

# FINE CONTROLS (UK) LTD



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## 2/2-way Solenoid valve

- for high pressures
- servo-assisted

The servo-assisted Type 2400 valve has a servo-piston with a 2-way servo-control. It is designed for high pressures.

The speciality of this valve design lies in the layout of the seat and sealing element. An additional radial seal make very good sealing possible.

The tapered sealing element of the servo-control permits the switching of high pressure at relatively low coil power.

| Technical data               |  |
|------------------------------|--|
| <b>Body material</b>         | stainless steel, brass and stainless steel, nickel-plated  |
| <b>Valve internals</b>       | stainless steel  |
| <b>Sealing material</b>      | PEEK/FKM; PCTFE/FKM; PTFE/FKM                              |
| <b>Media</b>                 | neutral gases and fluids                                   |
| <b>Medium temperature</b>    |  |
| PEEK/FKM                     | -10 to +80 °C  |
| PCTFE/FKM                    | -10 to +80 °C  |
| PTFE/FKM                     | -10 to +80 °C  |
| <b>Ambient temperature</b>   | max. +55 °C  |
| <b>Viscosity</b>             | ca. 21 mm/s  |
| <b>Operating voltage</b>     | 24/DC<br>24/220-230 V / 50 Hz<br>other voltages on request |
| <b>Voltage tolerance</b>     | ±10%   |
| <b>Cycling rate</b>          | ca. 80/min   |
| <b>Duty cycle</b>            | 100 % continuous rating                                    |
| <b>Electrical connection</b> | Cable plug (part of the delivery)                          |
| <b>Protection class</b>      | IP65 with cable plug                                       |
| <b>Installation</b>          | as required, preferably with actuator upright              |

## Technical data

| Orifice<br>[mm] | Kv-value<br>water<br>[m/h] | Port<br>connection | Pressure range |          | Electrical<br>power consumption |        |            | Response times |              | Weight<br>[kg] |
|-----------------|----------------------------|--------------------|----------------|----------|---------------------------------|--------|------------|----------------|--------------|----------------|
|                 |                            |                    | AC [bar]       | DC [bar] |                                 | Inrush | Hold       | Opening [ms]   | Closing [ms] |                |
| 5.0             | 0.6                        | G 1/4              | 1-250          | 1-200    | AC                              | 85 VA  | 48 VA/20 W | 100            | 300          | 1.2            |
| 8.0             | 1.0                        | G 3/8              | 1-250          | 1-210    |                                 |        |            | bis            | bis          | 1.4            |
| 12.0            | 2.6                        | G 1/2              | 1-250          | 1-160    | DC                              | 20 W   | 20 W       | 200            | 500          | 1.95           |

Kv value [mm/h]: Flow rate value for water, measured at +20 °C and 1 bar pressure differential over a fully opened valve.

Pressure data [bar]: Overpressure with respect to atmospheric pressure

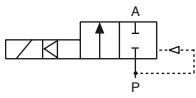
Response times [ms]: measured at valve outlet at 6 bar and +20 °C

Opening: pressure build-up 0...90%

Closing: pressure relief 100...10%

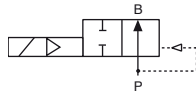
## Circuit functions of the valve

### Circuit function A



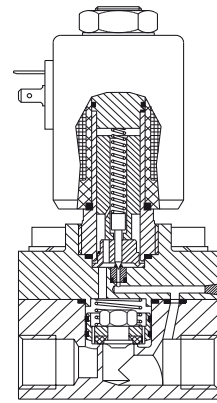
2/2-way valve,  
servo-assisted,  
normally closed,  
with servo-piston

### Circuit function B

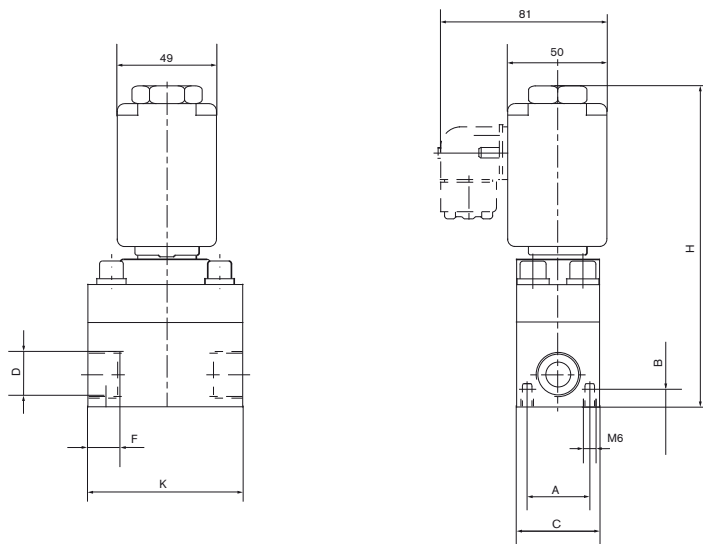


2/2-way valve,  
servo-assisted,  
normally open,  
with servo-piston

### Schematic diagram



## Dimensions [mm]



| DN   | D     | A  | B  | C    | F  | H   | K    |
|------|-------|----|----|------|----|-----|------|
| 5,0  | G 1/4 | 30 | 12 | ∅ 50 | 8  | 126 | ∅ 50 |
| 8,0  | G 3/8 | 29 | 8  | ∅ 40 | 8  | 126 | ∅ 65 |
| 12,0 | G 1/2 | 29 | 8  | ∅ 40 | 14 | 153 | ∅ 75 |

## Ordering chart for valves (other versions on request)

| Circuit function | Orifice [mm] | Port connection | Kv-value water [m/h] | Pressure range [bar] | Body material        | Seal material | Voltage/frequency [V/Hz] | Item no. |
|------------------|--------------|-----------------|----------------------|----------------------|----------------------|---------------|--------------------------|----------|
| A                | 5.0          | G 1/4           | 0.6                  | 1-200                | Brass                | PEEK/FKM      | 24/DC                    | 002 366  |
|                  |              |                 |                      | 1-250                | Brass                | PEEK/FKM      | 220-230/50               | 002 367  |
|                  | 8.0          | G 3/8           | 1.0                  | 1-210                | Brass                | PEEK/FKM      | 24/DC                    | 002 369  |
|                  |              |                 |                      | 1-250                | Brass                | PEEK/FKM      | 24/50                    | 132 436  |
|                  |              |                 |                      |                      |                      |               | 230/50                   | 002 370  |
|                  | 12.0         | G 1/2           | 2.6                  | 1-250                | Stainless steel      | PCTFE/FKM     | 24/DC                    | 000 520  |
|                  |              |                 |                      |                      |                      |               | 24/50                    | 134 690  |
|                  |              |                 |                      |                      |                      |               | 220-230/50               | 000 422  |
|                  |              |                 |                      | 1-160                | Brass. nickel-plated | PTFE/FKM      | 24/DC                    | 006 725  |
|                  |              |                 |                      |                      |                      |               | 24/50                    | 000 284  |
|                  |              |                 | 220-230/50           | 000 455              |                      |               |                          |          |

- Circuit function B (normally open) and EEx ed IIC T4 model on request
- For spare part kit, please refer to Spare Part Catalogue.

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