





Direct-acting 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
- Proven reliability since 1993
- Flexible design for custom manifold assemblies
- High back pressure tightness, excellent cleanability and 100% duty cycle

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

Can be combined with

	Type 1054 Device plug	▶
	Type 2505 10 mm socket for Bürkert small solenoid valves	▶

Type description

Bürkert's unique miniature rocker solenoid valve is the pioneer of isolated mini valves suitable for laboratory, medical and analysis technology, that still set the standard! It is a highly reliable minimum volume valve that has low dead volume and is easy to purge. Boasting an inert isolating diaphragm between the actuator and body, it is operated via a rocker that separates the actuator from the fluid. Heat transfer between the actuator and the fluid is minimized due to the coil not having direct contact with the diaphragm. The valves can be manifold mounted and a simplified common wiring system is available if required. Special dead volume free designs are also obtainable on request.

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1. General technical data

1.1. General data

Product properties	
Dimensions	Detailed information can be found in chapter "5. Dimensions" on page 8.
Material	
Seal	FFKM, FKM, EPDM
Fluid housing	PEEK, PPS (PVDF on request)
Internal volume ^{1.)}	Sub-base: from 44 µl Tube connection: from 35 µl G 1/8": from 100 µl UNF 1/4"-28: from 25 µl < 10 µl available on request Detailed information can be found in chapter "1.4. Internal volume" on page 5
Orifice	DN 0.8...DN 1.6
Circuit function	Detailed information can be found in chapter "3. Circuit functions" on page 6.
Nominal operating mode ^{2.)}	10 mio. switching cycles (according to laboratory endurance test with FKM and EPDM)
Performance data	
Switching time ^{3.)}	Open: ca. 25 ms (Pressure rise 0...10 %) Closing: ca. 25 ms (Pressure drop 100...90 %)
Electrical data	
Operating voltage	12/24 V DC, 24 V UC, (other voltages on request)
Duty cycle	100 % continuous rating Manifold mounting: If medium or ambient temperatures are above +40 °C: intermittent operation 40 % (minimum 10 min)
Nominal power	3.4 W (Versions with internal power reduction possible)
Voltage tolerance	± 10 %
Medium data	
Operating medium	Resistant to neutral and aggressive liquids and gases (see chapter "4.1. Bürkert resistApp" on page 7)
Medium temperature	Max. -10...55 °C Detailed information can be found in chapter "1.3. Medium temperature" on page 4.
Process/Port connection & communication	
Electrical connection ^{4.)}	Cable plug Type 1054 ▶ Two FEP-leads 0.2 mm ² (AWG24), length 500 mm Rectangular cable plug, Type 2505 ▶
Port connection	Bürkert sub-base (16 × 27 mm) Tube connection G 1/8" UNF 1/4"-28
Approvals and certificates	
Degree of protection	IP65 with flying leads and cable plug Type 1054 ▶ IP30 with rectangular plug Type 2505 ▶
Environment and installation	
Installation	As required, preferably with actuator upright
Ambient temperature	Max. 55 °C

1.) The internal volume can vary depending on the housing. For more information see "1.4. Internal volume" on page 5.

2.) The life expectancy depends on medium, temperature, pressure, seal material, individual application conditions.

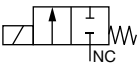
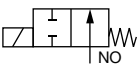
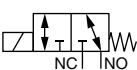
3.) Measurement at 2 bar and +20 °C at the valve outlet acc. to DIN ISO 12238:2001

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

1.2. Medium pressure

Note:

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

1.) Pressure data: Overpressure to atmospheric pressure

1.3. Medium temperature

Note:

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

Description	Orifice	Seal material	Temperature range
Medium temperature	DN 0.8	FFKM	+5 °C...+50 °C
	DN 0.8	FKM	0 °C...+50 °C
	DN 0.8	EPDM	-5 °C...+50 °C
	DN 1.2 and DN 1.6	FFKM	+10 °C...+50 °C
	DN 1.2 and DN 1.6	FKM	+5 °C...+50 °C
	DN 1.2 and DN 1.6	EPDM	0 °C...+50 °C
Medium temperature with limitation on switching time and life expectancy	DN 0.8	FFKM	0 °C...+50 °C
	DN 0.8	FKM	-5 °C...+55 °C
	DN 0.8	EPDM	-10 °C...+50 °C
	DN 1.2 and DN 1.6	FFKM	+5 °C...+50 °C
	DN 1.2 and DN 1.6 ^{1.)}	FKM	0 °C...+55 °C
DN 1.2 and DN 1.6	EPDM	-5 °C...+50 °C	

1.) Up to -15 °C available on request

1.4. Internal volume

Note:

The internal volume is depending on fluid housing.

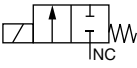
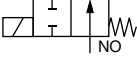
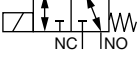
Body	2-way (low dead volume)		2-way		3-way	
	Fluid chamber	Total	Fluid chamber	Total	Fluid chamber	Total
Sub-base	44 µl	54 µl	97 µl	106 µl	90 µl	106 µl
G 1/8"	–	–	94 µl	207 µl	88 µl	228 µl
UNF 1/4"-28	25 µl	69 µl	55 µl	79 µl	54 µl	95 µl
Tube connection	35 µl	105 µl	67 µl	135 µl	73 µl	178 µl

2. Product versions



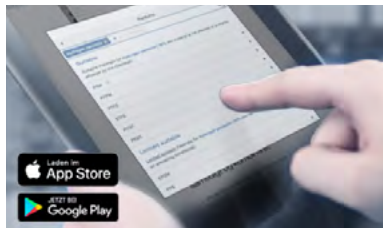
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3. Circuit functions

Circuit functions	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

4. Materials

4.1. Bürkert resistApp

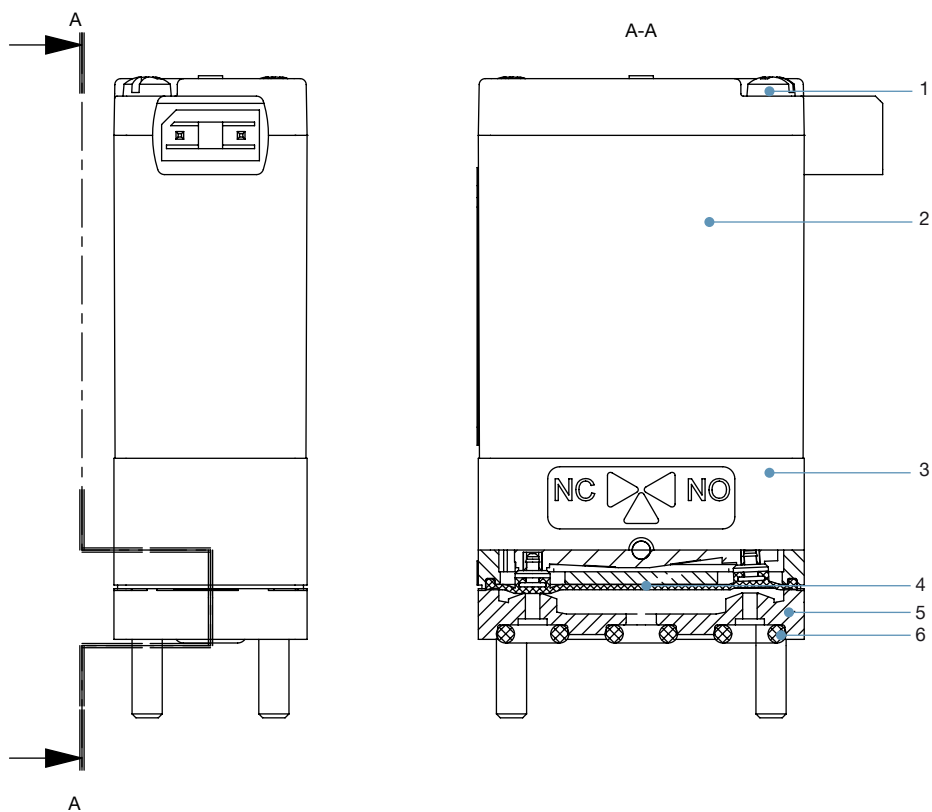


Bürkert resistApp – Chemical resistance chart

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 M2.5 (from end to end)	Stainless steel
2	Coil	Epoxy
3	Actuator housing	PPS
4	Diaphragm ^{1.)}	FFKM, FKM, EPDM
5	Fluid housing ^{1.)}	PEEK, PPS, (PVDF on request)
6	Flange seal ^{1.)}	FFKM, FKM, EPDM

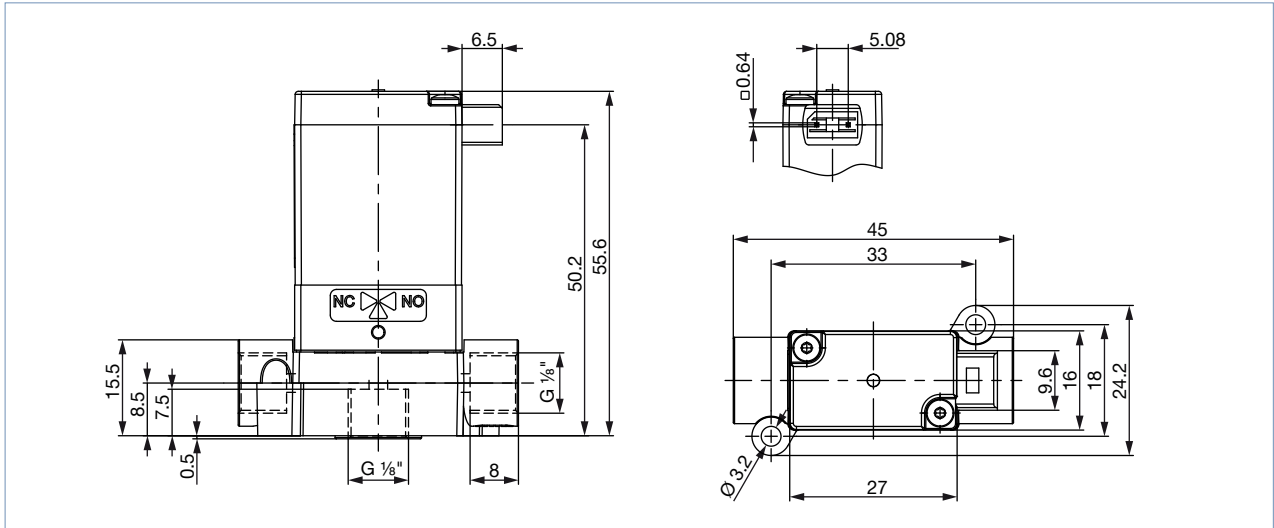
1.) in contact with medium

5. Dimensions

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

Note:

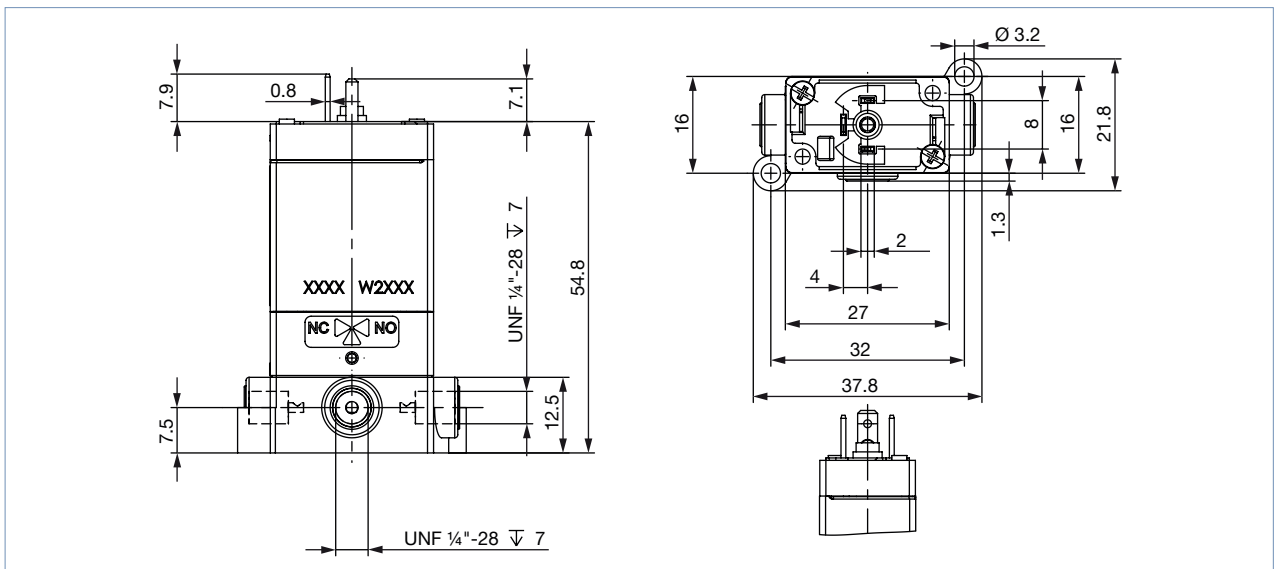
- Dimensions in mm
- Further versions on request



5.2. Threaded port version UNF 1/4" -28 with cable plug Type 1054

Note:

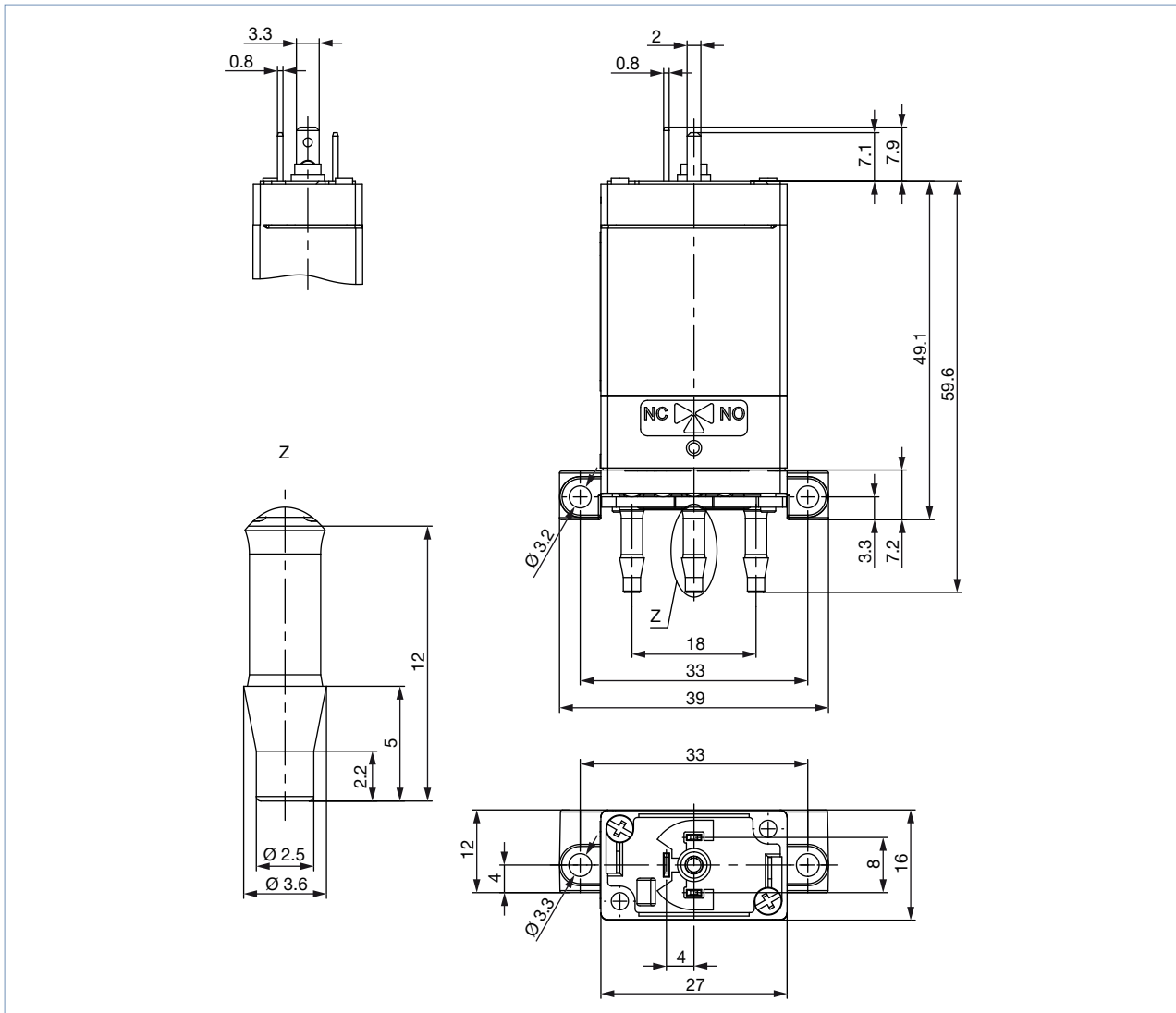
- Dimensions in mm
- Further versions on request



5.3. Tube connector version with cable plug Type 1054

Note:

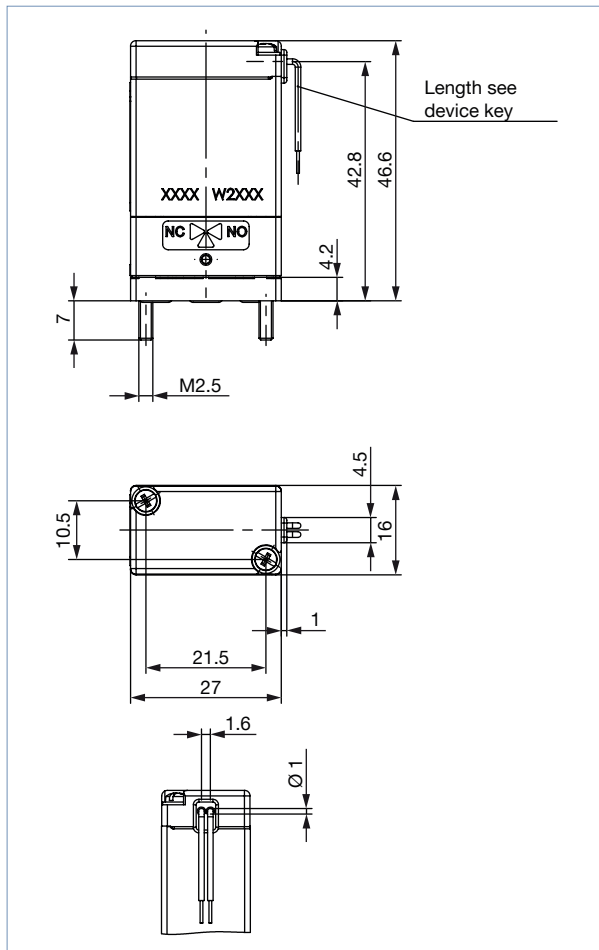
- Dimensions in mm
- Further versions on request



5.4. Sub-base version with flying leads

Note:

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

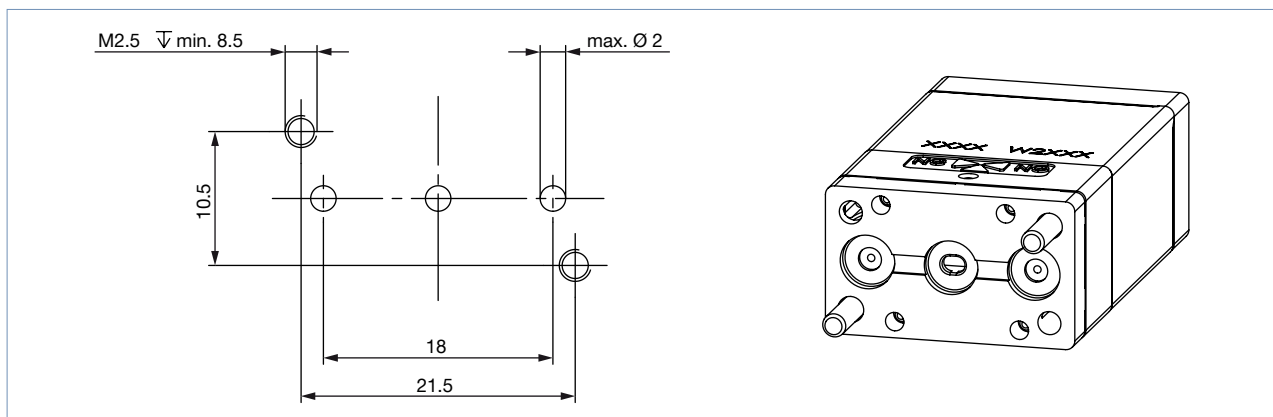


Classification of fluid connections
Circuit function A (CF A) 2/2-way, direct-acting, normally closed energized at NC connection
Circuit function B (CF B) 2/2-way, direct-acting, normally opened energized at NO connection
Circuit function T (CF T) 3/2-way, direct-acting, flow direction optional, universal
See chapter "3. Circuit functions" on page 6

Bürkert sub-base interface 3-way standard

Note:

Dimensions in mm

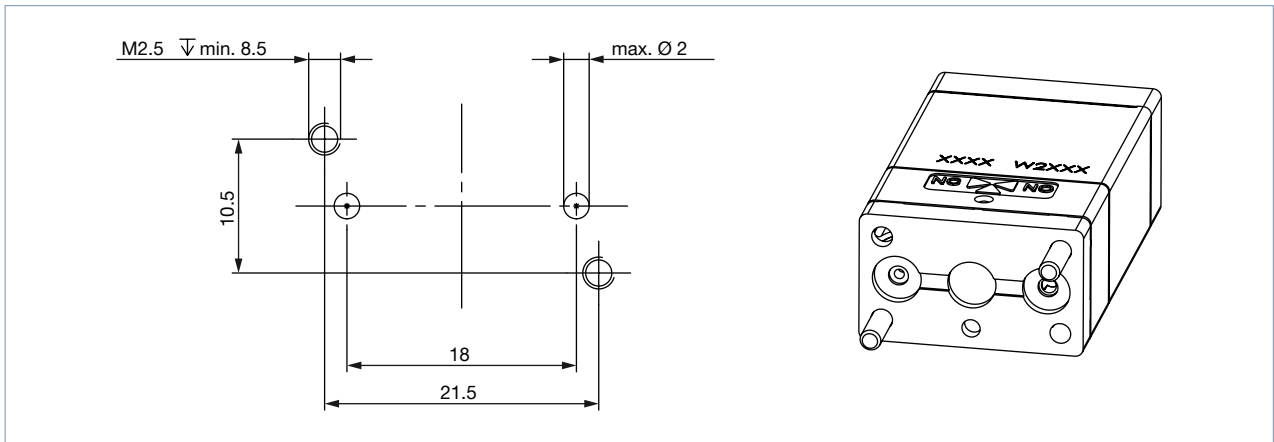


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Bürkert sub-base interface 2-way standard

Note:

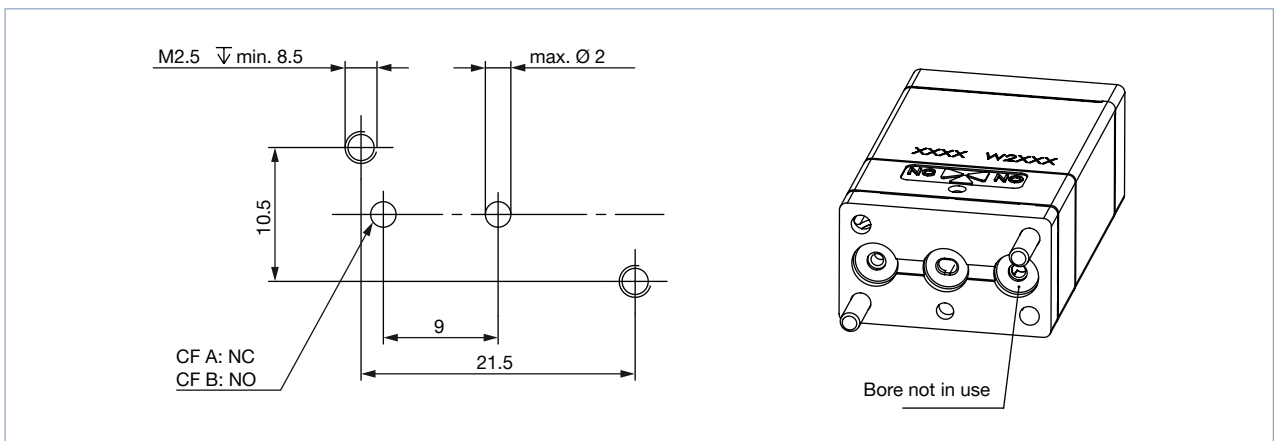
Dimensions in mm



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

Note:

- Dimensions in mm
- Available on request



6. Ordering information

6.1. Bürkert eShop

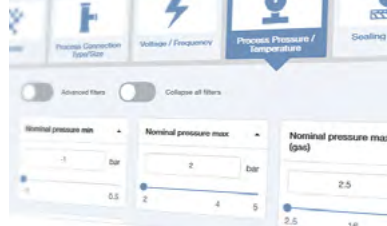


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6.2. Bürkert product filter



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.

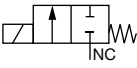
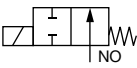
[Try out our product filter](#)

6.3. Ordering chart

Standard valves

Note:

- Different pressure ranges available on request
- Low dead space 2-way version available on request
- 2 x M2.5 fixing screws for sub-base versions are included in the delivery.
- Connectors for rectangular plugs and cable plugs are not included in the delivery and must be ordered separately, see “[6.4. Ordering chart accessories](#)” on page 14.

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]	[m ³ /h]	[gpm]						
CF A 2/2-way solenoid valve Direct-acting Normally closed 	Sub-base	0.8	16	0.015	0.017	24/DC	0...6	PEEK	FFKM	Flying leads, 0.5 m	276699
								PPS	FKM	Flying leads, 0.5 m	264327
								PPS	EPDM	Rectangular plug	276701
	Sub-base	1.2	32	0.03	0.035	24/DC	0...5	PEEK	FFKM	Flying leads, 0.5 m	276703
										Rectangular plug	276710
								PPS	FKM	Flying leads, 0.5 m	276718
	UNF 1/4"-28	1.2	27	0.025	0.029	12/DC 24/DC	0...5	PEEK	FFKM	Flying leads, 0.5 m	244706
											280858
	Sub-base	1.6	49	0.045	0.052	24/DC 12/DC	Vac...2	PEEK	FFKM	Flying leads, 0.5 m	242451
								PPS	FKM	Rectangular plug	273398
PPS								EPDM	Rectangular plug	276746	
Tube connector	1.6	49	0.045	0.052	24/DC	Vac...2	PEEK	FFKM	Flying leads, 0.5 m	20046222	
									Rectangular plug	20043727	
G 1/8"	1.6	54	0.05	0.058	24/DC	Vac...2	PEEK	FFKM	Flying leads, 0.5 m	20051573	
									Rectangular plug	20043555	
UNF 1/4"-28	1.6	33	0.03	0.035	24/DC	0...2	PEEK	FFKM	Flying leads, 0.5 m	463551	
									Rectangular plug	262460	
									Cable plug	207675	
CF B 2/2-way solenoid valve Direct-acting Normally open 	Sub-base	1.6	49	0.045	0.052	24/DC	Vac...2	PPS	EPDM	Rectangular plug	276747
	Tube connector	1.6	49	0.045	0.052	24/DC	Vac...2	PEEK	FFKM	Flying leads, 0.5 m	20050306
										Rectangular plug	20050309
	G 1/8"	1.6	54	0.05	0.058	24/DC	Vac...2	PEEK	FFKM	Flying leads, 0.5 m	20041223
									Rectangular plug	20043554	

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]	[gpm]							[bar] ^{1.)}	
CF T 3/2-way solenoid valve Direct-acting Flow direction optional Universal 	Sub-base	0.8	16	0.015	0.017	24/DC	0...6	PEEK	FFKM	Flying leads, 0.5 m	276748		
								PPS	FKM	Rectangular plug	276749		
								PPS	EPDM	Rectangular plug	276750		
	Sub-base	1.2	32	0.03	0.035	24/DC	0...5	PEEK	FFKM	Flying leads, 0.5 m	276753		
										Rectangular plug	276754		
										PPS	FKM	Flying leads, 0.5 m	276756
	UNF 1/4"-28	1.2	27	0.025	0.029	12/DC	0...5	PEEK	FFKM	Flying leads, 0.5 m	244696		
										24/DC	Rectangular plug	297064	
	Sub-base	1.6	49	0.045	0.052	24/DC	Vac...2	PEEK	FFKM	Flying leads, 0.5 m	460264		
										PPS	FKM	Rectangular plug	271604
										PPS	EPDM	Rectangular plug	276759
	Tube connector	1.6	49	0.045	0.052	24/DC	Vac...2	PEEK	FFKM	Flying leads, 0.5 m	20038002		
Rectangular plug										20050311			
G 1/8"	1.6	54	0.05	0.054	24/DC	Vac...2	PEEK	FFKM	Flying leads, 0.5 m	20041217			
									Rectangular plug	20051577			
UNF 1/4"-28	1.6	33	0.03	0.035	24/DC	0...2	PEEK	FFKM	Flying leads, 0.5 m	464968			
									Rectangular plug	262461			
									Cable plug	280172			

1.) Pressure data: Overpressure to atmospheric pressure

Valves with power reduction

Note:

After approx. 500 ms, the nominal power is automatically reduced from 4 W to 1 W.





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]	[gpm]						
CF A 2/2-way solenoid valve Direct-acting Normally closed 	Sub-base	1.2	32	0.03	0.035	24/DC	0...5	PPS	FKM	Rectangular plug	357227
	UNF 1/4"-28	1.6	33	0.03	0.035	24/DC	0...2	PEEK	FFKM	Rectangular plug	357229
CF T 3/2-way solenoid valve Direct-acting Flow direction optional Universal 	Sub-base	1.2	32	0.03	0.035	24/DC	0...5	PPS	FKM	Rectangular plug	357230
	UNF 1/4"-28	1.6	33	0.03	0.035	24/DC	0...2	PEEK	FFKM	Rectangular plug	357233

1.) Pressure data: Overpressure to atmospheric pressure

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6.4. Ordering chart accessories







Cable plug Type 1054

Accessories	Description	Article no.
	Cable plug Type 1054 (without cable)	006699 
	Cable plug Type 1054 with 3 m cable	413552 


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 

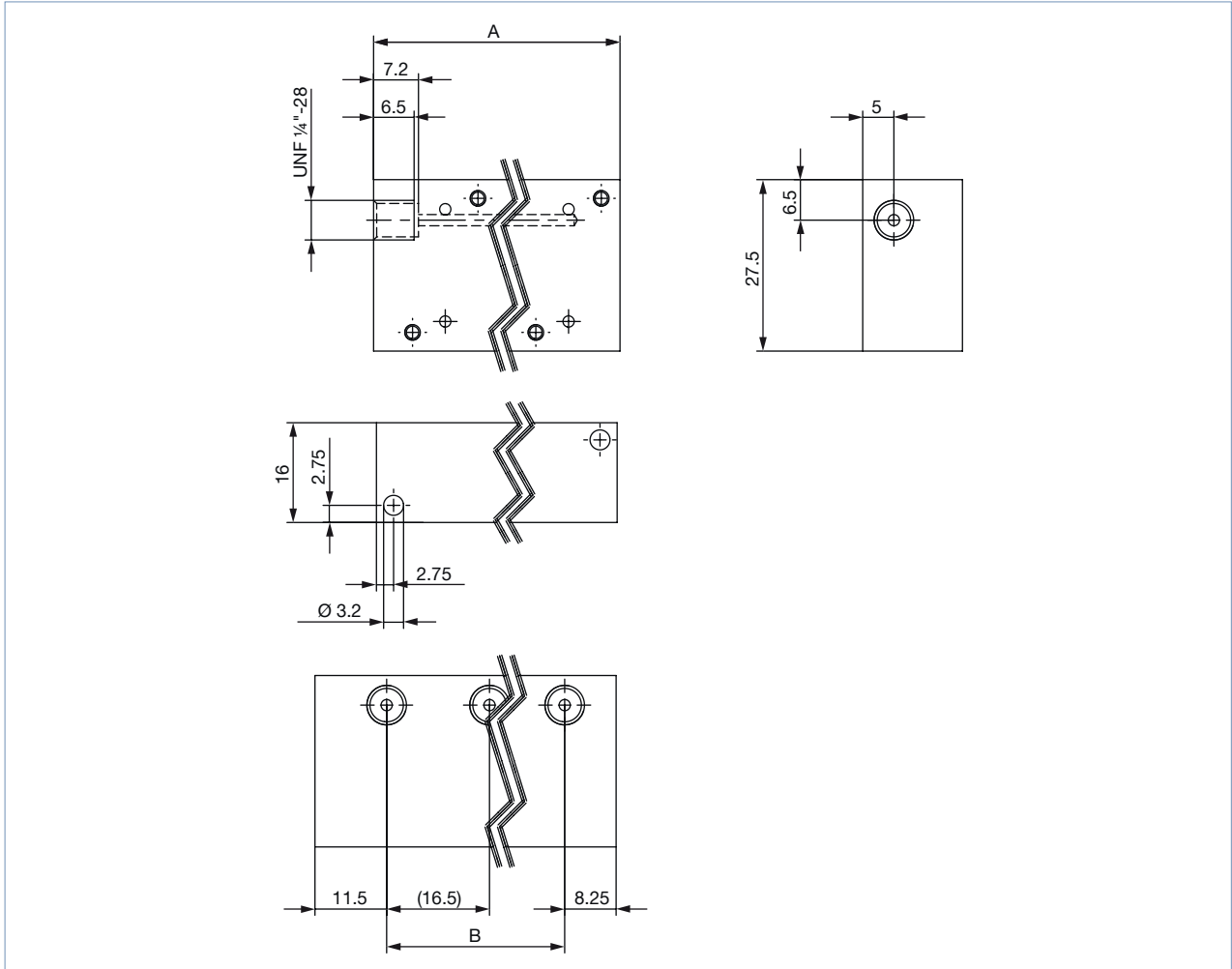
Fittings and hoses

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:

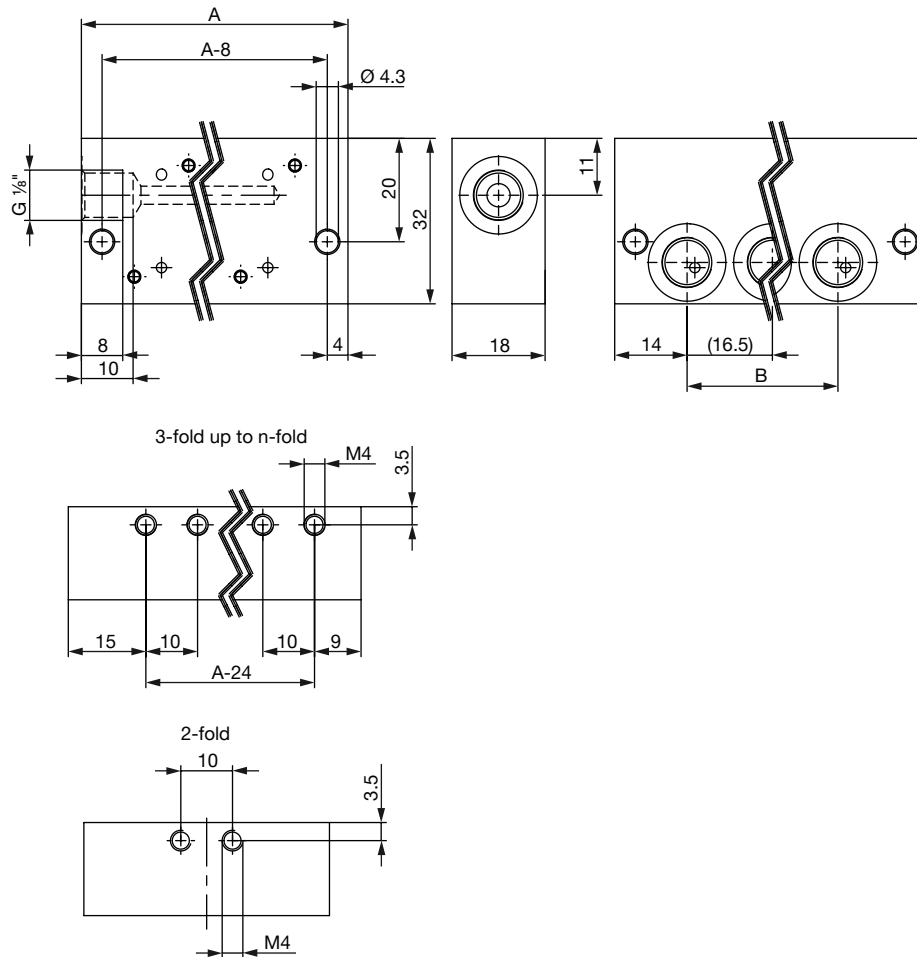
- Dimensions in mm
- Port connection UNF 1/4"-28
- Material PEEK
- Consider the screw protrusion!
- Further versions on request



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

Note:

- Dimensions in mm
- Port connection G 1/8"
- Material PPS
- Consider the screw protrusion!
- Further versions on request

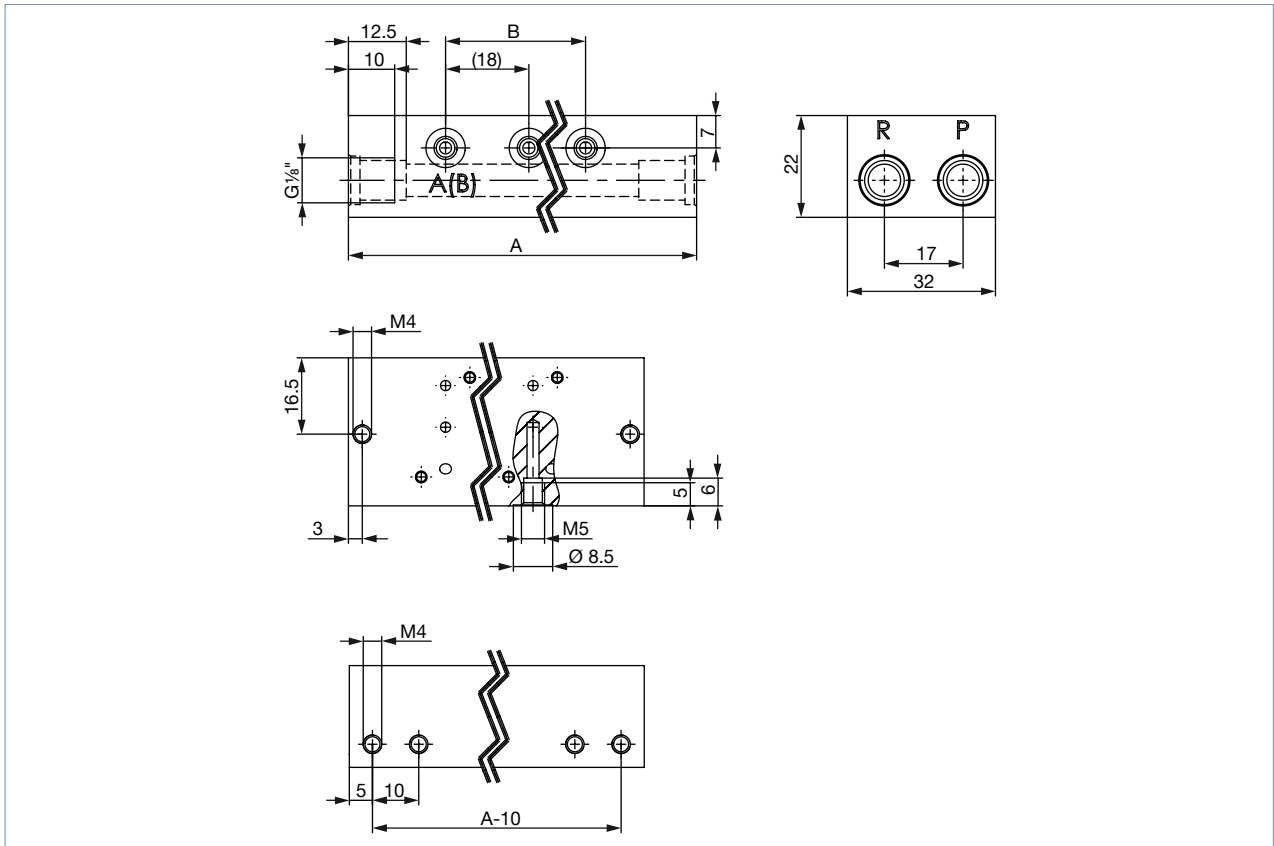


Manifold	A	B	n	Article no.
2-fold	47.5	16.5	2	675628
3-fold	64	33	3	675629
4-fold	80.5	49.5	4	675630
5-fold	97	66	5	675631
6-fold	113.5	82.5	6	675632
7-fold	130	99	7	675633
8-fold	146.5	115.5	8	675634
9-fold	163	132	9	675635
10-fold	179.5	148.5	10	675636

Multiple manifolds for Bürkert sub-base interface 3-way

Note:

- Dimensions in mm
- Port connection 1: G 1/8"
- Port connection 2: M5
- Material aluminium (black anodized)
- Consider the screw protrusion!
- Further versions on request

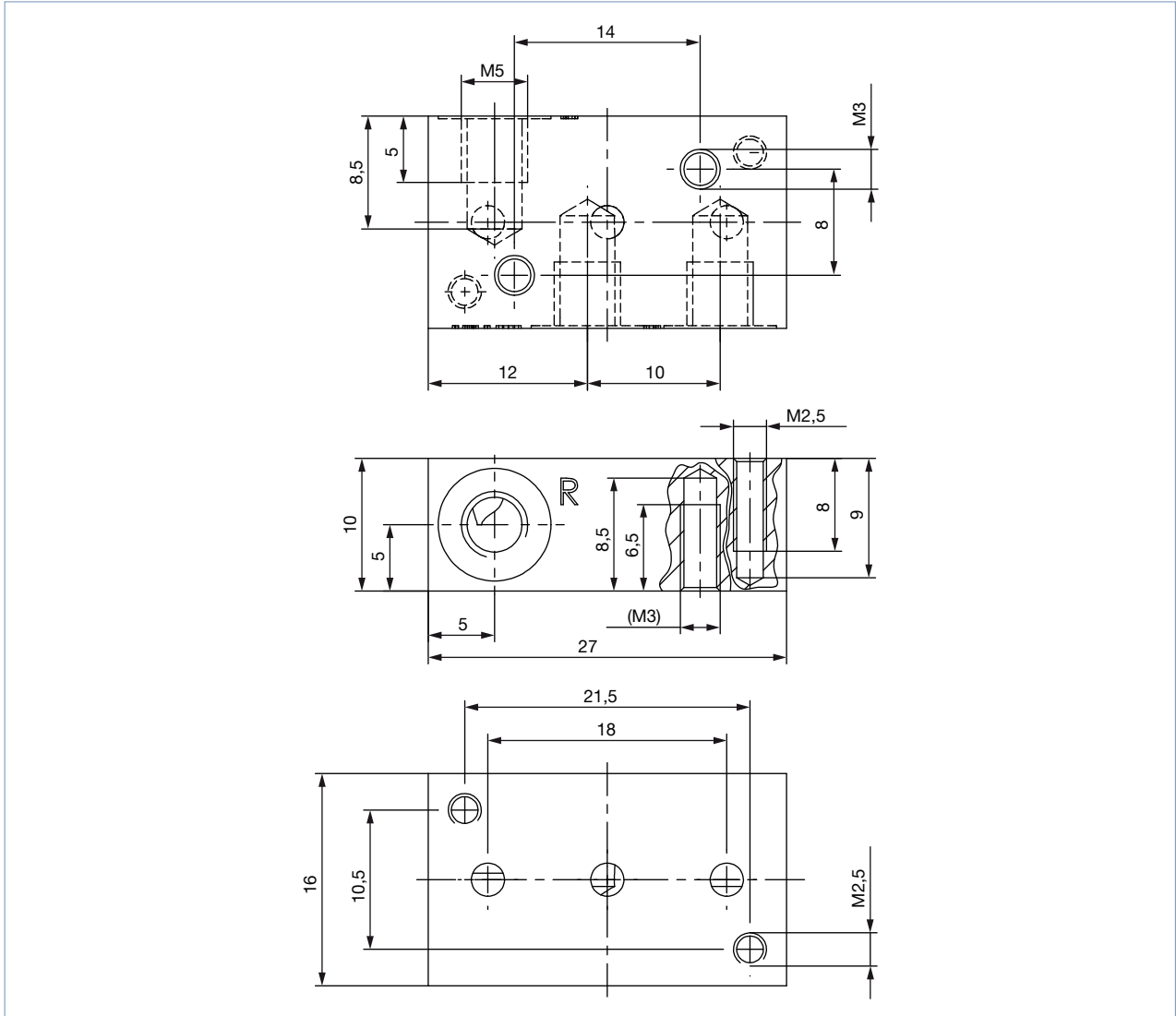


Manifold	A	B	n	Article no.
2-fold	63	18	2	658695
3-fold	81	36	3	658696
4-fold	99	54	4	658697
5-fold	117	72	5	658698
6-fold	135	90	6	658699
8-fold	171	126	8	658700
10-fold	207	162	10	658701
12-fold	243	198	12	658703

Single manifolds for Bürkert sub-base interface 3-way

Note:

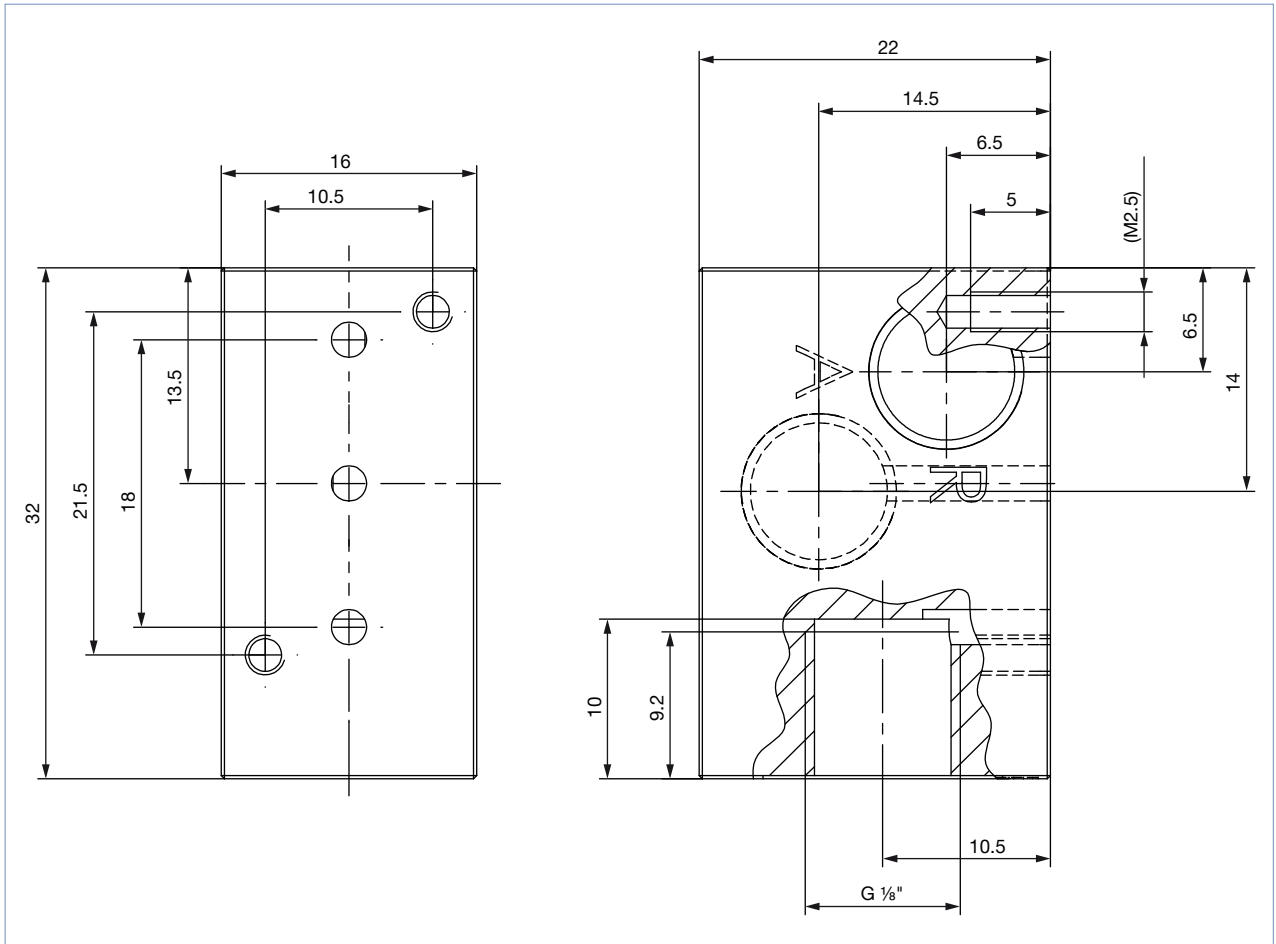
- Dimensions in mm
- Port connection M5
- Material aluminium (black anodized)
- Consider the screw protrusion!
- Further versions on request




Manifold	Article no.
1-fold	623873

Note:

- Dimensions in mm
- Port connection G 1/8"
- Material aluminium (black anodized)
- Consider the screw protrusion!
- Further versions on request



Manifold	Article no.
1-fold	634917 

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