

# Diaphragm Pumps for Air, Gases and Vapours

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TECHNOLOGY  
WORLDWIDE

**KNF**  
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## Series LABOPORT® N 86 K\_.18 Pumps

Series N 86 diaphragm pumps are single-head, dry-running devices used in a wide range of laboratory applications. They transfer, compress and pump down without contamination. The heart of these very compact pumps is a KNF structured diaphragm. This patented diaphragm was stress-optimized using the Finite Elements method. As a result, we were able to make the pumps smaller while increasing the service life of the diaphragm.

The pumps are available in various versions differing in the materials which contact the media.

## LABOPORT® Mini Diaphragm Vacuum Pumps and Compressors

### Technical features:

- 100% oil-free transfer
- Pure transfer, evacuation and compression
- Version for slightly aggressive or corrosive gases and vapours
- Maintenance-free
- Environmentally friendly
- High level of gas tightness.

### Material in contact with the pumped media

| Type/OrderNo. | Pump head | Diaphragm   | Valves |
|---------------|-----------|-------------|--------|
| N 86 KN.18    | PPS       | EPDM        | FPM    |
| N 86 KT.18    | PPS       | PTFE-coated | FFPM   |

### Technical data:

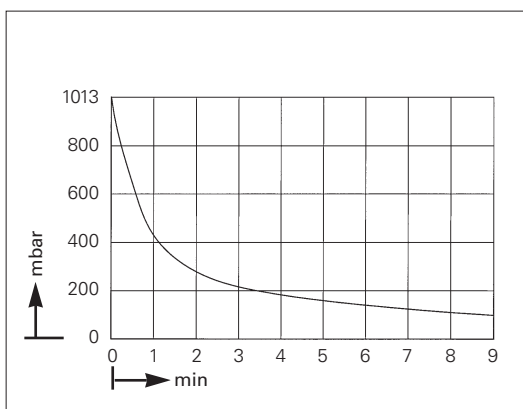
|   | N 86 KN.18  | N 86 KT.18  |
|---|-------------|-------------|
| Delivery (l/min) <sup>1)</sup>          | 6           | 5.5         |
| Ultimate vacuum (mbar abs.)             | 100         | 160         |
| Operating pressure (bar g)              | 2.4         | 2.5         |
| Connectors for tube (mm)                | ID 4        | ID 4        |
| Permissible gas and ambient temperature | +5...+40 °C | +5...+40 °C |
| Mains                                   | 230V/50Hz   | 230V/50Hz   |
| Motor protection                        | IP 20       | IP 20       |
| Power P <sub>1</sub>                    | 65 W        | 65 W        |
| Operating current                       | 0.63 A      | 0.63 A      |
| Weight                                  | 1.9 kg      | 1.9 kg      |
| Dimensions LxHxW (mm)                   | 164/141/90  | 164/141/90  |
| With thermal switch and power fuse      |             |             |

Motors with other voltages and frequencies on request.

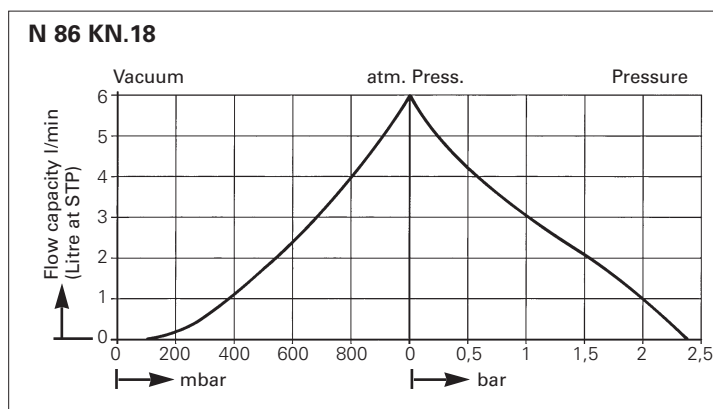
<sup>1)</sup> at atm. pressure

## Dimensions and performance characteristics

### Pump down time for 5 l receiver



### Performance characteristics



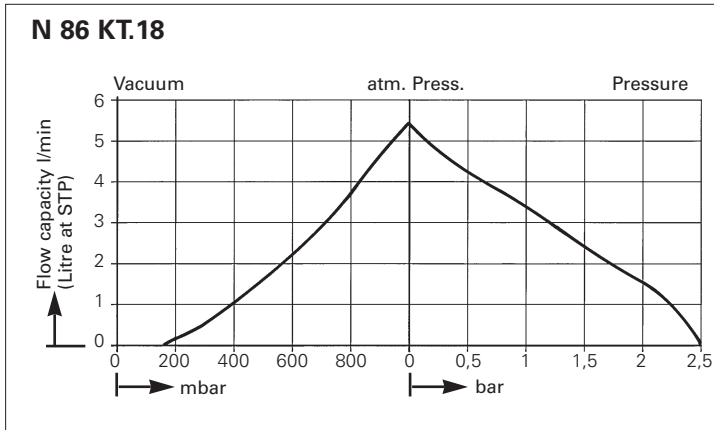
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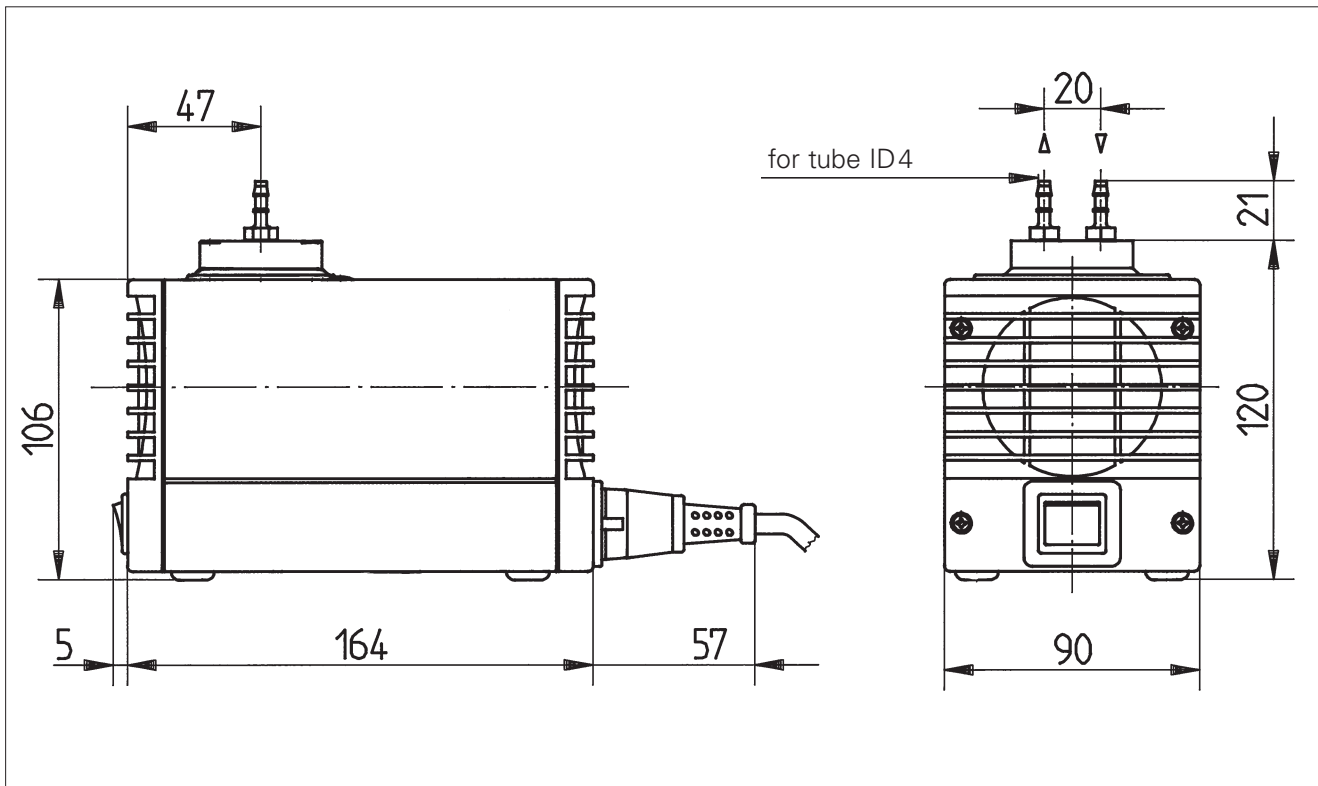
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## Performance characteristics



## Dimensions (mm)



## Accessories and spare parts

| Description                            | Details              | Order No.  |
|--|----------------------|------------|
| Silencer                               | G 1/8                | 000345     |
| Filter                                 | G 1/8                | 000346     |
| Hose connector                         | G 1/8, PVDF, AD 4 mm | 025671     |
| Fine control valve with pressure gauge | pressure side        | on request |
| Fine control valve with vacuum gauge   | suction side         | on request |
| Spares kit                             | for N 86 KN.18       | 043241     |
| Spares kit                             | for N 86 KT.18       | 043242     |