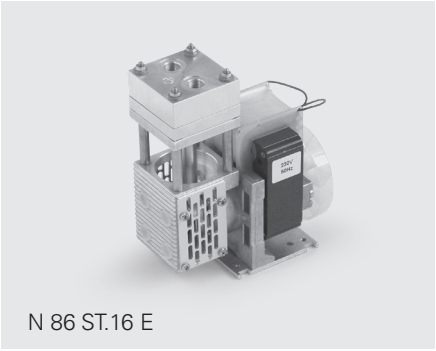
N 86.16 SERIES
TEMPERATURE-RESISTANT GAS SAMPLING PUMPS



N 86 ST.16 E

ADVANTAGES

- The temperature-resistant pump head is ideal for transferring hot process gases of up to 240 °C
- High chemical resistance
- Compact size

POSSIBLE AREAS OF USE

- Environmental monitoring – especially motor test benches in automobile industry
- Analytical technology
- Research

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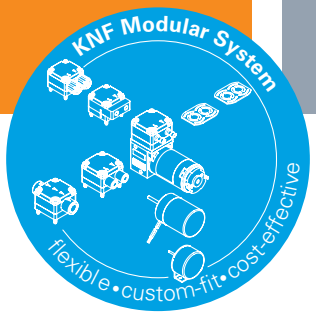

PERFORMANCE DATA		
Series model	**N 86**	
Material design	**AT.16 E**	**ST.16 E**
Pump head	Aluminum	Stainless steel
Diaphragm	PTFE	
Valves	PTFE	
Flow rate at atm. pressure (l/min)[2]	6.0	
Ultimate vacuum (mbar abs.)	290	
Max. operating pressure (bar rel./psig)[1]	1.5/21.8	
Permissible ambient temperature (°C)	+5 ... +40	
Permissible media temperature (°C)	+5 ... +240	
Weight (kg/lbs)	1.3/2.9	1.5/3.3
ELECTRICAL DATA		
Voltage (V)	230	
Motor	Shaded pole motor	
Protection class motor	IP 00	
Frequency (Hz)	50/60	
Power P_1 (W)	60.0	
I_{max} (A)	0.70	

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

N 86 AT.16 E | N 86 ST.16 E

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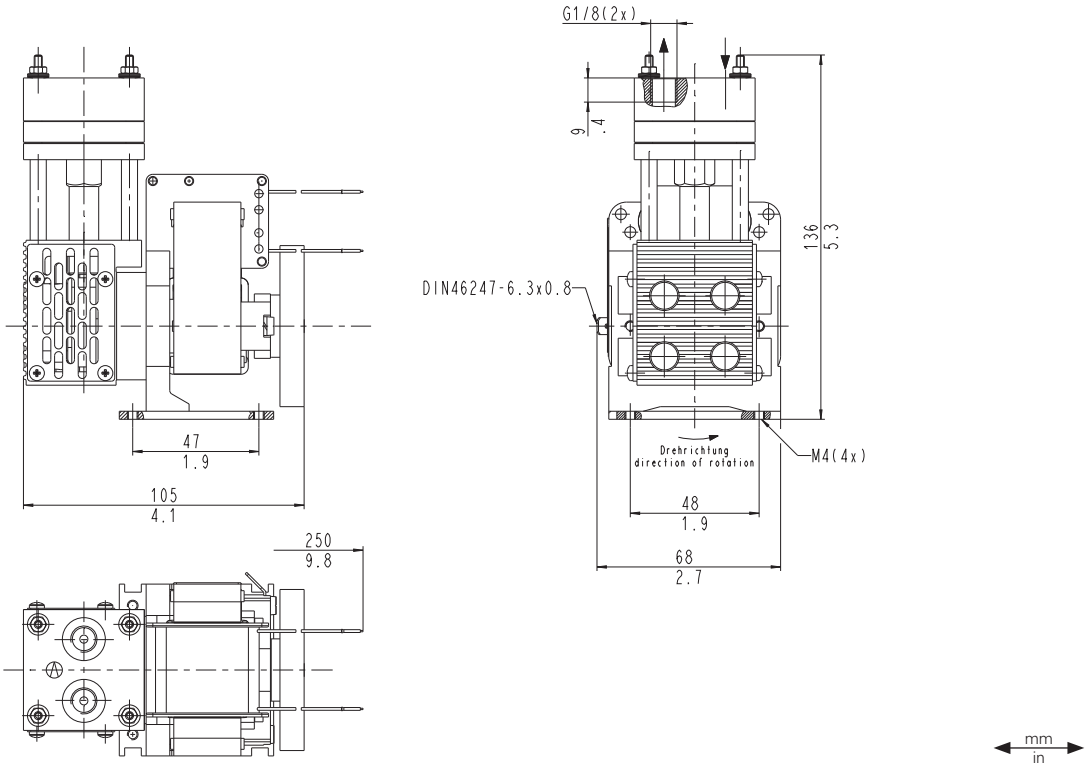
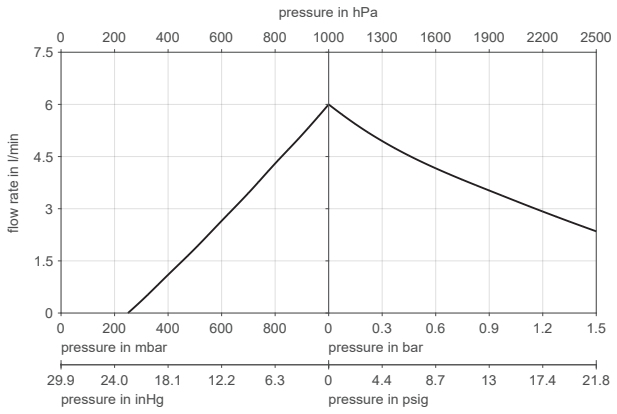
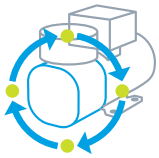


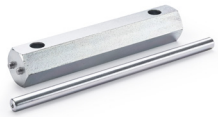
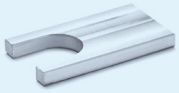
N 86 _T.16 E



OPTIONS

Description	Illustration	Details
Rotated pump housing		The pump housing may be rotated by 180° at the factory. Any condensate will drain from the pump head, which improves the function of the pump when operating with high condensate concentrations.
Customized head connectors		The height of the remote pump head can be adapted to the customer's system according to the project. NPT1/8" threaded connections and various fittings are optional.
Flanged version		This configuration has been designed for installation on a heated analyzer cabinet. The pump is mounted by a flange on the outside of the cabinet housing. The pump head then protrudes into the hot area. The area between the pump head and the compressor housing can be insulated.
Brushless DC motor		Controllable, brushless DC motors are available as an option. They can be used for the dynamic adjustment of pumping capacity to the customer's system and for the custom-fit calibration of the pumping capacity.
Heated variant (.11)		The pump head is pre-heated to ca. 240 °C using a heating cartridge and a thermostat.

ACCESSORIES

Description	Illustration	Part No.
Wrench for retainer plate		018812
Holding tool		055662

SPARE PARTS

Description	Illustration	Part No.	Details
Spare parts kit N 86 AT/ST.16		032522	Spare parts kit consists of: 1x diaphragm (2-fold), 1x valve plate, 1x 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.

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