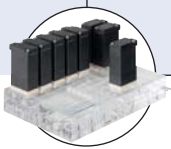
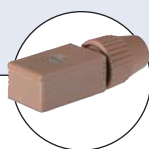
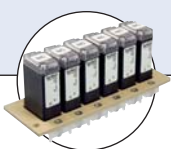




Type 0127 can be combined with...



Manifolds



Type 1054

Cable plug



Type 2505

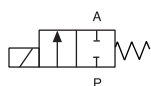
Rectangular cable plug

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

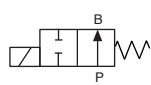
Bürkerts solenoid valve 0127 is considered the pioneer in the controlling of fluids in the microfluidic industry. The valve has been launched in the earlier 90th and has been further developed and improved to meet the increased requirements of the market. The use of the rocker technology, which operates 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



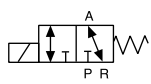
2/2-way valve,
direct-acting,
normally closed

Circuit function B



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

Circuit function T



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

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

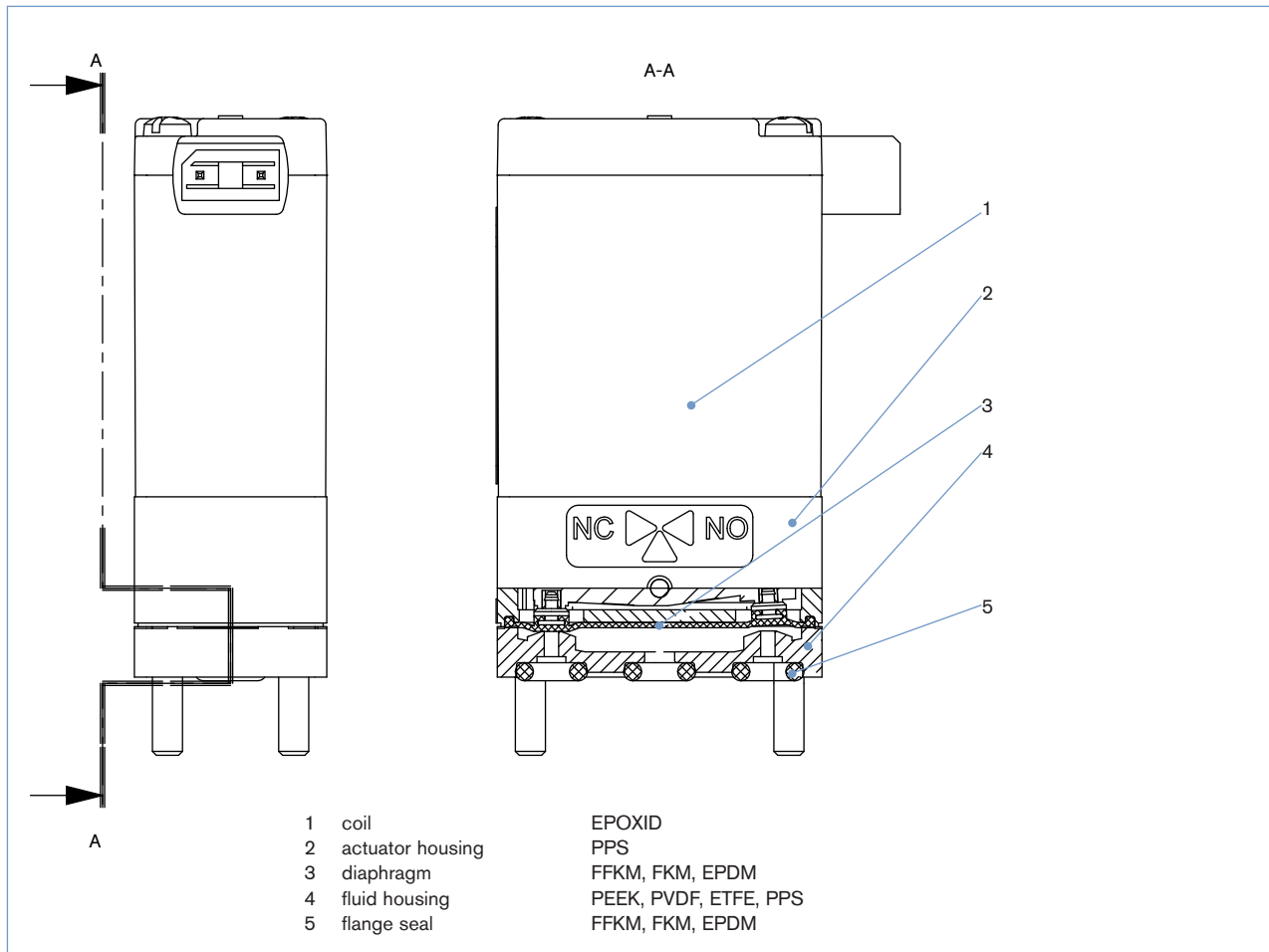
¹⁾ Temperature may vary depending on orifice and seal material. For further information see on page 2.

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

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

⁴⁾ Other electric connectors and other cable lengths upon request.

Materials



Detailed medium temperature (depending on material and orifice)

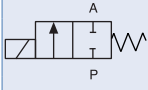
	Orifice	Seal material	Temperature range
media temperature	DN 0.8	FFKM	+5 to +50 °C
	DN 0.8	FKM	0 to +50 °C
	DN 0.8	EPDM	-5 to +50 °C
	DN 1.2 & 1.6	FFKM	+10 to +50 °C
	DN 1.2 & 1.6	FKM	+5 to +50 °C
	DN 1.2 & 1.6	EPDM	0 to +50 °C
media temperature with limitation on switching time and life expectancy	DN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

¹⁾ 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 ³ /h]	Cv value [gal/min]	Q _{Nn} value air [l/min]	Pressure range [bar] ¹⁾	Seal material	Fluid housing material	Electrical connection	Voltage/frequency [V/Hz] ²⁾	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 ³⁾	FFKM	ETFE	leads, 0.5 m	12/DC	457 785								
									rectangular plug	24/DC	276 702								
									1.2	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
									1.5	UNF 1/4" - 28	0.025	0.029	27	0-5	FFKM	PEEK	leads, 0.5 m	12/DC	244 706
	UNF 1/4" - 28	0.03	0.035	33	0-2 ³⁾	FFKM	ETFE	leads, 0.5 m									24/DC	120 680	
								rectangular plug									24/DC	276 733	
	1.6	G1/8	0.05	0.058	54	0-2	FFKM	PVDF	leads, 0.5	24/DC	136 366								
									rectangular plug	24/DC	120 677								
									NPT1/8	0.05	0.058	54	0-2	FFKM	PVDF	rectangular plug	24/DC	272 153	
																UNF 1/4" - 28	0.03	0.035	33
									Sub-base	0.045	0.052	49	0-2	FFKM	PVDF				
PEEK																leads, 0.5 m	24/DC	276 738	
Tube connection									0.045	0.052	49	0-2 ³⁾	FFKM	PVDF	rectangular plug	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		
B	1.5	UNF 1/4" - 28	0.03	0.035	33	0-2	FFKM	ETFE	leads, 0.5 m	24/DC	272 154								
									rectangular plug	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	24/DC	120 684
Sub-base	0.045	0.052	49	0-2	EPDM	PPS	rectangular plug	24/DC	276 747										
							T	Sub-base	0.015	0.017	16	0-6	FFKM	PEEK	leads, 0.5 m	24/DC	120 682		
rectangular plug	24/DC	272 158																	
1.0	UNF 1/4" - 28	0.02	0.023	22	0-2	FFKM									ETFE	leads, 0.5 m	24/UC	079 901	
																rectangular plug	24/DC	276 751	
																1.2	Sub-base	0.03	0.035
rectangular plug	24/DC	272 156																	
1.5	UNF 1/4" - 28	0.03	0.035	33	0-2	FFKM									ETFE	leads, 0.5	24/DC	121 781	
																rectangular plug	24/DC	262 461	
																rectangular plug	24/DC	276 753	
1.6	G1/8	0.05	0.058	54	0-2	FFKM									PVDF	leads, 0.5 m	24/DC	276 754	
																rectangular plug	24/DC	276 756	
																NPT1/8	0.05	0.058	54
							UNF 1/4" - 28	0.03	0.035	33	0-2	FFKM	PEEK	rectangular plug					
														Sub-base		0.045	0.052	49	0-2
							PEEK	leads, 0.5 m	24/DC	272 158									
							Tube connection	0.045	0.052	49	0-2	FFKM	PVDF	leads, 0.5 m		24/DC	079 901		
														rectangular plug		24/DC	120 679		
														rectangular plug		24/DC	272 156		
														leads, 0.5 m		24/DC	120 685		

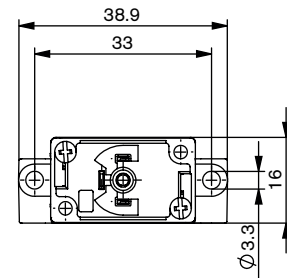
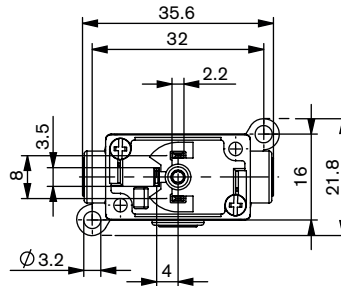
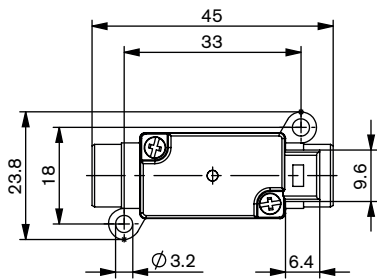
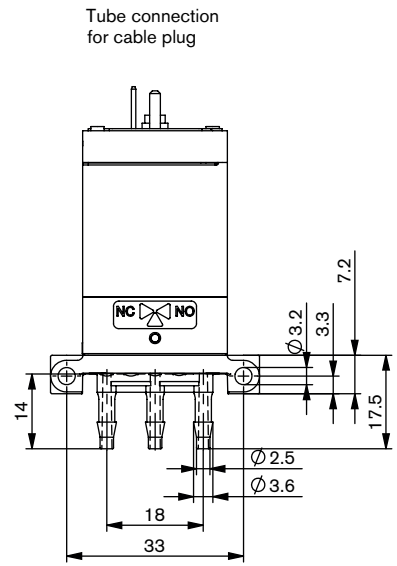
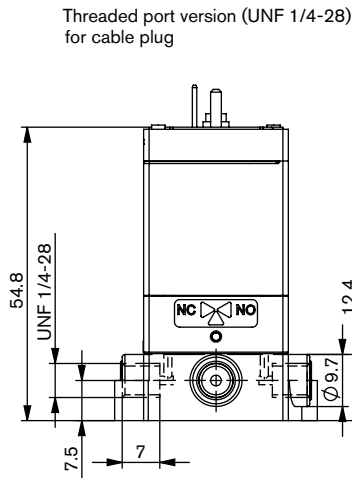
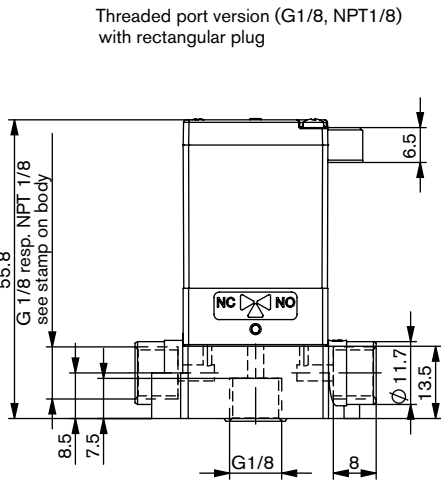
¹⁾ Overpressure with respect to atmospheric pressure. On request different pressure ranges available.

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

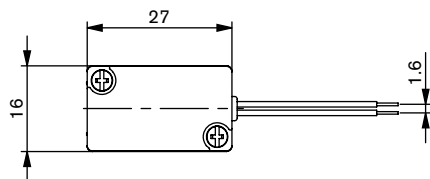
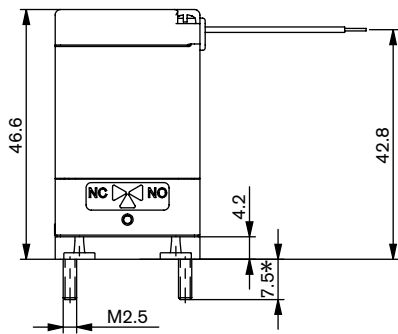
³⁾ Maximum back pressure 1 bar.

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

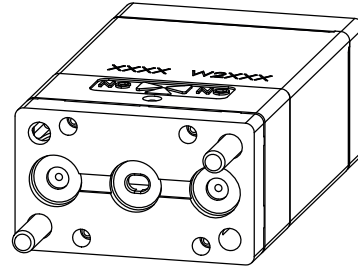
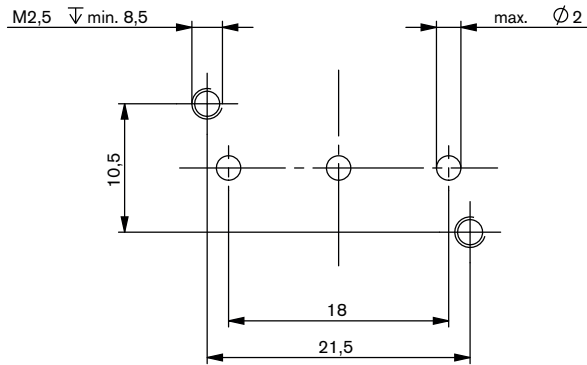
3/2-way-valve, normally open (circuit function T)
inflow at "NO"-connector

flange interfaces at page 5.

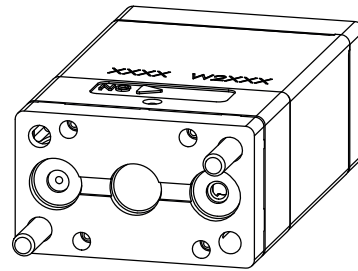
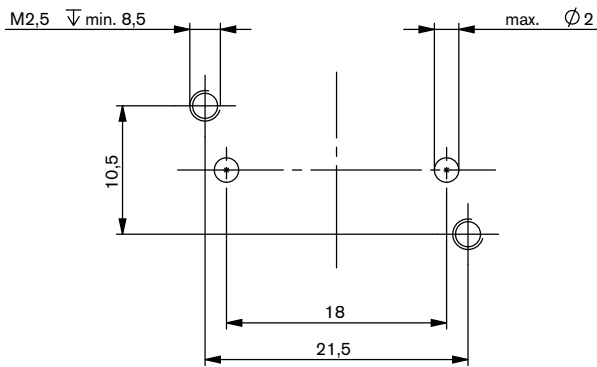
* Other screw length on request.
Self-tapping screws on request.
When selecting a connection plate the screw head overtap has to be considered

Overview flange interfaces 16 x 27 mm

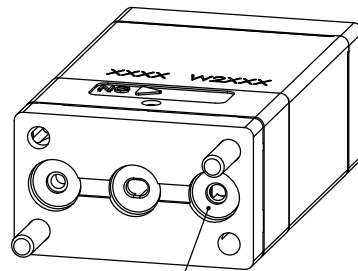
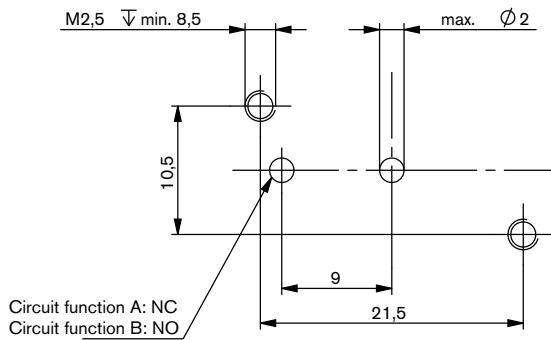
bürkert flange interface FB23 - 3-way (standard)



bürkert flange interface FB43 - 2-way (standard)







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

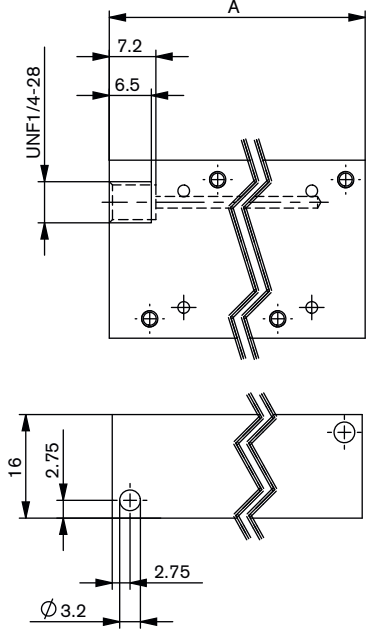


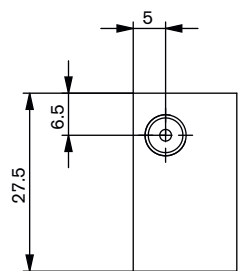
i On request available with anti-twist device

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]

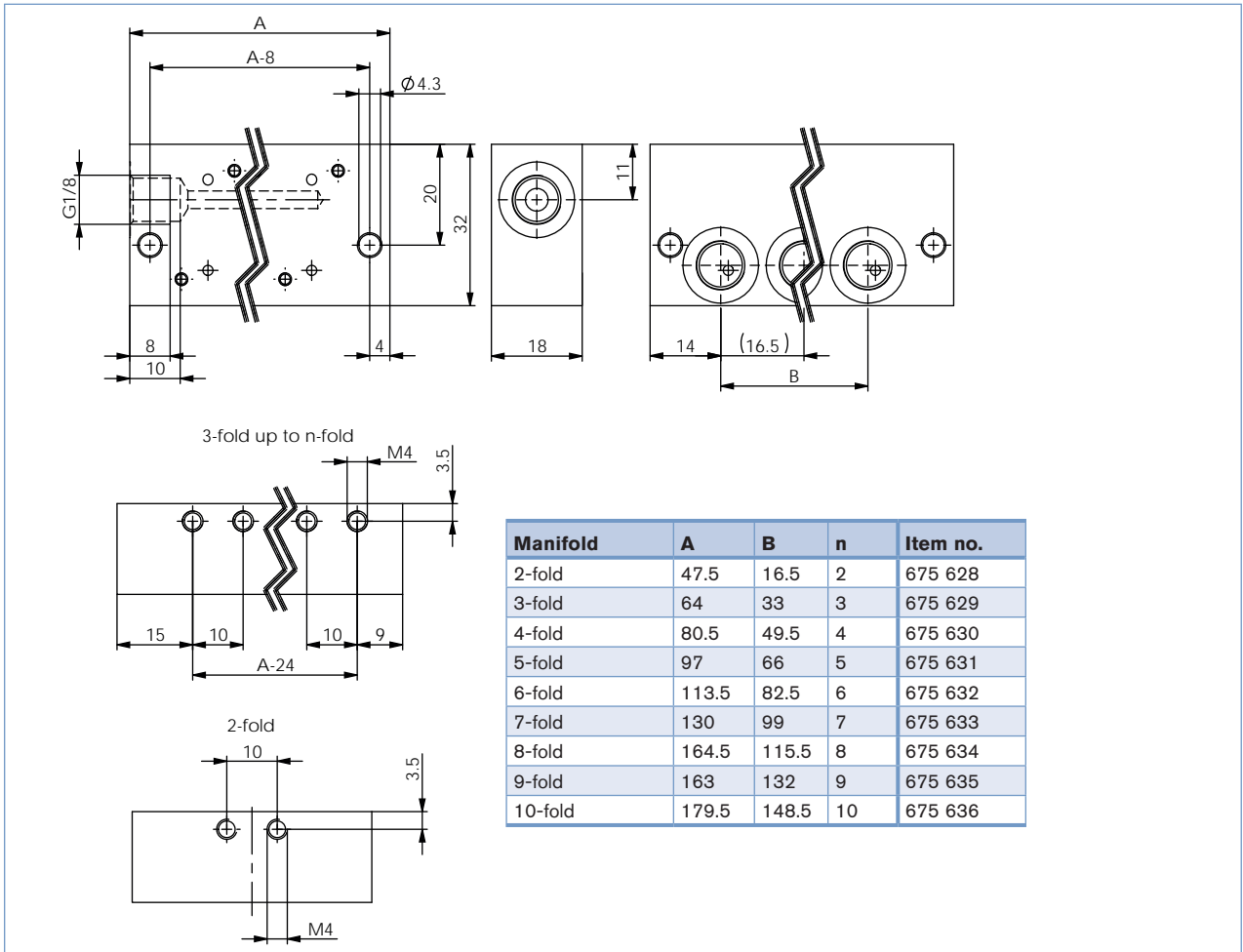




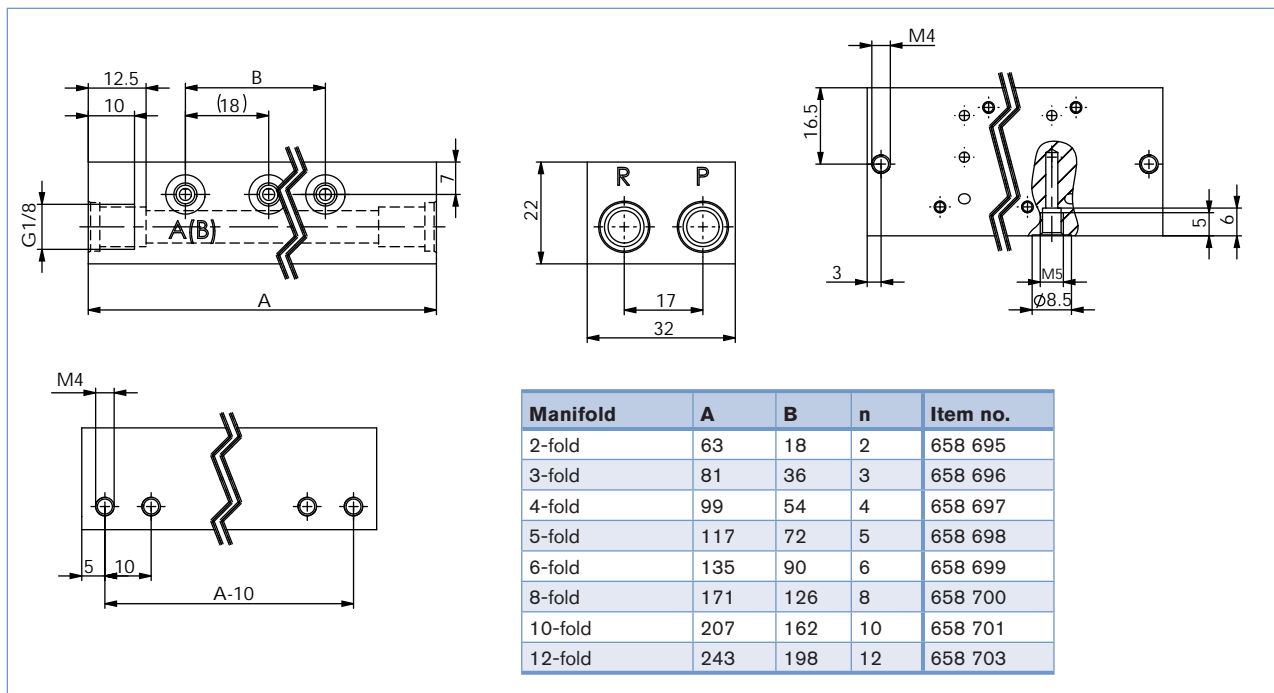
Manifold	A	B	n	Item no.
2-fold	36.25	16.5	2	651 506
3-fold	52.75	33	3	651 510
4-fold	69.25	49.5	4	651 507
5-fold	85.75	66	5	651 508
6-fold	102.25	82.5	6	651 509
7-fold	118.75	99	7	651 521
8-fold	135.25	115.5	8	651 522

i Other manifolds on request

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



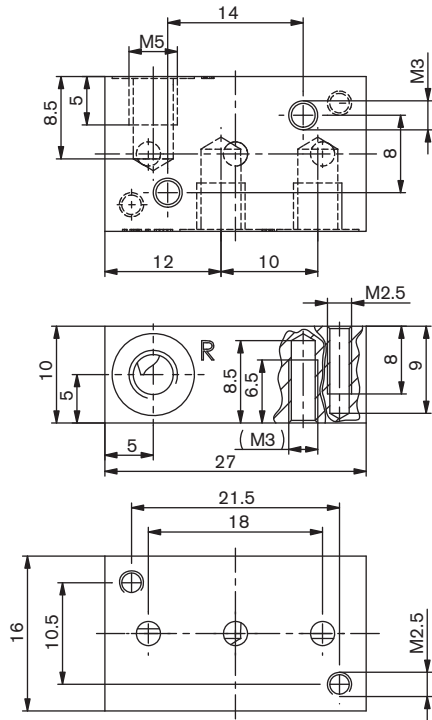
Manifolds in aluminium for Bürkert flange interface 16 x 27 3-way [mm]



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

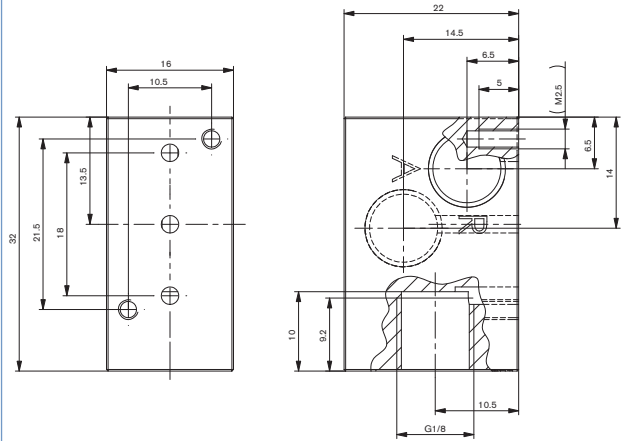
Manifold made from aluminium, black anodized,
Port connection M5

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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www.buerkert.com

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

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