with 5 m cable	255194
	Rectangular cable plug Type 2505 with 300 mm flying leads	644068
	Rectangular cable plug Type 2505 with 600 mm flying leads	162144

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

Note:

- Delivery of cable plug includes a flat seal and a fixing screw.
- For further versions see data sheet **Type 2516** ▶.

Cable plug	Version	Voltage	Current	Article no. without cable
	Without circuitry	0…250 V AC/DC	Max. 6 A	303141
	With LED	12…24 V AC/DC	Max. 3 A	303145
	With LED and varistor	12…24 V AC/DC	Max. 3 A	303148

Fittings and hoses

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

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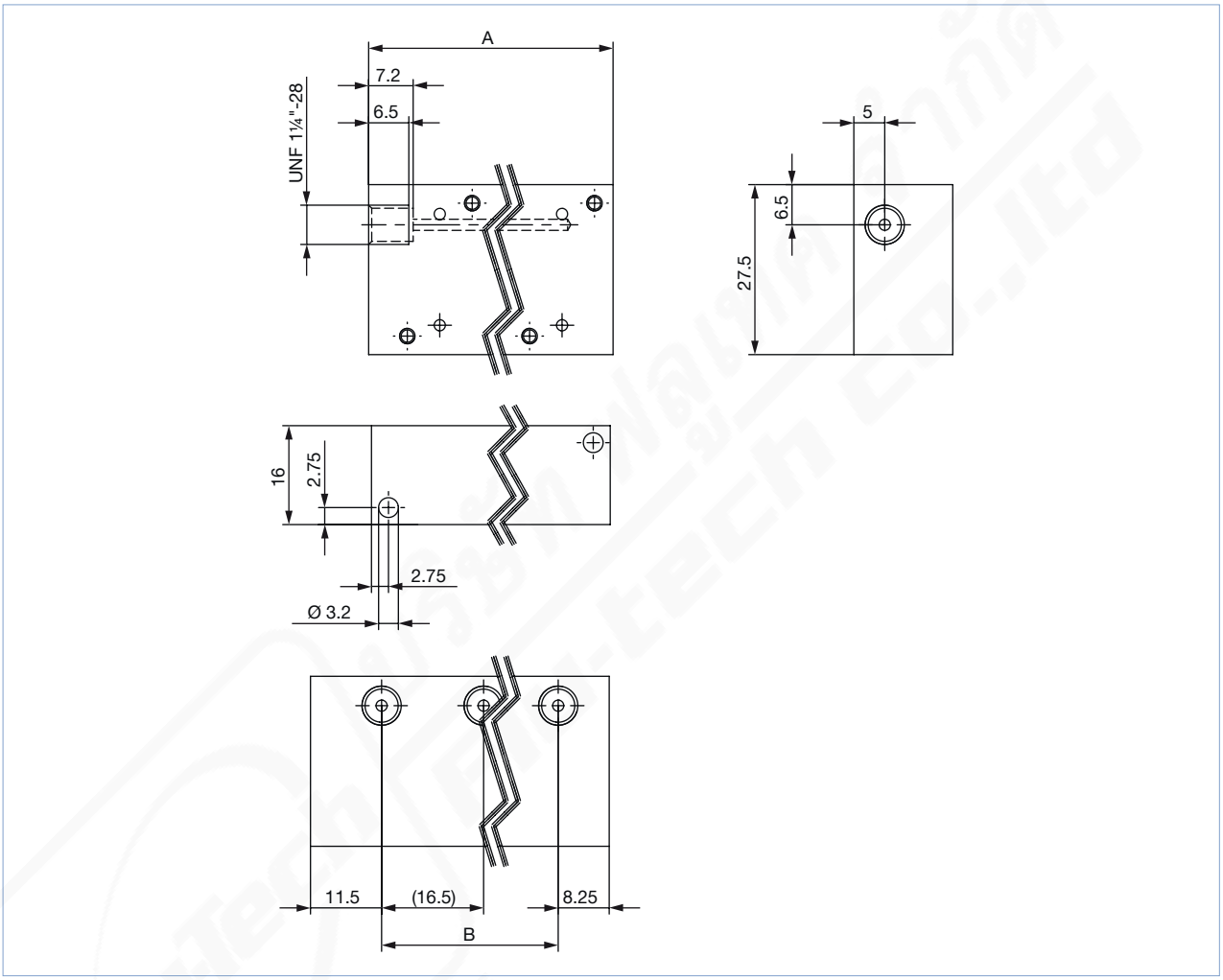
Multiple manifolds for Bürkert sub-base interface 2-way

Note:

- Dimensions in mm
- Port connection UNF ¼"-28
- Material PEEK
- Consider the screw protrusion!
- Further versions 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

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