

ANKERSMID Diaphragm pump

AMP 418/418Ex 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 418/418Ex** is easy to install and can be adapted to a variety of process conditions.

Description

The new range of **AMP 418/418Ex** 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 115/230VAC.

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.



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

Can operate in any installed position

Explosion-proof version according to ATEX & IECEx



ANKERSMID Diaphragm pump AMP 418/418Ex Series

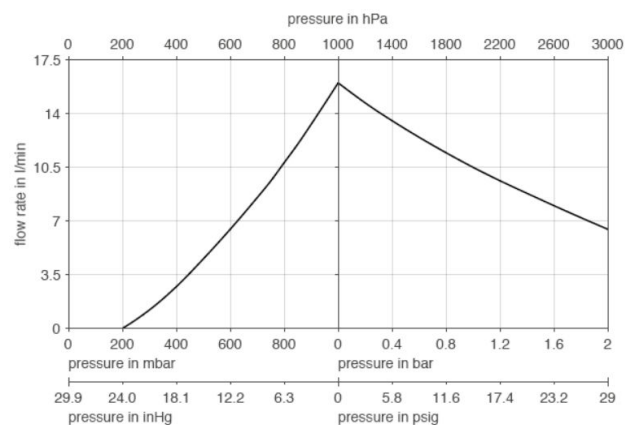
Technical data

Model AMP	AMP 418		AMP 418Ex	
Delivery rate at atm. pressure [l/min]	50Hz	60Hz	50Hz	60Hz
-open bypass	10 ± 10%	12 ± 10%	10 ± 10%	12 ± 10%
-closed bypass	16 ± 10%	18 ± 10%	16 ± 10%	18 ± 10%
Delivery rate at max. permissible operating pressure [l/min]	6.5 ± 10%	8 ± 10%	6.5 ± 10%	8 ± 10%
Max. operating pressure (bar g)	2 bar abs.		1 bar abs.	
Sample gas inlet/outlet	G1/4" f			
Ultimate vacuum (mbar abs.)	≤ 200			

Materials					
Pump head		Modified PTFE			
Diaphragm		PTFE-coated			
Valves		FFPM			
Sample and ambient temperature		+5°C to +60°C			
Power consumption		115V: 195W	230V: 185W	115V: 195W	230V: 195W
Protection class	Pump Motor	IP 54 IP 55		IP 54 IP 66	
Explosion protection	Pump parts Capacitor motor	---		Ex II 2G c IIB + H2 T3 X Ex II 2G Ex de IIC T4	
Operating current		115V: 2,7A	230V: 1,35A	115V: 2,18A	230V: 1,09A
Operation mode		100% continuous duty, start of the pump only without pressure			
Weight		7,3Kg		7,2Kg	
Power supply		230V/50Hz 115V/60Hz		230V/50Hz 115V/60Hz	

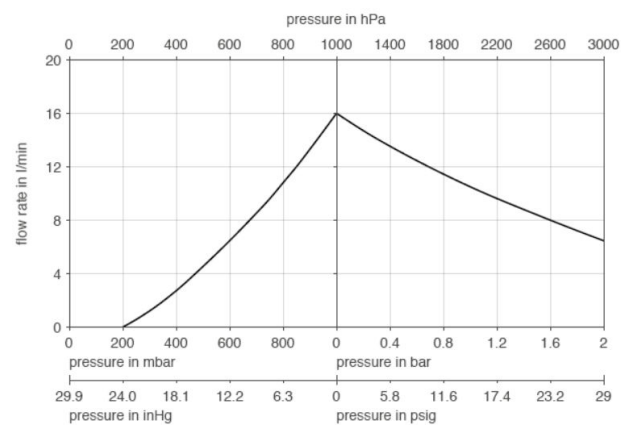
PTFE = Polytetrafluoroethylene (Teflon®)

ANKERSMID Diaphragm pump AMP 418



Flow rate determined at 20°C, 1013 mbar abs.
(Pressure 0 to 1013 mbar abs. in accordance with ISO 21360-1/2)

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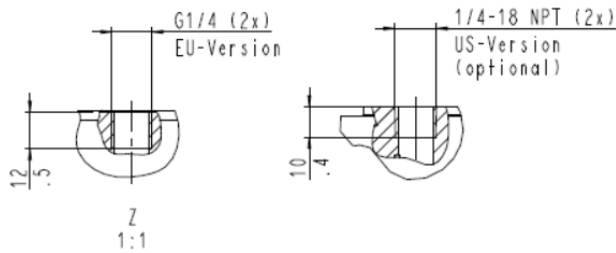
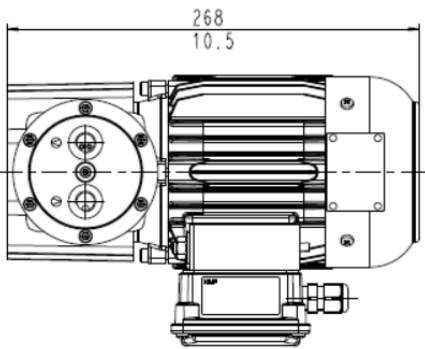
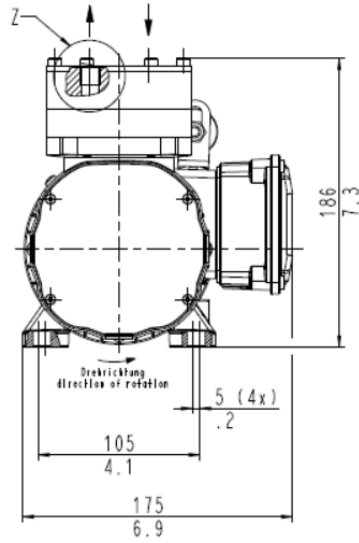
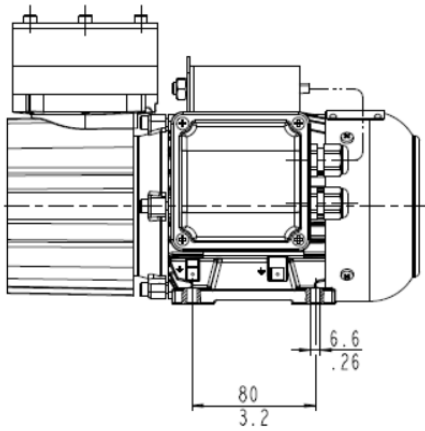


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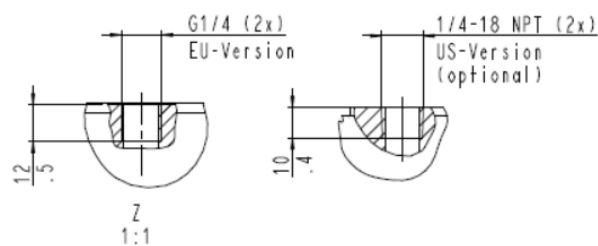
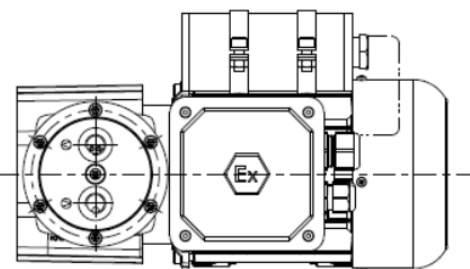
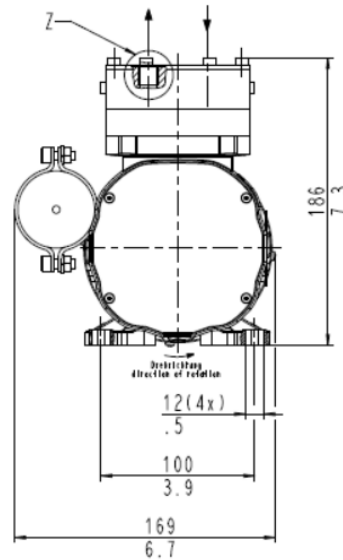
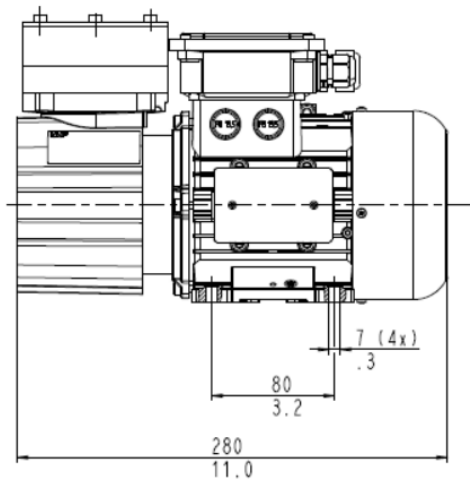


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Dimensions



AMP 418Ex



All dimensions in mm