Direct-acting rocker Solenoid Valve, sub-base mounting
16 mm wide

Type 6106
(3/2-way)

DN 0.6 mm; 0 - 8 bar; BURKERT sub-base; flow rate: 8.5 l/min



Advantages/Benefits

- **II 2G EEx-ia-IIC T6 approved PTB01 ATEX 2175**
- **Simple design, robust and frictionless**
- **Long service life, under absolute non-lube conditions**
- **Compact size**
- **PLC-compatible; low power and high drop-out voltage**
- **Suitable for technical vacuum**

Design/Function

The valve consists of a plastic body, a frictionless rocker armature with spring and a DC coil. A stainless steel plate hermetically isolates the fluid from the actuator.

The innovative rocker alternately opens or closes two connections when switched. All 3/2 circuit functions can be achieved by pressuring or exhausting a further outlet connection via them. The de-energized position is spring set.

The simple design ensures that the valves can be switched with a minimal rocker movement combining low wear under absolute non-lube conditions.

The external surfaces of the valve are smooth preventing dirt particles from adhering.
The valves can be driven by a PLC with their low power consumption .

A manual override allows easy maintenance and commissioning of the valve.

Applications

Fluids

- Lubricated, non-lubricated dry air
- Neutral gases
- For technical vacuum

Applications

- Direct-acting single valve
- Pilot valve
- Actuator control
- Logic control circuits
- Manifold assembly

bürkert
Easy Fluid Control Systems

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Technical Data

Circuit Functions

C 3/2-way valve,
when de-energized, port A exhausted

Symbol



Specifications

Orifice DN [mm]	Flow QNn-value air[2] P→A BURKERT	Manifold B→R BURKERT	Pressure range[1] [bar]	Weight [g]	Electr. power consumption [W]
0.6	8.5	9.5	0 - 8	60	0.5

[1] All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.
[2] Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C.

Valve specification

Body material	PA (polyamide)
Seal material	FKM
Isolating plate between body and coil	stainless steel
Fluids	lubricated, unlubricated, dry air, neutral gases, for technical vacuum
Max. viscosity	approx. 21 mm²/s
Ambient temperature	–10 up to +55 °C
Fluid temperature	–10 up to +55 °C
Port connection	BURKERT-interface with connection through the bottom

Response times[3]

Opening	70 ms
Closing	70 ms

[3] The response times of a 3/2-way valve are determined using an end volume of approx. 1 cm³. The times are measured at outlet A from switching on until pressure rise to 90% /pressure drops to 10%. Delay time: Time from electrical switching on until the beginning of the pressure change.

Solenoid specification

Nominal voltage	24 V DC (power supply)
Voltage tolerance	±10 %
Power consumption	0.5 W (optimum operating current > 29 mA)
Drop-out voltage (for switching rocker)	at least 0.15 x voltage nominal (under the regulations VDE 0580)
Electr. control	PLC-controllable
Cycling rate	600 c.p.m.
Duty cycle	100 % continuously rated
Rating	IP 65 with cable plug
Type of protection	II 2G EEx ia IIC T6 PTB01 ATEX 2175
Electr. connection Standard:	connectors according DIN EN 175301-803 on top (do not use connectors with LED or circuitry)

Installation/Accessories

Installation	as required, but preferably with solenoid system upright
Manifolding	with common pressure supply max. 12 valves on special manifolds (as accessory)
Coil spacing	16,5 mm

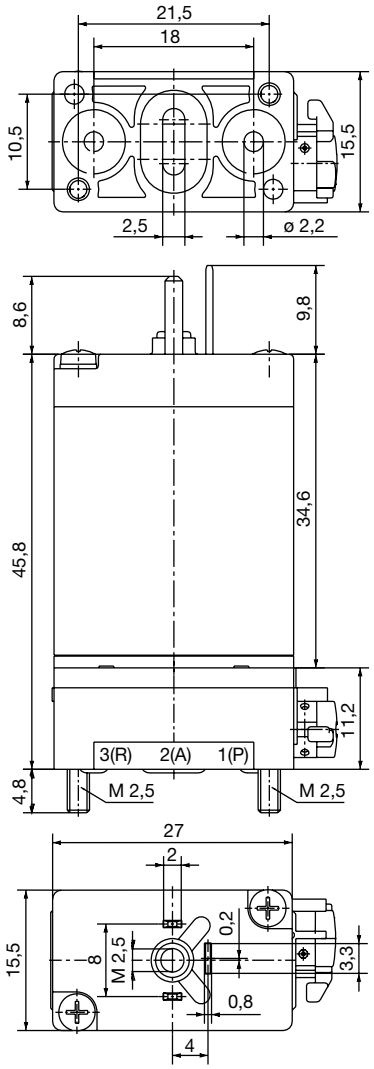
Electrical specifications

Power supply only from certified intrinsically safe circuits with following max. values:

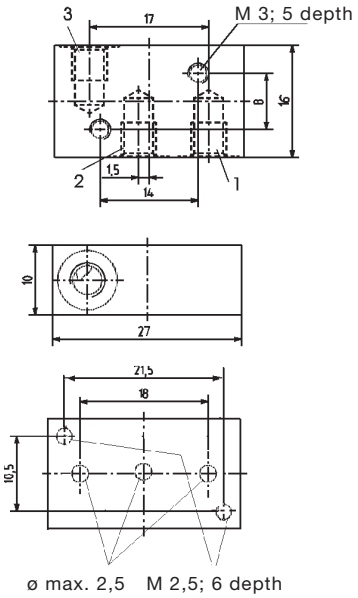
Max. safety voltage	U = 35 V
Max. safety current	I = 0.9 A
Consumption of energy for block mounting	P = 0.7 W (T5) (ambient temp. +60 °C)
Consumption of energy for single mounting	P = 0.8 W (T5) (ambient temp. +70 °C)

Dimensions [mm]

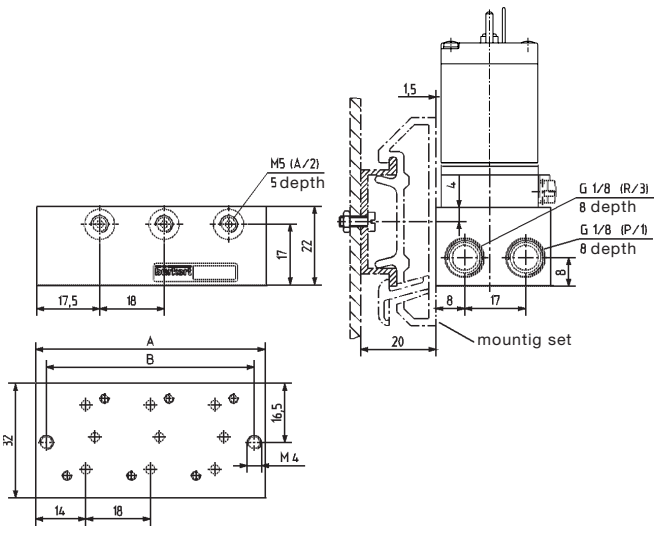
Type 6106 with Burkert-flange, tag connectors above



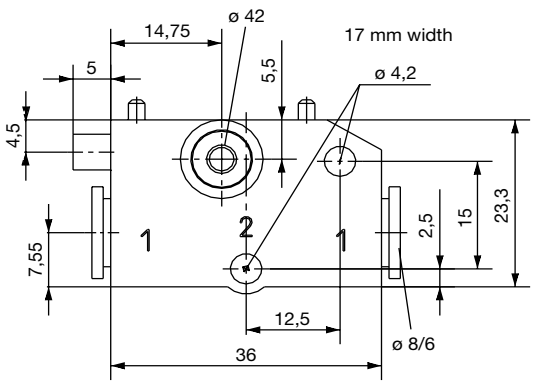
Single manifold for Burkert sub-base



Multiple manifold for Burkert sub-base



Module for plug-in coupling



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Ordering Chart (Other Versions on Request)

Version with tag connector on top, polyamide body and FKM-seal.
Supply package includes 2 mounting screws M2.5 x 16; **without cable plug** (see accessories)

Circuit-function	DN [mm]	Q_{Nn}-value air [l/min] 1→2	[l/min] 2→3	Pressure [bar]	Port-connection interface to	Min. current [mA]	Inner resistance [Ω] @ 20°C	**Item-No.**
C	0.6	8.5	9.5	0 - 8	BURKERT	29	320	139 272 D

Accessory Ordering Chart

Unit	Characteristics	**Item-No.**
Cable plug Type 2506	no wiring, 0–250 V	008 353 P
Single manifold BURKERT	width 16 mm, port connection M5	623 873 V
Single manifold BURKERT	width 16 mm, port connection G1/8	634 917 L

Manifolds Ordering Chart
Multiple manifolds (material: aluminium);
for Burkert-sub-base; coil spacing 18 mm

Manifold	A [mm]	B [mm]	**Item-No.**
2 Station	46	40	629 500 J
3 Station	64	58	629 169 R
4 Station	82	76	629 501 F
5 Station	100	94	629 502 G
6 Station	118	112	629 503 H
7 Station	136	130	629 504 A
8 Station	154	148	629 505 B
9 Station	172	166	629 890 H
10 Station	190	184	629 919 H
11 Station	208	202	007 110 X
12 Station	226	220	629 920 E
Connection kit DIN-rail TS 35 x 7,5 mm			629 254 N
Blanking plate			629 327 F