INNOVATIVE
TECHNOLOGY
WORLDWIDE

MICRO DIAPHRAGM LIQUID PUMP
NF 1.11 KPDC

DATA SHEET E 517

NF 1.11 KPDC

Concept

KNF micro diaphragm liquid pumps are based on the principle of the oscillating displacement pump which is remarkably simple in design. The circular power from the motor is converted into vertical movement by an eccentric. This motion is then transferred to a diaphragm by means of a connecting rod which, in conjunction with an inlet and outlet valve, creates a pumping action.

The NF 1.11 KPDC liquid pump can be mounted in any position. It delivers up to 0.1 l/min. and will operate against pressures of up to 60 mWg.

The use of a high quality ironless DC motor ensures a low power consumption, a very high durability and an extremely compact size.

Features

Small and powerful
Micro design and maximum performance resulting from built-in technology are the outstanding characteristics of these products.

Self-priming and excellent for pressure
Sophisticated diaphragm technology and precise valve structures enable performances of 3 mWg suction or 60 mWg pressure.

Extreme chemical resistance
The use of the materials PP and EPDM for the parts which come in contact with the liquid allows many neutral or corrosive liquid to be pumped.

Dry running, durable and maintenance free
The carefully considered design of these pumps allows them to be run dry and ensures safe operation and a long life even under the most severe conditions.

Areas of use

The versatility of KNF pumps allows a wide field of applications to be covered. Over many years our pumps have proved themselves in the following areas:

Analysers
- Medical / pharmaceutical
- Environmental / water treatment
- Food / toxicology

Laboratory
- Filtration
- Chromatography

Cleaning industry
- Cuvette cleaning
- Sterilisers
- Industrial washing machines

Printing
- Ink jet printing
- Photographic / film development

Other applications for micro-diaphragm liquid pumps include: fuel cells, hydrogen generators, CD coating, dental technology, textiles and many more.

Performance Data

Basic model	Flow rate (l / min.)	Suction head (mWg)	Pressure head (mWg)
NF 1.11	0.1	3	60

Components

Performance

General note

This Data Sheet provides an overview of the options with the NF 1.11 KPDC and explains all components in detail.

Flow curve

The flow curve illustrates how the flow rate alters in relation to the pressure before and after the pump. In case of a combination of both, we would be very happy to advise what the expected flow rate would be.

1 Materials of head components

All parts for those areas which come in contact with the liquid are manufactured from PP or EPDM. For the moment, there are no further combinations of materials available.

2 Motor

The NF 1.11 KPDC is driven by a high quality ironless DC motor. This provides the following advantages compared to a conventional DC motor: higher durability, less power consumption and smaller size.

3 Voltages

The ironless DC motor is available for voltages of 6V, 12V and 24V.

Pump type			
Basic model	Components		
	1	**2**	**3**
NF 1.11			

1	Materials of head components	
KP	Head	PP
	Valves	EPDM
	Diaphragm	EPDM
	Resonating diaphragm	EPDM

2	Motor
DC	Direct current motor

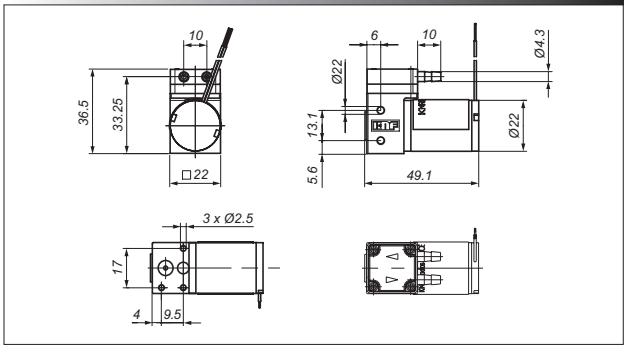
3	Voltages
6 / 12 / 24V	for DC motors

Performance

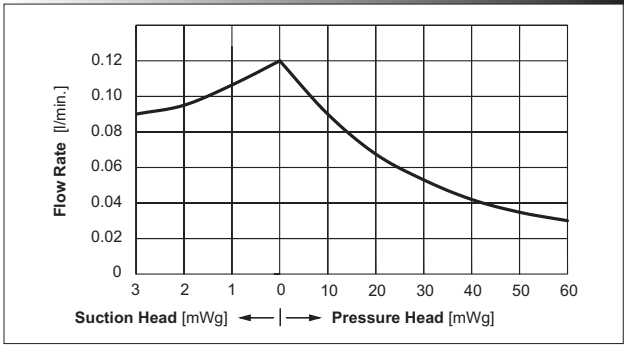
Basic model	Flow rate at atmos. pressure (l/min.)	Max. suction head (mWg)	Max. pressure head (mWg)
NF 1.11	0.1	3	60

Motor selection	**DC**
Voltage (V)	6 / 12 / 24
Power rating (W)	2.2 / 2.5 / 2.3
I max. load (A)	0.37 / 0.21 / 0.09
I max. (A)	0.37 / 0.21 / 0.09
EMC guideline	EN 55022 / EN 55011
Motor protection factor	IP 33
Weight	70 g

NF 1.11 KPDC



Flow Curve



KNF FLODOS AG, Wassermatte 2, CH-6210 Sursee, Switzerland
Telephone ++41 41 925 00 25, Telefax ++41 41 925 00 35
www.knf-flodos.ch, info@knf-flodos.ch

INNOVATIVE
TECHNOLOGY
WORLDWIDE

Technical status: 04/2002
KNF FLODOS reserves the right to make technical changes.

Printed in Switzerland
ID-No. 150 681