

FP 70

SMOOTH FLOW DIAPHRAGM LIQUID PUMP



FP 70 KPDCB-4B



FP 70 KP.51* DC

ADVANTAGES

Integrated Damper

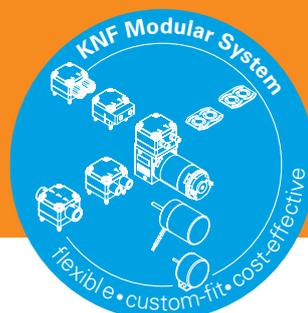
- provides smooth flow with low pulsation
- reduces flow resistance in tubes
- prevents bubble formation
- no need for additional dampening elements

Innovative 4-point valves

- for reliable self-priming even at low motor speeds

Digitally customizable BLDC Motor

- for precise flow control and pinpoint adjustments to your electronics



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

POSSIBLE AREAS OF USE

- Inkjet Printing
- Medical Equipment
- 3D Printing
- Fuel Cells
- Handling of solvents
- And many more

PERFORMANCE DATA

Series model	FP 70 DC		FP 70 DCB-B* ¹	FP 70 DCB-4B
Material options	KP	KT	KV	
Pump head	PP	PP	PP	
Diaphragm	EPDM	PTFE	PTFE	
Valves	EPDM	FFKM	FFKM	
Valve o-rings	EPDM	FKM	FKM	
Dampening diaphragm	EPDM	PTFE	FKM	
Nominal flow rate at atm. (l/min)	0.7			
Suction height (mH ₂ O)	≥ 3			
Nominal pressure head (mH ₂ O)	20			
Permissible ambient temperature (°C)	+5 to +40 (DC version in continuous operation ≥15 mH ₂ O up to max 33°C)			
Permissible liquid temperature (°C)	+5 to +80			
IP protection factor pump	00		20	20

ELECTRICAL DATA

Operating voltage (V)	12/24	12/24	10 - 26.4	
Power consumption (W)	8.3/8.2	9.5/9.6	10.1	
I load max. (A)	0.69/0.34	0.79/0.4	0.92 - 0.42	
IP protection factor motor	00	54	54	
Weight (g)	260g	285g	285g	

CUSTOMIZED PERFORMANCE ON REQUEST

Flow rate up to (l/min)	1.0
Suction height up to (mH ₂ O)	5.5
Pressure head up to (mH ₂ O)	40

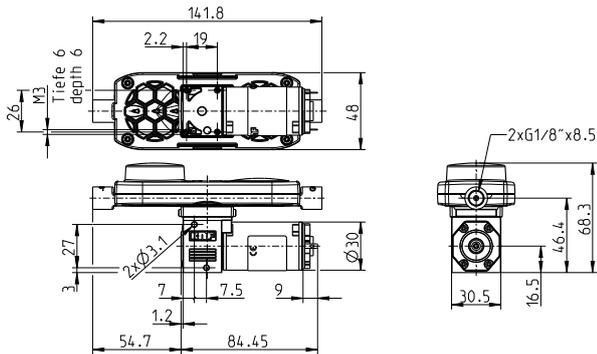
* food grade conformity according to the standard NSF/ANSI 169
¹ DCB = Stands for brushless DC motor

FP 70 DC

PERFORMANCE DATA

Series model	Nominal flow rate at atmos (l/min)	Suction height (mH ₂ O)	Nominal pressure head (mH ₂ O)
FP 70 DC	0.7	≥ 3	20

FP 70 DC



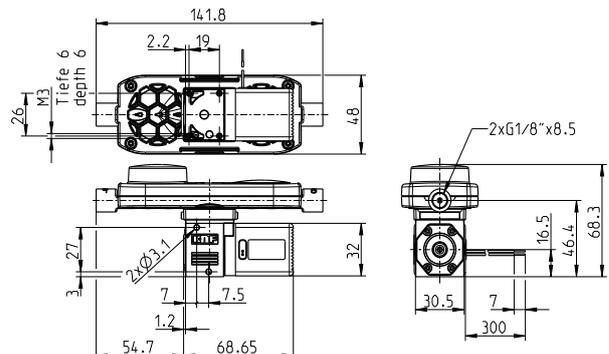
Dimensions in mm

FP 70 DCB-B

PERFORMANCE DATA

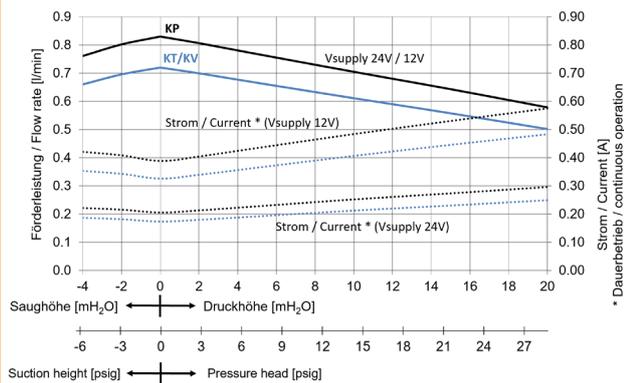
Series model	Nominal flow rate at atmos (l/min)	Suction height (mH ₂ O)	Nominal pressure head (mH ₂ O)
FP 70 DCB-B	0.7	≥ 3	20

FP 70 DCB-B

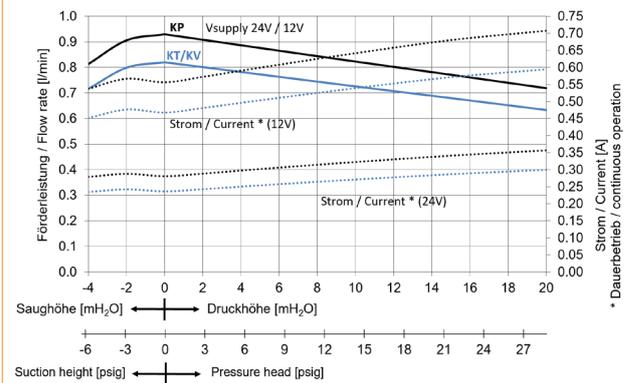


Dimensions in mm

FP 70 DC



FP 70 DCB-B



ELECTRIC SPECIFICATIONS

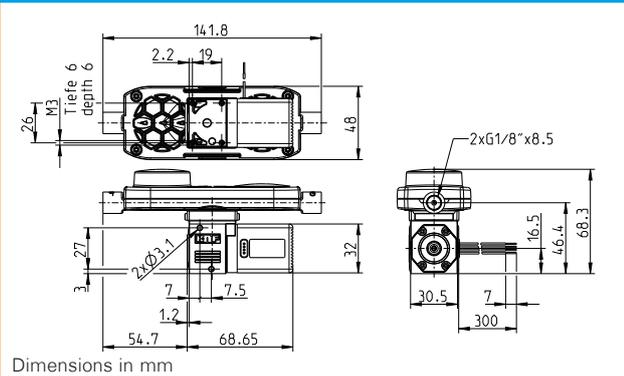
Wires	AWG 24
Wires assignment	red = +VS black = -VS/GND

FP 70 DCB-4B

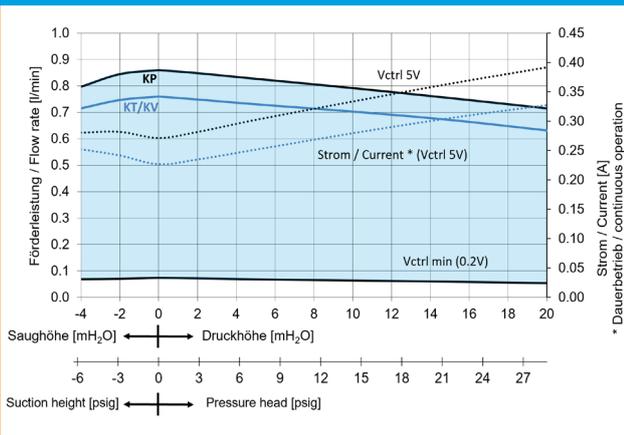
PERFORMANCE DATA

Series model	Nominal flow rate at atmos (l/min)	Suction height (mH ₂ O)	Nominal pressure head (mH ₂ O)
FP 70 DCB-4B	0.7	≥ 3	20

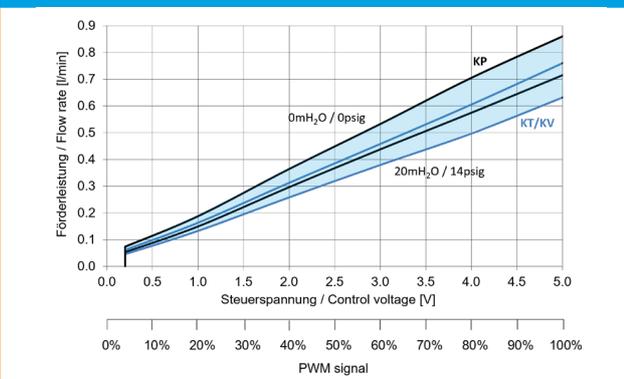
FP 70 DCB-4B



FP 70 DCB-4B



FP 70 DCB-4B



ELECTRIC SPECIFICATIONS

Wires	AWG 24
Wires assignment	red = +VS black = -VS/GND white = Vctrl-input green = FG-output
Input signal	0-5 V

OPTIONS		
Description	Illustration	Details
Motors with special voltages or frequencies		Various voltage options, higher and lower service life
Electrical connectors		Specific customers requirements such as special connections (Molex, AMP, etc.)
Different hydraulic connection types		Compression fittings, hose connector, push-in connector etc.



NSF National Sanitary Foundation

This certification will confirm that all of the pumps with the code .51 are certified for the use with foods/consumables.



DIGITAL CUSTOMIZATION

Thanks to digital technology, this pump can be quickly adapted to the customer's system. This is done by parametrizing the firmware of the motor at KNF.

ACCESSORIES			
Description	Illustration	Part No.	Details
Mounting clip overhead		351069	Suitable for FP 70, FP 1.70 and FM 50
Clip for side mounting		332358	Enabling additional mounting options suitable for FM 50 and FP 70
Universal mounting plate		164313	Screws to mount the pump are included. Hole distance on the plate is 43 x 22 mm. Inner diameter of the sleeve is 3.5 mm.
Diaphragm pressure control valve		on request	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.
Filter		165210	KNF filters protect both pumps and other upstream instrumentation and hydraulic circuits against particulate, crystals and fibres which can improve optimum operation.
Compression fitting		175476	Connection for flexible tubes suitable for higher pressures. Connection: DN04/06 Material: PP O-Ring: FKM Thread: G1/8"
Hose connector		326642	Straight hose barb suitable for lower pressures. Connection: DN04 Material: PP O-Ring: FKM Thread: G1/8"

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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