



MP48/R and MP48/R EX

Analytical Diaphragm Pump Series MP®



Versions MP48/R, MP48/R EX

Special Features

- Corrosion-resistant
- 100 % lubricant-free
- Gas-tight
- Maintenance-free
- Long service life
- ATEX certified versions for hazardous zone 1 areas

Application

This diaphragm pump MP48 is suitable for corrosive gases. It is specially designed for problems in the analytical technology.

Description

All parts of the diaphragm pump MP48 in contact with the medium are made of PTFE or FFKM. The conveyed gas remains analytically pure due to the absolutely lubricant-free pump. A special diaphragm and valve system ensures maintenance-free operation and a long service life.

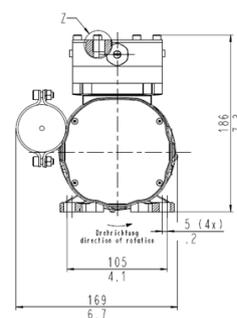
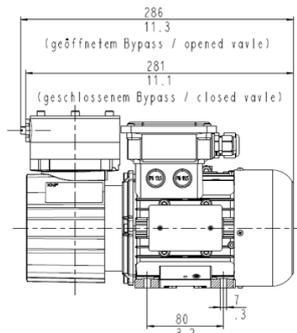
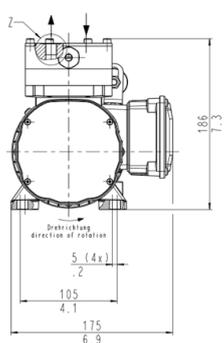
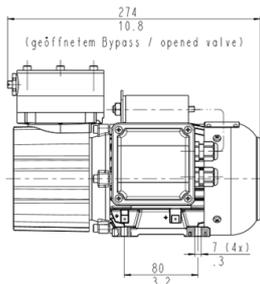
The pump is available for 230 V or 115 V power supply and in a version according to ATEX  II 2 G for applications in hazardous areas as well.

With a flow rate of 16 NI/min the MP48 is optimally designed for applications with higher power requirements.

The pumps MP48/R and MP48/R EX are supplied as standard with an integrated needle valve in the pump head for flow adjustment.

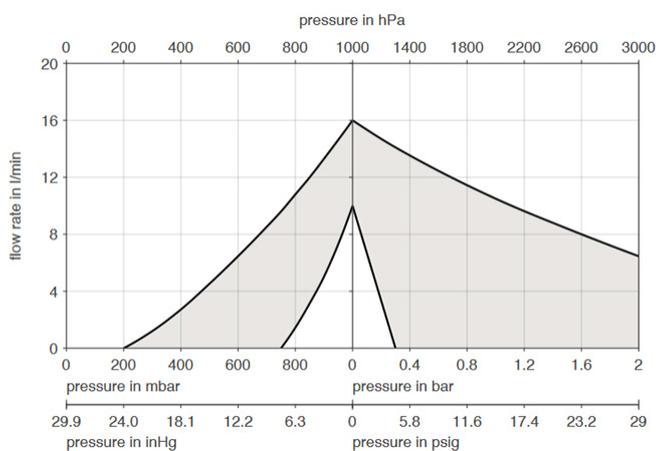
Pump MP48/R

Pump MP48/R EX with an Ex motor



Dimensions in mm/Inches

Performance characteristics MP48/R and MP48/R EX



Flow rate determined at 20 °C, 1013 mbar abs. (pressure range 0 to 1013 mbar abs. according to ISO 21360-1/2)

Technical Data

Diaphragm pump	MP48/R*		MP48/R EX**	
Part No.	02P4801	02P4801A	02P4850	02P4850A
Voltage	230 V	115 V	230 V	115 V
Degree of protection: motor	IP55 EN 60529		IP66 EN 60529	
Degree of protection: pump	IP54 EN 60529		IP54 EN 60529	
Ex marking	None		II 2G Ex h IIB+H2 T3 Gb for the pump II 2G Ex de IIC T4 for the motor	
Capacity max.	10 to 16 NI/min ±10 % at atmospheric pressure			
Operating pressure max.	3 bar abs.			
Ambient temperature	+5 to 60 °C [41 to 140 °F], 0 °C [32 °F] if non-condensing (frost-free)		+5 to 50 °C [41 to 122 °F]	
Sample temperature	0 to +60 °C [32 to 140 °F]		+5 to 50 °C [41 to 122 °F]	
Storage temperature	+5 to 40 °C [41 to 104 °F]			
Transport temperature	-10 to +60 °C [14 to 140 °F]			
Permitted humidity (non-condensing)	30 to 85 %			
Frequency	50 Hz	60 Hz	50 to 60 Hz	
Current consumption 50 Hz	1.35 A	-	1.09 A	2.18 A
Current consumption 60 Hz	-	1.7 A	1.06 A	2.12 A
Power P2 at the motor shaft	-	-	120 W	120 W
Power consumption P1	185 W	195 W	-	-
Gas connections	G 1/4" female, DIN ISO 228/1			
Material of sample-contacting parts	PTFE modified, PTFE, FPM			
Operation mode	100 % continuous duty, start of the pump only without pressure			
Weight	7.3 kg [≈ 16.1 lbs]	7.3 kg [≈ 16.1 lbs]	7.2 kg [≈ 15.9 lbs]	7.4 kg [≈ 16.3 lbs]

* Starting April 2023, the MP48/R pump has a new motor with a higher energy efficiency class. Please note that the new MP48/R has the new part no. 2P4801(A).

** The pumps are intended for conveying air as well as gases, vapors and mists in explosion groups II A and II B, temperature class T4

Ex e II T3 Motor 115 V/60 Hz or 230 V/50 Hz standard

Ex e II T4 Motor 230/380 V/50 Hz on request

Please note: NI/h and NI/min refer to the German standard DIN 1343 and are based on these standard conditions: 0 °C [32 °F], 1013 mbar.