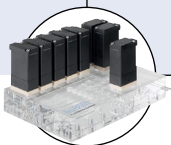


2/2 or 3/2 way Miniature Rocker Solenoid Valve



Type 0127 can be combined with...



Manifolds



Type 1054

Cable plug

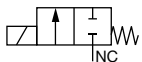


Type 2505

Rectangular cable plug

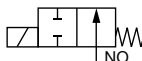
Bürkerts solenoid valve 0127 is considered the pioneer in the controlling of fluids in the microfluidic industry. The valve has been launched in the earlier 90th and has been further developed and improved to meet the increased requirements of the market. The use of the rocker technology, which operates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

Circuit function B



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

Circuit function T



3/2 way direct-acting solenoid valve, flow direction optional

Technical data	
Orifice [mm]	DN0.8 - DN1.6 (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	with sub-base starting at 44 µl with G 1/8 and NPT 1/8 starting at 100 µl with UNF 1/4"-28 starting at 25 µl with tube spigot starting at 33 µl on request < 10 µl ³⁾
Port connection	Bürkert sub-base (16 x 27 mm), G 1/8, NPT 1/8, 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	IP54 with flying leads and single cable plug IP40 with Rectangular plug
Response times	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 %)

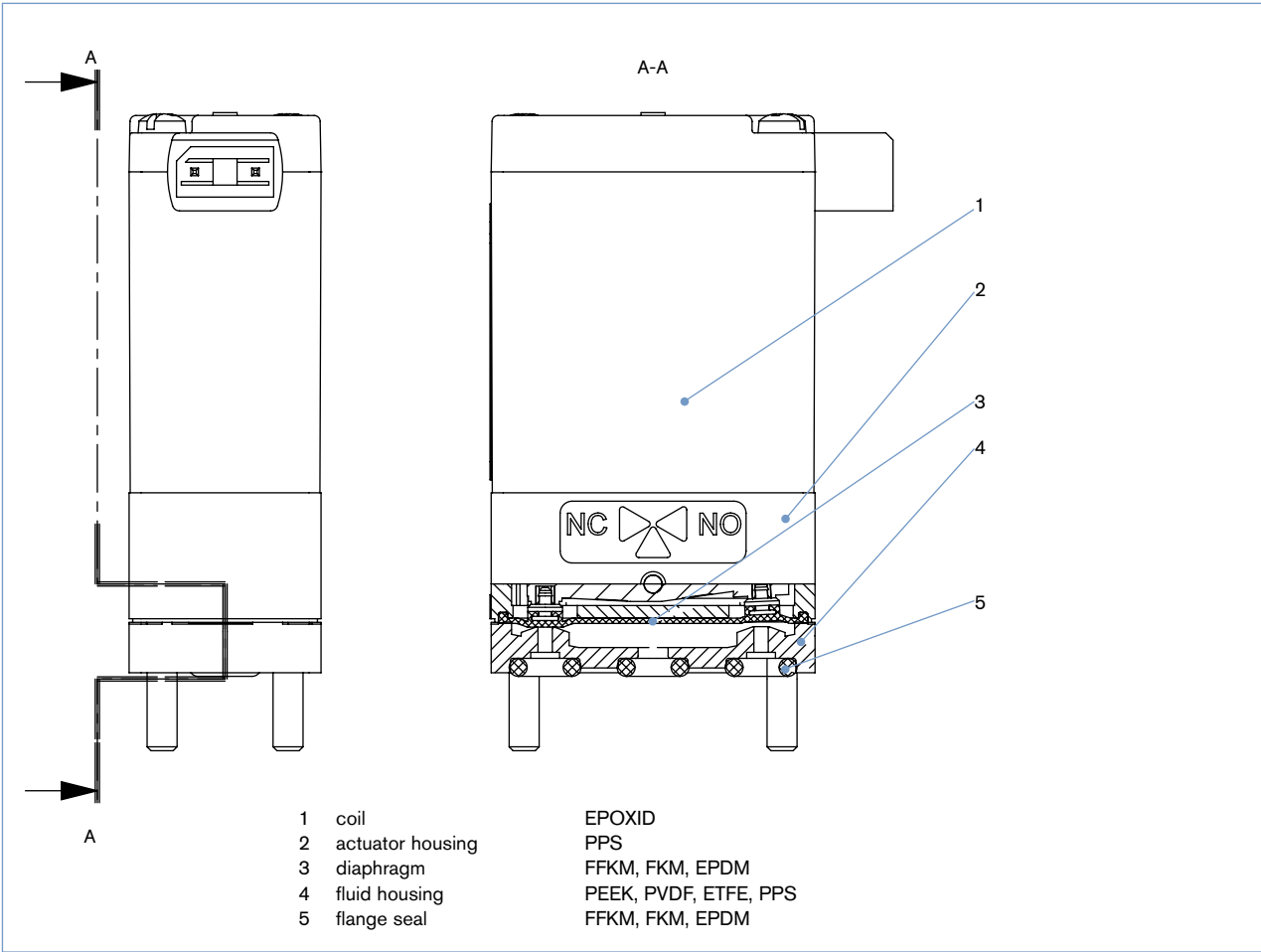
¹⁾ Temperature may vary depending on orifice and seal material. For further information see on page 2.

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)

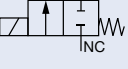
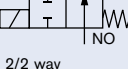
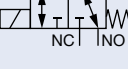
	Orifice	Seal material	Temperature range
media temperature	DN0.8	FFKM	+5 to +50 °C
	DN0.8	FKM	0 to +50 °C
	DN0.8	EPDM	-5 to +50 °C
	DN1.2 & 1.6	FFKM	+10 to +50 °C
	DN1.2 & 1.6	FKM	+5 to +50 °C
	DN1.2 & 1.6	EPDM	0 to +50 °C
media temperature with limitation on switching time and life expectancy	DN0.8	FFKM	0 to +50 °C
	DN0.8	FKM	-5 to +55 °C
	DN0.8	EPDM	-10 to +50 °C
	DN1.2 & 1.6	FFKM	+5 to +50 °C
	DN1.2 & 1.6 ¹⁾	FKM	0 to +55 °C
	DN1.2 & 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	K _v value water [m³/h]	C _v value [gal/min]	Q _m value air [l/min]	Pressure range [bar] ¹⁾	Seal material	Fluid housing material	Electrical connection	Voltage/frequency [V/Hz] ²⁾	Article no.
A  2/2 way direct-acting solenoid valve, normally closed	0.8	Sub-base	0.015	0.017	16	0-6	FFKM	PEEK	leads, 0.5 m	24/DC	276699 
							FKM	PPS	leads, 0.5 m	24/DC	264327 
							EPDM	PPS	rectangular plug	24/DC	276701 
	1.0	UNF 1/4" -28	0.02	0.023	22	0-2 ³⁾	FFKM	ETFE	leads, 0.5 m	12/DC	457785 
									rectangular plug	24/DC	276702 
	1.2	Sub-base	0.03	0.035	32	0-5	FFKM	PEEK	leads, 0.5 m	24/DC	276703 
									rectangular plug	24/DC	276710 
									leads, 0.5 m	24/DC	276718 
	1.5	UNF 1/4" -28	0.03	0.035	33	0-2 ³⁾	FFKM	ETFE	leads, 0.5 m	12/DC	244706 
									rectangular plug	24/DC	276733 
									cable plug	24/UC	136366 
	1.6	G 1/8	0.05	0.058	54	0-2	FFKM	PVDF	leads, 0.5 m	24/DC	120677 
									rectangular plug	24/DC	272153 
		NPT 1/8	0.05	0.058	54	0-2	FFKM	PVDF	rectangular plug	24/DC	272160 
		UNF 1/4" -28	0.03	0.035	33	0-2	FFKM	PEEK	leads, 0.5 m	24/DC	463551 
		Sub-base	0.045	0.052	49	0-2	FFKM	PVDF	leads, 0.5 m	24/DC	276738 
									leads, 0.5 m	24/DC	242451 
									rectangular plug	24/DC	273398 
		Tube connection	0.045	0.052	49	0-2 ³⁾	FFKM	PVDF	rectangular plug	12/DC	276746 
									leads, 0.5 m	24/DC	455390 
									rectangular plug	24/DC	272154 
B  2/2 way direct-acting solenoid valve, normally open	1.5	UNF 1/4" -28	0.03	0.035	33	0-2	FFKM	ETFE	leads, 0.5 m	24/DC	120681 
	1.6	G 1/8	0.05	0.058	54	0-2	FFKM	PVDF	leads, 0.5 m	24/DC	120678 
		Tube connection	0.045	0.052	49	0-2 ³⁾	FFKM	PVDF	leads, 0.5 m	24/DC	120684 
		Sub-base	0.045	0.052	49	0-2	EPDM	PPS	rectangular plug	24/DC	276747 
T  3/2 way direct-acting solenoid valve, flow direction optional	0.8	Sub-base	0.015	0.017	16	0-6	FFKM	PEEK	leads, 0.5 m	24/DC	276748 
							FKM	PPS	rectangular plug	24/DC	276749 
							EPDM	PPS	rectangular plug	24/DC	276750 
	1.0	UNF 1/4" -28	0.02	0.023	22	0-2	FFKM	ETFE	leads, 0.5 m	24/UC	214280 
									rectangular plug	24/DC	276751 
	1.2	Sub-base	0.03	0.035	32	0-5	FFKM	PEEK	leads, 0.5 m	24/DC	276753 
									rectangular plug	24/DC	276754 
									leads, 0.5 m	24/DC	276756 
	1.5	UNF 1/4" -28	0.03	0.035	33	0-2	FFKM	ETFE	leads, 0.5 m	24/DC	276758 
									rectangular plug	24/DC	269045 
									cable plug	24/DC	269045 
	1.6	G 1/8	0.05	0.058	54	0-2	FFKM	PVDF	leads, 0.5 m	24/DC	120682 
									rectangular plug	24/DC	272158 
									cable plug	24/UC	079901 
		NPT 1/8	0.05	0.058	54	0-2	FFKM	PVDF	leads, 0.5 m	24/DC	120679 
									rectangular plug	24/DC	272156 
		Sub-base	0.045	0.052	49	0-2	FFKM	PVDF	leads, 0.5 m	24/DC	121781 
									rectangular plug	24/DC	262461 
									leads, 0.5 m	24/DC	460264 
	Tube connection	0.045	0.052	49	0-2	FFKM	PVDF	PVDF	rectangular plug	24/DC	271604 
									rectangular plug	24/DC	276759 
									leads, 0.5 m	24/DC	120685 
									rectangular plug	24/DC	272157 

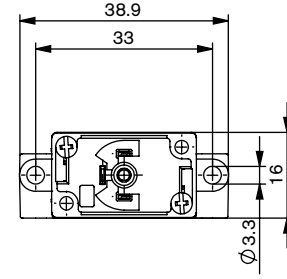
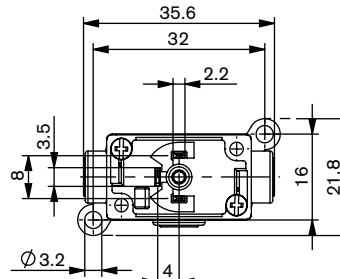
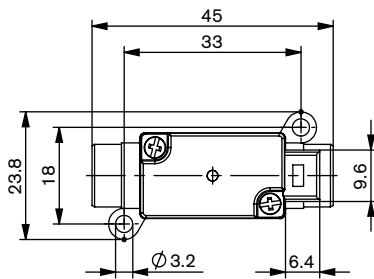
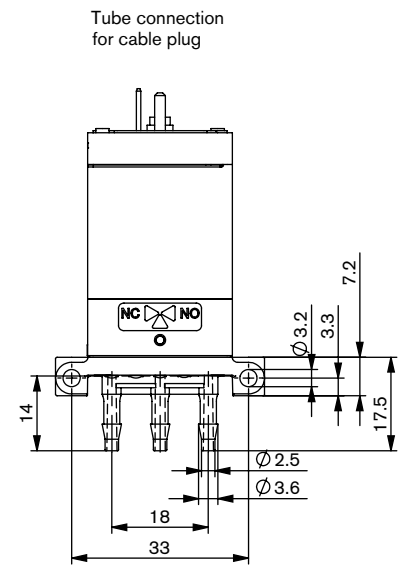
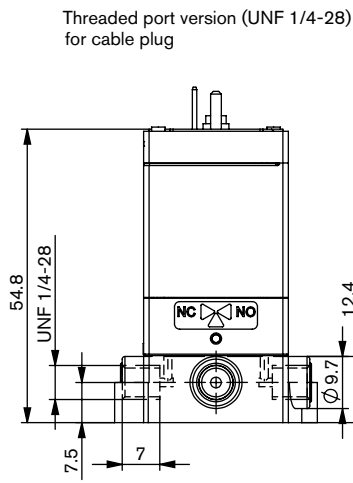
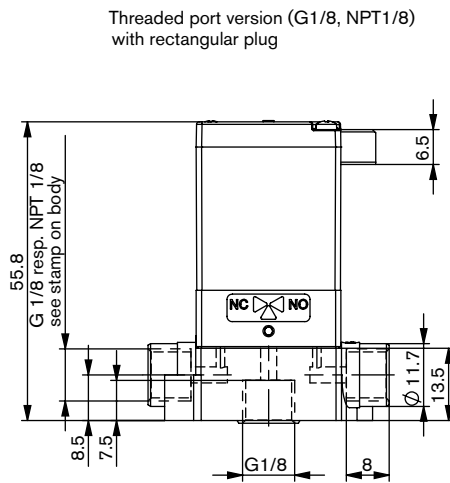
¹⁾ Overpressure with respect to atmospheric pressure. On request different pressure ranges available.

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

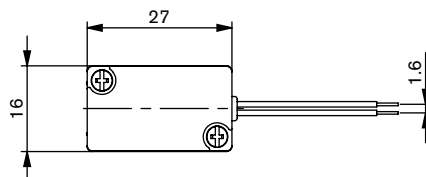
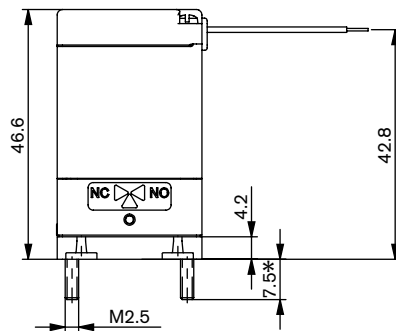
³⁾ Low dead-volume version, maximum back pressure 1 bar.

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

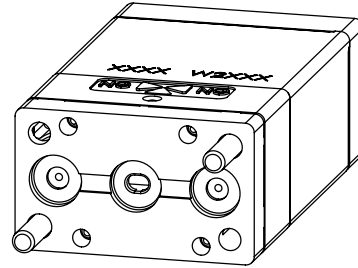
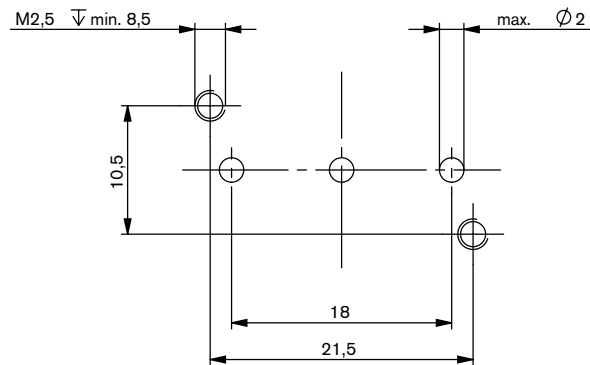
3/2-way-valve, normally open (circuit function T)
inflow at "NO"-connector

flange interfaces at page 5.

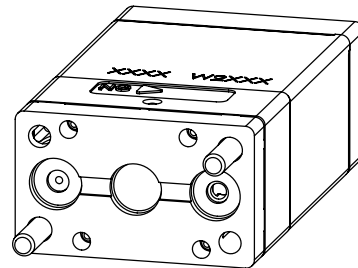
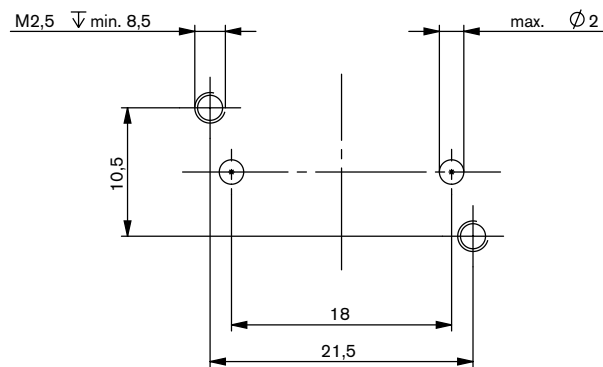
* Other screw length on request.
Self-tapping screws on request.
When selecting a connection plate the
screw head overlap has to be considered

Overview flange interfaces 16 x 27 mm

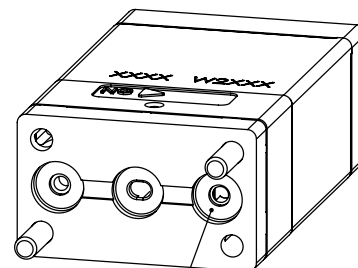
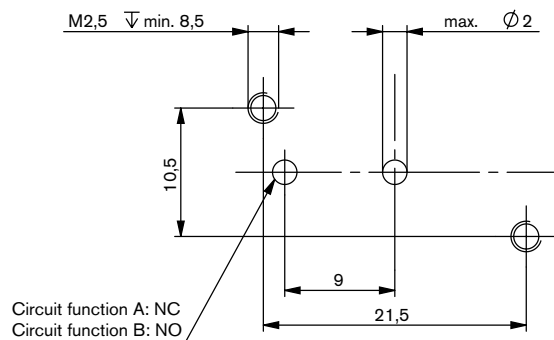
bürkert flange interface FB23 - 3-way (standard)



bürkert flange interface FB43 - 2-way (standard)



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

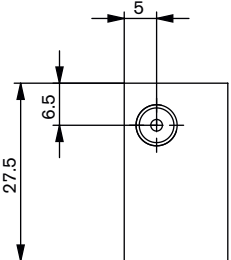
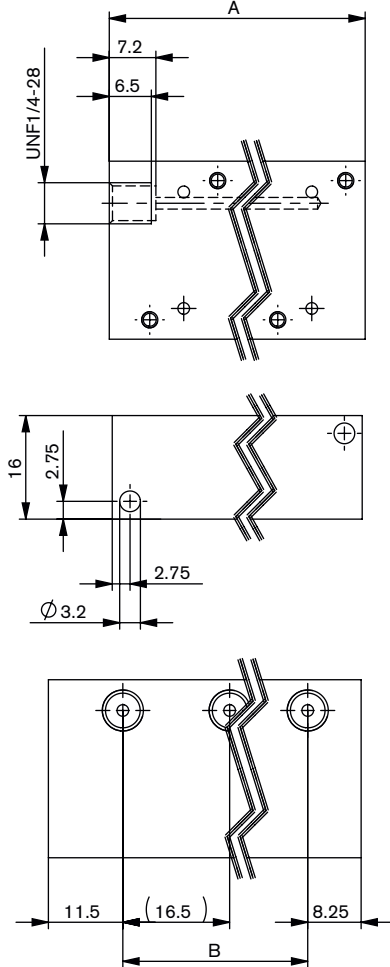


i On request available with anti-twist device

Ordering chart Accessories

	Accessory	Article no.
	Cable plug type 1054 (without cable)	006699 
	Cable plug type 1054 with 3 m cable	413552 
	Rectangular plug type 2505 with 3 m cable	252572 
	Rectangular plug type 2505 with 300 mm flying leads	262346 

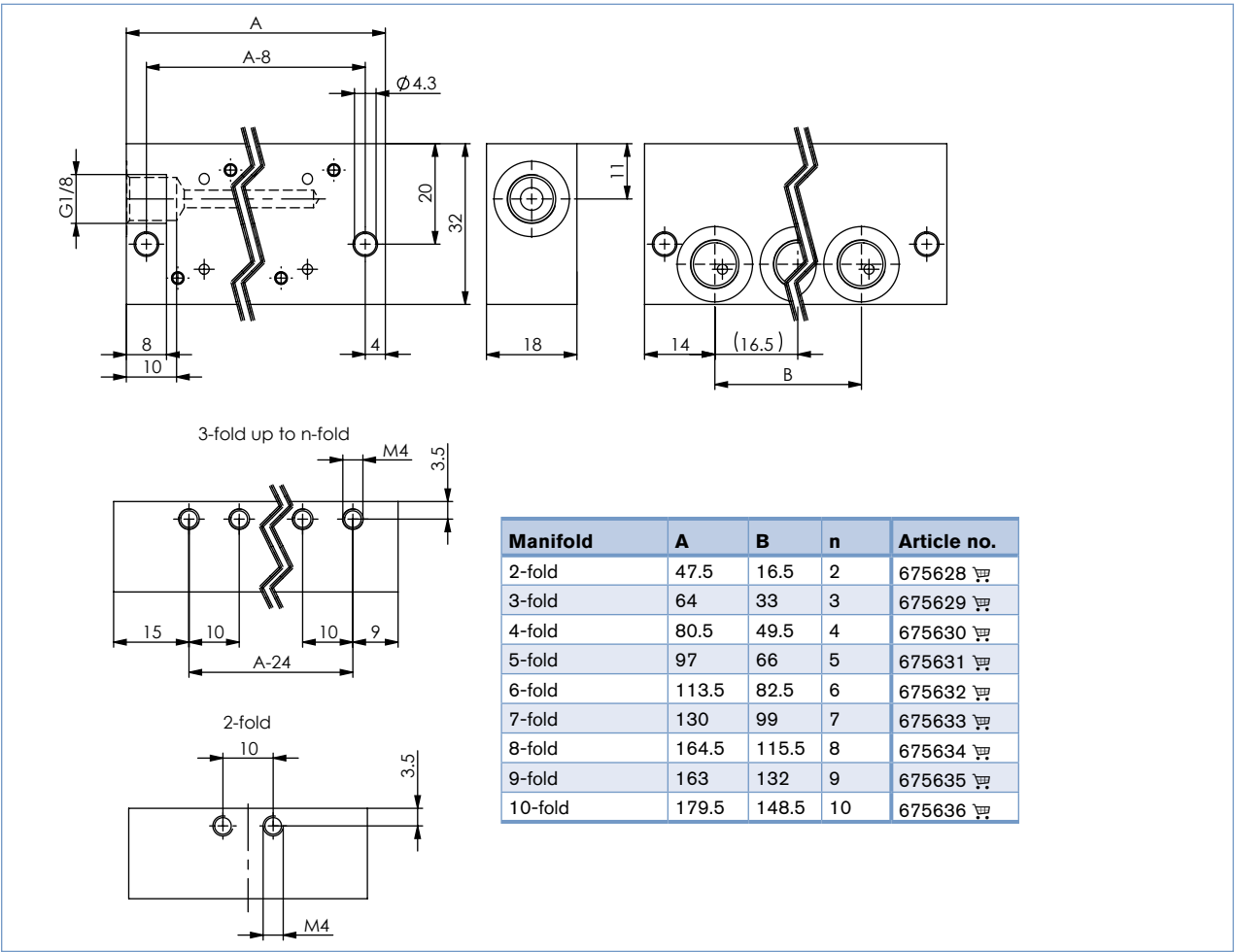
Manifolds in PEEK for Bürkert flange interface 16 × 27 2-way [mm]



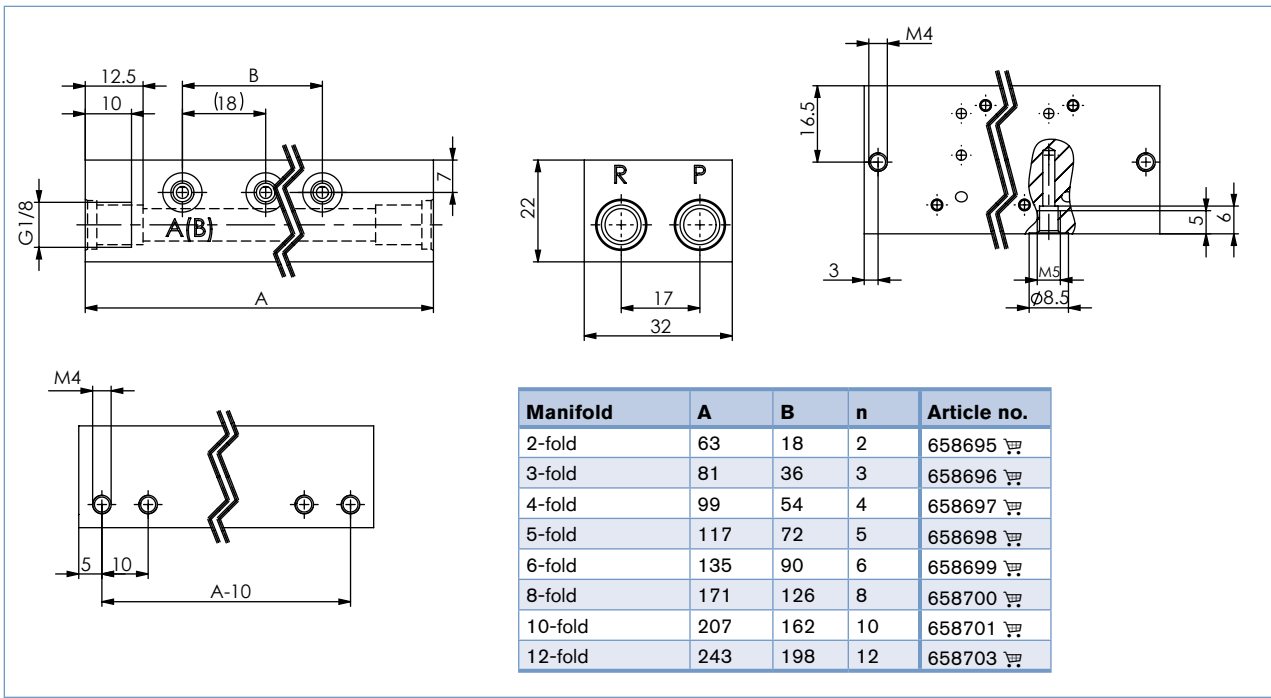
Manifold	A	B	n	Article no.
2-fold	36.25	16.5	2	651506 
3-fold	52.75	33	3	651510 
4-fold	69.25	49.5	4	651507 
5-fold	85.75	66	5	651508 
6-fold	102.25	82.5	6	651509 
7-fold	118.75	99	7	651521 
8-fold	135.25	115.5	8	651522 

 Other manifolds on request

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



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

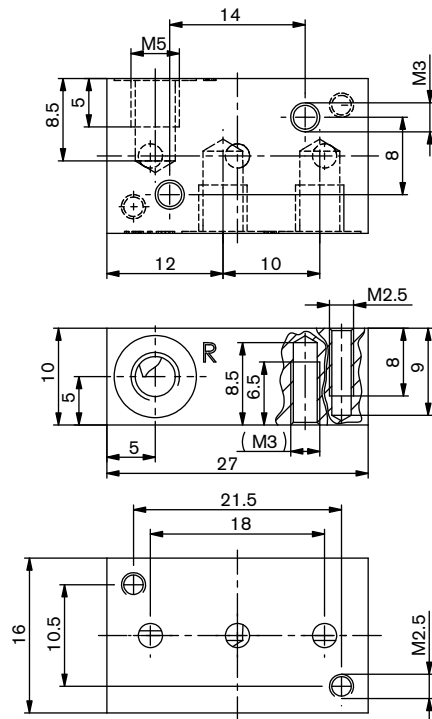


Single manifolds in aluminium for Bürkert flange interface 16 × 27 [mm]

Manifold made from aluminium, black anodized,
Port connection M5

Article no.

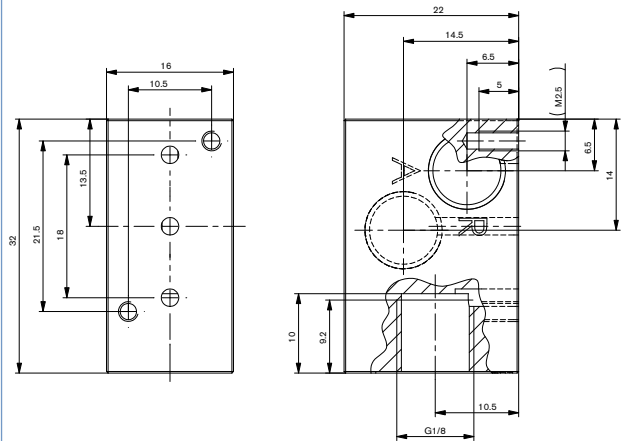
623873



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

Article no.

634917



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

Application examples

Flying leads unit with flange



Rectangular plug unit with tube connection



Plug on top of unit with threaded port



To find your nearest Bürkert facility, click on the orange box → www.buerkert.com

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

Subject to alterations
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