

# Pinch valve, valve housing from high performance plastic. 2/2-way, NO (normally open)



## A.u.K. Müller

Solenoid valves  
Control valves  
Special valves and systems

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### Series 16.003.625



#### Description

Series 16.003.625 hose clamp valves in NO mode are equipped with a 9.5 W solenoid coil. Therefore, it exhibits a clamping force between 10 and 30 N per opening condition and is applicable for flexible tubes with a wall thickness of 1 mm with an outer diameter up to 5,0 mm and a shore hardness of 60°. With these tubing specifications, pressures up to 1,5 bar can be switched.

The valve with a valve housing made of a high-performance plastic is an inexpensive alternative to the valve types 16.003.225 with aluminum housing. In addition the valve offers the advantage of smaller height and lower weight.

The flow of the medium is controlled by pinching the inserted tube. This design avoids using the traditional valve seat and membrane which can cause turbulence in the fluid flow and create dead areas in the valve housing where medium or dirt can collect.

The valve is particularly suitable for applications where a high level of hygiene is required.

The resistance against media temperature and chemicals depends on the selected material of the tube.

The pinch valves can be used in any mounting position.

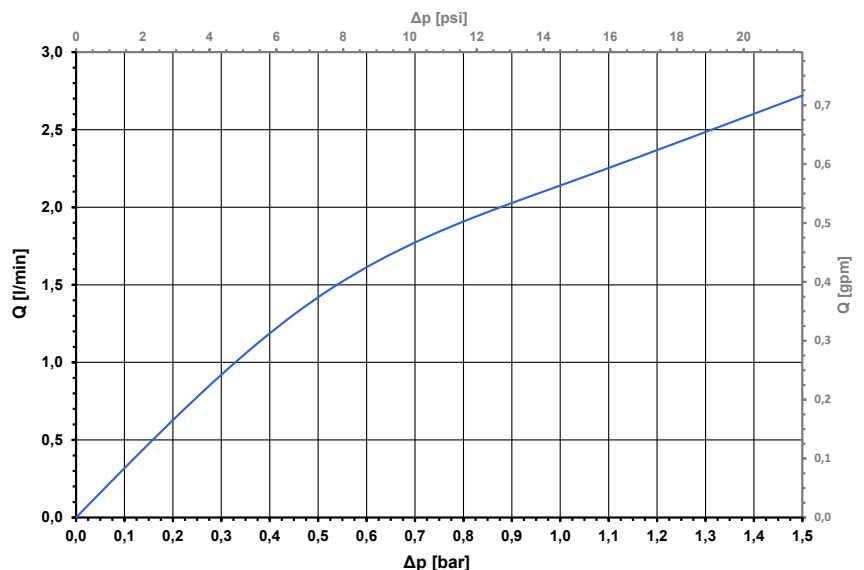
#### Applications

- dosage systems
- laboratory analysis
- medical equipment
- vending machines

#### Characteristics

- medium completely separated from valve parts
- chemical resistance depends on the material of the tube in use
- tube can easily be changed
- no dead areas as in usual valve body
- flow in either direction
- coil can be fixed in 4 x 90° positions
- function provides high reliability and run time

Typical Performance Curve  
Silicone tube 3x1; 60°Sh; length 30 cm (squeezed in the middle)  
Medium: Water at 25°C; Free Outlet

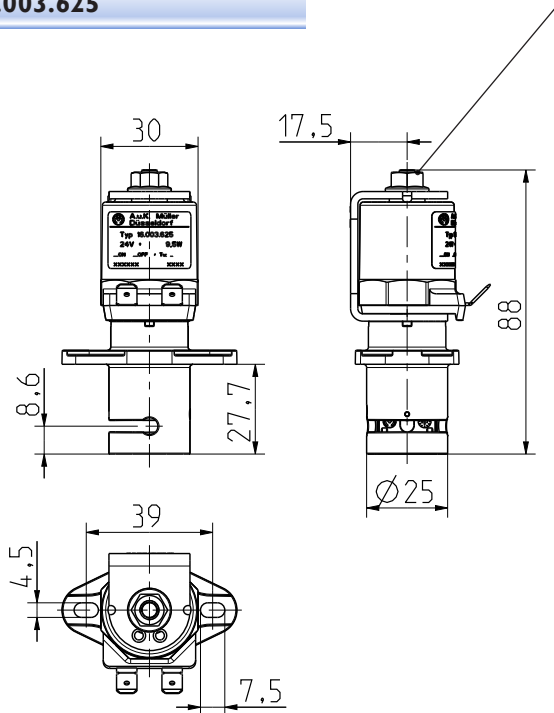


## Pinch valve, valve housing from high performance plastic - 2/2-way, NO (normally open)



**A.u.K. Müller**

### Series I6.003.625



tightening torque  
max. 2 Nm

### Technical Data

|                   |   |
|-------------------|---|
| Type              | pinch valve   |
| Construction      | 2/2-way solenoid valve, direct acting                 |
| Function          | NO (normally open)                                    |
| Fitting position  | any   |
| Media             | depends on tube                                       |
| T-Medium          | up to 90 °C<br>(up to 194 °F max.)                    |
| T-Ambient         | -10 – +50 °C<br>(14 – 122 °F)                         |
| p-Operating       | 0 - 1,5 bar<br>(0 - 21,76 psi)<br>(depending on tube) |
| Coil type         | MS 06, MS 24, MS 25                                   |
| Nominal voltages  | 24 V DC   |
|                   | other voltages on request                             |
| Voltage tolerance | +10%/-15%   |
| Duty cycle        | 80 % (4 min ON / 1 min OFF)                           |
| Clamping force    | between 10 N opened and<br>30 N closed at 400 mA      |
| Protection Type   | IP 00   |
| Coil connections  | flat tabs 6,3 x 0,8 mm (IP00)                         |
| Insulation class  | F according to<br>EN 60730                            |

### Materials

|                              |                              |
|------------------------------|------------------------------|
| Valve body and fixing flange | PA 6, glass fibre reinforced |
| Plunger guide                | stainless steel              |
| Plunger and spring           | stainless steel              |
| Coil coating                 | PBT                          |

### Coils

|  | MS 06                                 | MS 24 | MS 25      |
|--|---------------------------------------|-------|------------|
| Protection Type according to ISO 206653 / DIN EN 60529 | IP 00                                 | IP 65 | IP 65 / 68 |
| Protection class<br>DIN EN 61140 /<br>DIN EN 60730     | I<br>with protective conductor system |       | -          |
|  | II<br>with reinforced insulation      |       |            |
|  | III<br>for SELV or PELV               |       |            |

### Options

| I.D. Ø | O.D. Ø | Wall Thickness | Shore-Hardness | Nominal power consumption / W | ID    | Coil  |
|--------|--------|----------------|----------------|-------------------------------|-------|-------|
| 3,0    | 5,0    | 1,0            | 60°±5°         | 9,5                           | 52177 | MS 06 |

Range of possible outer diameter (O.D.Ø) of tube: 4,0 - 5,0 mm.  
The wall thickness should not deviate from the one given in the upper table.  
The valve may only be operated with inserted tube.

