

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



**Technical Data**

**Circuit Functions**

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

**Symbol**



**Specifications**

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

<sup>1)</sup> All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.  
<sup>2)</sup> 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 mm <sup>2</sup> /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 <sup>3)</sup>	
Opening	70 ms
Closing	70 ms

<sup>3)</sup> The response times of a 3/2-way valve are determined using an end volume of approx. 1 cm<sup>3</sup>. 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)

**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)

**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



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



## Type 6106 (3/2-way)

### 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 <sub>Nn</sub> -value air		Pressure [bar]	Port-connection interface to	Min. current [mA]	Inner resistance [Ω] @ 20°C	Item-No.
		[l/min] 1→2	[l/min] 2→3					
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	B	Item-No.
	[mm]	[mm]	
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

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

We reserve the right to make technical changes without notice.

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