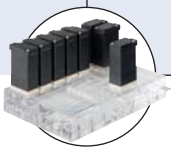




Type 0127 can be combined with...



**Manifolds**



**Type 1054**

Cable plug



**Type 2505**

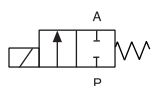
Rectangular cable plug

## 2/2 or 3/2-way Miniature Rocker Solenoid Valve

- 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

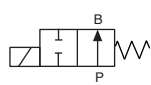
Bürkerts solenoid valve 0127 is considered the pioneer in the controlling of fluids in the microfluidic industry. The valve has been launched in the earlier 90th and has been further developed and improved to meet the increased requirements of the market. The use of the rocker technology, which operates the diaphragm between the actuator and media, ensures a very reliable and precise switching of smallest volumes. And still today this valve is a benchmark in its industry. A high variety of different diaphragm and housing materials as well as different housing and electrical connectors the valve 0127 was designed for the use in laboratories, medical- and analysis technology. Beyond medical industry it is also used for applications within other industries, for example ink-jet printers and vending machines.

### Circuit function A



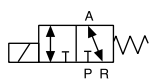
2/2-way valve,  
direct-acting,  
normally closed

### Circuit function B



2/2-way valve,  
direct-acting,  
normally open

### Circuit function T



3/2-way valve,  
direct-acting,  
universal functions

Technical data	
<b>Orifice [mm]</b>	DN 0.8 - DN 1.6 (for details see ordering chart)
<b>Body material</b>	PEEK, PVDF, ETFE, PPS
<b>Seal material</b>	FFKM, FKM, EPDM
<b>Media</b>	Resistant to neutral and aggressive liquids and gases (see Burkert chemical resistance chart)
<b>Media temperature</b>	-10 to 55 °C <sup>1)</sup>
<b>Ambient temperature</b>	max. 55 °C
<b>Service life</b>	10.000.000 (according to laboratory endurance test with FKM and EPDM) <sup>2)</sup>
<b>Internal volumes</b>	starting at 44 µl with sub-base starting at 100 µl with G 1/8 and NPT 1/8 starting at 25 µl with UNF 1/4" - 28 starting at 33 µl with tube spigot < 10 µl <sup>3)</sup> on request
<b>Port connection</b>	Bürkert sub-base (16 x 27 mm), G1/8, NPT1/8, UNF 1/4" - 28, tube connection
<b>Electrical connection</b>	Cable plug Type 1054 Two FEP-leads 0.2 mm <sup>2</sup> , length 500 mm Rectangular cable plug, Type 2505 <sup>4)</sup>
<b>Operating voltage</b>	12/24 V/DC; 24 V/UC; other voltages on request
<b>Voltage tolerance</b>	±10 %
<b>Power consumption</b>	3.4 W
<b>Duty cycle</b>	100 % continuous rating If media or ambient temperatures are above +40 °C: intermittent operation 40 % (10 min)
<b>Installation</b>	As required, preferably with actuator upright
<b>Protection class</b>	IP 54 with flying leads and single cable plug IP 40 with Rectangular plug
<b>Response times</b>	Measured at valve outlet with air at 2 bar and +20 °C According to ISO 12238:2001; Open approx. 25 ms (Pressure rise 0 to 10 %) Closing approx. 25 ms (Pressure drop 100 to 90 %)

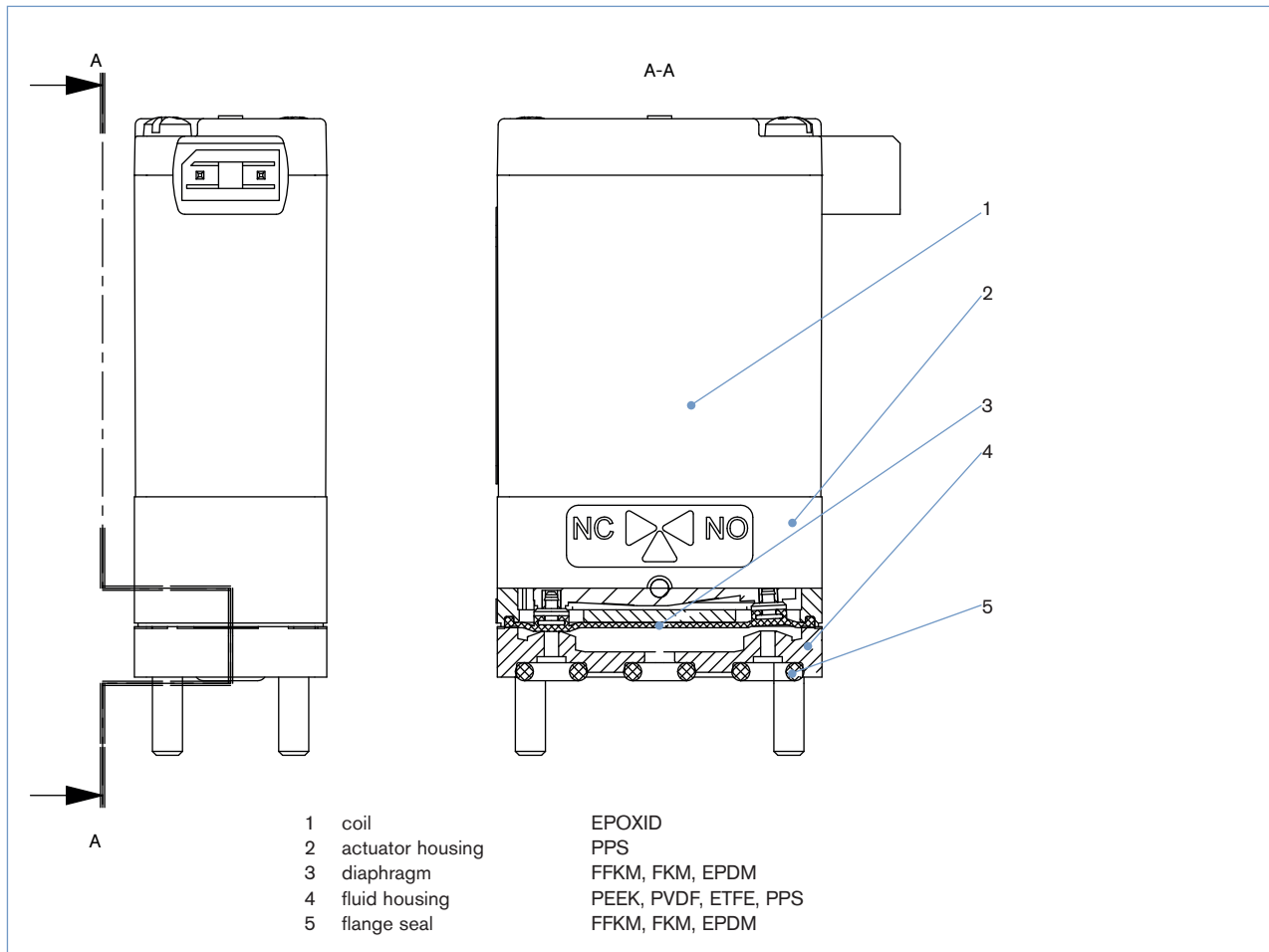
<sup>1)</sup> Temperature may vary depending on orifice and seal material. For further information see on page 2.

<sup>2)</sup> Life expectancy depends on media, temperature, pressure, seal material, individual application conditions.

<sup>3)</sup> The internal volume can vary depending on the housing. For further information see on page 2.

<sup>4)</sup> Other electric connectors and other cable lengths upon request.

## Materials



## Detailed medium temperature (depending on material and orifice)

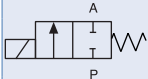
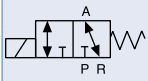
	Orifice	Seal material	Temperature range
media temperature	DN 0.8	FFKM	+5 to +50 °C
	DN 0.8	FKM	0 to +50 °C
	DN 0.8	EPDM	-5 to +50 °C
	DN 1.2 & 1.6	FFKM	+10 to +50 °C
	DN 1.2 & 1.6	FKM	+5 to +50 °C
	DN 1.2 & 1.6	EPDM	0 to +50 °C
media temperature with limitation on switching time and life expectancy	DN 0.8	FFKM	0 to +50 °C
	DN 0.8	FKM	-5 to +55 °C
	DN 0.8	EPDM	-10 to +50 °C
	DN 1.2 & 1.6	FFKM	+5 to +50 °C
	DN 1.2 & 1.6 <sup>1)</sup>	FKM	0 to +55 °C
	DN 1.2 & 1.6	EPDM	-5 to +50 °C

<sup>1)</sup> upon request up to -15 °C available.

## Detailed internal volume (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, NPT 1/8	-	-	100 µl	211 µl	92 µl	229 µl
UNF 1/4" - 28	25 µl	69 µl	55 µl	79 µl	54 µl	95 µl
tube connection	33 µl	112 µl	62 µl	142 µl	69 µl	185 µl

## Ordering chart for valves

Circuit function	Orifice [mm]	Port connection	Kv value water [m <sup>3</sup> /h]	Cv value [gal/min]	Q <sub>Nn</sub> value air [l/min]	Pressure range [bar] <sup>1)</sup>	Seal material	Fluid housing material	Electrical connection	Voltage/frequency [V/Hz] <sup>2)</sup>	Item no.								
 <p>2/2-way valve, direct acting, normally closed</p>	0.8	Sub-base	0.015	0.017	16	0-6	FFKM	PEEK	leads, 0.5 m	24/DC	276 699								
							FKM	PPS	leads, 0.5 m	24/DC	264 327								
							EPDM	PPS	rectangular plug	24/DC	276 701								
	1.0	UNF 1/4" - 28	0.02	0.023	22	0-2 <sup>3)</sup>	FFKM	ETFE	leads, 0.5 m	12/DC	457 785								
									rectangular plug	24/DC	276 702								
									Sub-base	0.03	0.035	32	0-5	FFKM	PEEK	leads, 0.5 m	24/DC	276 703	
																rectangular plug	24/DC	276 710	
																FKM	PPS	leads, 0.5 m	24/DC
									EPDM	PPS	cable plug	24/DC	276 728						
	UNF 1/4" - 28	0.025	0.029	27	0-5	FFKM	PEEK	leads, 0.5 m	12/DC	244 706									
								rectangular plug	24/DC	276 733									
	1.5	UNF 1/4" - 28	0.03	0.035	33	0-2 <sup>3)</sup>	FFKM	ETFE	leads, 0.5 m	24/DC	120 680								
									rectangular plug	24/DC	276 733								
									cable plug	24/UC	136 366								
									1.6	G1/8	0.05	0.058	54	0-2	FFKM	PVDF	leads, 0.5	24/DC	120 677
																	rectangular plug	24/DC	272 153
NPT1/8																	0.05	0.058	54
UNF 1/4" - 28									0.03	0.035	33	0-2	FFKM	PEEK	leads, 0.5 m	24/DC	463 551		
Sub-base									0.045	0.052	49	0-2	FFKM	PVDF	leads, 0.5 m	24/DC	276 738		
															PEEK	leads, 0.5 m	24/DC	242 451	
FKM	PPS	rectangular plug	24/DC	273 398															
					EPDM	PPS	rectangular plug	12/DC	276 746										
										leads, 0.5 m	24/DC	455 390							
rectangular plug	24/DC	272 154																	
B	1.5	UNF 1/4" - 28	0.03	0.035	33	0-2	FFKM	ETFE	leads, 0.5 m	24/DC	120 681								
									1.6	G1/8	0.05	0.058	54	0-2	FFKM	PVDF	leads, 0.5 m	24/DC	120 678
																	Tube connection	0.045	0.052
									Sub-base	0.045	0.052	49	0-2	EPDM	PPS	rectangular plug	24/DC	276 747	
 <p>3/2-way valve, direct-acting, universal functions</p>	0.8	Sub-base	0.015	0.017	16	0-6	FFKM	PEEK	leads, 0.5 m	24/DC	276 748								
							FKM	PPS	rectangular plug	24/DC	276 749								
							EPDM	PPS	rectangular plug	24/DC	276 750								
	1.0	UNF 1/4" - 28	0.02	0.023	22	0-2	FFKM	ETFE	leads, 0.5 m	24/UC	214 280								
									rectangular plug	24/DC	276 751								
									1.2	Sub-base	0.03	0.035	32	0-5	FFKM	PEEK	leads, 0.5 m	24/DC	276 753
																	rectangular plug	24/DC	276 754
																	FKM	PPS	leads, 0.5 m
									EPDM	PPS	rectangular plug	24/DC	276 758						
	UNF 1/4" - 28	0.025	0.029	27	0-5	FFKM	PEEK	cable plug	24/DC	269 045									
								1.5	UNF 1/4" - 28	0.03	0.035	33	0-2	FFKM	ETFE	leads, 0.5	24/DC	120 682	
	rectangular plug	24/DC	272 158																
	cable plug	24/UC	079 901																
	1.6	G1/8	0.05	0.058	54	0-2	FFKM	PVDF	leads, 0.5 m	24/DC	120 679								
									rectangular plug	24/DC	272 156								
									NPT1/8	0.05	0.058	54	0-2	FFKM	PVDF	leads, 0.5 m	24/DC	121 781	
									UNF 1/4" - 28	0.03	0.035	33	0-2	FFKM	PEEK	rectangular plug	24/DC	262 461	
									Sub-base	0.045	0.052	49	0-2	FFKM	PVDF	rectangular plug	24/DC	273 853	
PEEK																leads, 0.5 m	24/DC	460 264	
FKM									PPS	rectangular plug	24/DC	271 604							
													EPDM	PPS	rectangular plug	24/DC	276 759		
Tube connection									0.045	0.052	49	0-2						FFKM	PVDF
rectangular plug	24/DC	272 157																	

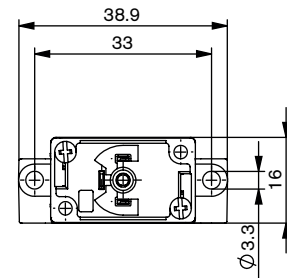
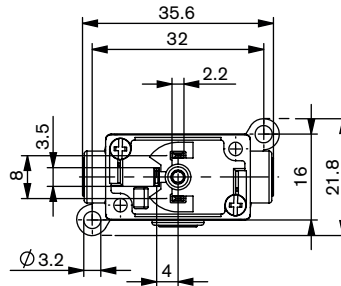
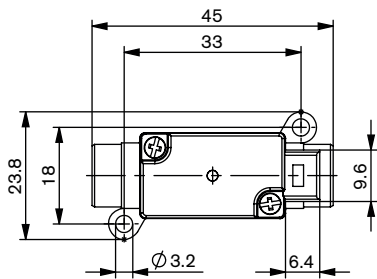
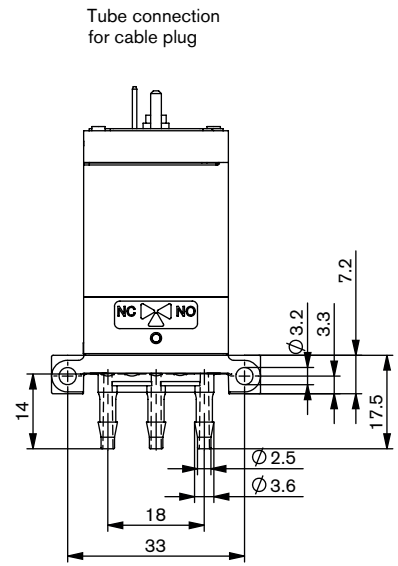
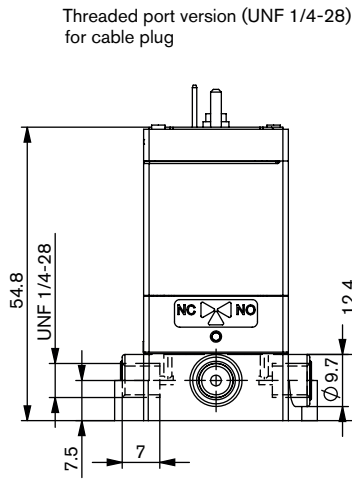
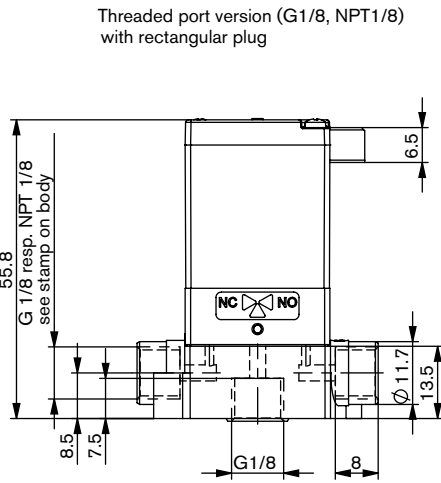
<sup>1)</sup> Overpressure with respect to atmospheric pressure. On request different pressure ranges available.

<sup>2)</sup> In universal Current (UC) are rectifier, LED and varistor integrated. Other voltages on request.

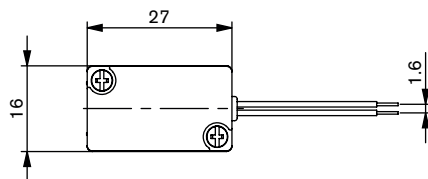
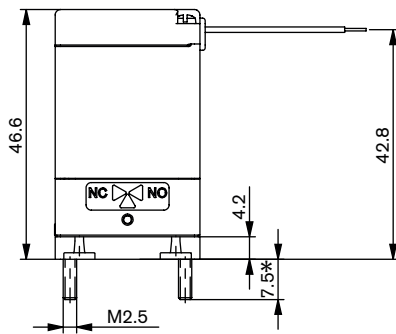
<sup>3)</sup> Maximum back pressure 1 bar.

**i** Other versions on request

Dimensions [mm]



Manifold mount version with flying leads



Classification of fluid connections

2/2-way-valve, normally closed (circuit function A)  
inflow at "NC"-connector

2/2-way-valve, normally open (circuit function B)  
inflow at "NO"-connector

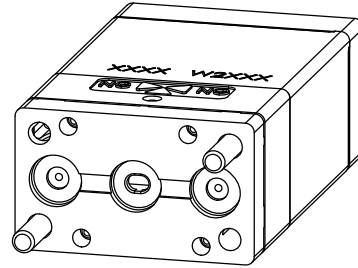
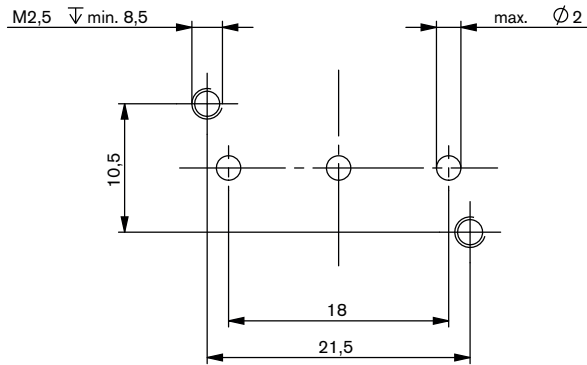
3/2-way-valve, normally open (circuit function T)  
inflow at "NO"-connector

flange interfaces at page 5.

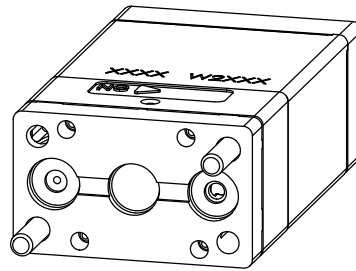
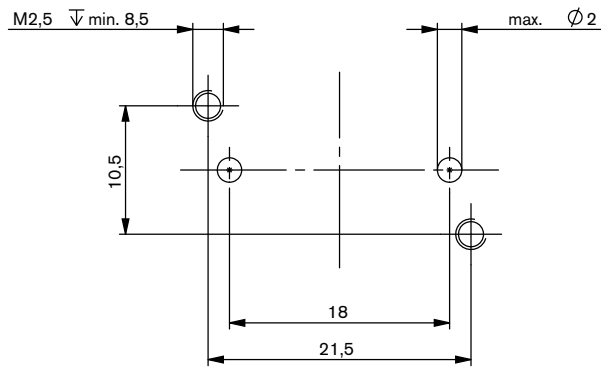
\* Other screw length on request.  
Self-tapping screws on request.  
When selecting a connection plate the screw head overtap has to be considered

Overview flange interfaces 16 x 27 mm

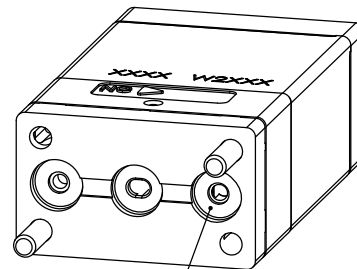
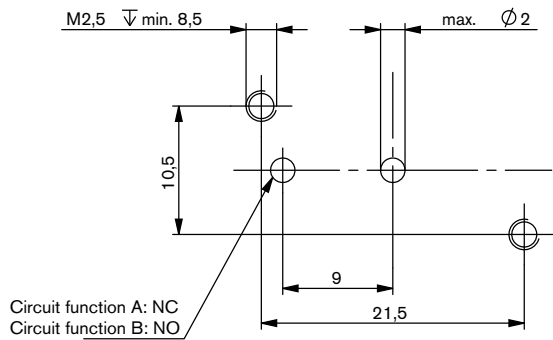
**bürkert flange interface FB23 - 3-way (standard)**



**bürkert flange interface FB43 - 2-way (standard)**







**bürkert flange interface FB33 - 2-way (low dead volume), not in ordering chart - on request**

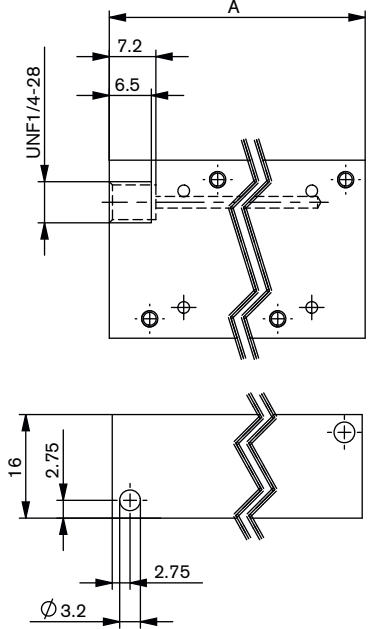


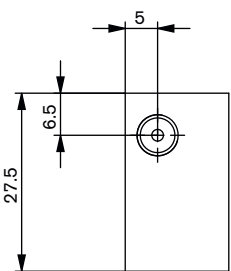
**i** On request available with anti-twist device

Ordering chart Accessories

	Accessory	Item no.
	Cable plug type 1054 (without cable)	006 699
	Cable plug type 1054 with 3 m cable	413 552
	Rectangular plug type 2505 with 3 m cable	252 572
	Rectangular plug type 2505 with 300 mm flying leads	262 346

Manifolds in PEEK for Bürkert flange interface 16 x 27 2-way [mm]

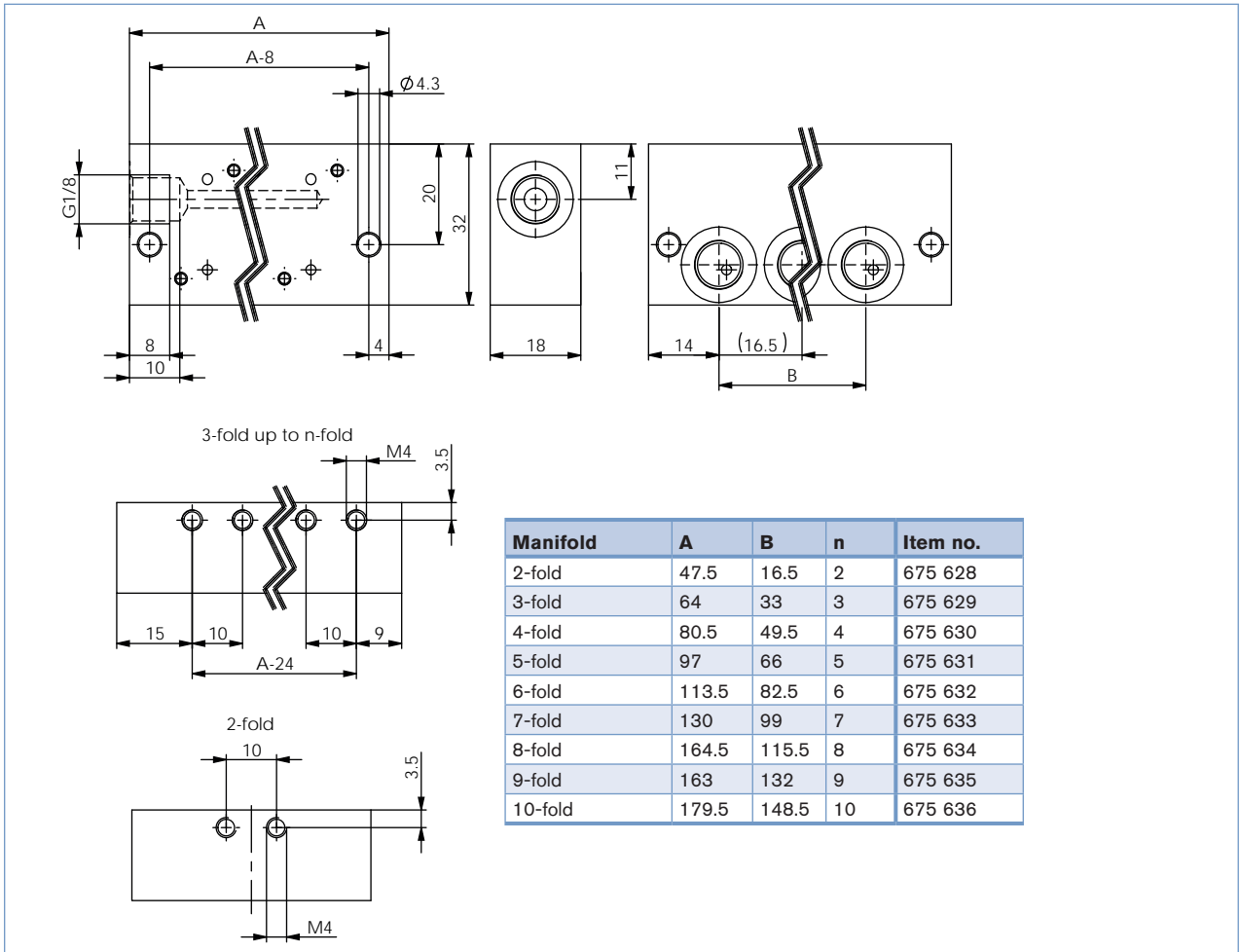




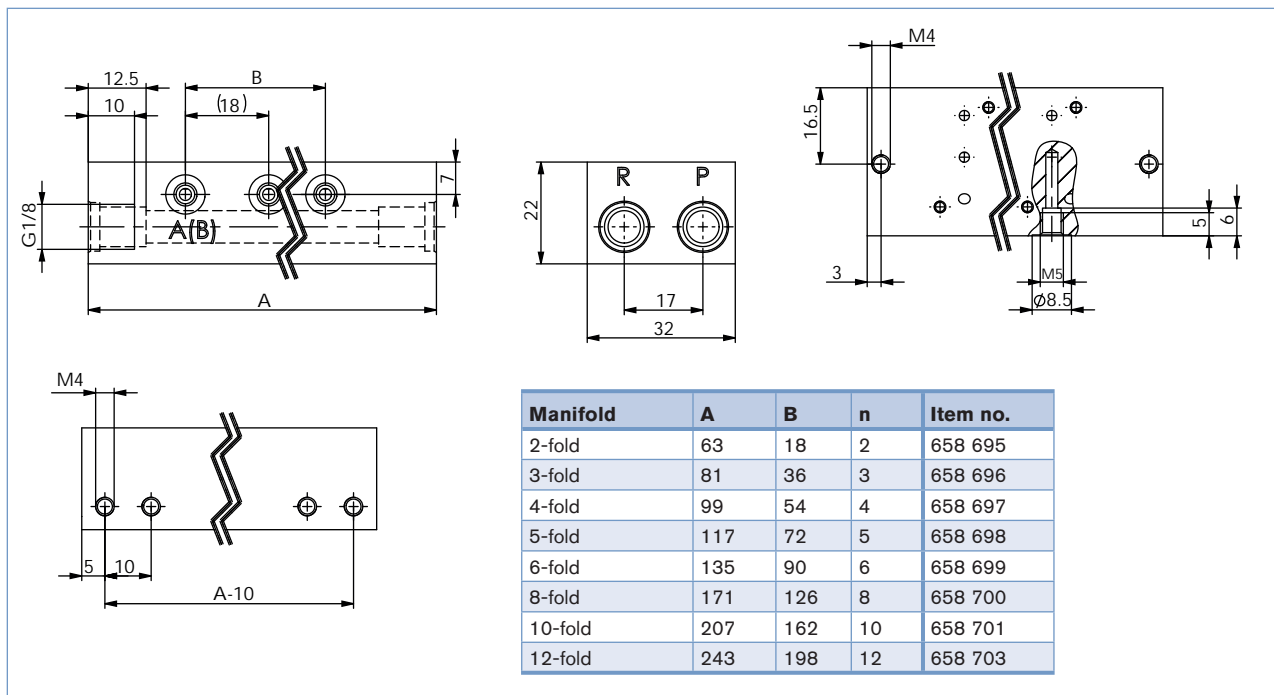
Manifold	A	B	n	Item no.
2-fold	36.25	16.5	2	651 506
3-fold	52.75	33	3	651 510
4-fold	69.25	49.5	4	651 507
5-fold	85.75	66	5	651 508
6-fold	102.25	82.5	6	651 509
7-fold	118.75	99	7	651 521
8-fold	135.25	115.5	8	651 522

**i** Other manifolds on request

Manifolds in PPS for Bürkert flange interface 16 x 27 2-way [mm]



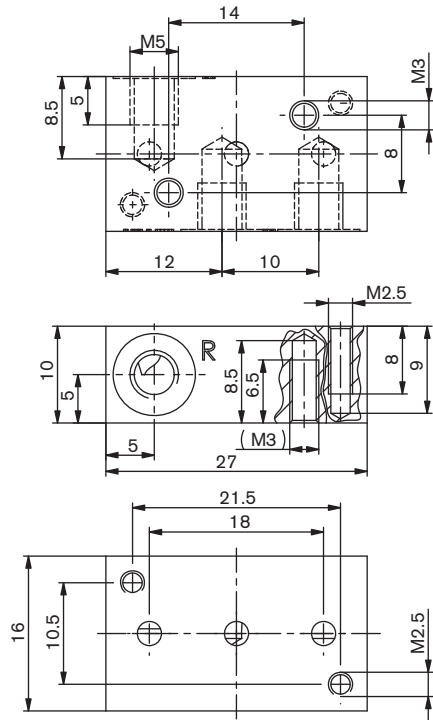
Manifolds in aluminium for Bürkert flange interface 16 x 27 3-way [mm]



**Single manifolds in aluminium for Bürkert flange interface 16 x 27 [mm]**

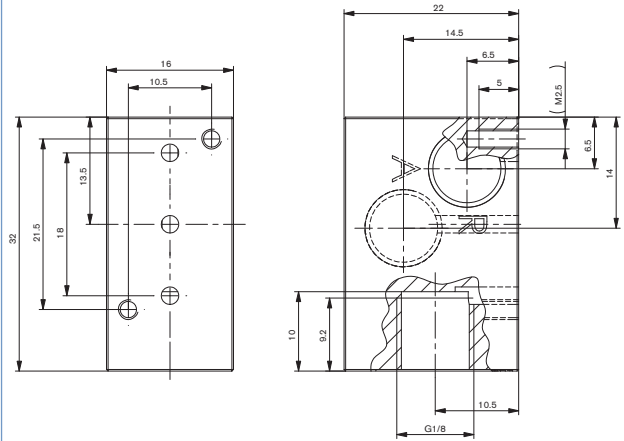
Manifold made from aluminium, black anodized,  
Port connection M5

**Item no.**  
623 873



Manifold made from aluminium, black anodized,  
Port connection G 1/8

**Item no.**  
634 917



**i** Caution: Pay attention to the coil fixing screw length to avoid overrun

**Application examples**

Flying leads unit with flange



Rectangular plug unit with tube connection



Plug on top of unit with threaded port



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In case of special application conditions,  
please consult for advice.

Subject to alterations  
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