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

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

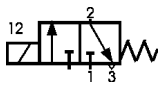
Type 6103/6104
(2/2-/3/2-Way)

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

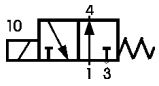
Circuit Functions

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

Symbols



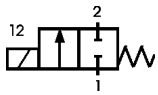
D 3/2-way valve,
when de-energized, port B
pressurized



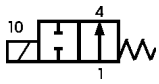
Circuit Functions

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	Flow QNn-value air[2]		Manifold	Pressure range[1]	Weight	Electr. power consumption
[mm]	[l/min] 1→A2	[l/min] 2→3		[bar]	[g]	[W]
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

[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 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	• BURKERT-sub-base (below) • BURKERT-sub-base (side) • BURKERT-module for sub-base MP01
Response times[3]	
Opening delay time	5 ms
Opening	14 ms
Closing	12 ms

[3] The response times of a 3/2-way valve are determined using an end volume of approx. 1 cm^3. 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.

Solenoid specifications

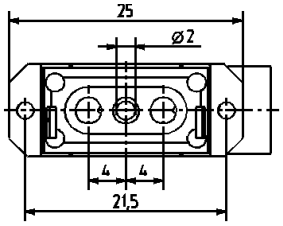
Nominal voltages	24 V DC
Voltage tolerance	±10 %
Power consumption	1 W
Electr. control	PLC-controllable
Cycling rate	1000 c.p.m.
Duty cycle	100 % continuously rated
Rating	IP 40 with rectangular plug IP 65 with flying lead IP 67 with round plug
Protection class 3	to VDE 0580
Electr. connection	(see drawing)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

Installation

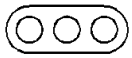
Installation	as required, but preferably with solenoid system upright
Manifolding	with common supply max. 12 valves on special manifolds (as accessory)
Coil spacing	11 mm

Dimensions [mm]

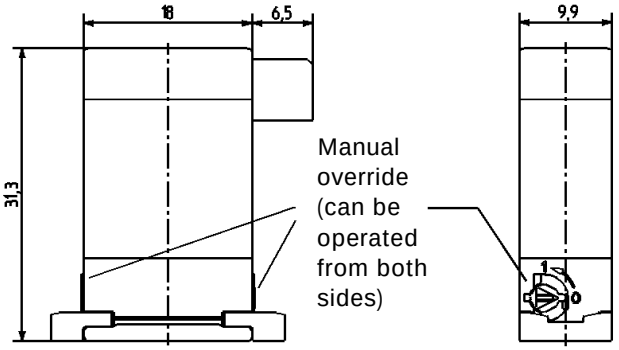
BURKERT-Sube-base (below)



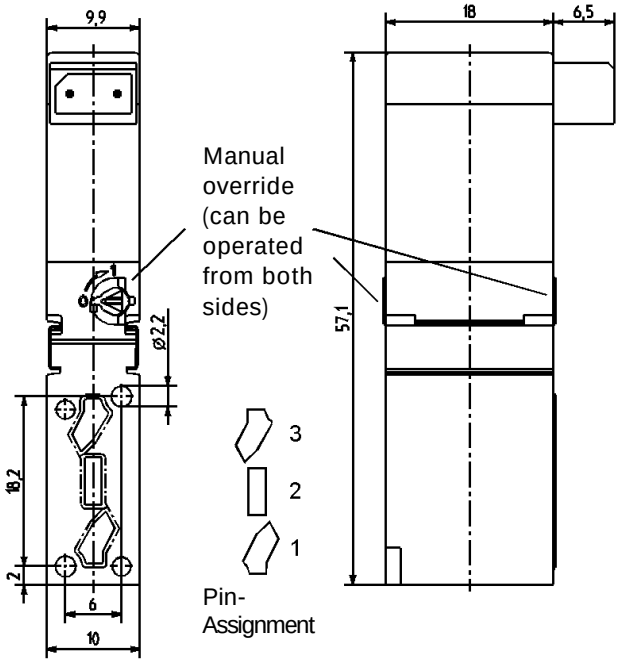
Pin Assignment



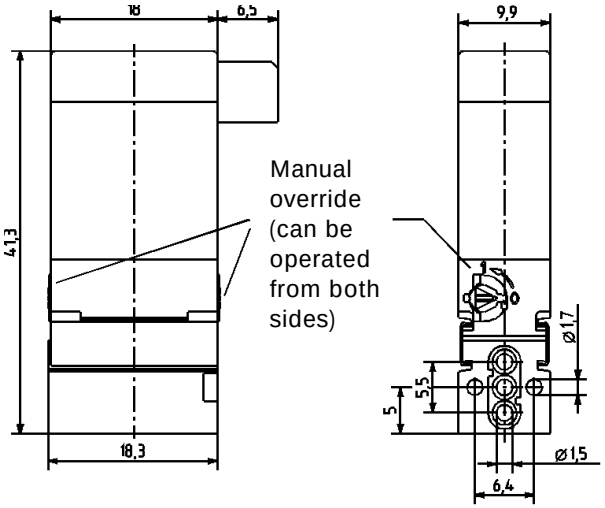
1 (P) 2 (A) 3 (R)



Module sub-base (side) for MP01



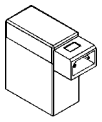
BURKERT-Sub-base (1-2-3, side)



Versions for port assignment

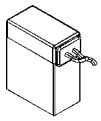
Electrical connections (Standard)

Rectangular plug
(valve plug screen 5,08) IP 40

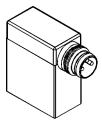


Electrical connections (Options)

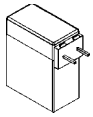
2 flying leads, IP 65
0,2 mm^{2,} 300 mm long,
rating IP 65.



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, 2mounting screws* and 1 manifold seal

Circuit-function**)	DN [mm]	Q_{Nn}- Value air [l/min] 1→2	[l/min] 2→3	Pressure [bar]	Port connection	Voltage [V DC]	Power Consumption [W]	**Item-No.**
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

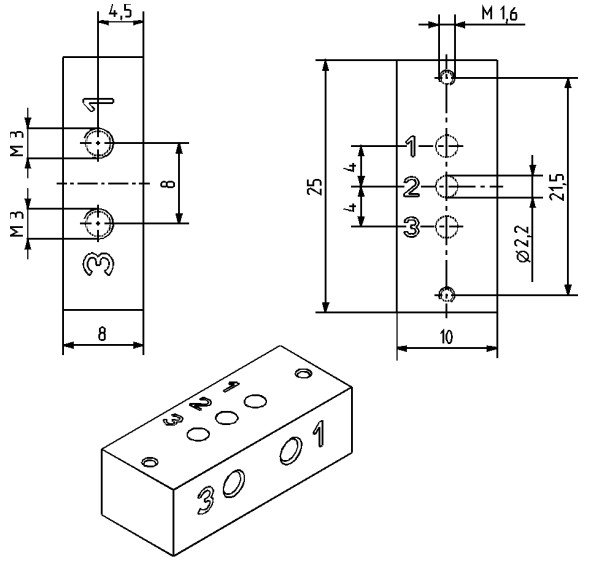
*) Fixing screws: Burkert Sub-base (below): M1,6x5
Burkert-Sub-base (side) 1-2-3 : M1,6x20
Module sub-base : Plastic body M2x22

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

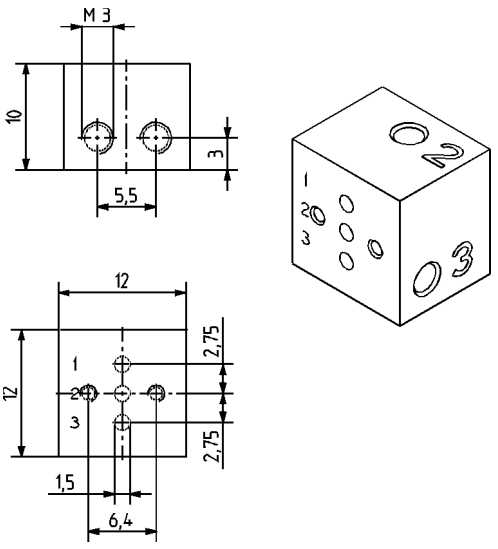
Ordering Chart (Accessories)

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)