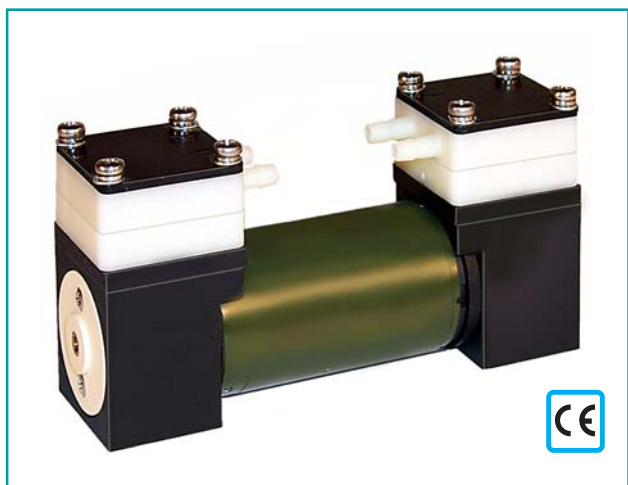


SECTION 200.25

Type: NFT30, NFT31

**Micro-Diaphragm
Liquid Pump**

**Twin Heads
OEM Installation Models
with Brush DC & Ironless-Core Motor**



Model shown with Ironless Core Motor.

Flow Rate per Head: 0.3 liters/min. (4.75 GPH)
Suction Head/Vacuum: 20 ft. H₂O (18"Hg)
Max. Continuous Pressure Head: 33 ft. H₂O (15 psig)

Description

KNF's NFT series of twin-head diaphragm pumps are self-priming, can pump air, gases and liquids and simultaneously create a vacuum. Their unique, one-piece molded diaphragm is usually found only in larger, more expensive pumps. All metal wetted-parts are eliminated and end-vacuum performance is enhanced. A wide choice of wetted materials are available.

They are ideal for use in portable, battery-operated equipment where high performance, low power consumption, minimal weight and size are important. The NFT31, similar in construction to the NFT30, is supplied with an iron-less core DC motor instead of the standard DC motor, to provide lower current, lower EMI, and a longer operating life.

Pump Features

- **Flexible Mounting** - KNF's engineers combine high performance with a small physical package to produce an efficient, compact unit. Optimally placed mounting holes in the compressor housing permit installation of this pump in any position. KNF's Project Pump program allows for a variety of inexpensive modifications to match your requirements.
- **High Chemical Resistance, Contamination-Free** - Pumped medium stays analytically pure. The TT model, with its PVDF/FFKM/PTFE wetted parts, is excellent for use as a sampling pump in sensitive analyzers where elastomer outgassing may affect results.
- **Self Priming** - These pumps can run dry continuously without damage. They can pump air/liquid slurries, create wet-vacuum conditions, and transport air or gases.
- **Low Noise Level** - An enclosed compressor housing minimizes noise transmission and keeps dirt away from critical components.
- **Boxer Head Model** - Also available is a compact, economical, two-head model using a single compressor housing where the heads are aligned at 180°. Various pump heads and wetted materials can be combined to obtain a variety of functions and performance.
- **Variety of Accessories** - Accessories include diaphragm pressure control valves, check valves, pulsation dampers, and hose connectors.

Selected Applications

- Blood Analyzer Waste Removal
- Blood/Food Protein Analyzers
- Air/Gas Analyzers
- Wastewater Analyzers
- Ink Jet Systems
- Dispensing Systems
- Immuno-Analytical Systems
- Photography Developers
- Titration Calorimeters
- Industrial Washing Machines
- Pipette, Probe & Needle Washers
- Transfer of Corrosive Liquids

NFT30, NFT31

KNF Performance Specifications for Twin-Head Models (ratings are per head)

Model Number	NFT30KNDC	NFT31KNDC
Head Configuration	Twin-Head	Twin-Head
Maximum Flow	0.3 lit/min (4.75 GPH)	0.3 lit/min (4.75 GPH)
Free Flow (Air)	1.5 liters/min.	1.3 liters/min.
Maximum Suction Head	20 ft H ₂ O / 18"Hg / 6 mWg	16 ft H ₂ O / 14"Hg / 5 mWg
Maximum Suction Head (KT, TT materials)	16 ft H ₂ O / 14"Hg / 5 mWg	16 ft H ₂ O / 14"Hg / 5 mWg
Maximum Continuous Pressure Head	33 ft H ₂ O / 15 psig / 10 mWg	33 ft H ₂ O / 15 psig / 10 mWg

Electrical

Motor Type	Brush Type DC	Ironless Core DC
Motor Protection	IP00	IP33
Motor VDC	6 / 12 / 24 VDC	6 / 12 / 24 VDC
Running Amps	1.64 / 0.71 / 0.36 Amps	0.95 / 0.7 / 0.35 Amps

Environmental

Maximum Ambient Temperature (all models)	+5°C to +40°C (+40°F to +105°F)
Maximum Medium Temperature (all models)	+5°C to +80°C (+40°F to +176°F)
Net Weight	330 gr (0.73 lb.)
EMV Guideline	—

Materials of Construction

Material Code	Head	Diaphragm	Valves	Material Code	Head	Diaphragm	Valves
NFT30KN	Polypropylene	Neoprene	Neoprene	NFT30KV	Polypropylene	FPM	FPM
NFT30KP	Polypropylene	EPDM	EPDM	NFT30TT	PVDF	PTFE	FFPM
NFT30KT	Polypropylene	PTFE	FFPM	NFT30TV	PVDF	FPM	FPM

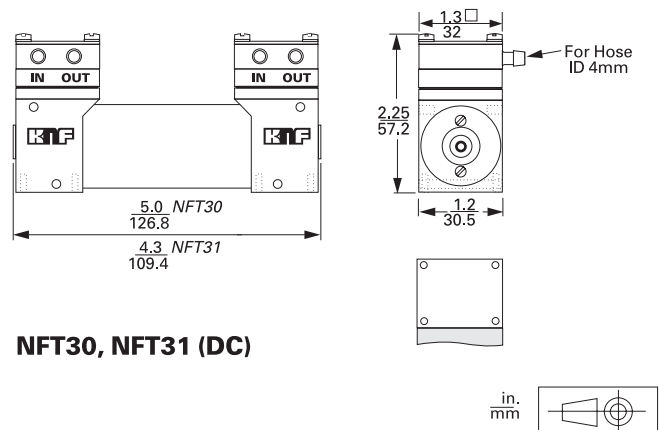
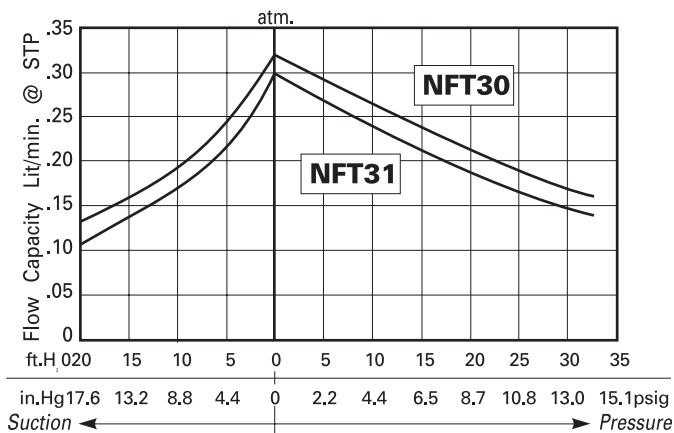
Notes: Standard continuous performance ratings listed above are per head, with water at 70°F (20°C) with nominal electric supply. Dimensions and performance characteristics given are for reference only. Higher performance models, various motor options including brushless DC and different materials of construction are available. Specifications are subject to change without notice.



Accessories: Pressure control/bypass valves, hose connectors, pulsation dampers, shock mounts

Options: Heated-heads, threaded connections, compression fittings brushless DC motors, common compressor housing.

Performance Characteristics/Outline Dimensions:



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