

# MINI DIAPHRAGM VACUUM PUMP

## LABOPORT® N 86 KT.18



### Technical features

- 100 % oil-free transfer – thereby pure transferring, evacuation and compression of gases
- Extremely low footprint
- PTFE-coated diaphragm is ideal for aggressive/ corrosive gases and vapors
- Environmentally friendly

### Technical data

Flow rate [m³/h] at atm. pressure	0.33
Flow rate [l/min] at atm. pressure	5.5
Ultimate vacuum [mbar abs.]	160
Operating pressure [bar]	2.5
Voltage [V]	230
Frequencies [Hz]	50
Motor protection	IP 20
Power P <sub>1</sub> [W]	60
Operating current [A]	0.6
With thermal switch and power fuse	
Motors with other voltages and frequencies on request	

### MATERIALS

Pump head	PPS
Diaphragm	PTFE-coated
Valves	FFPM

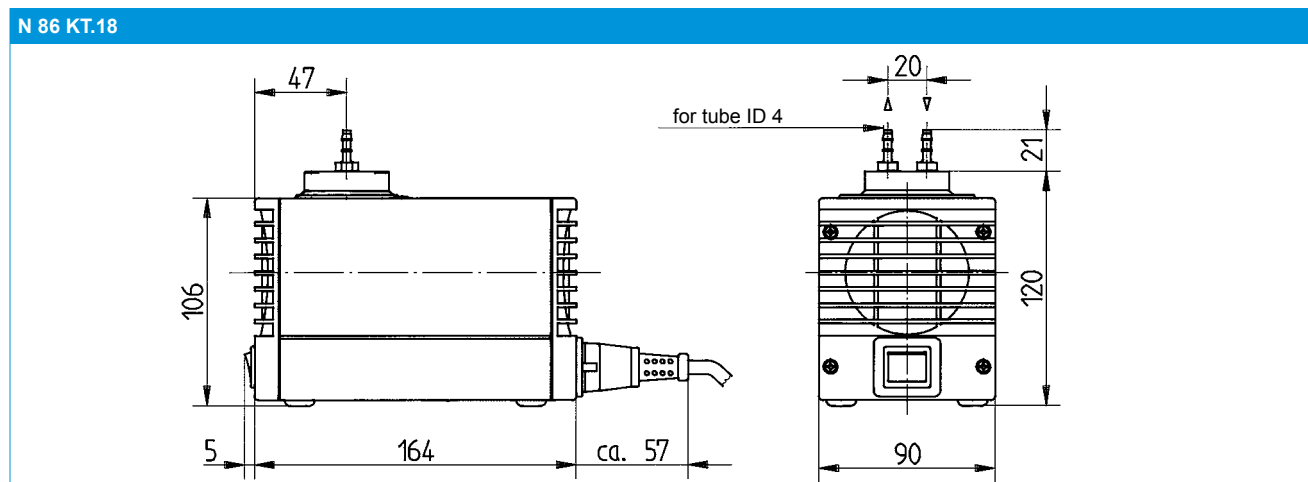
### OTHER DATA

Weight [kg]	1.9
Hose connections	ID 4
Dimensions W x H x D [mm]	90 x 141 x 164
Permissible media and ambient temperature [°C]	+5 ... +40

### ACCESSORIES

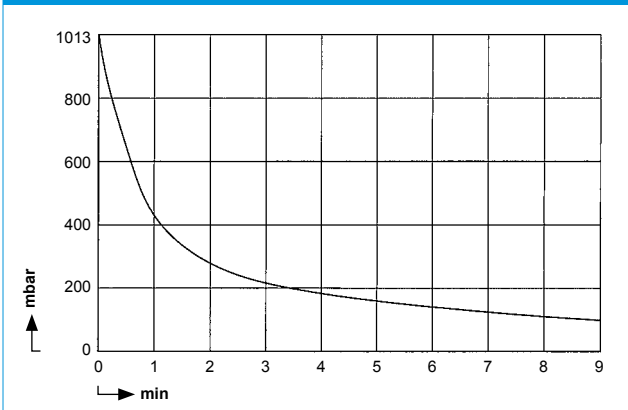
ACCESSORIES	ID
Silencer	000345
Hose connector G 1/8, ID 4, PVDF	025671
G 1/8, ID 6, PVDF	123363
G 1/8, ID 4, PA	001936
G 1/8, ID 6, PA	000360
G 1/8, ID 8, PA	004975
Fine control valve with pressure gauge	001786
Fine control valve with vacuum gauge	001787
Spares kit	043242

### Dimensions

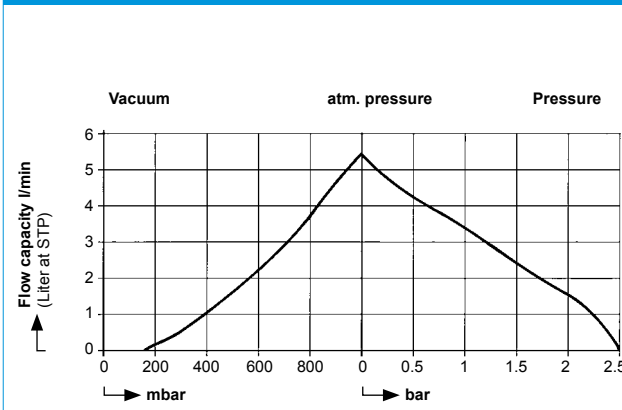


## Performance characteristics

**PUMP DOWN TIME FOR 5 LITER VESSEL**



**FLOW CAPACITY**



## Diaphragm Pumps for Air, Gases and Vapours



### LABOPORT® Mini Diaphragm Vacuum Pumps and Compressors

#### Technical features:

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

#### Series LABOPORT® N 86 KN.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.

#### Technical data: N 86 KN.18

Delivery (l/min) <sup>1)</sup>	6
Ultimate vacuum (mbar abs.)	100
Operating pressure (bar g)	2.4
Connectors for tube (mm)	ID 4
Permissible gas and ambient temperature	+5...+40 °C
Mains	230V/50Hz
Motor protection	IP 20
Power P <sub>1</sub>	60 W
Operating current	0.6 A
Weight	1.9 kg
Dimensions L x H x W (mm)	164/141/90

With thermal switch and power fuse

Motors with other voltages and frequencies on request.

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

#### Material in contact with the pumped media

Type/Order No.	Pump head	Diaphragm	Valves
N 86 KN.18	PPS	EPDM	FPM

#### Accessories and spare parts

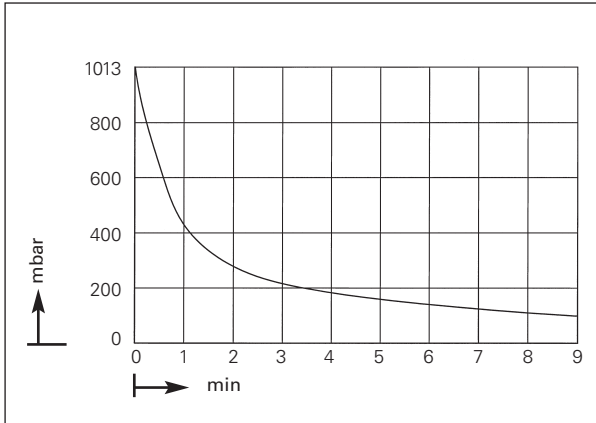
Description	Details	Order No.
Silencer	G 1/8	000345
Filter	G 1/8	000346
Hose connector	G 1/8, PVDF, for tube ID 4 mm	025671
Fine control valve with pressure gauge	pressure side	001786
Fine control valve with vacuum gauge	suction side	001787
Spares kit	for N 86 KN.18	043241



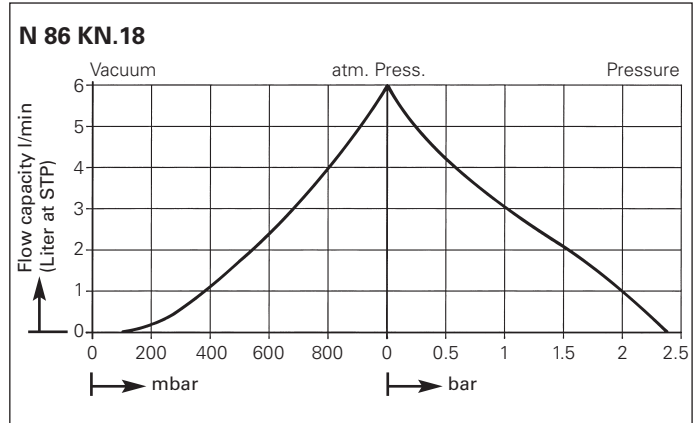
# Diaphragm Pumps for Air, Gases and Vapours

## Dimensions and performance characteristics

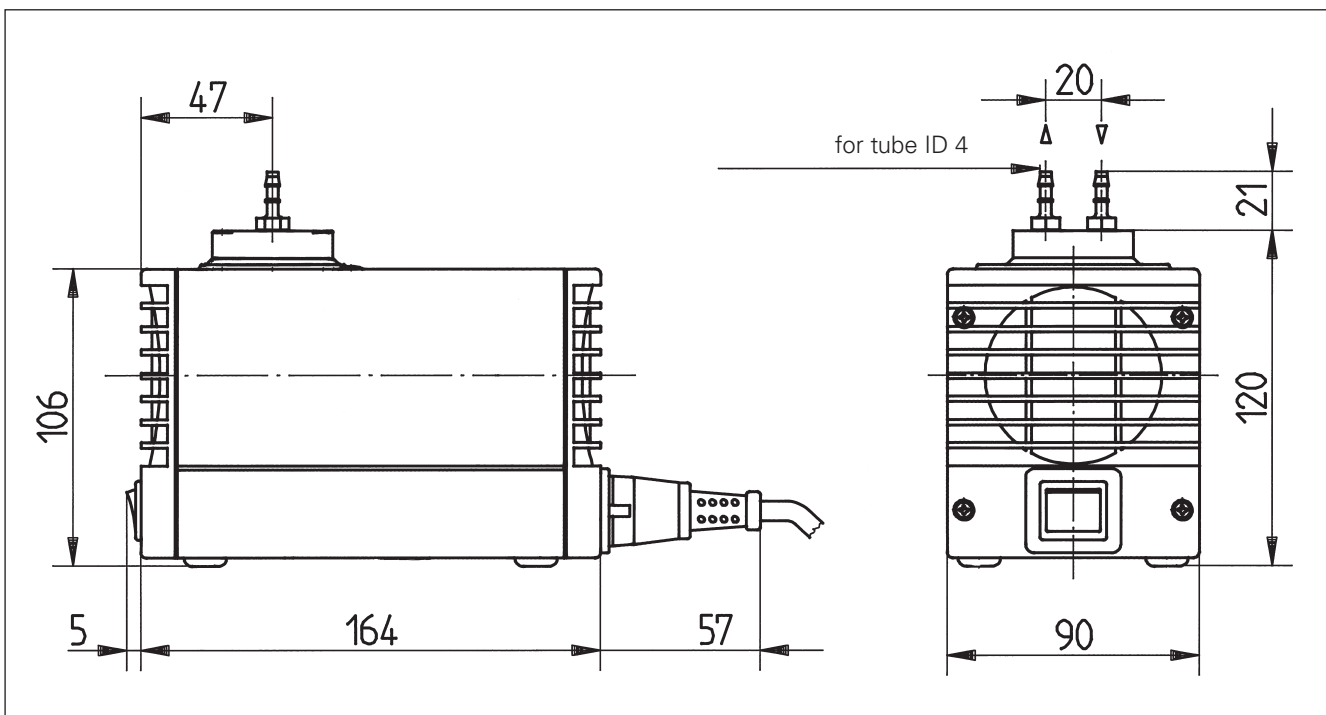
Pump down time for 5 l receiver



Performance characteristics



Dimensions (mm)



## Diaphragm Pumps for Air, Gases and Vapours



### Series LABOPORT® N 811 K\_.18 Pumps

## LABOPORT® Mini Diaphragm Vacuum Pumps and Compressors

#### Technical features:

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

Series N 811 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.

Technical data:	N 811 KN.18	N 811 KT.18
Delivery (l/min) <sup>1)</sup>	11.5	11.5
Ultimate vacuum (mbar abs.)	240	290
Operating pressure (bar g)	2	2
Connectors for tube (mm)	ID 6	ID 6
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	0.8 A	0.8 A
Weight	2.5 kg	2.5 kg
Dimensions L x H x W (mm)	187/157/90	187/157/90
With thermal switch and power fuse		

Motors with other voltages and frequencies on request.

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

#### Material in contact with the pumped media

Type/Order No.	Pump head	Diaphragm	Valves
N 811 KN.18	PPS	EPDM	FPM
N 811 KT.18	PPS	PTFE-coated	FFPM

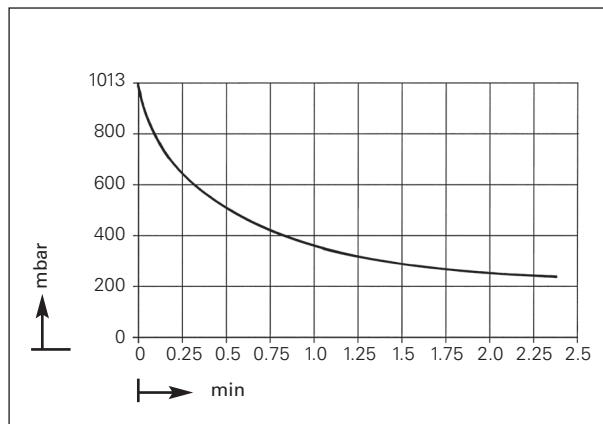
## Accessories and spare parts

Description	Details	Order No.
Silencer	G 1/8	000345
Filter	G 1/8	000346
Hose connector	G 1/8, PVDF, for tube ID 6 mm	014052
Fine control valve with pressure gauge	pressure side	001786
Fine control valve with vacuum gauge	suction side	001787
Spares kit	for N 811 KN.18	044066
Spares kit	for N 811 KT.18	044067

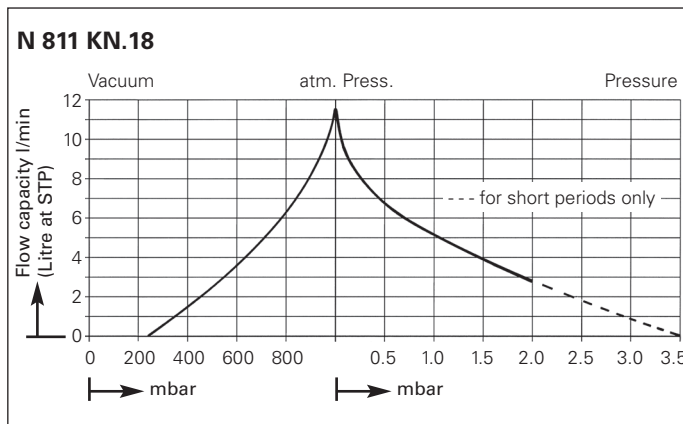
# Diaphragm Pumps for Air, Gases and Vapours

## Dimensions and performance characteristics

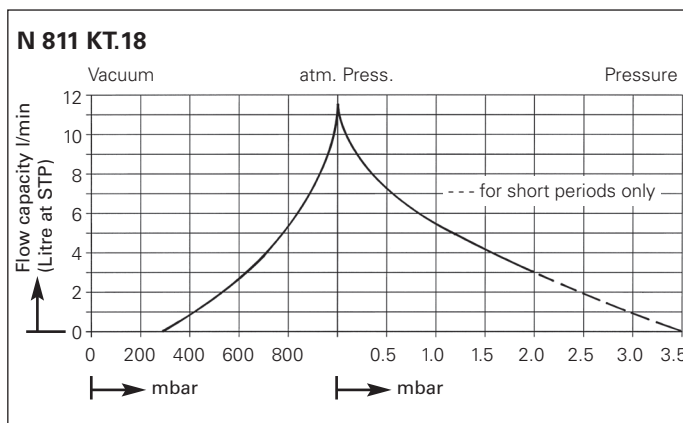
Pump down time for 5 l receiver



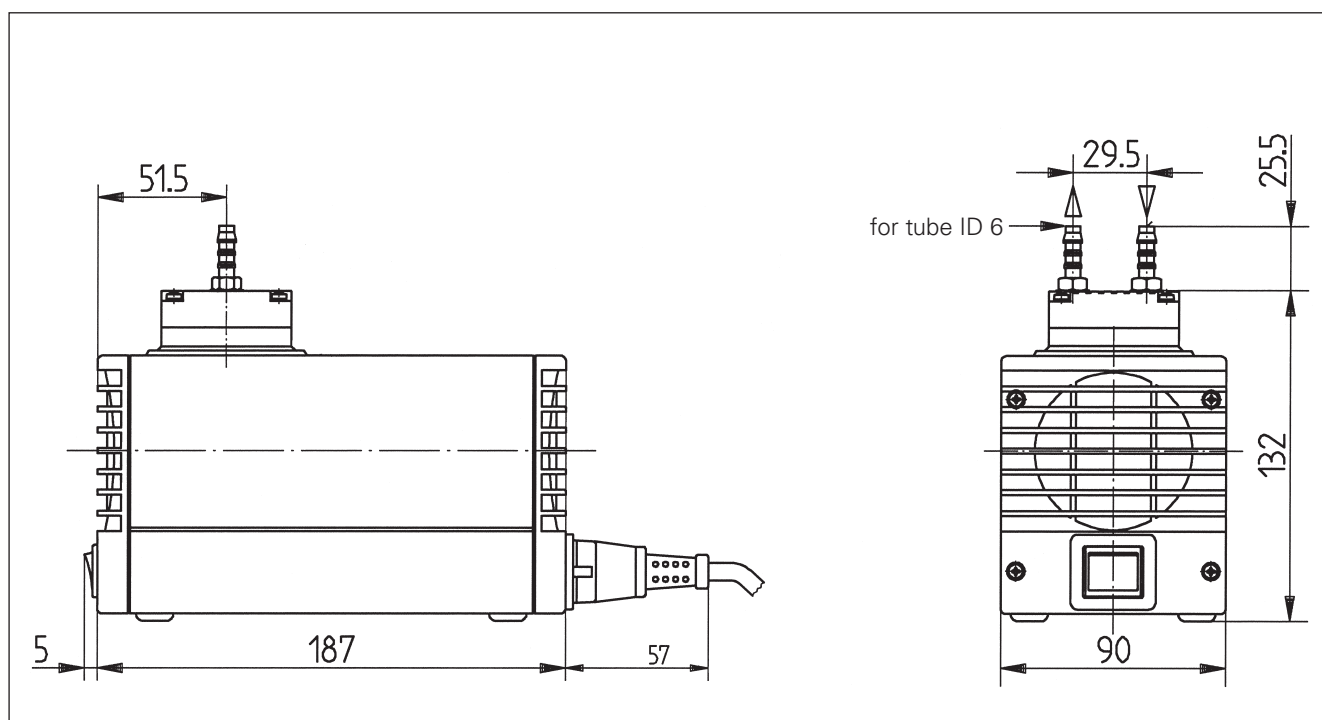
Performance characteristics



Performance characteristics



Dimensions (mm)



# MINI DIAPHRAGM VACUUM PUMP

## LABOPORT® N 96



### Technical features

- 100% oil-free transfer – thereby pure transferring, evacuation and compression of gases
- Extremely low footprint
- PTFE-coated diaphragm is ideal for aggressive/ corrosive gases and vapors
- Integrated rotational speed control
- Environmentally friendly
- Start against ultimate vacuum of the pump

### Technical data

Flow rate [m³/h] at atm. pressure	0.4
Flow rate [l/min] at atm. pressure	7
Ultimate vacuum [mbar abs.]	<130
Operating pressure [bar]	2.5
Voltage pump [V]	24 DC
Protection class	IP40
Power P <sub>i</sub> [W]	19
Operating current pump [A]	≈ 0.9
Voltage power-supply unit [V]	100 – 240 AC
Frequencies power-supply unit [Hz]	50/60
Operating current power-supply unit [A]	0.4 (230 V AC) 0.7 (100 V AC)

### MATERIALS

Pump head	PPS
Diaphragm	PTFE-coated
Valves	FKM

### OTHER DATA

Weight [kg]	1.3
Gas connections	NPT 1/8 – hose connector ID6, PP is part of the supply
Dimensions W x H x D [mm]	75 x 119 x 156
Permissible media and ambient temperature [°C]	+5 to +40

### ACCESSORIES AND SPARE PARTS

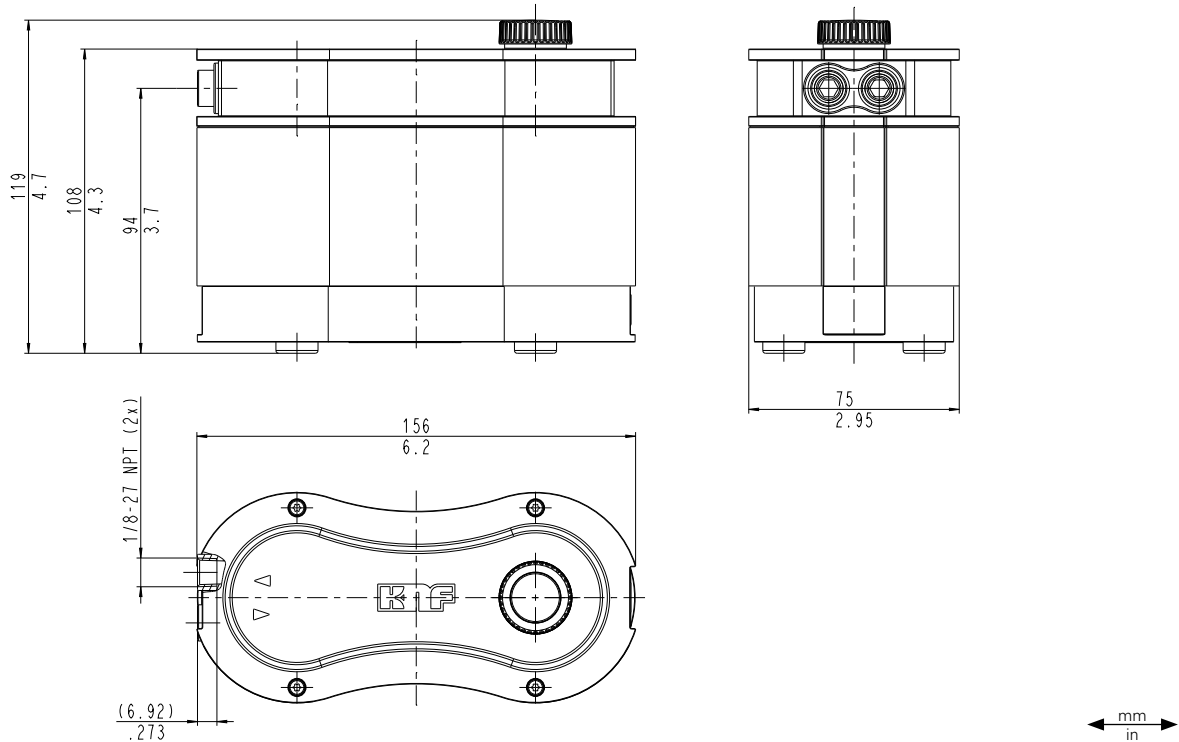
ACCESSORIES AND SPARE PARTS	ID
Spare parts kit	322636
Power-supply unit kit	323457
Silencer and hose connector ID6, PP*	323456
Column fixture	323484

\*Part of the scope of delivery



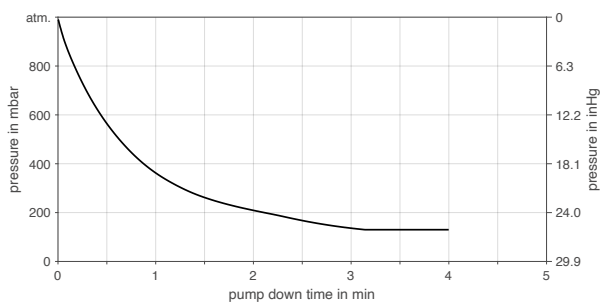
## Dimensions

N 96

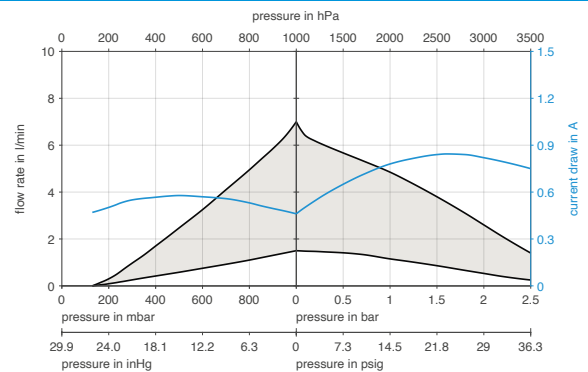


## Performance characteristics

### PUMP DOWN TIME FOR 5 LITER VESSEL



### FLOW RATE



### SUCTION PUMPING SPEED AT MIN./MAX. MOTOR SPEED

