

## Pump accessories

### Filter series F-MI3

#### Compact filters for diverse applications



- **Corrosion-resistant materials**  
stainless steel or alloy C22, 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
- **Wide configuration variety**  
different body shapes and body materials, filter fineness 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 filter

fineness, HNP Mikrosysteme offers suitable filter solutions for all of its pump series.

The filter series F-MI3 is available in three different configurations. The »inlet filter«, without an external housing, is directly immersed in the liquid. The »inline filters« are designed to be installed downstream in the feed line, i.e. directly before the pump. The maintenance-friendly

»T-design« 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.

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-MI3	Inline filter F-MI3 (straight)	Inline filter F-MI3-T
Filter area	160 cm <sup>2</sup>	160 cm <sup>2</sup>	160 cm <sup>2</sup>
Filter fineness	10 µm *	10 µm *	10 µm *
Fluid connector	conical internal thread 3/8" NPT	conical internal thread 3/8" NPT	conical internal thread 3/8" NPT
Measurements (ø x H)	ø 35 x 84 mm	ø 48 x 105 mm	ø 70 x 114 mm
Internal volume	-	65 ml	92 ml
Materials	stainless steel 316, 316L, 316Ti	stainless steel 316, 316L, 316Ti	stainless steel 316, 316L, 316Ti
Static seal materials available (O-rings)	-	FPM / FFPM / EPDM	FPM / FFPM / EPDM
Operating temperature (depending on seal material)	-200...+250 °C / -328...+482 °F	-10...+140 °C / 14...+284 °F (-40...+275 °C / -40...+527 °F)	-10...+140 °C / 14...+284 °F (-40...+275 °C / -40...+527 °F)
Operating pressure	-	max. 200 bar (2900 psi)	max. 200 bar (2900 psi)
Differential pressure	-	max. 10 bar (145 psi)	max. 10 bar (145 psi)

Customized solutions on request. \* optional: 3, 25, 40, 100 µm

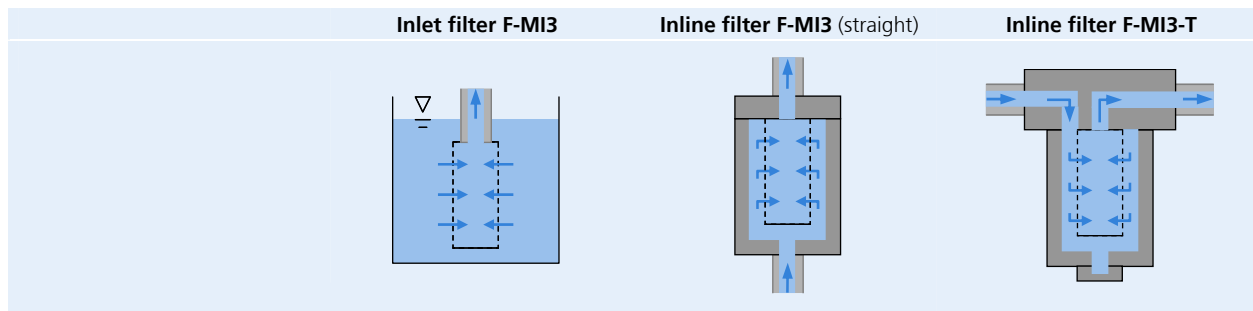
#### Contact

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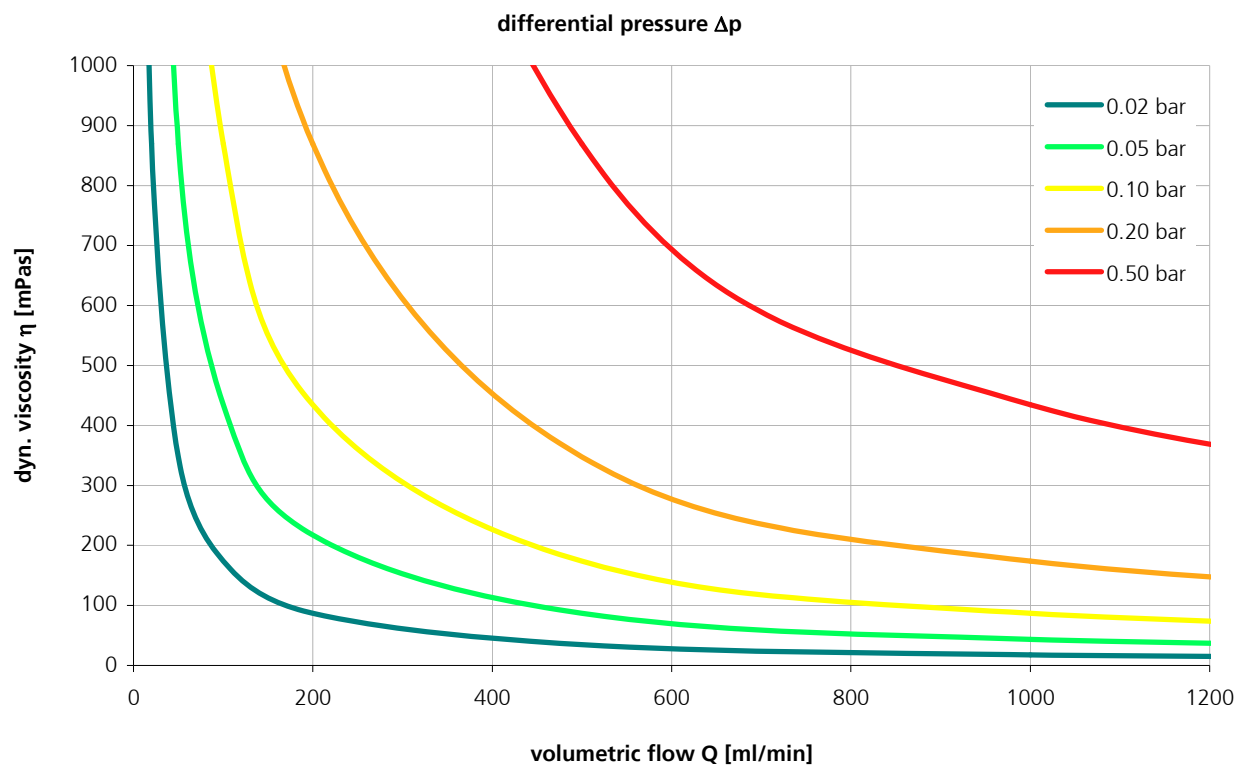
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## Functional principle



## Filter characteristics (filter fineness 10 µm)



## Item number

54 02 01 22	Inlet filter stainless steel F-MI3 3/8" NPT female, 10 µm
54 02 04 31	Inline filter stainless steel F-MI3, 3/8" NPT, 10 µm, FPM
54 02 04 32	Inline filter stainless steel F-MI3, 3/8" NPT, 10 µm, EPDM (FDA compliant)
54 02 04 33	Inline filter stainless steel F-MI3, 3/8" NPT, 10 µm, Kalrez® 6375 Spectrum™
54 02 04 34	Inline filter stainless steel F-MI3, 3/8" NPT, 10 µm, Kalrez® KLR 6221 (FDA compliant)
54 02 04 37	Inline filter stainless steel F-MI3-T, 3/8" NPT, 10 µm, FPM
54 02 04 38	Inline filter stainless steel F-MI3-T, 3/8" NPT, 10 µm, EPDM (FDA compliant)
54 02 04 39	Inline filter stainless steel F-MI3-T, 3/8" NPT, 10 µm, Kalrez® 6375 Spectrum™
54 02 04 40	Inline filter stainless steel F-MI3-T, 3/8" NPT, 10 µm, Kalrez® KLR 6221 (FDA compliant)
92 00 29 09	Deep socket wrench for exchanging filter elements of F-MI3
92 00 35 70	Inspection documents F-MI2 / F-MI3 / F-MI4, DIN EN 10204:2005

Additional filter fineness (3, 25, 40, 100 µm), replacement filter elements and replacement seals are available on request.  
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