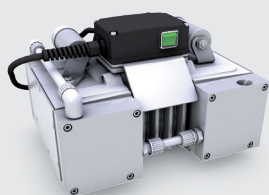
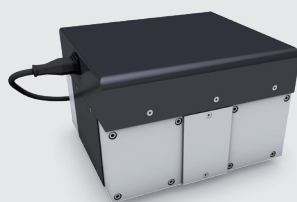


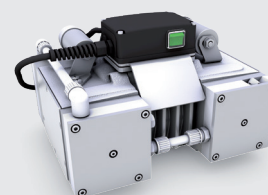
# N 940.5 SERIES VACUUM PUMPS



N 940.5 APE – AC version with IP 54 motor



N 940.5 APE-W – automatically adjusts to voltage conditions, can be used worldwide (optional potentiometer or port for external control)



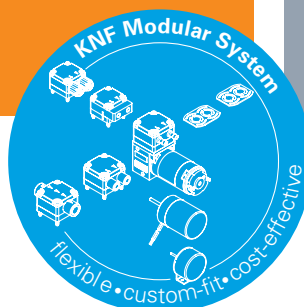
N 940.5 TTE – chemically resistant with IP 54 motor

## ADVANTAGES

- Quiet running
- High level of performance in a compact size
- Multi-voltage power supply input
- High-speed evacuation of the measurement chamber thanks to exceptional suction speed
- Stable vacuum in the transfer area to the turbomolecular pump
- High chemical resistance offered by N 940.5 TTE

## POSSIBLE AREAS OF USE

- Instrumental analysis – especially in the field of spectroscopy
- Can be used as roughing pump for turbomolecular pumps
- Diagnostics – disposal of sample waste



Please visit our website  
[www.knf.com](http://www.knf.com)  
to get more information

## PERFORMANCE DATA

Series model	N 940.5		
Material design	APE	APE-W	TTE
Pump head	Aluminum		PTFE/PVDF
Diaphragm	EPDM		PTFE
Valves	EPDM		FFPM
Flow rate at atm. pressure (l/min) <sup>1)</sup>	50.0		48.0
Ultimate vacuum (mbar abs.)	< 1.5		2
Max. operating pressure (bar rel./psig) <sup>2)</sup>	0.5/7.3		
Permissible ambient temperature (°C)	+10 ... +40		
Permissible media temperature (°C)	+5 ... +40		
Weight (kg/lbs)	18.9/41.6	16.8/37.0	18.6/40.9

## ELECTRICAL DATA

Voltage (V)	230	100–240	230
Motor	Capacitor motor	Brushless DC motor with AC power supply	Capacitor motor
Protection class motor	IP 54	IP 20	IP 54
Frequencies (Hz)	50	50/60	50
Power P <sub>1</sub> (W)	250	250	250
I <sub>max</sub> (A)	1.70	2.80	1.70

<sup>1)</sup> Liter in the standard state (based on ISO 8788 and ISO 21360-1/2) (1000 hPa, 20°C); <sup>2)</sup> bar relative to 1000 hPa

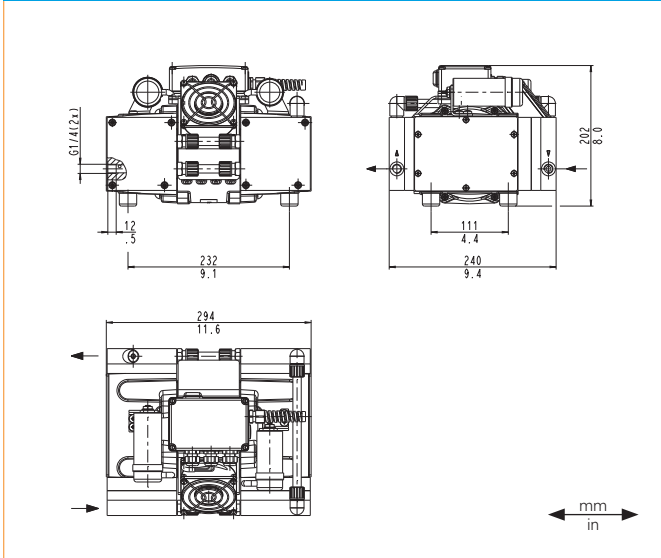
# N 940.5 APE

## PERFORMANCE DATA

Series model	Flow rate at atm. pressure (l/min) <sup>1)</sup>	Max. operating pressure (bar rel./psig) <sup>2)</sup>	Ultimate vacuum (mbar abs.)
N 940.5 APE	50.0	0.5/7.3	< 1.5

<sup>1)</sup> Liter in the standard state (based on ISO 8788 and ISO 21360-1/2) (1000 hPa, 20°C); <sup>2)</sup> bar relative to 1000 hPa

### N 940.5 APE



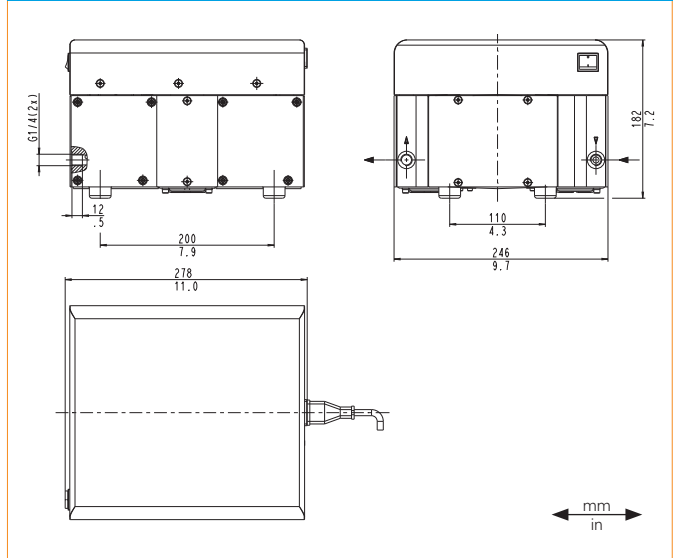
# N 940.5 APE-W

## PERFORMANCE DATA

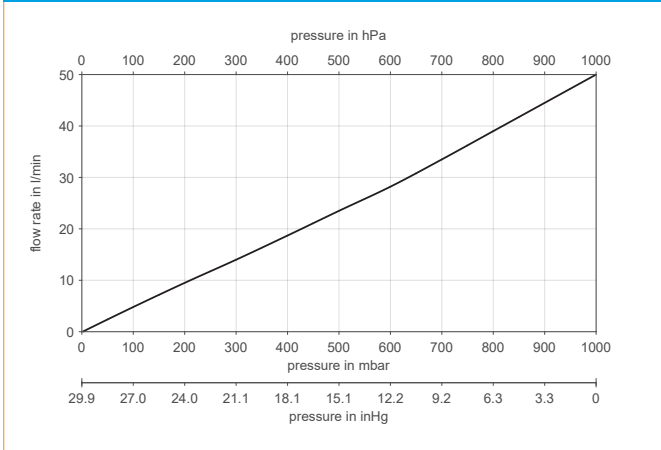
Series model	Flow rate at atm. pressure (l/min) <sup>1)</sup>	Max. operating pressure (bar rel./psig) <sup>2)</sup>	Ultimate vacuum (mbar abs.)
N 940.5 APE-W	50.0	0.5/7.3	< 1.5

<sup>1)</sup> Liter in the standard state (based on ISO 8788 and ISO 21360-1/2) (1000 hPa, 20°C); <sup>2)</sup> bar relative to 1000 hPa

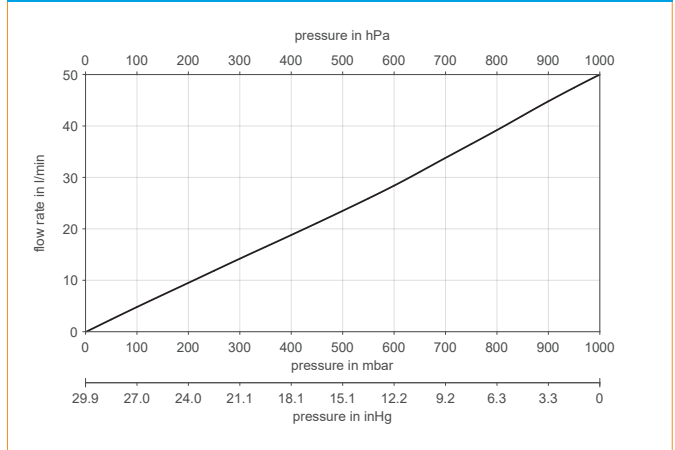
### N 940.5 APE-W



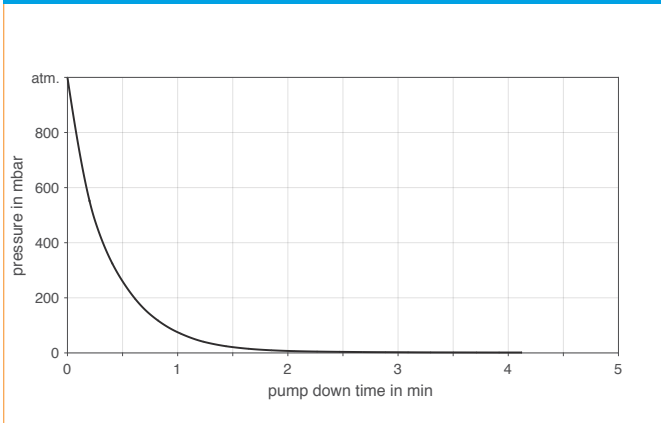
### N 940.5 APE



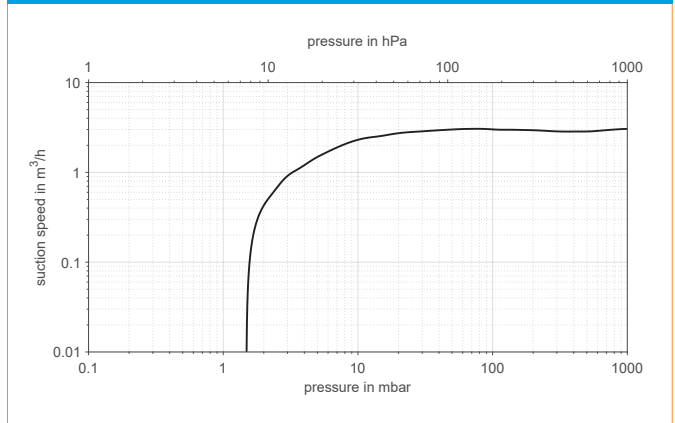
### N 940.5 APE-W



### N 940.5 APE | APE-W | PUMP DOWN TIME FOR 20 LITER VESSEL



### N 940.5 APE | APE-W | SUCTION PUMPING SPEED



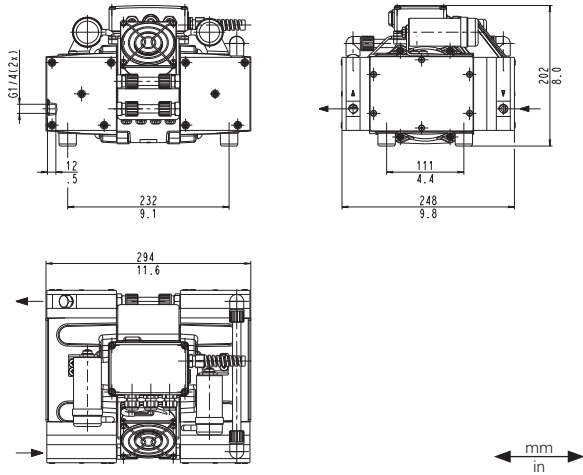
# N 940.5 TTE

## PERFORMANCE DATA

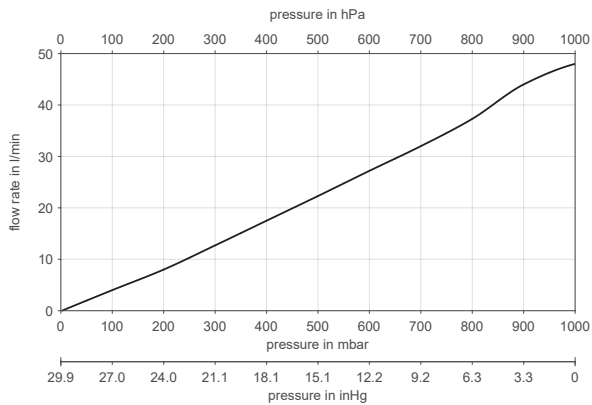
Series model	Flow rate at atm. pressure (l/min) <sup>1)</sup>	Max. operating pressure (bar rel./psig) <sup>2)</sup>	Ultimate vacuum (mbar abs.)
N 940.5 TTE	48.0	0.5/7.3	2

<sup>1)</sup> Liter in the standard state (based on ISO 8788 and ISO 21360-1/2) (1000 hPa, 20°C); <sup>2)</sup> bar relative to 1000 hPa

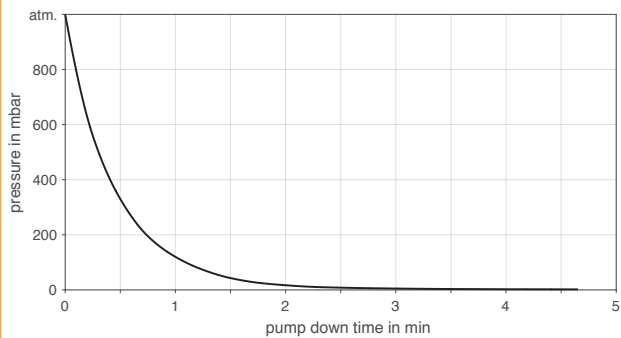
### N 940.5 TTE



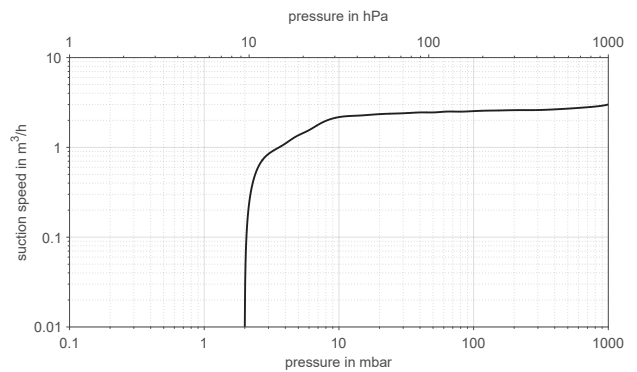
### N 940.5 TTE



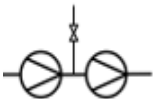
### N 940.5 TTE | PUMP DOWN TIME FOR 20 LITER VESSEL



### N 940.5 TTE | SUCTION PUMPING SPEED





## OPTIONS

Description	Illustration	Details
Gasbalast		The use of gasbalast reduces the partial pressure of the condensable gases due to the additional gasvolume flow and remove condensate from the pump.

## ACCESSORIES

Description	Illustration	Part No.	Details
Silencer		045993	G 3/8
Adapter for silencer		014757	G 3/8 to G 1/4
Small flange, stainless steel		048116	G 1/4, KF DN 16
Hose connector, Ms (only for N 940.5 APE/APE-W)		049880	G 1/4, for hose ID 13
Hose connector, PP		045293	G 1/4, for hose ID 10
Sealing for hose connector, Ms (only for N 940.5 APE/APE-W)		029112	

## SPARE PARTS

Description	Illustration	Part No.	Details
Spare part kit N 940.5 APE		346416	Spare parts kit consists of: 4x formed diaphragm, 8x valve plate, 12x O-Ring. This set is required to maintain the pump.
Spare part kit N 940.5 TTE		346417	Spare parts kit consists of: 4x formed diaphragm, 8x valve plate, 12x O-Ring. This set is required to maintain the pump.

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.



[www.knf.com](http://www.knf.com)