bürkert
FLUID CONTROL SYSTEMS

2/2 or 3/2 way Pneumatic-Rocker-Solenoid Valve

- Compact design with 16 mm width
- DN 0.9 and DN 1.2 (10 bar)
- High lifecycle
- Low power consumption, ATEX Ex ia on request
- For pneumatic applications

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

Can be combined with

Type 2516 ▸
Cable plug DIN EN 175301-803 - form C

Type 2505 ▸
10 mm socket for Bürkert small solenoid valves

Type description

The direct-acting rocker solenoid valve type 6106 is designed for use on neutral gaseous mediums. The heat input in the medium is minimal, because the housing is separated from the coil by a stainless steel plate. The valves can be mounted directly or also single or manifold mounted. They are used for dosing, filling, mixing and distributing small quantities of medium.

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

Visit product website ▸

Table of contents

1. General technical data 3

2. Product versions 4

3. Circuit functions 4

4. Materials 5

4.1. Beständigkeitstabelle – Bürkert resistApp ... 5
4.2. Material specifications ... 5

5. Dimensions 6

5.1. Valve with Bürkert flange ... 6
5.2. Bürkert flange interface 3 way ... 6
5.3. Single manifolds made of aluminium for Bürkert flange 3 way ... 7
Port connection M5 ... 7
Port connection G ⅛ ... 8
5.4. Multiple manifolds made of aluminium for Bürkert flange 3 way ... 9
5.5. Valve with CNOMO lateral flange ... 10
5.6. CNOMO flange interface 3 way ... 10
5.7. Single manifolds made of aluminium for CNOMO flange 3 way ... 11
5.8. Multiple manifolds made of aluminium for CNOMO flange 3 way ... 12

6. Product design and assembly 13

6.1. Application examples ... 13

7. Performance specifications 13

7.1. Electrical data explosion-proof version Ex ia ... 13

8. Ordering information 14

8.1. Bürkert eShop – Easy ordering and quick delivery ... 14
8.2. Bürkert product filter ... 14
8.3. Ordering chart ... 14
8.4. Ordering chart accessories ... 15
Single manifolds for Bürkert flange 3 way ... 15
Multiple manifolds for Bürkert flange 3 way ... 15
Single manifolds for CNOMO flange ... 15
Multiple manifolds CNOMO flange 3 way ... 15
Mounting kit for standard rail ... 15
Rectangular plug Type 2505 ... 16
Cable plug Type 2516, Form C acc. to DIN EN 175301-803 ... 16

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

1. General technical data

Product properties	
Dimensions	Detailed information can be found in chapter "5. Dimensions" on page 6.
Material	
Seal	FKM
Fluid body	PA (polyamide)
Nominal diameter/Orifice	DN 0.9 or DN 1.2 (other orifices on request)
Circuit function	Detailed information can be found in chapter "3. Circuit functions" on page 4.
Electrical data	
Operating voltage	12/24 V DC (other voltages on request)
Voltage tolerance[1.)]	±10 %
Switching frequency[2.)]	Ca. 16 Hz
Power consumption	
Standard version	1 W or 2 W
Explosion-proof version	0.5 W
Performance data	
Duty cycle	Continuous operation 100 % ED
Switching times[3.)]	
Standard version	Opening: approx. 25 ms (pressure rise 0…10 %) Closing: approx. 25 ms (pressure drop 100 %...90 %)
Explosion-proof version	Opening: approx. 25 ms (pressure rise 0…10 %) Closing: approx. 35 ms (pressure drop 100 %...90 %)
Medium data	
Medium temperature	-10 °C…+55 °C
Operating medium	Resistant to neutral gases (5 µm filtering); see chapter "4.1. Chemical Resistance Chart – Bürkert resistApp" on page 5.
Viscosity (max.)	21 mm^2/s
Process/Port connection & communication	
Port connection	Bürkert flange CNOMO lateral flange
Electrical connection	2 FEP-flying leads, 0.2 mm^2, AWG24, length 500 mm Rectangular plug **Type 2505** ▶ Tag connector sidewards or top, DIN EN 175301-803 Form C for cable plug **Type 2516** ▶
Approvals and Certificates	
Type of protection	
Standard version	Without
Explosion-proof version	PTB 01 ATEX 2175: II 2 G Ex ia IIC T5, T6 Gb IECEx PTB 06.0102: Ex ia IIC T5, T6 Gb
Degree of protection	IP65 with flying leads or cable plug **Type 2516** ▶ IP30 with rectangular plug **Type 2505** ▶
Environment and installation	
Ambient temperature	-10 °C…+55 °C
Installation position	As required, preferably with actuator upright
Minimum bending radius for flying leads version	Single bending: 8.5 mm

1.) Max. allowed ripple

2.) With ambient temperature of 20 °C

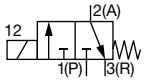
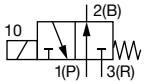
3.) Acc. to ISO 12238:2001, measurement at the valve outlet at 6.3 bar and +20 °C

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

2. Product versions

Tag connector sidewards with Bürkert flange	Tag connector sidewards with CNOMO lateral flange
	

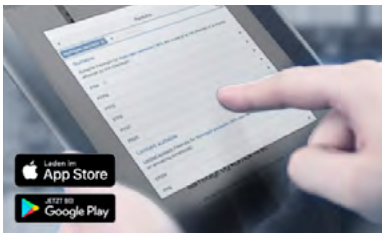
3. Circuit functions

Circuit functions	Description
	**Type: C, solenoid valve** 3/2 way Direct-acting Normally closed
	**Type: D, solenoid valve** 3/2 way Direct-acting Normally open

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

4. Materials

4.1. Chemical Resistance Chart – Bürkert resistApp

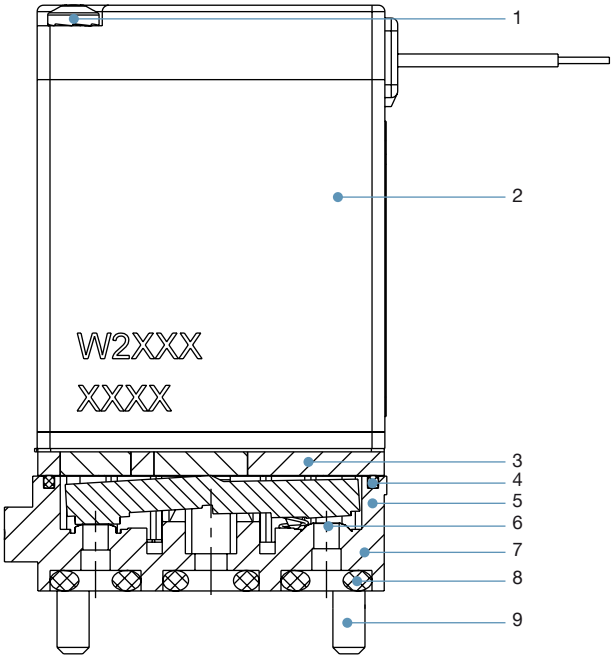


Bürkert resistApp – Chemical Resistance Chart

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	Pan head screw M2	Stainless steel
2	Coil	Epoxy
3	Intermediate plate[1.)]	Stainless steel and nickel solder
4	Body seal[1.)]	FKM
5	Anchor[1.)]	Stainless steel
6	Seat seal[1.)]	FKM
7	Fluid body[1.)]	PA
8	Flange seal[1.)]	FKM
9	Pan head screw M2.5	Stainless steel

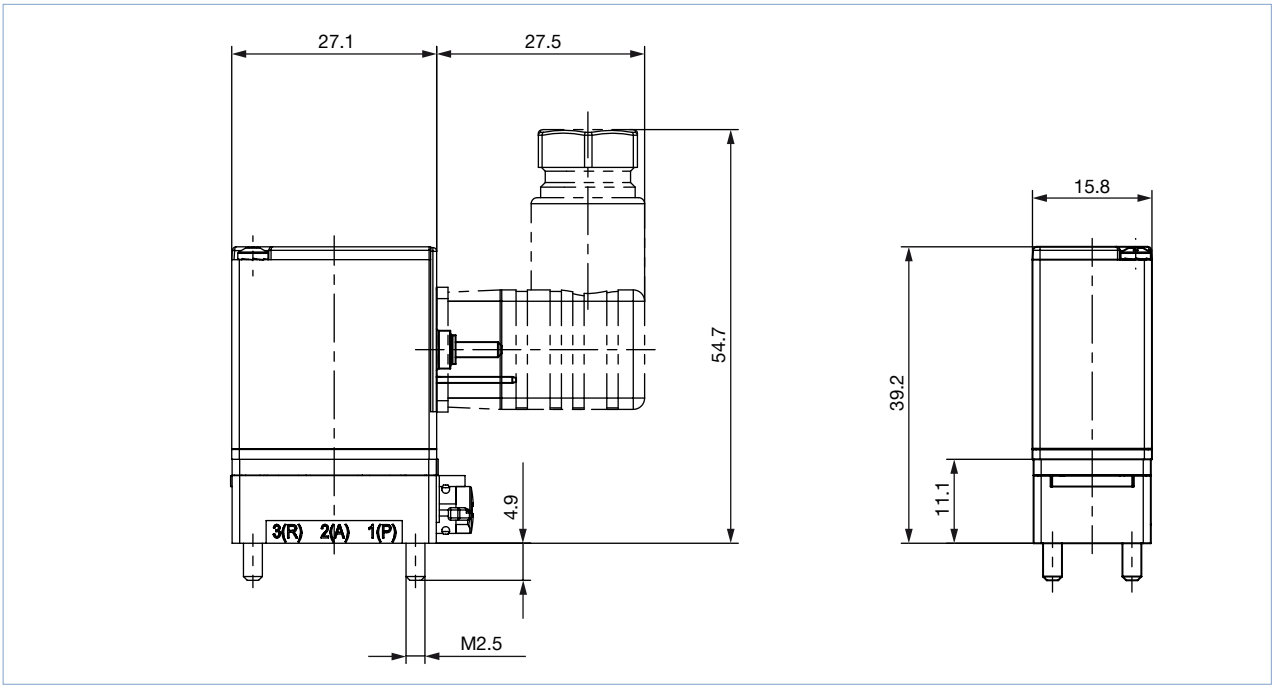
1.) In contact with medium

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

5. Dimensions

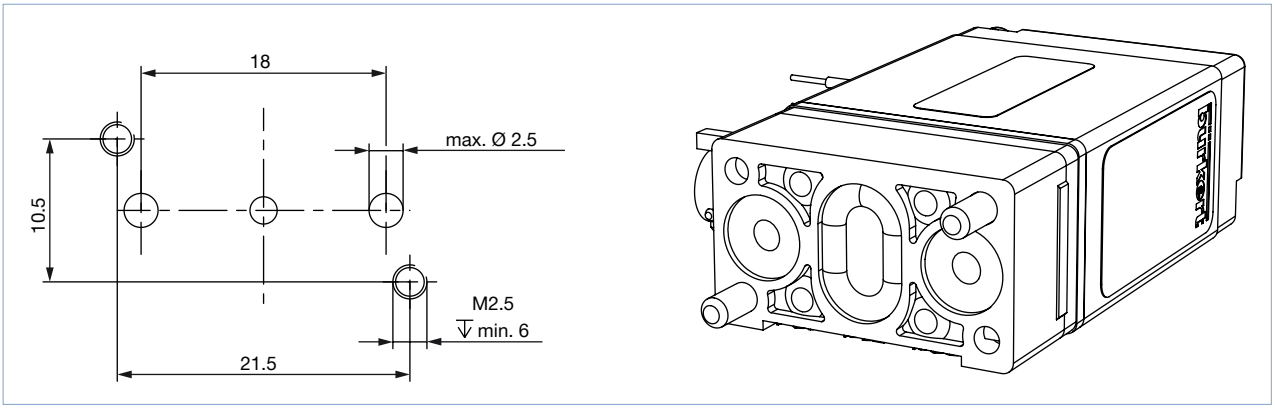
5.1. Valve with Bürkert flange

Note:
Dimensions in mm



5.2. Bürkert flange interface 3 way

Note:
Dimensions in mm



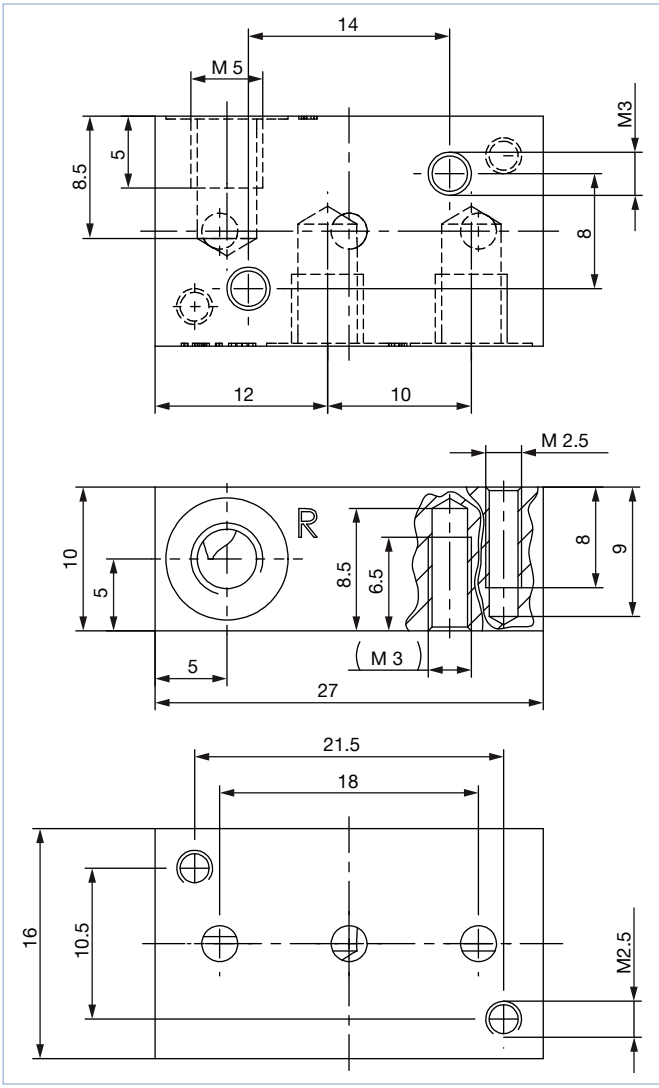
DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

5.3. Single manifolds made of aluminium for Bürkert flange 3 way

Port connection M5

Note:

- Dimensions in mm
- Material: aluminium (black anodised)
- Pay attention to screw protrusion
- Further versions on request



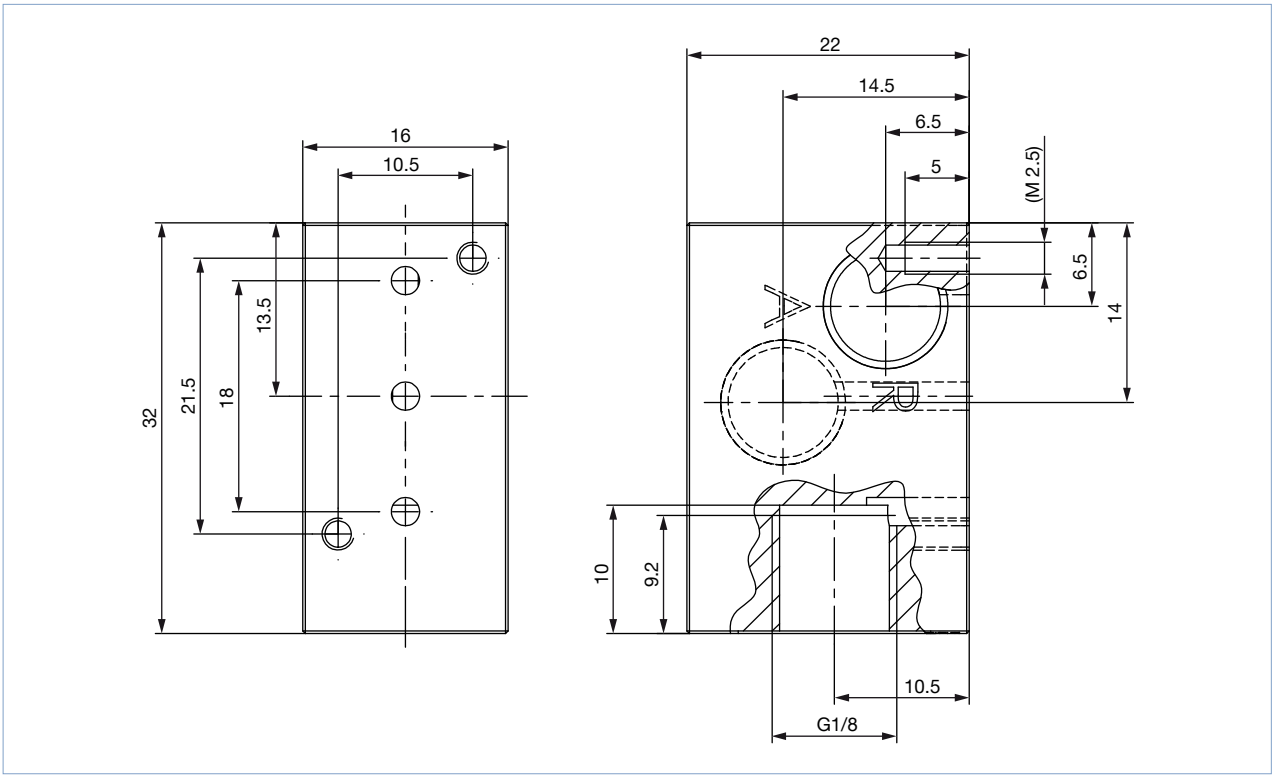
Manifold	Article no.
1 fold	623873

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

Port connection G ⅛

Note:

- Dimensions in mm
- Material: aluminium (black anodised)
- Pay attention to screw protrusion
- Further versions on request



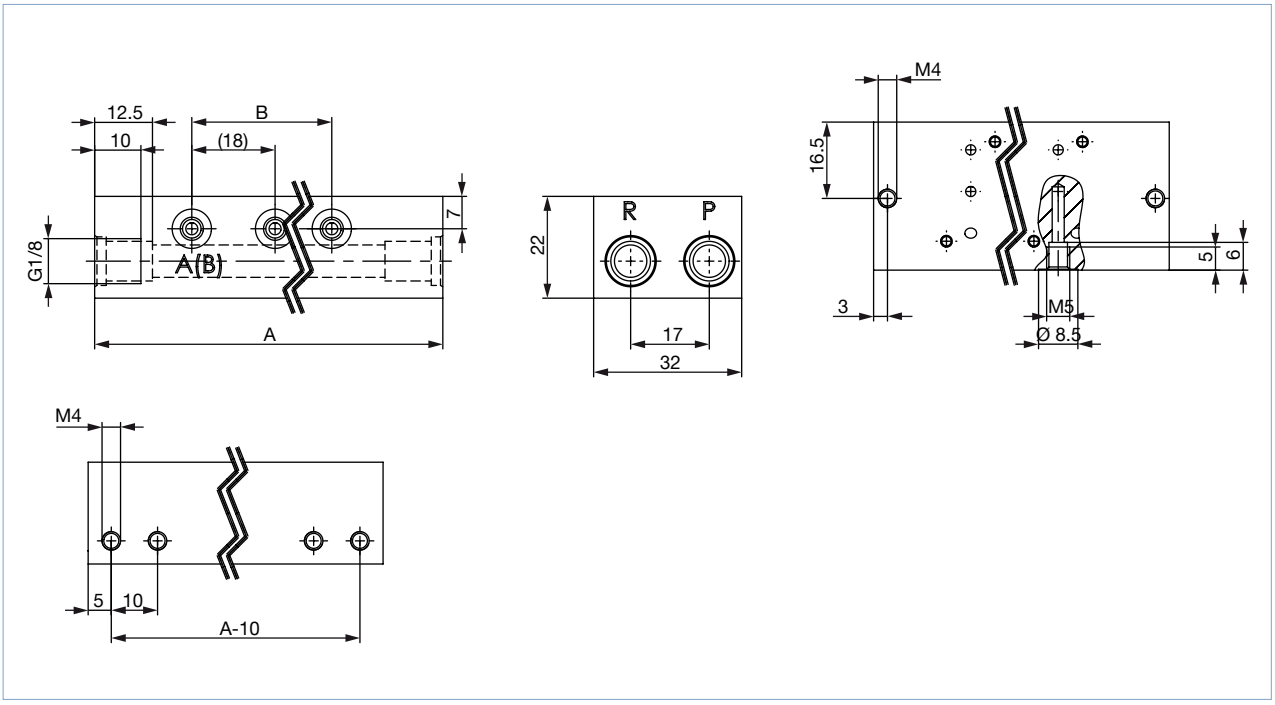
Manifold	Article no.
1 fold	634917

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

5.4. Multiple manifolds made of aluminium for Bürkert flange 3 way

Note:

- Dimensions in mm
- Port connection 1: G ⅛
- Port connection 2: M5
- Material: aluminium (black anodised)
- Pay attention to screw protrusion
- Further versions on request

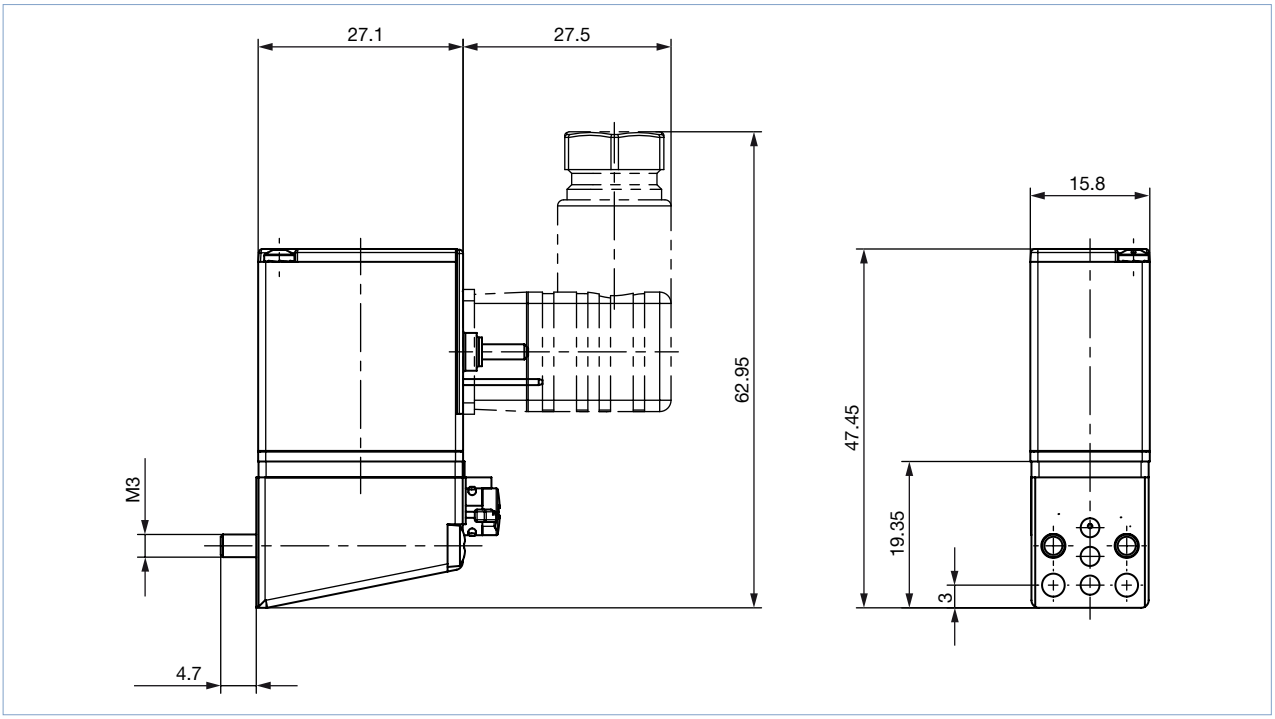


Manifold	A	B	n	Article no.
2 fold	63	18	2	658695
3 fold	81	36	3	658696
4 fold	99	54	4	658697
5 fold	117	72	5	658698
6 fold	135	90	6	658699
8 fold	171	126	8	658700
10 fold	207	162	10	658701
12 fold	243	198	12	658703
Blanking plate kit for non-configured valve positions				629327

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

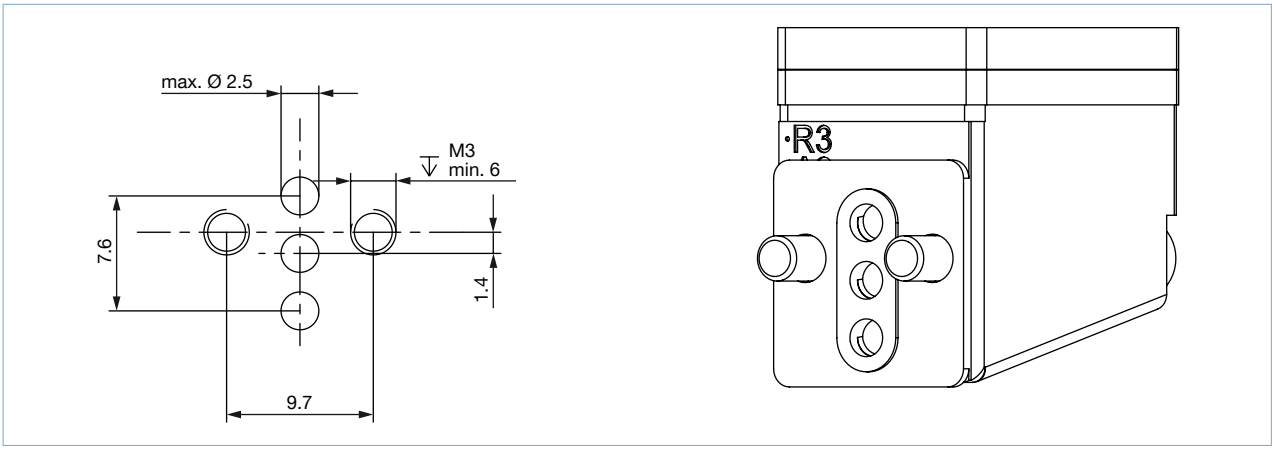
5.5. Valve with CNOMO lateral flange

Note:
Dimensions in mm



5.6. CNOMO flange interface 3 way

Note:
Dimensions in mm

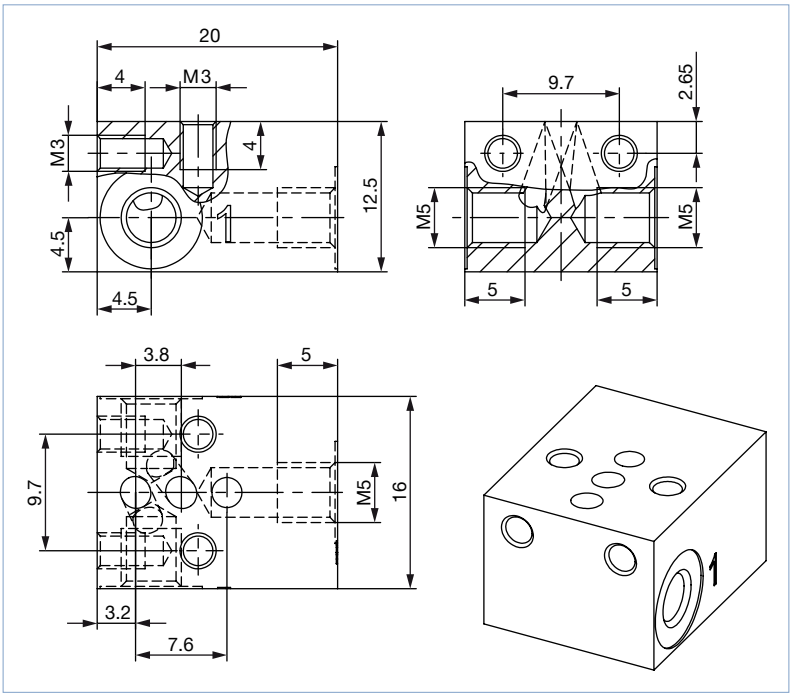


DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

5.7. Single manifolds made of aluminium for CNOMO flange 3 way

Note:

- Dimensions in mm
- Port connection M5
- Material: aluminium (black anodised)
- Pay attention to screw protrusion
- Further versions on request

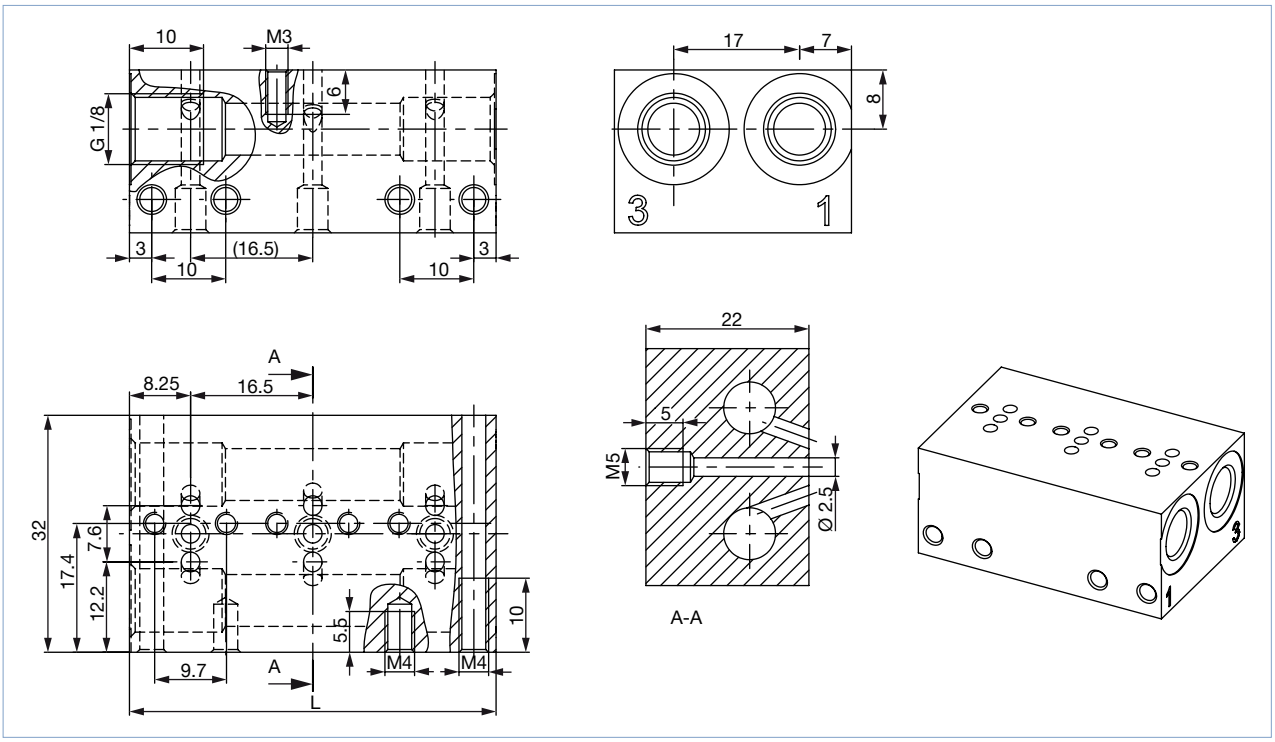


Manifold	Article no.
1 fold	639885

5.8. Multiple manifolds made of aluminium for CNOMO flange 3 way

Note:

- Dimensions in mm
- Port connection 1: G ⅛
- Port connection 2: M5
- Material: aluminium (black anodised)
- Pay attention to screw protrusion
- Further versions on request

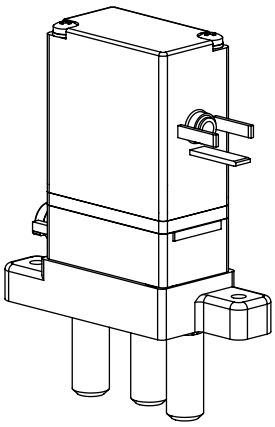
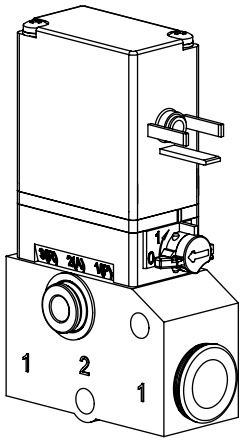
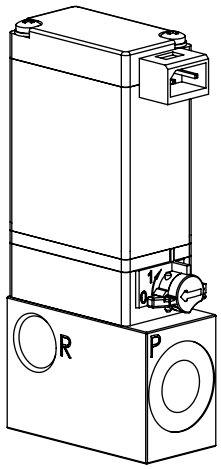
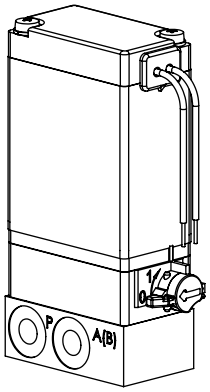


Manifold	L	Article no.
2 fold	33	639887
3 fold	49.5	639862
4 fold	66	639863
5 fold	82.5	639864
6 fold	99	639865
8 fold	132	639866
10 fold	165	639867
12 fold	198	639868
Blanking plate kit for non-configured valve positions		639695

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

6. Product design and assembly

6.1. Application examples

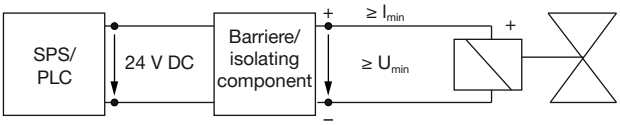
Application	Description	Application	Description
	Device with plug Form C lateral and tube spigot connection		Device with plug Form C lateral and tube coupling
	Device with rectangular plug and G ⅛ manifold		Device with flying leads and M5 manifold

7. Performance specifications

7.1. Electrical data explosion-proof version Ex ia

Note:

- The valve is designed to operate on 24 V DC outputs through an intermediary intrinsically safe apparatus (isolating block or barrier).
- Please refer to the additional instructions **Type AC21 ATEX 2175** ▶ for the permissible maximum values/value pairs.
- Type of protection: PTB 01 ATEX 2175: II 2 G Ex ia IIC T5,T6 Gb
  IECEx PTB 06.0102: Ex ia IIC T5,T6 Gb



Version	Resistance at 20 °C ±4 %	Minimum terminal voltage	Minimum current
	[Ω]	[V]	[mA]
For use with a 30 Ω supply module	320	9.3	29
High resistance version	475	10.9	23

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

8. Ordering information

8.1. Bürkert eShop – Easy ordering and quick delivery

Bürkert eShop – Easy ordering and fast delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

Order online now

8.2. Bürkert product filter

Bürkert product filter – Get quickly to the right product

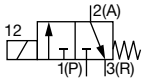
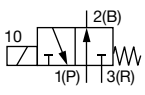
You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

Try out our product filter

8.3. Ordering chart

Note:

- Valves listed below with tag connector sidewards, manual override, flange seals and fixing screws (2xM2.5x16 for Bürkert flange and 2xM3x30 for CNOMO flange)
- Also available as an option without manual override.
- Please note that the cable plug has to be ordered separately, see data sheet **Type 2516** ▸.
- Further versions on request.

Circuit function	Port connection	Orifice	Q_{Nn} value air[1.] 1→2	Q_{Nn} value air[1.] 2→3	Pressure range	Voltage/ Frequency	Power consumption	Article no.
		[mm]	[l/min]	[l/min]	[bar]	[V/Hz]	[W]	
C, solenoid valve 3/2 way Direct-acting Normally closed 	Bürkert flange	0.9	22	25	Vac…8	24/DC	1	126417
	CNOMO flange							126418
	Bürkert flange	1.2	40	47	Vac…10	24/DC	2	126411
	CNOMO flange		33	38				126414
D, solenoid valve 3/2 way Direct-acting Normally open 	Bürkert flange	0.9	22	25	Vac…8	24/DC	1	126421
	CNOMO flange							126422
	Bürkert flange	1.2	40	47	Vac…10	24/DC	2	126419
	CNOMO flange		33	38				126420

1.) Measurement at +20 °C, 6 bar pressure at valve inlet and 1 bar pressure difference

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

Further versions on request	
Approval ATEX EEX I, UL /CSA	**Electrical connection** Industrial plug Form C, Bürkert rectangular plug, flying leads connection
Process connection Bürkert flange, CNOMO flange, plug-in coupling, tube body	

8.4. Ordering chart accessories

Single manifolds for Bürkert flange 3 way

Ordering information for this manifold can be found in chapter "5.3. Single manifolds made of aluminium for Bürkert flange 3 way" on page 7.

Multiple manifolds for Bürkert flange 3 way

Ordering information for this manifold can be found in chapter "5.4. Multiple manifolds made of aluminium for Bürkert flange 3 way" on page 9.

Single manifolds for CNOMO flange

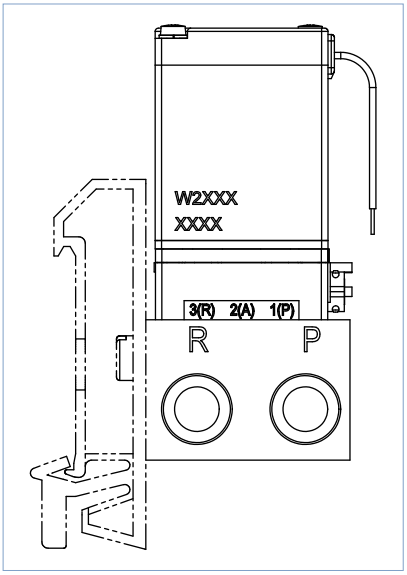
Ordering information for this manifold can be found in chapter "5.7. Single manifolds made of aluminium for CNOMO flange 3 way" on page 11.

Multiple manifolds CNOMO flange 3 way

Ordering information for this manifold can be found in chapter "5.8. Multiple manifolds made of aluminium for CNOMO flange 3 way" on page 12.

Mounting kit for standard rail

Note:
Suitable for standard rail TS35 × 7.5 mm



Description	Article no.
Mounting kit	629254

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

Rectangular plug Type 2505

Note:
For further versions see separate data sheet for **Type 2505** ▶.

Accessories	Description	Article no.
	Rectangular plug with 3 m cable	252572
	Rectangular plug with 5 m cable	255194
	Rectangular plug with 300 mm flying leads	644068
	Rectangular plug with 600 mm flying leads	162144

Cable plug Type 2516, Form C acc. to DIN EN 175301-803

Note:

- Delivery of cable plug includes a flat seal and a fixing screw.
- For further versions see separate data sheet for **Type 2516** ▶.

Cable plug	Version	Voltage	Continuous current	Article no. without cable
	Without wiring	0…250 V AC/DC	Max. 6 A	303141
	With LED	12…24 V AC/DC	Max. 3 A	303145
	With LED and varistor	0…24 V AC/DC	Max. 3 A	303148

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020

Bürkert – Close to You

For up-to-date addresses
please visit us at
www.burkert.com

DTS 1000011046 EN Version: H Status: RL (released | freigegeben | validé) printed: 02.10.2020