Flapper Valves

Fluid Isolation 2/2 and 3/2 Solenoid Valves for Analytical and Medical Technology

new!

- Also available in a Proportional Version -

ASCO™

EMERSON™

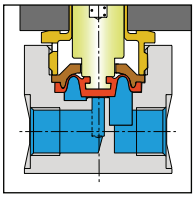
Fluid Isolation with Flapper Technology

Mechanical separation between the fluid handled and the valve's control mechanism is one of the most essential features required for the sensitive applications of analytical and medical technology.

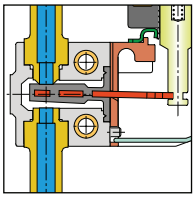
Flapper technology is among the most sophisticated and safest solutions for fluid isolation. Due to its specific characteristics, relatively high pressure rates are achieved – whilst the valve's pump effect is eliminated.

Typical fields of application are equipment with stringent sterility assurance and process safety requirements, such as analysers, blood and specimen purification equipment, chromatographs, dosing systems, gas mixers, micro-reactors, pipetting workstations etc.

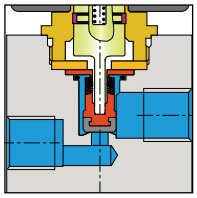
ASCO's Six Fluid Isolation Technologies



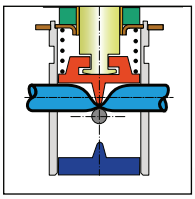
Diaphragm mechanism



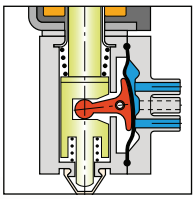
Lever mechanism



Bellows mechanism



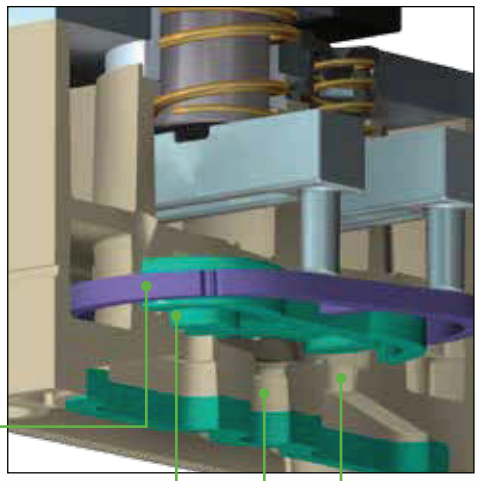
Pinch mechanism



Rocker mechanism

ASCO Numatics offers 6 different fluid isolation technologies. They are designed to:

- exclude particulate contamination caused by friction of moving parts,
- minimise heat transfer from the electromagnetic control system into the fluid,
- ensure a high level of reliability of the solenoid valve when handling extremely aggressive fluids.



Flapper mechanism

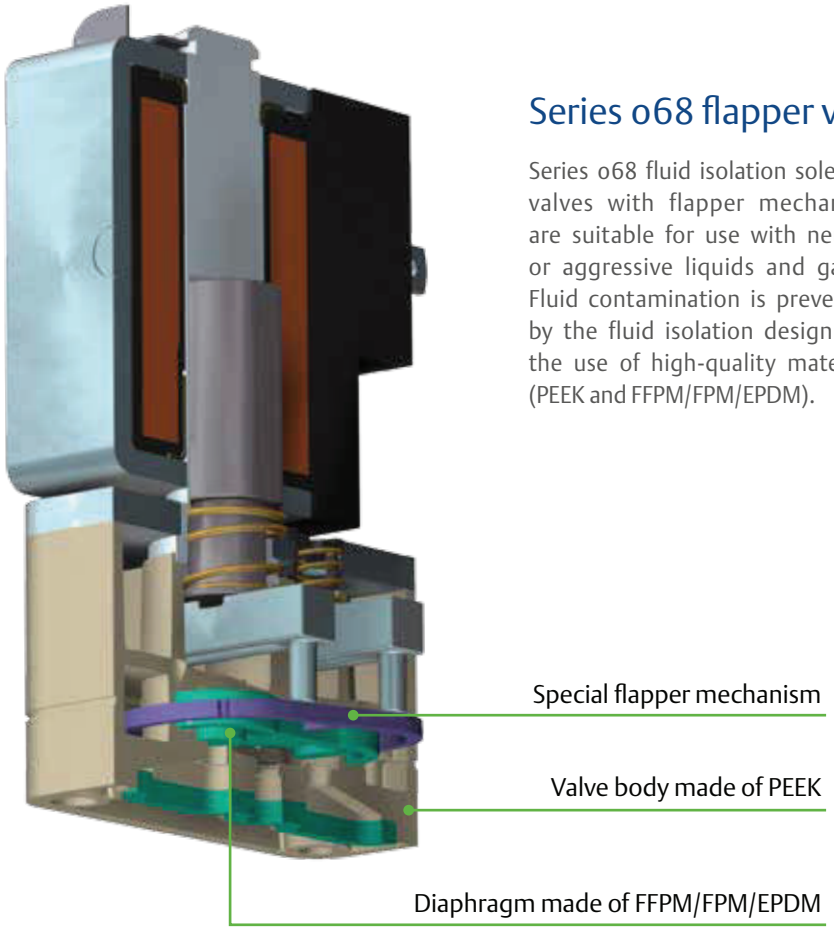
Flapper technology builds upon a rocker mechanism. It's special design allows significantly higher pressures to be achieved whilst the valve's pump effect is eliminated.

Your benefits:

- ✓ Low power consumption (up to 1.5 watts with power-save connector)
- ✓ Low heat transfer into the fluid
- ✓ High pressure range
- ✓ No pump effect
- ✓ Low-volume internal cavity
- ✓ Good self-draining capability
- ✓ Easy-to-flush internal cavity
- ✓ Very good vacuum properties
- ✓ High-quality materials
- ✓ Long service life
- ✓ Various electrical connection options

In addition, the proportional controlled flapper valve offers the following advantages:

- ✓ Proportional flow control with reliable fluid isolation
- ✓ High precision dosing of small volumes



Series o68 flapper valves

Series o68 fluid isolation solenoid valves with flapper mechanism are suitable for use with neutral or aggressive liquids and gases. Fluid contamination is prevented by the fluid isolation design and the use of high-quality materials (PEEK and FFPM/FPM/EPDM).

The special flapper mechanism allows high pressures (up to 10 bar) to be achieved at large orifice sizes (o.8 mm to 4 mm). The use of a power-save connector lowers the holding power down to 2.5 Watts (or down to 1.5 Watts), thus minimising the heat transfer into the fluid.

Technical Data

Versions	Width: 16 mm	Width: 22 mm	Proportional Valve
Fluid handled	Gases and liquids	Gases and liquids	Gases and liquids
Pressure range	-0,9 to 8 bar	-0,9 to 10 bar	0 to 4,5 bar
Orifice size	0,8 to 1,6 mm	2 to 4 mm	2 mm, 3 mm
Connection	Flange connection, 1/4 to 28 UNF, push-in hose connection	G1/8 and flange connection	G1/8 and flange connection
Construction type	Poppet valve	Poppet valve	Poppet valve
Function	NC, NO and U	NC, NO and U	NC
Valve body	PEEK	PEEK	PEEK
Seals	FFPM, FPM and EPDM	FFPM, FPM and EPDM	FFPM, FPM and EPDM
Power consumption	4 Watts (1,5 W with power save connector)	10 Watts (2,5 W with power save connector)	9 Watts max.
Piloting			Pulse-width modulated (PWM) 1kHz with 12 VDC or 24 VDC; Variable flow, proportional to the allied current.

We will be pleased to advise you on applications for our valves for analytical and medical technology.
Just give us a call on +49 7237-996-0 or send us an e-mail at asconumatics-de@emerson.com
quoting reference “AMT valves”.

ASCO Numatics GmbH
Otto-Hahn-Straße 7-11
75248 Ölbronn-Dürrn (Germany)

Tel: +49 7237 996-0
Email: asconumatics-de@emerson.com
www.asconumatics.eu

Scan the QR code to see ASCO Numatics in action.
Or visit www.asconumatics.eu/analytical-and-medical.html

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