

Type: NMP02

Micro-Diaphragm Pump and Compressor

Single Stage OEM Installation Model with DC Motor



NMP02L/U model shown.

Nominal Free-Flow Capacity: 0.22 - 0.55 liters/minute
Max. Continuous Vacuum: 100 mbar rel. (3 in. Hg)
Max. Continuous Pressure: 100 mbar (1.5 psig)

Description

KNF's NMP02 miniature diaphragm pump is capable of transferring the largest volume of air or gases in this size range with high efficiency and contamination-free operation. It is ideal for use in portable, battery-operated equipment wherever minimal size, weight and power consumption are important.

KNF's "OEM Project Pump" program provides a variety of cost reductions and affordable modifications that will optimize our product to match your design's performance requirement.

Pump Features

- **Oil-Free, Contamination-Free Transfer** retains pumped medium purity and increases system reliability. KNF pumps are maintenance-free with no sliding seals to wear away.
- **Excellent Mechanical Stability and Chemical Resistance** - Ryton® head parts exhibit steady, consistent performance throughout the life of the pump. It also has excellent chemical-resisting properties. Other diaphragm and valve materials are available.
- **Fits Into The Smallest Devices** - KNF's engineers combined high performance with precision miniature packaging to produce an efficient, compact unit. Mount this pump in any position within your equipment without affecting performance.
- **Maintenance-Free Operation** because of quality details such as oversized, long life, permanently lubricated bearings and other components that insure reliable operation over the life of your application. The counterbalanced eccentric features ball bearing construction.
- **Unique Mounting Clip** is included with every pump and is adjustable for unusual mounting requirements. Install the pump quickly at any time during the assembly process.
- **High-Efficiency Motors** draw very little current. Your instrument can be made smaller and lighter, and run longer between recharges.

Applications

- Asbestos Particle Counters
- Pick & Place Tools for IC Wafers
- Gas or Odor Leak Detectors
- Gas Chromatography
- Blood Pressure Monitors
- Organic Vapor Analyzers
- Respiration Monitors
- Personal Dosimeters
- Automated Pipettes
- Air Quality Sampling Monitors
- Portable Analytical Instruments
- Medical Diagnostic Equipment

KNF Performance Specifications

Model Number	NMP02L/U		NMP02L/W		NMP02S	
Nominal Free-Flow @ VDC	220 mlit./min.	550 mlit./min.	360 mlit./min.	550 mlit./min.	300 mlit./min.	550 mlit./min.
Maximum Continuous Vacuum	100 mbar rel. (3 in. Hg)		100 mbar rel. (3 in. Hg)		100 mbar rel. (3 in. Hg)	
Maximum Continuous Pressure	100 mbar (1.5 psig)		100 mbar (1.5 psig)		100 mbar (1.5 psig)	

Electrical

Motor Voltage	3 VDC	6 VDC	6 VDC	9 VDC	3 VDC	6 VDC
Motor Current @ Free-Flow	25 mA	42 mA	19 mA	26 mA	60 mA	98 mA
Motor Current @ 3 in. Hg	36 mA	48 mA	25 mA	32 mA	100 mA	130 mA
Motor Current @ 1.5 psig	38 mA	54 mA	32 mA	37 mA	85mA	110mA
Motor Type	Ball-bearing, brush-type DC		Ball-bearing, brush-type DC		Sleeve bearing, brush-type DC	

Environmental

Maximum Ambient Temperature	40°C (105°F)	
Maximum Medium Temperature	40°C (105°F)	
Net Weight	20 grams	25 grams

Materials of Construction

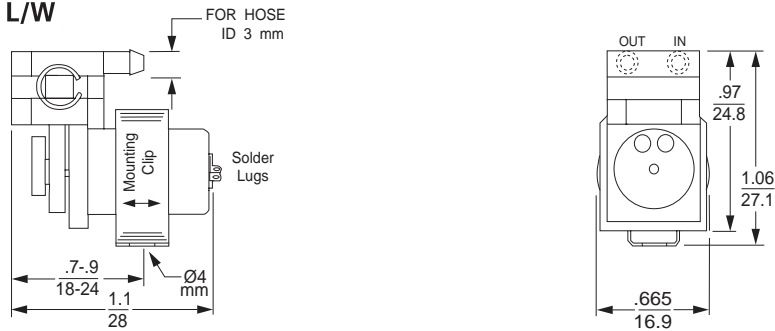
Model Number	Head	Diaphragm	Valves	Clamping Disk
All Models	Ryton® (PPS)	Perbunan (NBR)	EPDM	Polyamid 6

Notes: Standard continuous performance ratings are based on technical data and test results of nominal units at sea level with an ambient temperature of 70° F (21° C) and nominal electrical supply are listed above. Dimensions and performance characteristics given are for reference only. Higher performance models, cost efficient OEM modifications, other motor options and different materials of construction are available. Ryton® is a registered trademark of the Phillips 66 company. Specifications subject to change without notice.

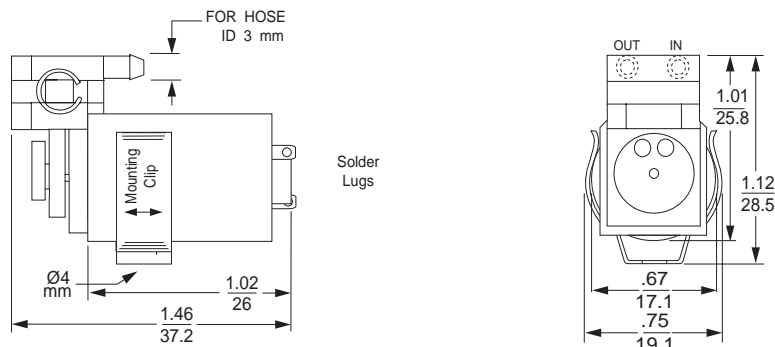
Accessory: Removable Metal Mounting Clip (included)

Outline Dimensions

NMP02L/U, L/W



NMP02S



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