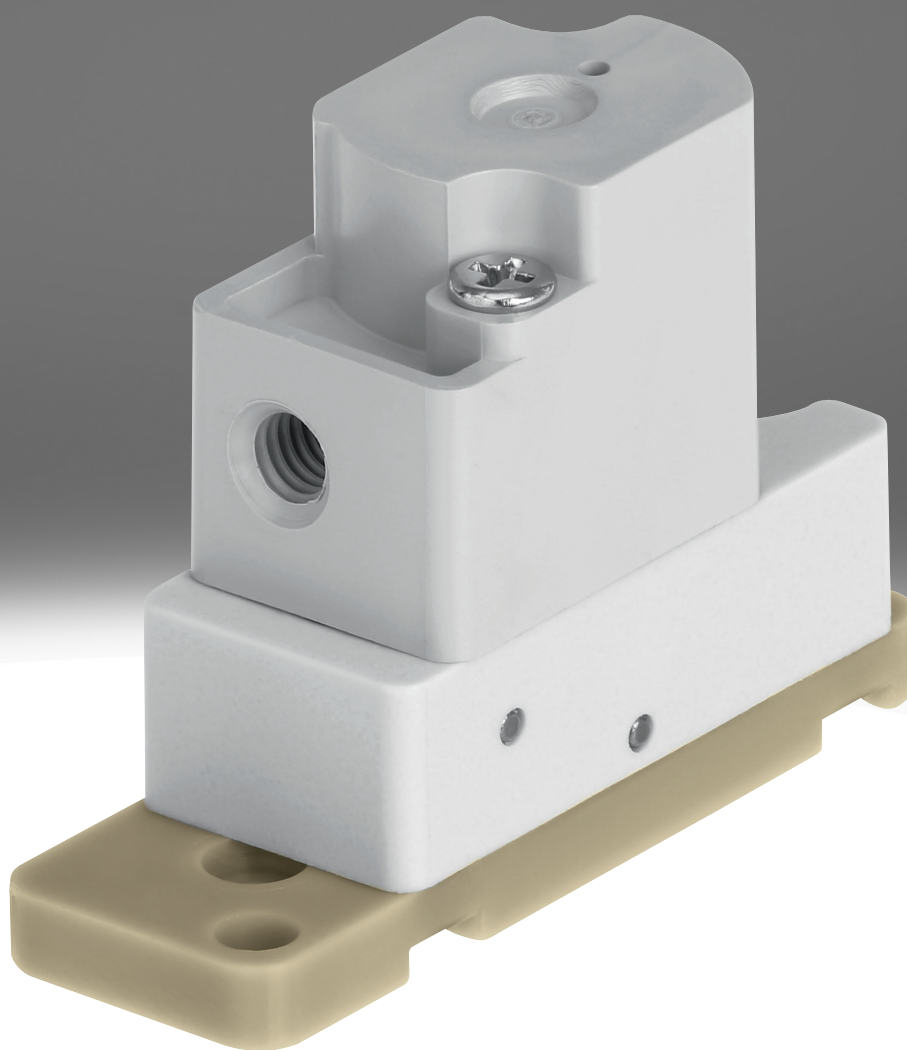


Media separated pneumatic valve VZDB

FESTO



Characteristics

At a glance

[Link !\[\]\(99f58673407353e96a019fbca558fd72_img.jpg\) vzdb](#)

Special characteristics:

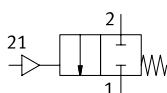
- Very easy to clean thanks to media separation
- Low media consumption thanks to small internal volume
- High-quality materials, therefore also suitable for aggressive media
- High flow rate with small size
- High repetition accuracy, switching frequency and precision, therefore also suitable for extremely small volumes and dispensing tasks
- Very flexible in use thanks to 3/2-way and 2/2-way variants

Function:

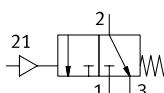
- VZDB is a media separated pneumatic valve. It is used to control gaseous and liquid media in the laboratory.
- The valve VZDB is a pilot-operated pneumatic valve. A closed (2/2-way solenoid valve and 3/2-way solenoid valve) or an open normal position (3/2-way solenoid valve only) are available as variants.

Valve function

[6] 2/2-way valve, normally closed

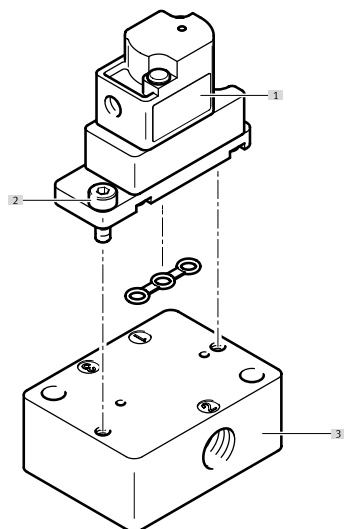


[M32] 3/2-way valve, normally closed or open



Series

[A] Pneumatic valve



[1] Pneumatic valve VZDB

[2] Screws for mounting on the sub-base (included in the scope of delivery)

[3] Sub-base VABS

Type code

001	Series	
VZDB	Diaphragm valves	

002	Directional control valve type	
F	Flanged valve	

003	Size	
10	Size 10	

004	Valve function	
M32	3/2-way valve, normally closed or open	
M22C	2/2-way valve, normally closed	

005	Nominal width	
16	1.6 mm	

006	Pneumatic connection	
M3	M3	

007	Housing material	
P	PEEK	

008	Sealant	
E	EPDM	
F	FFPM	
V	FPM	

Datasheet

General technical data

Valve function	2/2-way, closed, monostable 3/2-way, monostable, open/closed
Design	Rocker valve with diaphragm seal
Type of reset	Mechanical spring
Size	10
Nominal size	1.6 mm
Fluid connection	Flange
Flow rate Kv	0.034 m³/h
Internal volume	35 µl
Sealing principle	Soft
Flow direction	Non-reversible
Type of actuation	Pneumatic
Type of piloting	Pilot actuated
Manual override	None
Type of mounting	Via through-hole for M2 screw
Mounting position	optional
Corrosion resistance class CRC ¹⁾	0 - No corrosion stress
Product weight	7 g

1) More information www.festo.com/x/topic/kbk

Switching time

Max. switching frequency	2 Hz
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Operating and ambient conditions

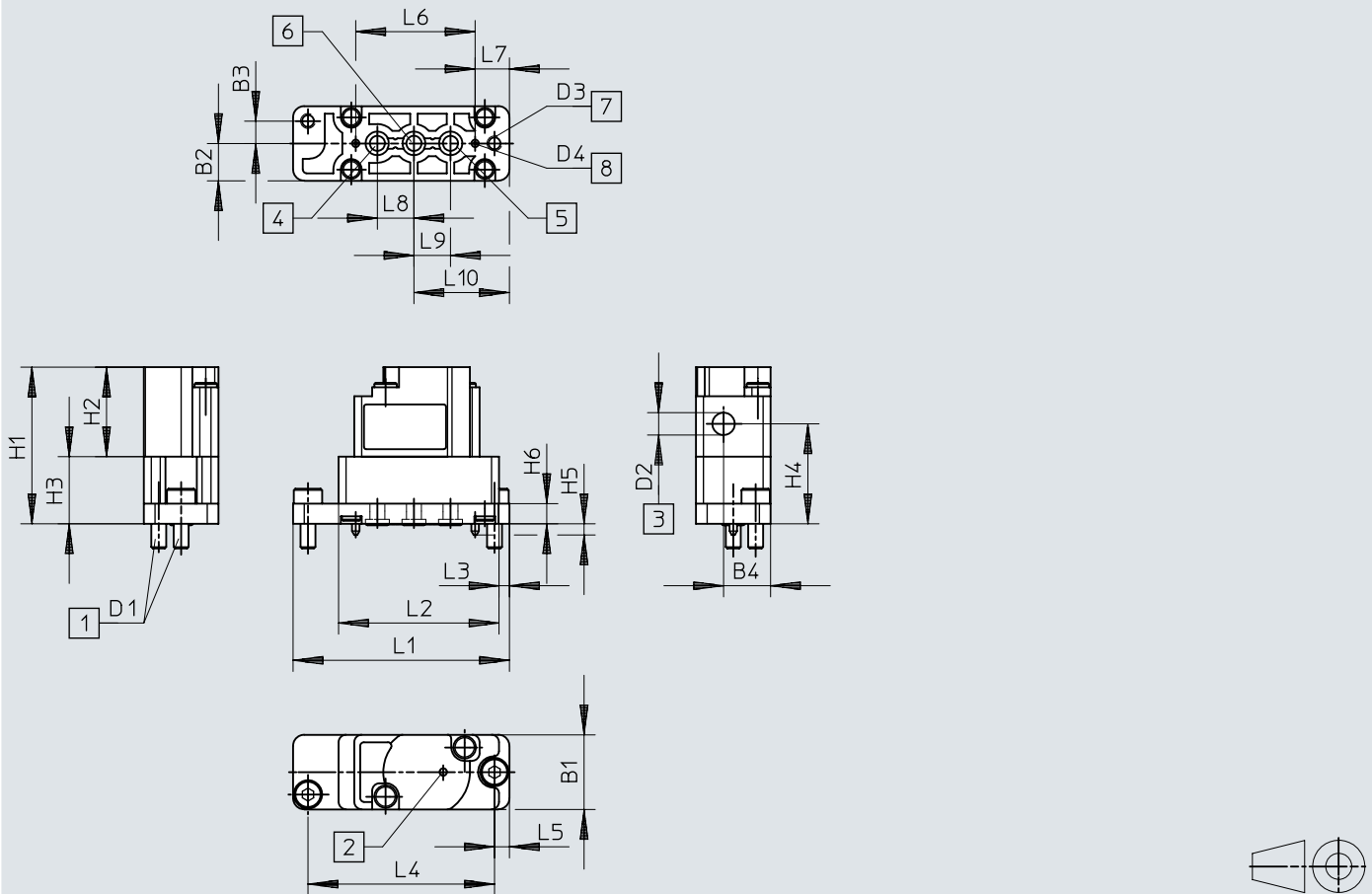
Operating medium	Liquid media Gaseous media
Note on operating and pilot medium	Observe resistance of materials that come into contact with the media Maximum particle size 5 µm
Media temperature	0 ... 50°C
Ambient temperature	0 ... 50°C
Storage temperature	-20 ... 70°C
Operating pressure	-0.075 ... 0.1 MPa
Operating pressure	-0.75 ... 1 bar
Operating pressure	-10.875 ... 14.5 psi
Pilot pressure	0.15 ... 0.3 MPa
Pilot pressure	1.5 ... 3 bar
Pilot pressure	21.75 ... 43.5 psi

Information on materials

Short type code	VABS	VZDB
Material in contact with the medium	—	
Material housing	—	PEEK
Material membrane	—	
Material seals	—	EPDM, FFPM, FPM
Material sub-base	PEEK	—
Note on materials	RoHS-compliant	
LABS (PWIS) conformity	VDMA24364 zone III	

Dimensions

Dimensions – Pneumatic valve VZDB

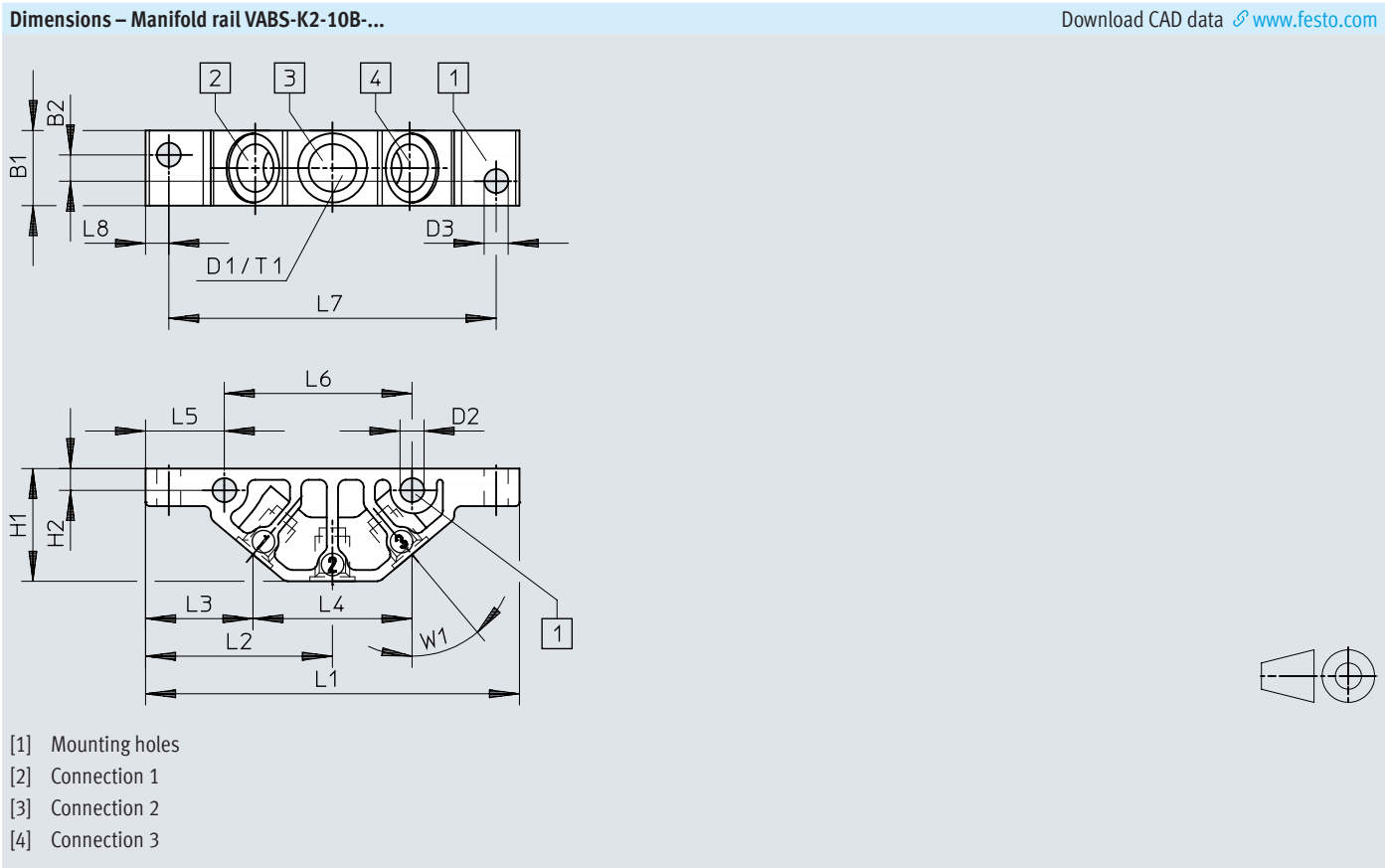
[Download CAD data](http://www.festo.com) www.festo.com


- [1] Retaining screws
- [2] Venting hole
- [3] Pilot air port
- [4] Connection 3
- [5] Connection 1
- [6] Connection 2
- [7] Mounting holes
- [8] Coding pin

	B1	B2	B3	B4	D1	D2	D3 Ø	D4 Ø	H1	H2	H3	H4	H5	H6
VZDB	10	5	3	6,3	0,4	0,5	2,1	1	21	12	9	13,4	1,5	2,7

	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10
VZDB	29	21,5	1,4	25	2	16	4,6	4,9	4,9	12,8

Dimensions

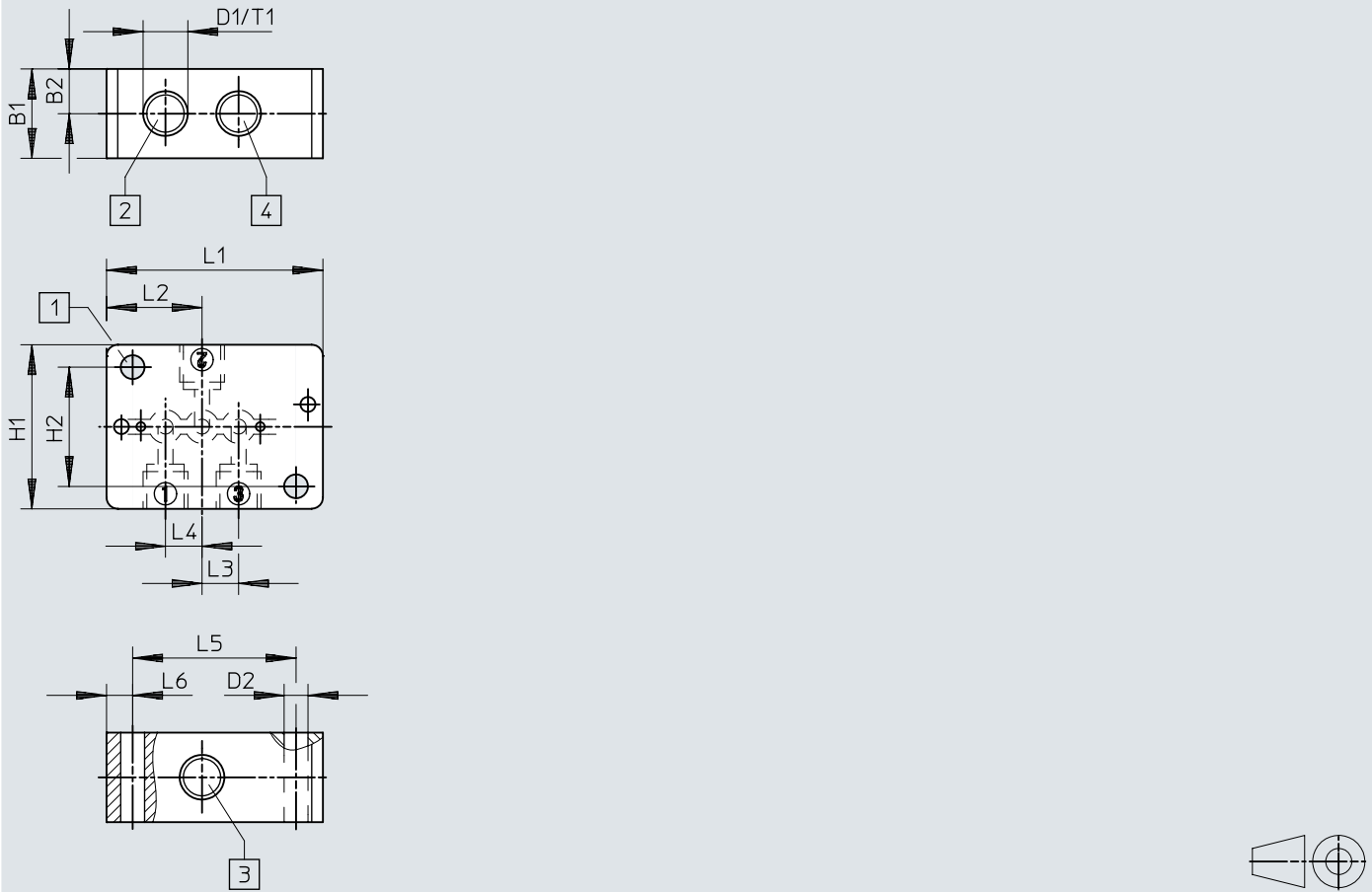


	B1	B2	D1	D2 Ø	D3 Ø	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	T1	W1
VABS-K2-10B-16-M6-P	10	3,5	M6	3,2	3,2	15	2,9	49,8	24,9	14,3	21,2	10,5	25	43,6	3,1	6	40°
VABS-K2-10B-16-U14-P			1/4-28 UNF														

Dimensions

Dimensions – Manifold rail VABS-K2-10S-...

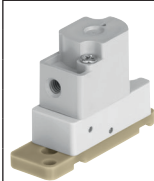
Download CAD data www.festo.com



- [1] Mounting holes
- [2] Connection 1
- [3] Connection 2
- [4] Connection 3

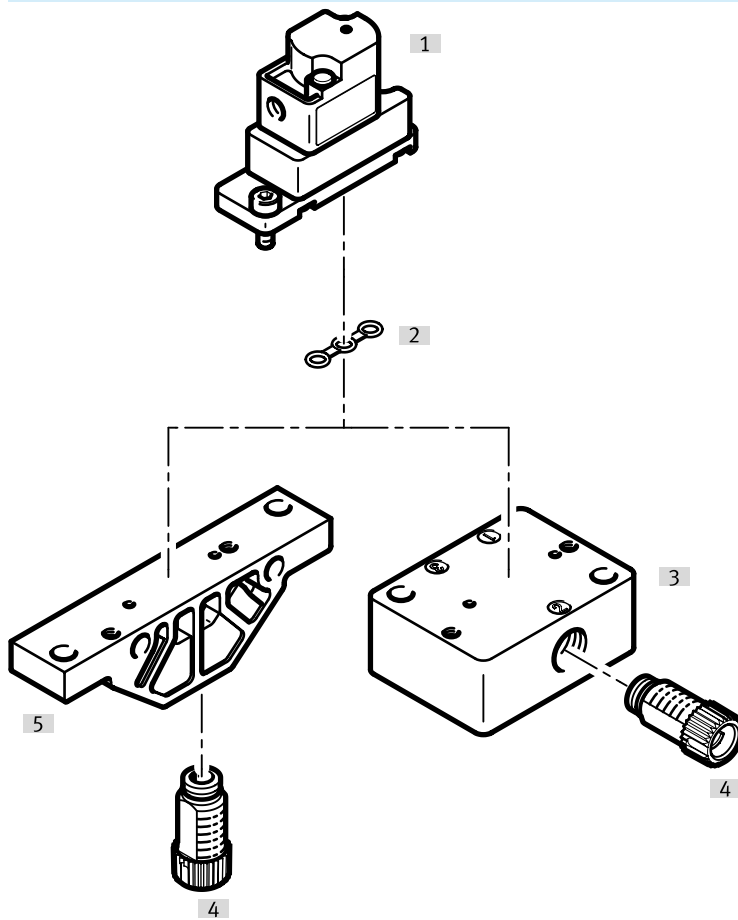
	B1	B2	D1	D2 Ø	H1	H2	L1	L2	L3	L4	L5	L6	T1
VABS-K2-10S-16-M6-P	12	6	M6	3,2	22	16	29	12,8	4,9	4,9	21,9	3,5	6
VABS-K2-10S-16-U14-P			1/4-28 UNF										

Ordering data

Pneumatic valve VZDB				
	Valve function	Material seals	Part no.	Type
	2/2-way, closed, monostable	EPDM	8122795	VZDB-F10-M22C-16-M3-PE
		FFPM	8122797	VZDB-F10-M22C-16-M3-PF
		FPM	8122796	VZDB-F10-M22C-16-M3-PV
	3/2-way, monostable, open/closed	EPDM	8122798	VZDB-F10-M32-16-M3-PE
		FFPM	8122800	VZDB-F10-M32-16-M3-PF
		FPM	8122799	VZDB-F10-M32-16-M3-PV

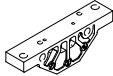
Peripherals

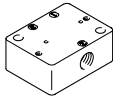
Peripherals overview



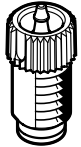
Accessories		→ Link
Type/order code	Description	
[1] Pneumatic valve	VZDB	↗ -
[2] Seal	VAVC-K2	10
[3] Manifold rail, connection on the side	VABS-K2-10S	10
[4] Fitting	NLFA-D	10
[5] Manifold rail, connection underneath	VABS-K2-10B	10

Accessories

Manifold rail, connection underneath				
	Fluid connection	Size	Part no.	Type
	Female thread 1/4-28 UNF-2B	10	8122826	VABS-K2-10B-16-U14-P
	M6 female thread		8122825	VABS-K2-10B-16-M6-P

Manifold rail, connection on the side				
	Fluid connection		Part no.	Type
	Female thread 1/4-28 UNF-2B		8122828	VABS-K2-10S-16-U14-P
	M6 female thread		8122827	VABS-K2-10S-16-M6-P

Seal (included in the scope of delivery of the valves), for valves size 10 mm, for mounting on manifold rails				
	Material seals		Part no.	Type
	EPDM		8122829	VAVC-K2-S-3-E
	FFPM		8122831	VAVC-K2-S-3-F
	FPM		8122830	VAVC-K2-S-3-V

Fitting, male thread 1/4-28 UNF				
	Fluid connection 2		Part no.	Type
	For tubing O.D. 3 mm		8104286	NLFA-D-U14-K3-PP-P10
	For tubing I.D. 1.2 mm		8104288	NLFA-D-U14-B1.2-PP-P10
	For tubing I.D. 2.1 mm		8104289	NLFA-D-U14-B2.1-PP-P10
	For tubing O.D. 1.6 mm (1/16")		8104285	NLFA-D-U14-K1.6-PP-P10
	For tubing O.D. 3.2 mm (1/8")		8104287	NLFA-D-U14-K3.2-PP-P10

Fitting, male thread M3					
	Pneumatic connection, port 2	Nominal size	Size of pack	Part no.	Type
	For tubing outside diameter of 2 mm	0.9 mm	10	133027	QSM-M3-2
	For tubing outer diameter of 3 mm	1.6 mm		133001	QSM-M3-3-I-R
			100	132914	QSM-M3-3-I-R-100
	For tubing outside diameter of 4 mm	1.5 mm	10	133002	QSM-M3-4-I-R
			100	132915	QSM-M3-4-I-R-100