

DN 0,6 mm; 0 -7 bar, sub-base



### Advantages/Benefits

- ▶ Long service life, under absolute non-lube conditions
- ▶ Simple design, robust and frictionless
- ▶ Compact size - high flow rate
- ▶ PLC-compatible; low power and high drop-out voltage
- ▶ Wide choice of fluid and electrical interfaces

### 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 (or 2/2) 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 valves can be driven by a PLC with their low power consumption.

A manual override, which can be operated from both sides of the valve allows easy maintenance and commissioning.

### Applications

#### Fluids

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

#### Applications

- As a direct-acting single valve or as a pilot valve
- For actuator control
- To solve logic control problems
- As manifolded assemblies

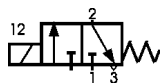
**bürkert**  
*Easy* Fluid Control Systems

**Technical Data**      **Type 6104: 3/2-way**      **Type 6103: 2/2-way**

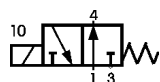
**Circuit Functions**

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

**Symbols**



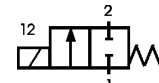
**D** 3/2-way valve,  
when de-energized, port B  
pressurized



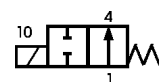
**Circuit Functions**

**A** 2/2-way flow valve,  
normally closed  
(corresponds to circuit function C  
with closed port R)

**Symbols**



**B** 2/2-way flow valve,  
normally open  
(corresponds to circuit function D  
with closed port R)



**Specifications**

Orifice DN [mm]	Flow QNn-value air <sup>2)</sup>		Manifold	Pressure range <sup>1)</sup> [bar]	Weight [g]	Electr. power consumption [W]
	[l/min] 1→A2	[l/min] 2→3				
0,6	7.0	8.0	Burkert, sub-base, below	0– 7	13	1,0
0,6	6.0	7.5	Burkert, sub-base, side	0– 7	15	1,0

<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 specifications**

Body material	PA (polyamide)
Seal material	FPM (Viton)
Fluids	lubricated, unlubricated, dry air, neutral gases, (5-µm-filter recommended) for technical vacuum
Ambient temp.	-10 to +55 °C
Fluid temp.	-10 to +55 °C
Port connection	<ul style="list-style-type: none"> <li>• BURKERT- sub-base (below)</li> <li>• BURKERT- sub-base (side)</li> <li>• BURKERT-module for sub-base MP01</li> </ul>
Response times <sup>3)</sup>	
Opening delay time	5 ms
Opening	14 ms
Closing	12 ms

**Solenoid specifications**

Nominal voltages	24 V DC
Voltage tolerance	±10 %
Power consumption	1 W
Electr. control	PLC-controllable
Cycling rate	1000 c.p.m.
Duty cycle	100% continuously rated
Rating	IP 40 with rectangular plug IP 65 with flying lead IP 67 with round plug
Protection class 3	to VDE 0580
Electr. connection	(see drawing)
Standard:	rectangular plug;
Optional:	2 flying leads; round plug; contact pin.

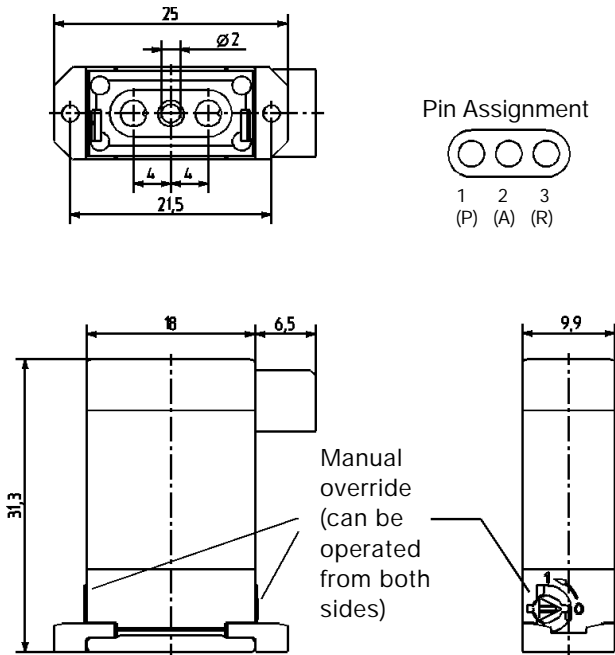
**Installation**

Installation	as required, but preferably with solenoid system upright
Manifolding	with common supply max. 12 valves on special manifolds (as accessory)
Coil spacing	11 mm

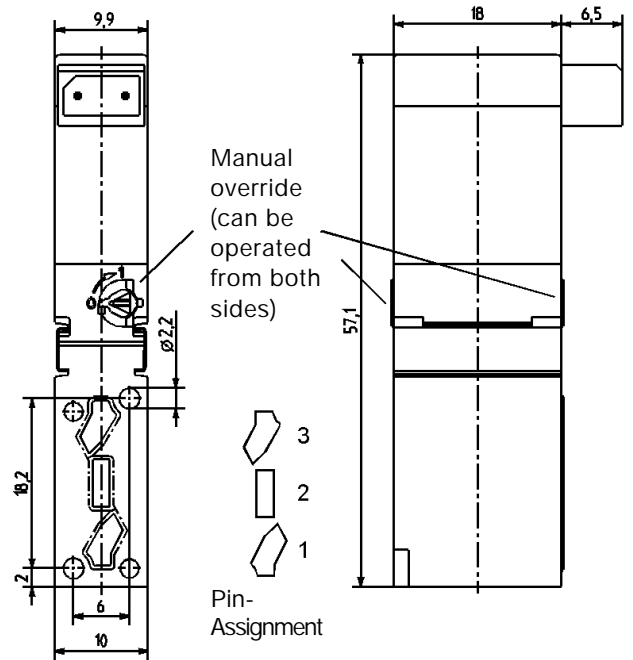
<sup>3)</sup> The response times of a 3/2-way valve are determined using an end volume of approx. 1 cm<sup>3</sup>. The times are measured at outlet A from switching on until pressure rise to 90% /pressure drops to 10%.  
Delay time: Time from electrical switch on until the beginning of the pressure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

**Dimensions [mm]**

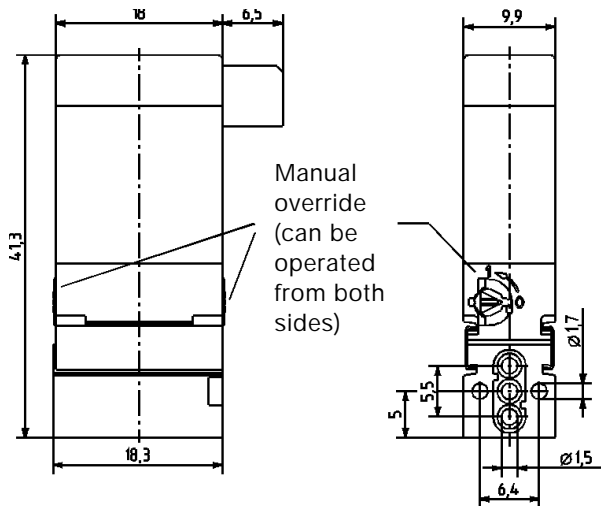
**BURKERT-Sub-base (below)**



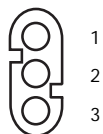
**Module sub-base (side) for MP01**



**BURKERT-Sub-base (1-2-3, side)**



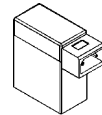
Versions for port assignment



**Electrical connections (Standard)**

**Rectangular plug**

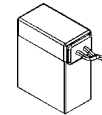
(valve plug screen 5,08) IP 40



**Electrical connections (Options)**

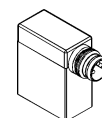
**2 flying leads, IP 65**

0,2 mm<sup>2</sup> 300 mm long, rating IP 65.



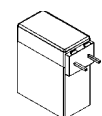
**Round plug (round plug connector**

M8 x 1 with screw plug, 3-pole, IP 67



**Contact pins**

valve plug screen 5,08; IP 00.



**Ordering Chart (Other Versions on Request)**

The valve package includes 2 clamps, 2 mounting screws\* and 1 manifold seal

Circuit-function**)	DN [mm]	Q <sub>Nn</sub> - Value air		Pressure [bar]	Port connection	Voltage [V DC]	Power Consumption [W]	Item-No.
		1→2 [l/min]	2→3 [l/min]					
C	0,6	7,0	8,5	0 - 7	Sub-base (below)	24	1	130 167 X
		6,0	7,5		Sub-base (side)	24	1	133 126 D
		6,5	8,0		Module sub-base for MP01	24	1	133 127 E
D	0,6	7,0	8,5	0 - 7	Sub-base (below)	24	1	132 394 R
		6,0	7,5		Sub-base (side)	24	1	133 129 Q
		6,5	8,0		Module sub-base for MP01	24	1	133 130 M

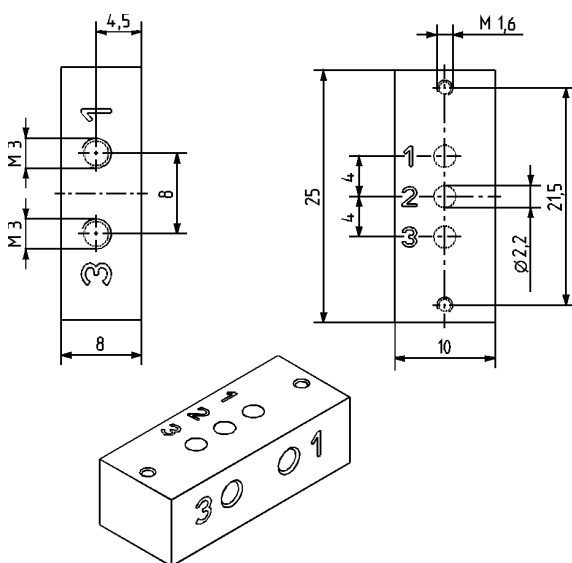
\*) Fixing screws:  
Burkert Sub-base (below): M1,6x5  
Burkert-Sub-base (side) 1-2-3 : M1,6x20  
Module sub-base : Plastic body M2x22

\*\*\*) Circuit function A und B (Type 6103) on request.

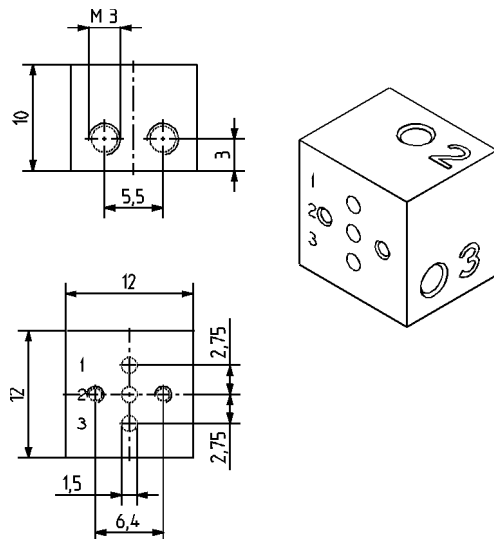
**Ordering Chart (Accessories)**

Component	Remarks	Item-No.
Seal for sub-base (below)	min. ordering quantity 20 pces.	639 222 G
Seal for sub-base (1-2-3 side)	min. ordering quantity 20 pces.	638 217 B
Single manifold	for sub-base (below), M3	639 873 D
Single manifold	for sub-base 1-2-3 (side)	639 234 C
Multiple manifold	for Burkert- and module-subbase	on request
Rectangular plug	straight, with 3 m cable	133 486 F
Rectangular plug	2 flying leads, 300 mm long	644 068 N

Dimensions for single manifolds [mm]



Single manifold (below)



Single manifold 1-2-3 (side)