

## filter heater packages



### cool to the touch in line heater packages for clean compressed air & precise temperature control

The nano F<sup>5</sup> range of heaters and filter heater packages are specially designed for both industrial and breathing air applications providing efficient filtration and precise temperature control between 68°F and 248°F.

Using an open wound heating coil and high accuracy output temperature sensor the F<sup>5</sup> reacts quickly to changes in pressure and flow ensuring a consistent temperature across a wide range of operating conditions.

The compact solid state temperature controller monitors the exact outlet temperature using a bi-metallic thermometer and displays the results on an optional gauge.

### fast response to flow & temperature variations

Heaters are available with or without pre-filtration and/or a temperature gauge depending on the needs of your application.



#### applications include:

breathing air

manufacturing

military

**nano-purification solutions llc**  
charlotte, north carolina  
united states

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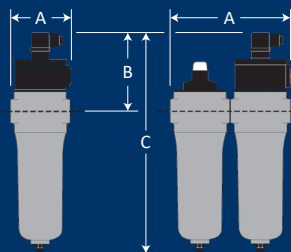
**nano-purification solutions ltd**  
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united kingdom

**nano-purification solutions GmbH**  
krefeld, germany

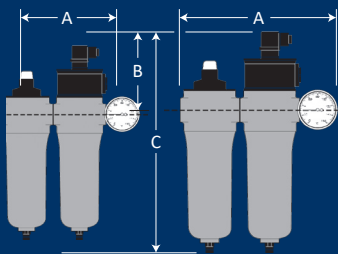
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# technical specification

model	inlet & outlet NPT	rated flow <sup>(1)</sup>		supply voltage 1Ph / 50-60 Hz	dimensions (inches)			approx. weight lbs	replacement element part no.
		scfm	Nm <sup>3</sup> /h		A	B	C		
<b>heater</b>									
NH 27 A1	3/8"	27	46	115 VAC	3.5	5.1	13.3	2.2	-
NH 27 A2	3/8"	27	46	230 VAC	3.5	5.1	13.3	2.2	-
NH 27 B1	1/2"	27	46	115 VAC	3.5	5.1	13.3	2.2	-
NH 27 B2	1/2"	27	46	230 VAC	3.5	5.1	13.3	2.2	-
<b>heater + temperature gauge</b>									
NTH 27 A1	3/8"	27	46	115 VAC	6.9	5.1	13.3	2.9	-
NTH 27 A2	3/8"	27	46	230 VAC	6.9	5.1	13.3	2.9	-
NTH 27 B1	1/2"	27	46	115 VAC	6.9	5.1	13.3	2.9	-
NTH 27 B2	1/2"	27	46	230 VAC	6.9	5.1	13.3	2.9	-
<b>filter + heater</b>									
NFH 27 A1	3/8"	27	46	115 VAC	5.4	5.1	13.3	5.0	E 27 M01
NFH 27 A2	3/8"	27	46	230 VAC	5.4	5.1	13.3	5.0	E 27 M01
NFH 27 B1	1/2"	27	46	115 VAC	5.4	5.1	13.3	5.0	E 27 M01
NFH 27 B2	1/2"	27	46	230 VAC	5.4	5.1	13.3	5.0	E 27 M01
<b>filter + heater + temperature gauge</b>									
NFTH 27 A1	3/8"	27	46	115 VAC	8.9	5.1	13.3	5.8	E 27 M01
NFTH 27 A2	3/8"	27	46	230 VAC	8.9	5.1	13.3	5.8	E 27 M01
NFTH 27 B1	1/2"	27	46	115 VAC	8.9	5.1	13.3	5.8	E 27 M01
NFTH 27 B2	1/2"	27	46	230 VAC	8.9	5.1	13.3	5.8	E 27 M01



NFH



NFTH

## specifications

minimum operating flow	1.7 scfm
design operating pressure range	22 to 232 psig
automatic float drain (filter)	NDK 0050
semi-automatic drain (heater)	NSDK 175
power rating	1.5 kW
input temperature range	-4 to 248°F
controlled output temperature range	68 to 248°F
electrical connection	DIN

## element performance<sup>(2)</sup>

### M01

maximum particle size (ISO Class) <sup>(3)</sup>	1
maximum oil content (ISO Class) <sup>(3)</sup>	0.1
particle removal	0.01 micron
max oil carry over at 68°F	0.01 ppm or mg/m <sup>3</sup>
recommended operating temperature range	35 to 212°F
design operating temperature range	35 to 248°F
maximum element life	12 months or 8000 hours

## pressure correction factors

operating pressure (psig)	60	70	85	100	115	145	175	205	232
correction factor	0.76	0.84	0.92	1.00	1.07	1.19	1.31	1.41	1.51

(1) at 100 psig. For all other pressures, refer to the pressure correction factor table above

(2) applies to filter & heater packages (NFH & NFTH) only. Filters are required for all applications containing liquids or aerosols

(3) per ISO 8573.1:2001 (E)

- when used in a breathing air application, product is to be installed downstream of a suitable breathing air contaminant removal system. Product does not remove gases such as CO or CO<sub>2</sub>