

Pump accessories

Filter series F-MI4

Filters for industrial applications



- **Corrosion-resistant materials**
stainless steel, FFPM
- **Metal filter elements**
without solder or adhesives
- **High filtration performance and small size**
pleated filter elements for low pressure drops even at high flow rates and viscosities
- **Configuration variety**
different mesh sizes and sealing materials
- **User-friendly and economical**
filter elements can be cleaned or replaced

Filters are used in fluidic systems to protect sensitive components from damage due to contamination and particles. For the safe operation of micro annular gear pumps and their precision-machined rotors, the use of a 10 µm meshed filter is recommended. With compact filter units made out of corrosion-resistant materials, with high filtration performance and different mesh sizes, HNP Mikrosysteme offers suitable filter solutions for all of its

pump series. The filter series F-MI4 is available in two different configurations. The »inlet filter«, without an external housing, is directly immersed in the liquid. The »inline filter« in the maintenance-friendly »T-design« is designed to be installed downstream in the feed line, i.e. directly before the pump and offers the advantage of changing the filter element without having to uninstall the filter

from the feed line, and the option to open the bottom for releasing medium or emptying the filter. Also it is possible to install a maintenance indicator. This indicates optically and electrically the maintenance/cleaning of the filter element. To avoid sedimentation and cross-contamination the filters have small dead volumes and are manufactured with smooth surfaces (Ra 0.8).

Technical Data

	Inlet filter F-MI4	Inline filter F-MI4-T
Filter area	400 cm ²	400 cm ²
Mesh size	10 µm *	10 µm *
Fluid connector	cylindrical internal thread G 1/2"	cylindrical internal thread G 1/2"
Measurements (ø x H)	Ø 44 x 106 mm	Ø 80 x 173 mm
Internal volume	-	200 ml
Materials	stainless steel 1.4401, 1.4404, 1.4571	stainless steel 1.4401, 1.4404, 1.4571
Static seal materials available (O-rings)	-	FPM / FFPM / EPDM
Operating temperature (depending on seal material)	-200 ... +275 °C / -328 ... +527 °F	-10 ... +140 °C / 14 ... +284 °F (-40 ... +275 °C / -40 ... +527 °F)
Operating pressure	-	max. 40 bar (580 psi)
Differential pressure	-	max. 20 bar (290 psi)

Customized solutions on request.

* optional: 25 µm

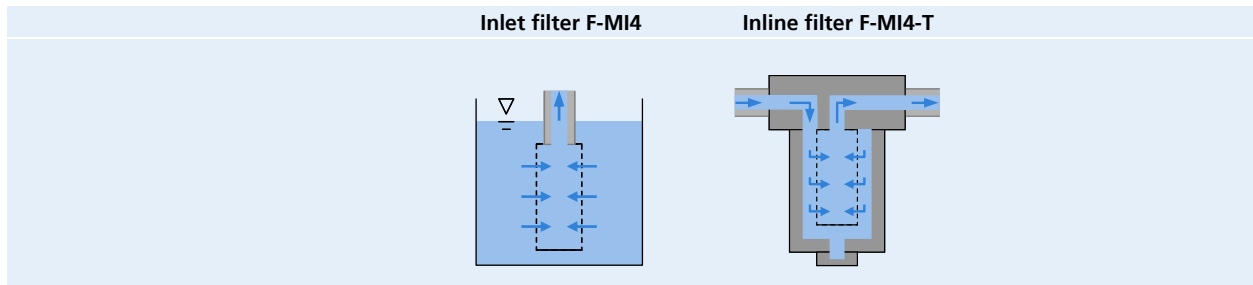
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Functional principle



Item number

92 00 47 47	Inlet filter stainless steel F-MI4, G 1/2", 10 µm
54 02 04 25	Inline filter stainless steel F-MI4-T, G 1/2", 10 µm, FPM
54 02 04 24	Inline filter stainless steel F-MI4-T, G 1/2", 10 µm, Kalrez® 6375 Spectrum™
54 02 04 23	Inline filter stainless steel F-MI4-T, G 1/2", 10 µm, EPDM (FDA compliant)
92 00 35 70	Inspection documents F-MI2 / F-MI3 / F-MI4, DIN EN 10204:2005

Additional mesh sizes (25 µm), replacement filter elements and replacement seals are available on request.
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