

FEM 1.09

DIAPHRAGM DOSING PUMP



FEM 1.09 KP SM-2

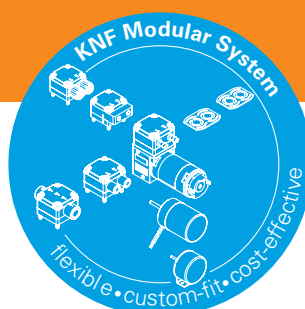
ADVANTAGES

- Excellent repeatability
- Constant results over a long period of time
- Large dosing range 1:100
- High chemical resistance
- Self priming
- Long life > 10'000 h
- Various control possibilities
- Available with integrated overpressure relief valve (Version .27)

POSSIBLE AREAS OF USE

- Medical diagnostics
- Industrial dosing systems
- Fuel cells
- Semi conductor industry
- Water analysis

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 to get more information.



PERFORMANCE DATA

Series model	FEM 1.09 SM-2		
Material options	KP	KT	TT
Pump head	PP	PP	PVDF
Diaphragm	PTFE	PTFE	PTFE
Valves	EPDM	FFKM	FFKM
Flow rate (ml/min)	0.9 - 90		
Nominal stroke volume (µl)	500		
Accuracy (%)	+/- 10		
Repeatability (%)	+/- 1		
Suction height (mWg)	4		
Pressure head (mWg)	60		
Permissible ambient air (°C)	+5 to +40		
Permissible liquid temperature (°C)	+5 to +80		
Weight (g)	340		
IP protection factor	40		

ELECTRICAL DATA

Operating voltage (V) ¹⁾	5.52
Power consumption (W)	15
I load max. (A)	0.6

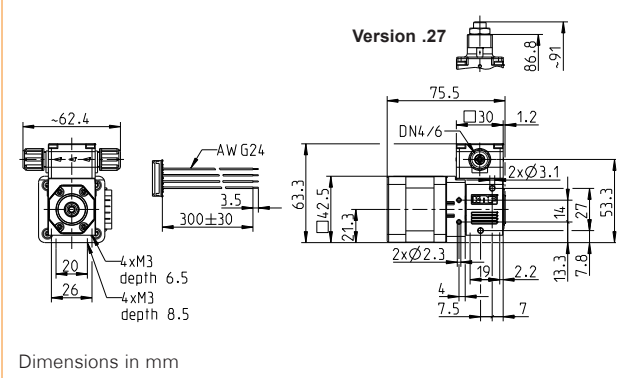
¹⁾ Depends on type of controller

FEM 1.09 SM-2

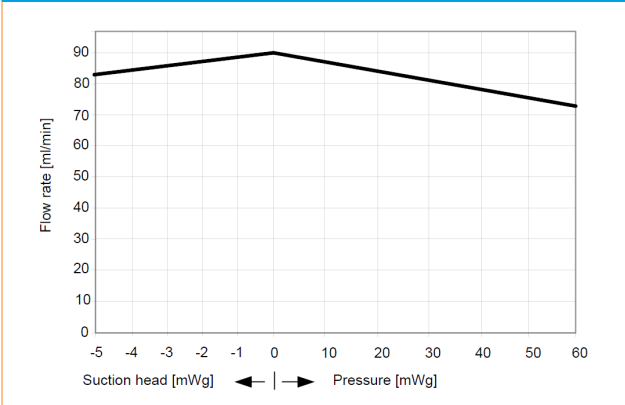
PERFORMANCE DATA




Series model	Flow rate at atm. pressure (ml/min)	Max. suction height (mWg)	Max. pressure head (mWg)
FEM 1.09 SM-2	0.9 - 90	4	60



FEM 1.09 SM-2



FEM 1.09 SM-2 FLOW CURVE



OPTIONS		
Description	Illustration	Details
Diaphragm pressure control valve (Version .27)		The pressure control valve can be used for a more accurate control of flow against a fluctuating back pressure, metering into a vacuum and from a pressurised system.
Hall Sensor - position recognition of the diaphragm		A Hall Sensor can be integrated into the pump so that it is possible to monitor the position of the diaphragm. This allows the pump to be controlled in different ways.
Hydraulic connection types		Compression fittings, John Guest etc.

ACCESSORIES		
Description	Illustration	Details
Control module		Especially in the development phase it is useful to try different options out without investing a lot of time programming. Due to this reason we offer a flexible controller which can be adapted for many different applications.
Filter		KNF filters protect both pumps and other upstream instrumentation and hydraulic circuits against particulate, crystals and fibres which can improve optimum operation.

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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