N 012 SERIES | TEMPERATURE-RESISTANT AND HEATED GAS SAMPLING PUMPS

N 012 ST.16 E

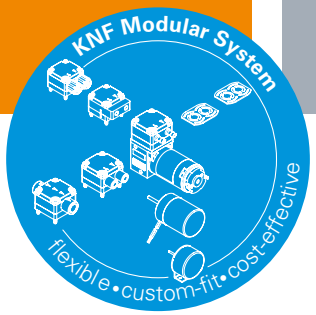
ADVANTAGES

- Temperature-resistant (.16) or electrically heated with thermo-static temperature control (.11) for transferring hot process gases of up to 240 °C
- High chemical resistance
- Homogeneous temperature distribution throughout the entire pump head
- No condensation in the pump head

POSSIBLE AREAS OF USE

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

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



PERFORMANCE DATA			
Series model	**N 012**		
Material design	**AT.16 E**	**ST.16 E**	**ST.11 E**
Pump head	Aluminum	Stainless steel	
Diaphragm	PTFE		
Valves	PTFE		
Flow rate at atm. pressure (l/min)	10.5		
Ultimate vacuum (mbar abs.)	240		
Max. operating pressure (bar rel./psig)	1.5/21.8		
Permissible ambient temperature (°C)	+5 ... +40		
Permissible media temperature (°C)	+5 ... +240		
Weight (kg/lbs)	3.4/7.5	4.0/8.8	
ELECTRICAL DATA			
Voltage (V)	230		
Motor	Capacitor motor		
Protection class motor	IP 54		
Frequency (Hz)	50		
Power P_1 (W)	80		
I_{max} (A)	0.40		

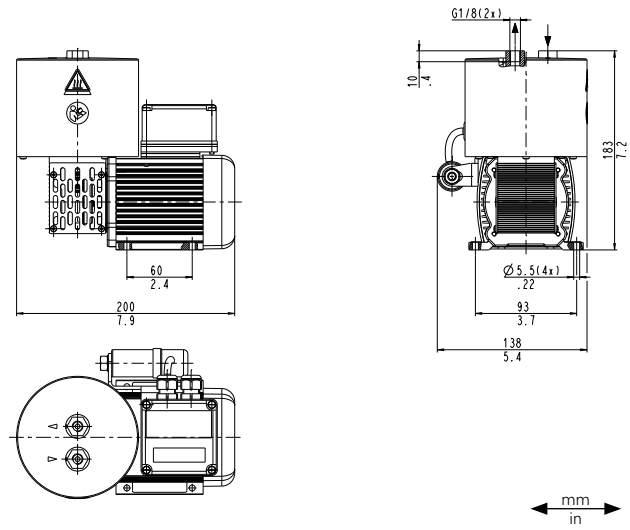
N 012 AT.16 E | ST.16 E

PERFORMANCE DATA

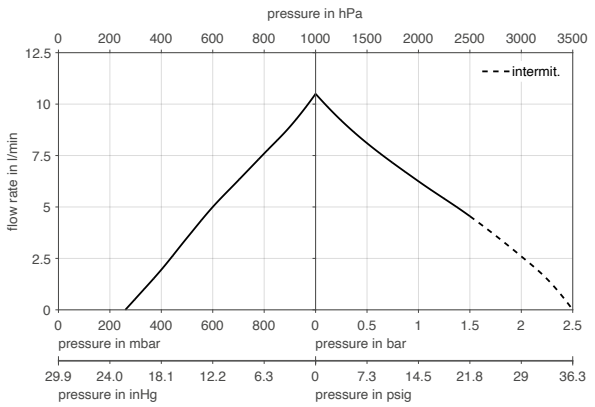
Series model	Flow rate at atm. pressure (l/min)[1)]	Max. operating pressure (bar rel./psig)	Ultimate vacuum (mbar abs.)
N 012 AT.16 E	10.5	1.5/21.8	240
N 012 ST.16 E	10.5	1.5/21.8	240

[1)] Flow rate determined at 20 °C, 1000 mbar abs. (Pressure 0 to 1000 mbar abs. in accordance with ISO 21360/ISO 8778)

N 012 _T.16 E



N 012 _T.16 E



N 012 ST.11 E

PERFORMANCE DATA

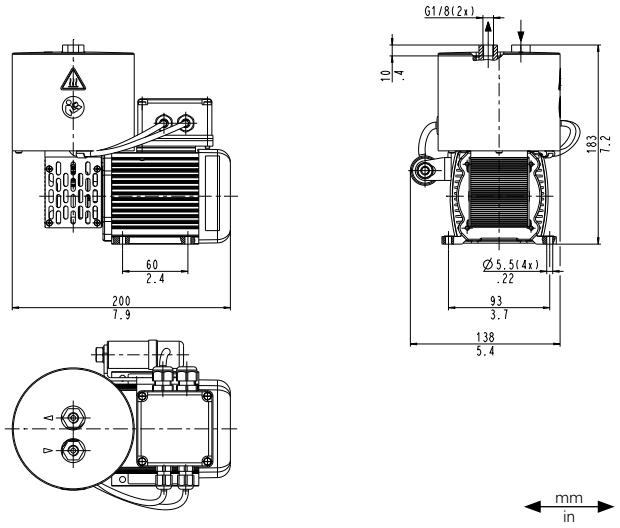
Series model	Flow rate at atm. pressure (l/min)[1)]	Max. operating pressure (bar rel./psig)	Ultimate vacuum (mbar abs.)
N 012 ST.11 E	10.5	1.5/21.8	240

[1)] Flow rate determined at 20 °C, 1000 mbar abs. (Pressure 0 to 1000 mbar abs. in accordance with ISO 21360/ISO 8778)

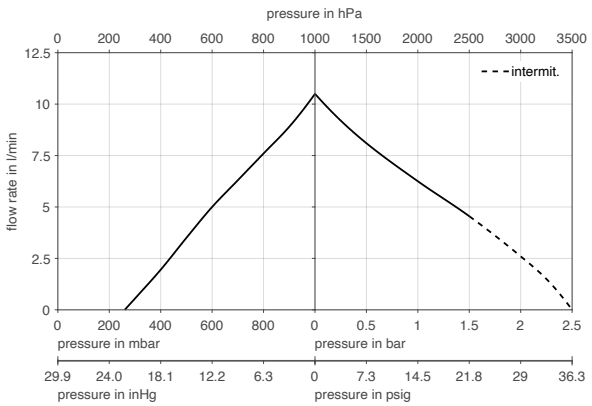
HEATING: N 012 ST.11 E

Protection class	IP 20
Voltage/Frequencies (V/Hz)	230/50
Power P_1 (W)	140
I_{max} (A)	0.60
Heating temperature (°C)	240

N 012 ST.11 E



N 012 ST.11 E

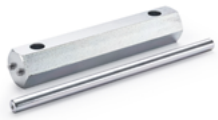


OPTIONS

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.
ATEX[2]/IECEx[3]		Pumps for explosion-proof areas are available with the following certificates on request: ATEX, IECEx, KOSHA, PESO, NEPSI.

[2] ATEX only applies within the EU. | [3] IECEx only applies outside the EU. Operation of this pump is not permitted in the EU! The pump does not comply with EU directives.

ACCESSORIES

Description	Illustration	Part No.
Wrench for retainer plate		018812

SPARE PARTS

Description	Illustration	Part No.	Details
Spare parts kit N 012 AT/ST		032523	Spare parts kit consists of: 1x wave diaphragm, 2x valve plate, 2x O-Rings, 28x disc spring. 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