

ANKERSMID Diaphragm pump

AMP 416/416Ex Series

Application

Ankersmid Mini Diaphragm Pumps are used for the transportation of sample gas in sample conditioning systems in the chemical industry, for environmental applications, and in production technology; some application examples are sampling gases from the ambient environment, exhaust gases and smoke analysis. The **AMP 416/416Ex** is easy to install and can be adapted to a variety of process conditions.

Description

The new range of **AMP 416/416Ex** pumps are equipped with the patented stress-optimized structured diaphragm, resulting in a durable product of high pneumatic performance and compact size. Special valves ensure minimum resistance to flow.

The pumps can be operated by either standard 230VAC, or for ex-proof applications, with a motor with various options on voltages and frequencies.

Principle

The basic construction of the AMP diaphragm gas sampling pumps is simple. An elastic diaphragm is moved up and down by an eccentric (see illustration). On the down-stroke it draws the air or gas being handled through the inlet valve. On the up-stroke the diaphragm forces the medium through the exhaust valve and out of the head. The compression chamber is hermetically separated from the drive mechanism by the diaphragm. The pumps transfer, evacuate and compress completely oil-free.



* Pictures may vary



- **No contamination of the media due to oil-free operation**
- **Low maintenance**
- **Very quiet and little vibration**
- **Chemically-resistant models transferring high aggressive and corrosive gases and vapours**
- **High level of gas tightness: approx. 6×10^{-3} mbar x l/s**
- **Cool running motor even when in constant use**
- **Temperature resistant version up to 200°C**
- **Can operate in any installed position**
- **Explosion-proof version according to ATEX for Zone 1**



ANKERSMID Diaphragm pump AMP 416/416Ex Series

Technical data

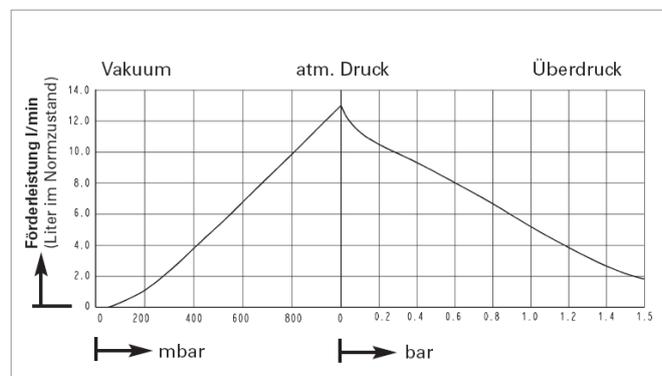
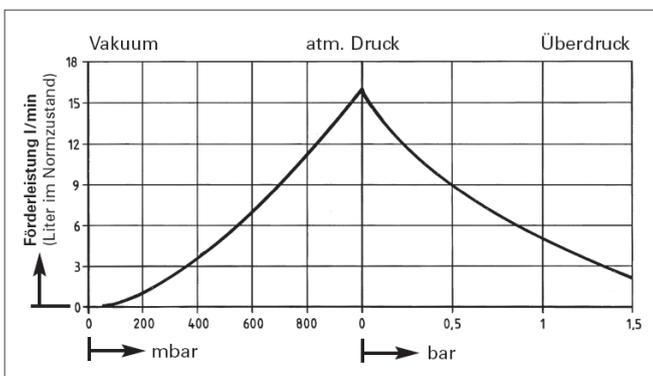
Model AMP	AMP 416	AMP 416Ex
Capacity	16 l/min without pressure	13 l/min without pressure
Max. operating pressure (bar g)	1,5 bar abs.	
Sample gas inlet/outlet	G1/4" f	
Ultimate vacuum (mbar abs.)	53	
Materials		
Pump head	PTFE	
Diaphragm	PTFE-coated	
Valves	PTFE	
Sample and ambient temperature	+5°C to 40°C	
Power consumption	130W	70W
Protection class	IP44	⊕ Pump parts: EEx IIB-T4 ⊕ Motor: EExe II-T3, IP44
Operating current	1,0A	0,96A
Operation mode	100% continuous duty, start of the pump only without pressure	
Weight	5,5Kg	7,5Kg
Power supply	230V/50Hz 115V/60Hz	230V/50Hz 115V/60Hz

PTFE = Polytetrafluoroethylene (Teflon®)

ANKERSMID Diaphragm pump AMP 416

AMP 416Ex

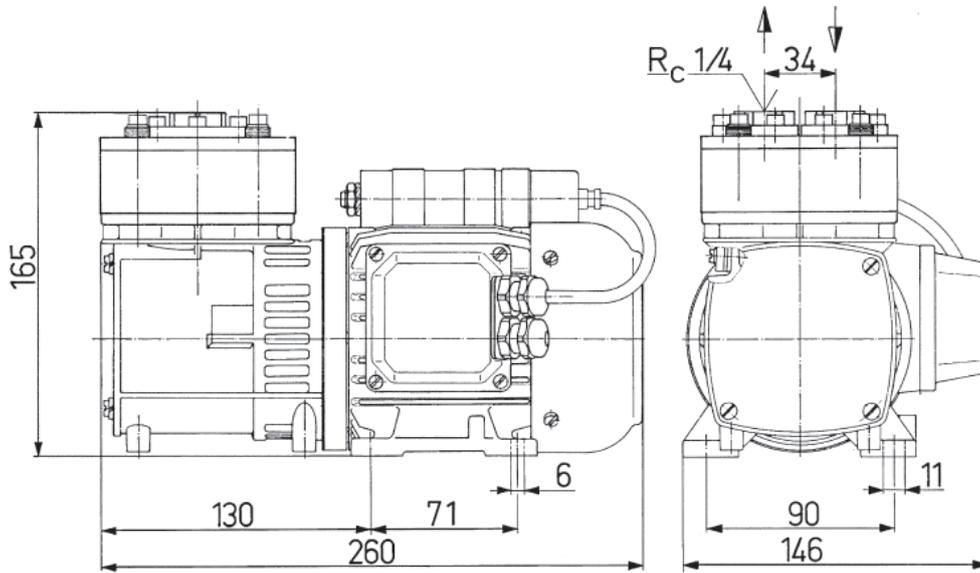
Performance



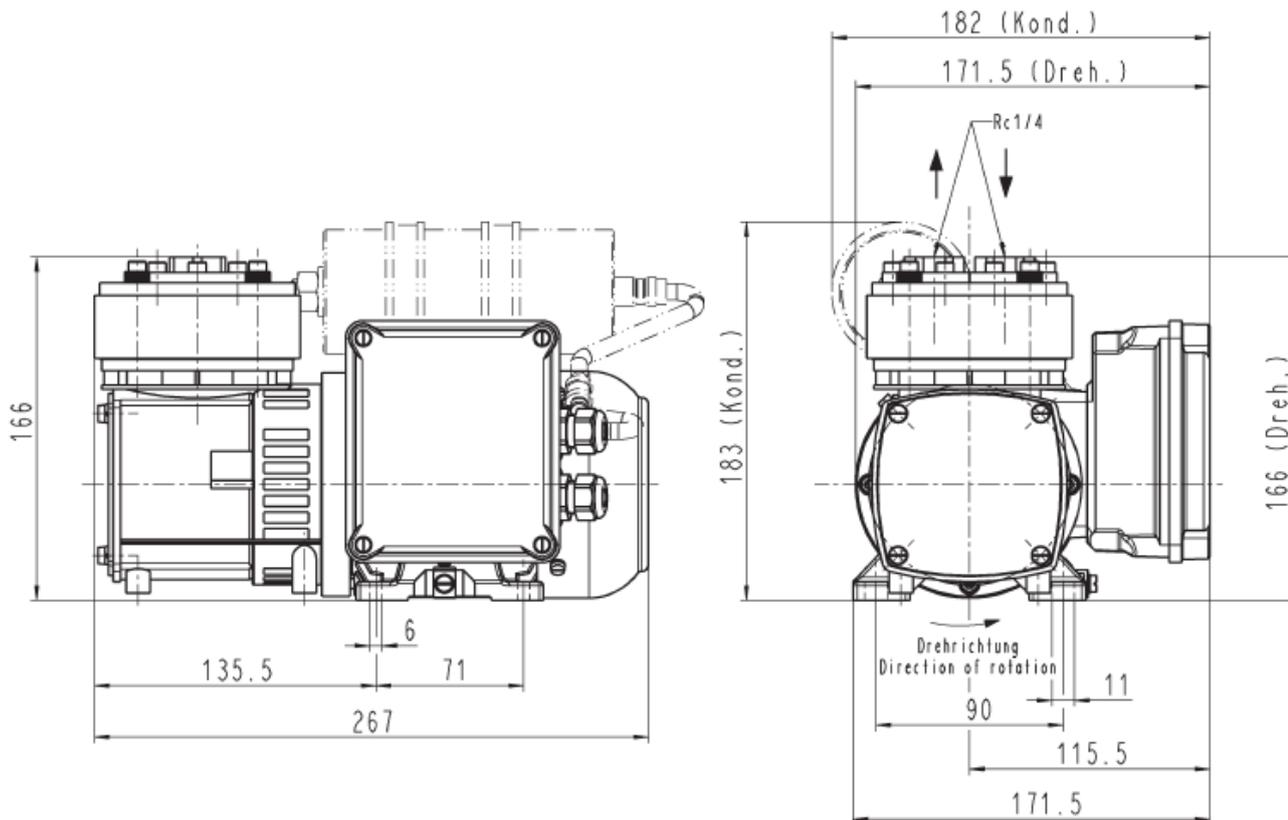


ANKERSMID Diaphragm pump
AMP 416

Dimensions



AMP 416Ex



All dimensions in mm