# NMP830 SERIES
# MICRO DIAPHRAGM GAS PUMPS

NMP830KNDC

NMP830KNDC-B

NMP830KNDC-B customized

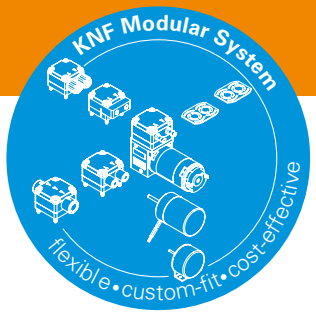
## ADVANTAGES

- Customizing available
- Tested to customers specs
- High performance to size, efficiency and weight ratio
- Excellent reliability/durability
- Speed controllable
- Low sound level
- Long service life
- Uncontaminated transfer
- Maintenance-free
- High chemical resistance
- Can be installed in any position

## POSSIBLE AREAS OF USE

- Medical devices
- Analytical equipment
- Emission measurement
- Reprographic
- Degassing
- Safety/Security
- Portable devices

Please visit our website
www.knf.com
to get more information.



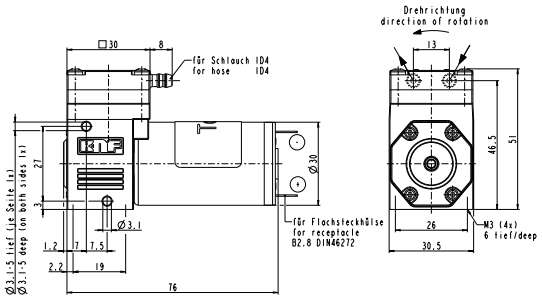

| PERFORMANCE DATA | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Series Model** | **NMP830** | | | | | | | | | | | | | | |
| **Material design** | **KNDC** | | | **KVDC** | | | **KTDC** | | | **KNDC-B** | | **KVDC-B** | | **KTDC-B** | |
| Pump head | PPS | | | | | | | | | | | | | | |
| Diaphragm | EPDM | | | FKM | | | PTFE coated | | | EPDM | | FKM | | PTFE coated | |
| Valves | CR | | | FKM | | | FFKM | | | CR | | FKM | | FFKM | |
| Flow rate at atm. pressure (l/min) | 3.3 | 3 | 3.1 | 2.9 | 2.6 | 2.7 | 2.8 | 2.5 | 2.6 | 2.5 | 2.5 | 2.2 | 2.2 | 2.1 | 2.1 |
| Ultimate vacuum (mbar abs.) | 250 | 250 | 250 | 250 | 250 | 250 | 350 | 350 | 350 | 250 | 250 | 250 | 250 | 350 | 350 |
| Ultimate pressure (bar rel) | 1.4 | 1.4 | 1.4 | 1.2 | 1.2 | 1.2 | 1 | 1 | 1 | 1.4 | 1.4 | 1.2 | 1.2 | 1.2 | 1.2 |
| Permissible media and ambient temperature (° C/° F) | +5° C to +40° C / 41° F to 104° F (-20° C to +60° C / -4° F to 140° F on request) | | | | | | | | | | | | | | |
| Weight (g/oz) | 195/6.88 | | | 195/6.88 | | | 195/6.88 | | | 270/9.52 | | 270/9.52 | | 270/9.52 | |
| **ELECTRICAL DATA** | | | | | | | | | | | | | | | |
| Voltage (V) | 6 | 12 | 24 | 6 | 12 | 24 | 6 | 12 | 24 | 12 | 24 | 12 | 24 | 12 | 24 |
| Motor | DC | | | DC | | | DC | | | Brushless DC | | | | | |
| $I_{max}$ (A) | 1 | 0.5 | 0.25 | 1 | 0.5 | 0.25 | 1 | 0.5 | 0.25 | 0.5 | 0.26 | 0.5 | 0.26 | 0.5 | 0.26 |

# NMP830KNDC

## PERFORMANCE DATA

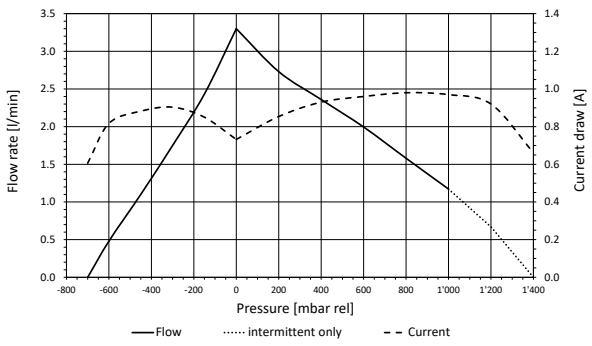
| Series model | Flow rate at atm. pressure (l/min) | Max. operating pressure (bar rel) | Ultimate vacuum (mbar abs.) |
|---|---|---|---|
| NMP830KNDC 6V | 3.3 | 1.4 | 250 |
| NMP830KNDC 12V | 3 | 1.4 | 250 |
| NMP830KNDC 24V | 3.1 | 1.4 | 250 |

## NMP830KNDC

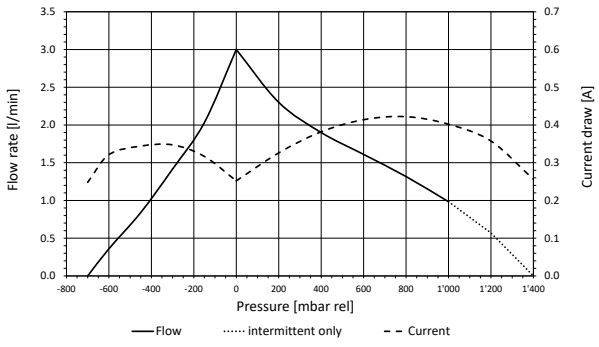



Dimensions in mm

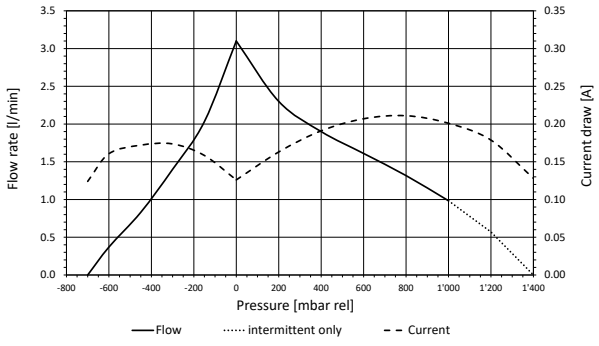
## NMP830KNDC 6V FLOW CURVE




## NMP830KNDC 12V FLOW CURVE




## NMP830KNDC 24V FLOW CURVE

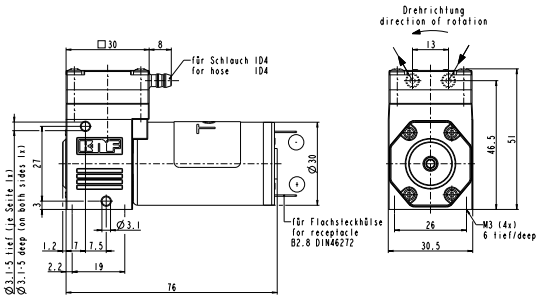



# NMP830KVDC

## PERFORMANCE DATA

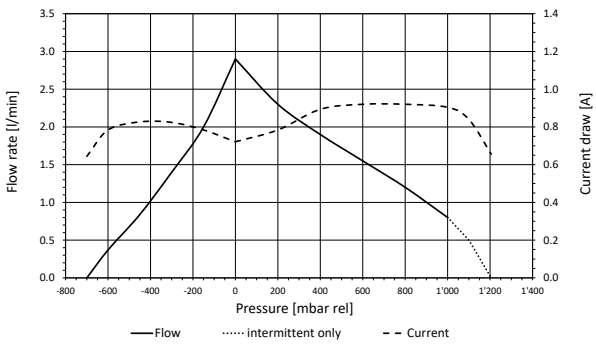
| Series model | Flow rate at atm. pressure (l/min) | Max. operating pressure (bar rel) | Ultimate vacuum (mbar abs.) |
|---|---|---|---|
| NMP830KVDC 6V | 2.9 | 1.2 | 250 |
| NMP830KVDC 12V | 2.6 | 1.2 | 250 |
| NMP830KVDC 24V | 2.7 | 1.2 | 250 |

## NMP830KVDC

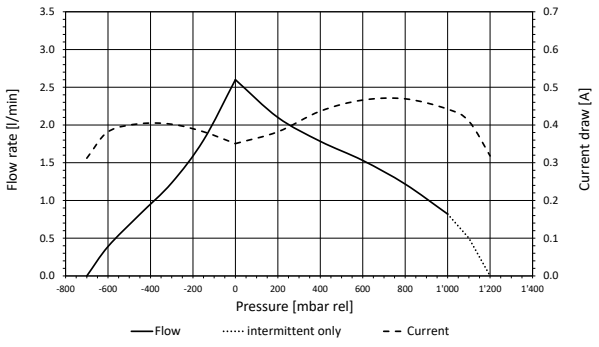



Dimensions in mm

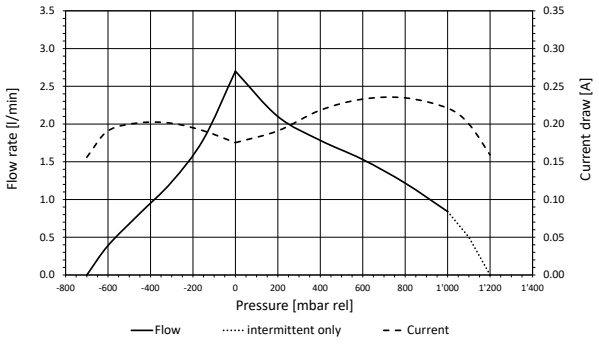
## NMP830KVDC 6V FLOW CURVE




## NMP830KVDC 12V FLOW CURVE




## NMP830KVDC 24V FLOW CURVE

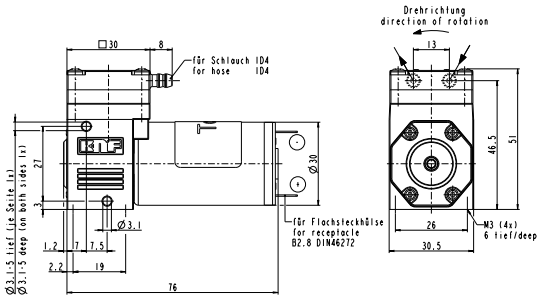


# NMP830KTDC

## PERFORMANCE DATA

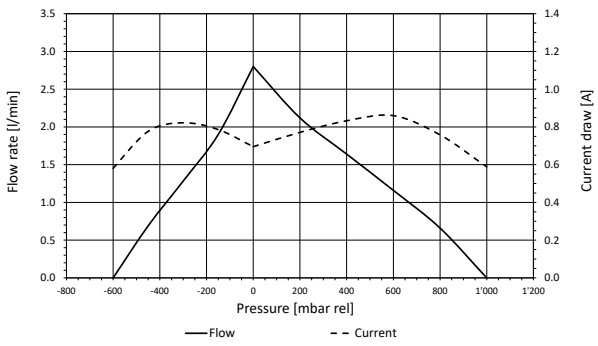
| Series model | Flow rate at atm. pressure (l/min) | Max. operating pressure (bar rel) | Ultimate vacuum (mbar abs.) |
|---|---|---|---|
| NMP830KTDC 6V | 2.8 | 1 | 350 |
| NMP830KTDC 12V | 2.5 | 1 | 350 |
| NMP830KTDC 24V | 2.6 | 1 | 350 |

## NMP830KTDC

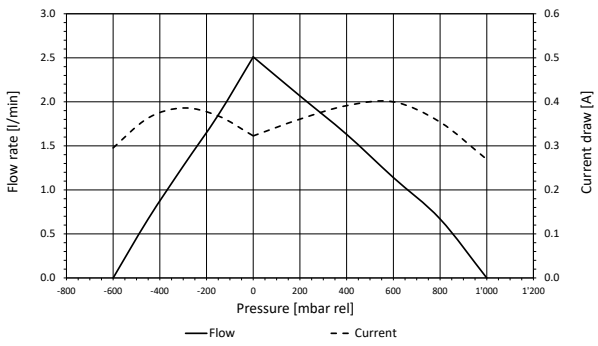



Dimensions in mm

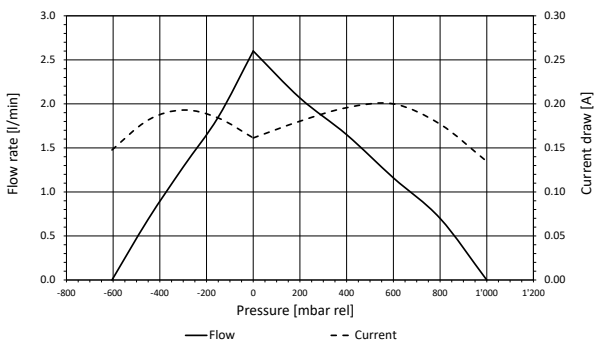
## NMP830KTDC 6V FLOW CURVE




## NMP830KTDC 12V FLOW CURVE




## NMP830KTDC 24V FLOW CURVE

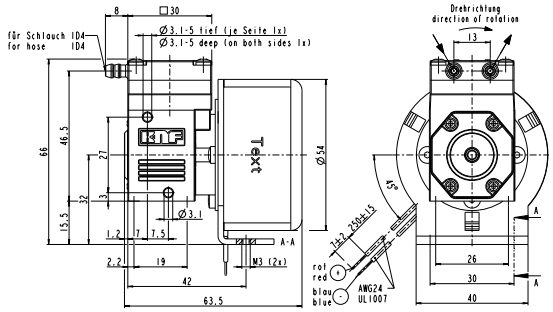



# NMP830KNDC-B

## PERFORMANCE DATA

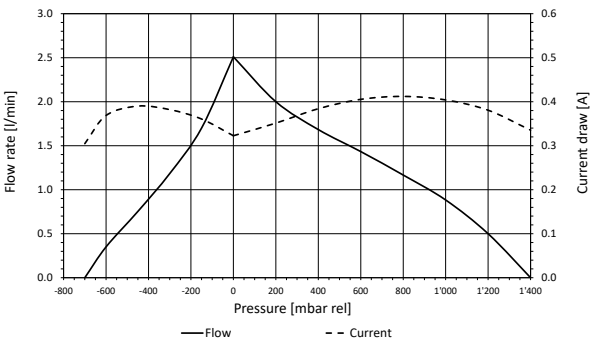
| Series model | Flow rate at atm. pressure (l/min) | Max. operating pressure (bar rel) | Ultimate vacuum (mbar abs.) |
|---|---|---|---|
| NMP830KNDC-B 12V | 2.5 | 1.4 | 250 |
| NMP830KNDC-B 24V | 2.5 | 1.4 | 250 |

## NMP830KNDC-B

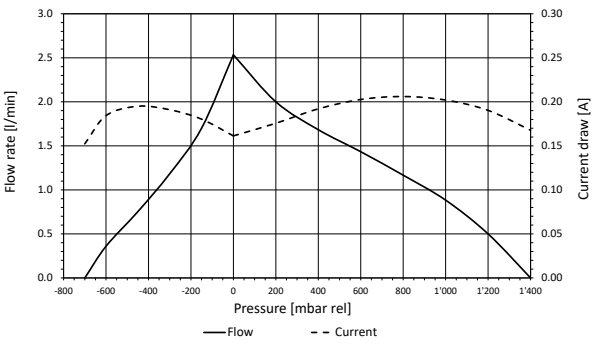



Dimensions in mm

## NMP830KNDC-B 12V FLOW CURVE




## NMP830KNDC-B 24V FLOW CURVE

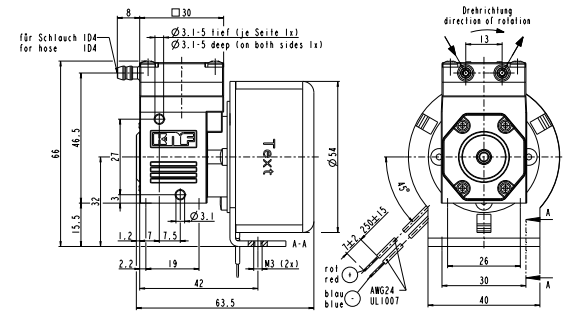


# NMP830KVDC-B

## PERFORMANCE DATA

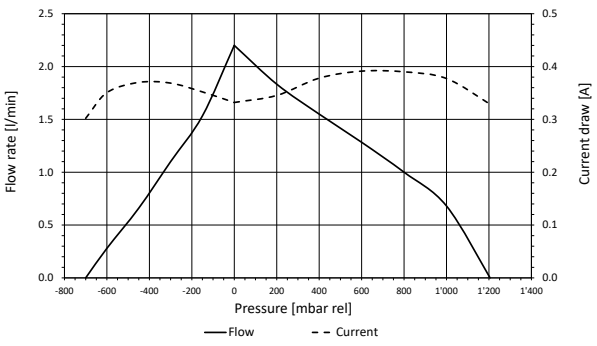
| Series model | Flow rate at atm. pressure (l/min) | Max. operating pressure (bar rel) | Ultimate vacuum (mbar abs.) |
|---|---|---|---|
| NMP830KVDC-B 12V | 2.2 | 1.2 | 250 |
| NMP830KVDC-B 24V | 2.2 | 1.2 | 250 |

## NMP830KVDC-B

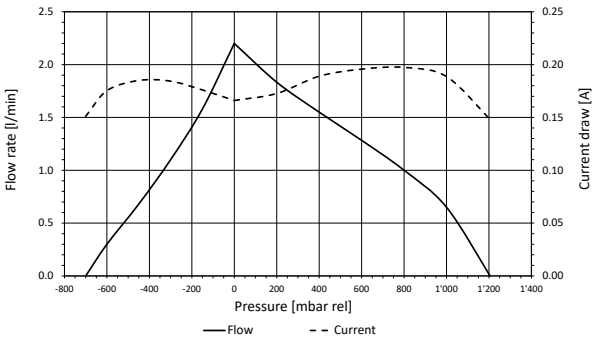



Dimensions in mm

## NMP830KVDC-B 12V FLOW CURVE




## NMP830KVDC-B 24V FLOW CURVE

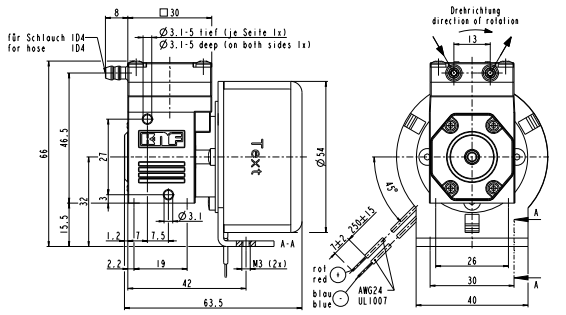



# NMP830KTDC-B

## PERFORMANCE DATA

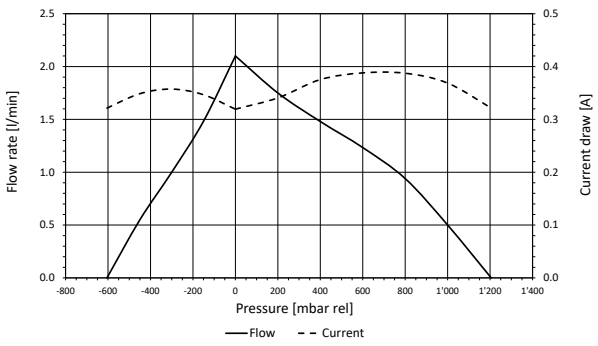
| Series model | Flow rate at atm. pressure (l/min) | Max. operating pressure (bar rel) | Ultimate vacuum (mbar abs.) |
|---|---|---|---|
| NMP830KTDC-B 12V | 2.1 | 1.2 | 350 |
| NMP830KTDC-B 24V | 2.1 | 1.2 | 350 |

## NMP830KTDC-B

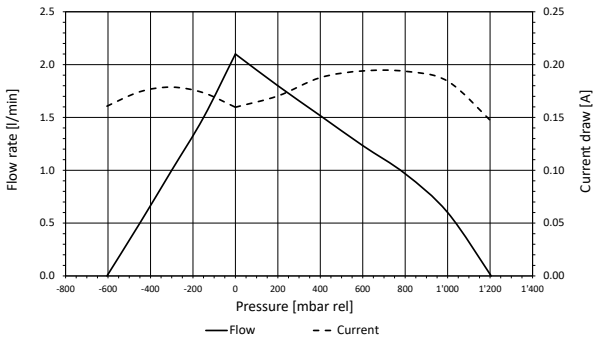



Dimensions in mm

## NMP830KTDC-B 12V FLOW CURVE




## NMP830KTDC-B 24V FLOW CURVE



## OPTIONS

| Description | Illustration | Part No. | Details |
|---|---|---|---|
| Motors | | | Other motor options are available. Ask your KNF sales contact to find the best solution for you. |
| Connecting plate | | | DN4/6 connecting plate<br><br>M5 inside thread<br><br>UNF 1/4".-28 inside thread |
| Eccentric | | | Other eccentricities are available to meet your operating point best. |

## ACCESSORIES

| Description | Illustration | Part No. | Details |
|---|---|---|---|
| Silencer | | 024805 | For hose barbs |
| Silencer | | 314005 | For DN4/6 connecting plate |
| Mounting plate | | 162405 | Hole distance 43 x 22 mm. Inner diameter of the sleeve is 3.5 mm, screws are not included. |
| Rubber-bonded metal | | On request | |

## SPARE PARTS

| Description | Illustration | Part No. | Details |
|---|---|---|---|
| Spare part kit for KP version<br>NMP830KN<br>NMP830KV<br>NMP830KT | | 120804<br>120805<br>120806 | One kit per head containing valve, O-Ring and Diaphragm.<br>For a double head pump two kits are required. |

The performance values for the series models shown on this data sheet were determined under test conditions.
The actual performance values may differ and depend in particular on the usage conditions and therefore on the specific application, on the parameters of the components involved in the user's system and on any technical modifications carried out which deviate from the standard configuration or the as delivered condition.

If individual designs have been created for specific customers on the basis of series models, other technical performance data may apply.
Before operation begins, the relevant operating instructions and/or assembly or installation instructions should be read and the safety information contained in these instructions should be noted.
KNF reserves the right to make changes to the product and the associated documentation without prior notice to the customer.

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