



Magnetic Check Valve SRCVM
Rev.10/010
Page 1 of 3

Magnetic Non Return Check Valve SRCVM



**FINE CHEMICAL
PHARMACEUTICAL
BIOTECHNOLOGY
FOOD**

**COMPRESSED AIR
OIL AND GAS
COSMETICS
SPECIAL APPLICATION**

CSK-BIO GmbH

Feldstrasse 99, 8180 Buelach Switzerland

 : +41 44 860 2263

 : +41 44 860 2264

Email: sales@cskbio.com



Magnetic non-return valve

This SRCVM check valve is based on the latest and advanced technology available, this results introducing innovation and simplicity to the world of non-return/unidirectional valves. The check valve design is based on the principle of an external magnetic field to interrupt the backflow inside a tube by means of a shutter. This innovative idea guarantees a level of sterility and cleanability which no other classic spring check valve can offer. As a matter of fact, using a check valve which excludes and completely substitutes the use of the classic spring and as a result any contact with the process fluids, so total cleanability is guaranteed by design.

Technical features

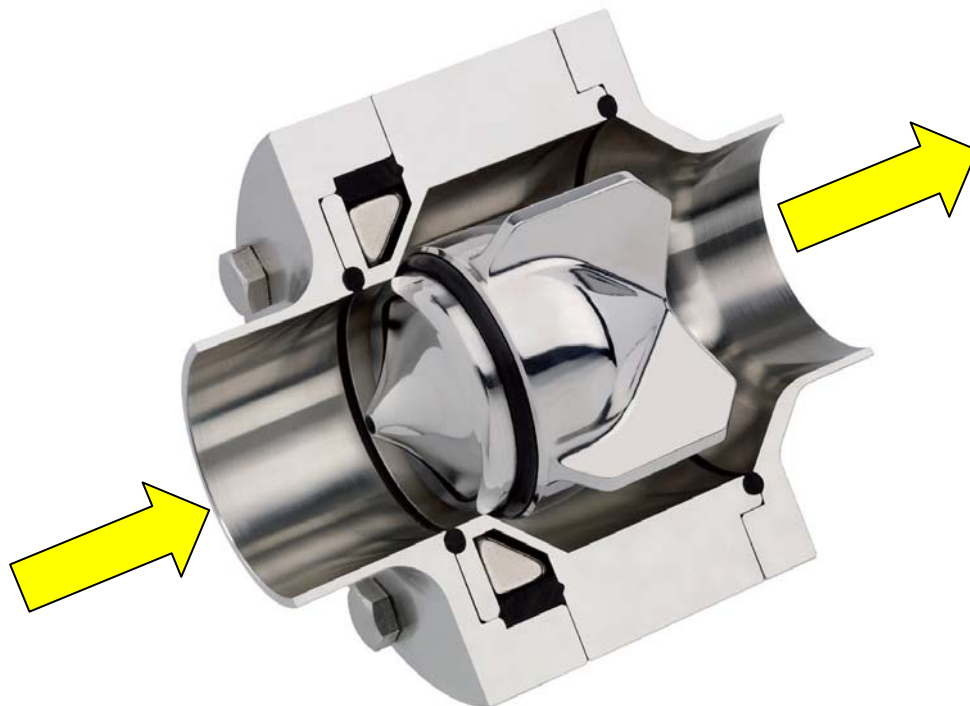
The differential pressure required to open the check valve in a horizontal position is 0.05 bar; this differential pressure tends to zero when the check valve is open and therefore operational losses of energy are almost zero.

Working principle

The SRCVM non-return valve opens when the inflow pressure exceeds the outflow and the magnetic field pressure combined. The valve closes when the difference in pressure ceases, and a higher backpressure pushes the check valve shutter against the seal.

The major difference between a traditional spring check valve and the innovative SRCVM valve is in the very low resistance and delta pressure generated by the shutter into the line.

While a traditional spring valve when open, offers the maximum resistance to the fluid, because the spring is at maximum compression, the SRCVM check valve shutter offers a minimum resistance to the fluid, because it is far from the magnetic field and therefore has a minimal closing force.





Characteristics

Valve materials

The SRCVM valve components which are in contact with the process fluid are made of stainless steel AISI 304 or AISI 316L, while the shutter is made in DUPLEX: a special material with ferromagnetic characteristics.
Other materials of construction are available on request

Size

DN25 (1") up to DN100 (4") additional sizes available on request

Working pressure

Max working pressure up to 16 bar (PN 16)

Surface Finish

- Standard internal surface finish $Ra \leq 0.8 \mu m$, $Ra \leq 0.4 \mu m$ and other surface finishes are available on request
- Standard external surface finish $Ra \leq 1.2 \mu m$, $Ra \leq 0.8 \mu m$, and other surface finishes are available on request
- Electropolished on request

End Connection

- DIN 11851
- Welding DIN 11851
- Tri Clamp
- Weld ends as per ASME BPE

Seal

O-Ring Seals are available in the following materials

- EPDM
- NBR
- FPM (Viton)
- Silicone
- FEP

Advantages

Energy loss / Energy saving

The SRCVM valve allows a very smooth fluid flow with consequent minimal energy/pressure loss.

Laminar Flow

The designed features of the shutter and the valve body are aimed at optimizing the flow and reducing turbulence to a minimum.

Cleanability

Only the shutter is in contact with the fluid while the valve is in operation, so there are no points of stagnation.

No moving parts

The YGROS check valve has no piston, no spring or seat guidance, therefore no friction on metal internal parts which can result to process contamination.

Installation Position

The check valve can be installed in any position

