

N 816 SERIES

VACUUM PUMPS



ADVANTAGES

- High level of performance in a compact size
- Copes well with vapor and condensation
- High-performing - collecting containers are evacuated quickly and reliably

POSSIBLE AREAS OF USE

- Diagnostics – disposal of sample waste
- Medical technology – especially autoclaves
- Mobile/portable gas measurement technology
- Stationary emission measurement technology (CEMS)

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 to get more information

PERFORMANCE DATA								
Series model	N 816							
Material design	KNE	KTE	KNDC-B	KTDC-B	KN.29 DC-B	KT.29 DC-B	KN.29 DC-B-M	KT.29 DC-B-M
Pump head	PPS							
Diaphragm	EPDM	PTFE-coated	EPDM	PTFE-coated	EPDM	PTFE-coated	EPDM	PTFE-coated
Valves	EPDM	FFPM	EPDM	FFPM	EPDM	FFPM	EPDM	FFPM
Flow rate at atm. pressure (l/min)	14.0	13.0	16.0	14.0	3.5–16.0	3.5–14.0	3.5–16.0	3.5–14.0
Ultimate vacuum (mbar abs.)	100	140	100	140	100	140	100	140
Max. operating pressure (bar rel./psig)	0.5/7.3							
Permissible ambient temperature (°C)	+5 ... +40							
Permissible media temperature (°C)	+5 ... +40							
Weight (kg/lbs)	1.8/4.0		1.6/3.5				1.1/2.4	
ELECTRICAL DATA								
Voltage (V)	100	115 220	230	24				
Motor	Capacitor motor			Brushless DC motor	Brushless DC motor, control voltage: 0.1...5 V*		Brushless DC motor, PWM-signal: 20...100 %	
Protection class motor	IP 00			IP 20				IP 30
Frequencies (Hz)	50/60	60	50	-				
Power P ₁ (W)				33.0	31.0	33.0	31.0	26.0
N 816 KNE	75.0/64.0	64.0 64.0	79.0					
N 816 KTE	78.0/63.0	61.0 65.0	76.0					
I _{max} (A)				1.4	1.3	1.4	1.3	1.1
N 816 KNE	0.90/0.70	0.60 0.35	0.45					
N 816 KTE	1.00/0.70	0.60 0.35	0.50					

* other control voltages on request

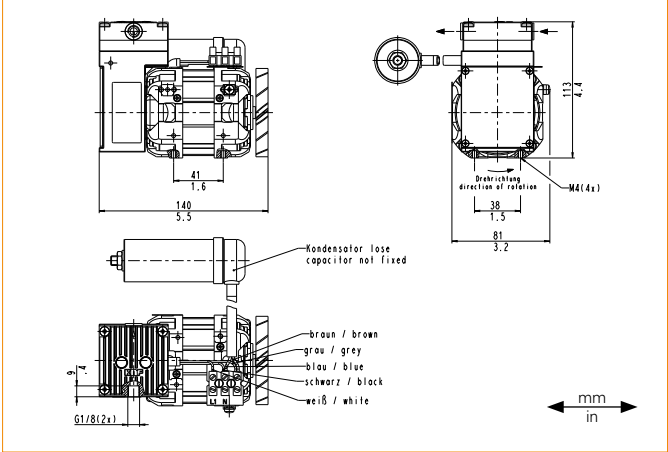
N 816 KNE | KTE

PERFORMANCE DATA

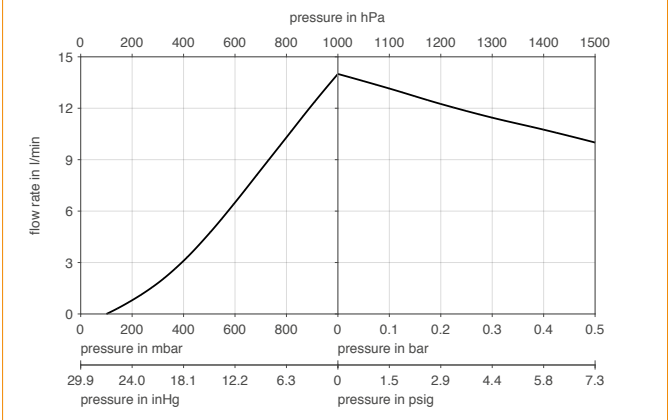
Series model	Flow rate at atm. pressure (l/min) ¹⁾	Max. operating pressure (bar rel./psig)	Ultimate vacuum (mbar abs.)
N 816 KNE	14.0	0.5/7.3	100
N 816 KTE	13.0	0.5/7.3	140

¹⁾ Liter at STP

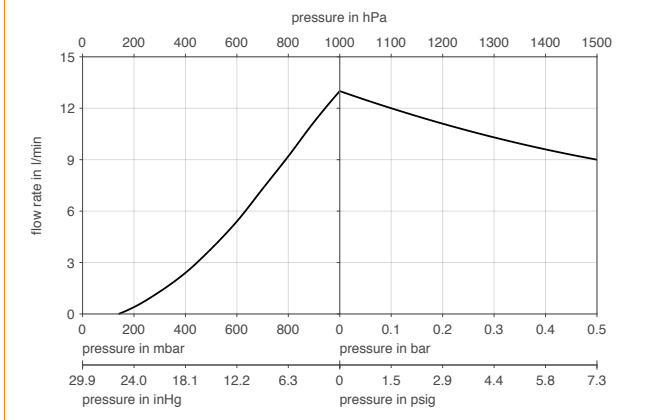
N 816 K_E



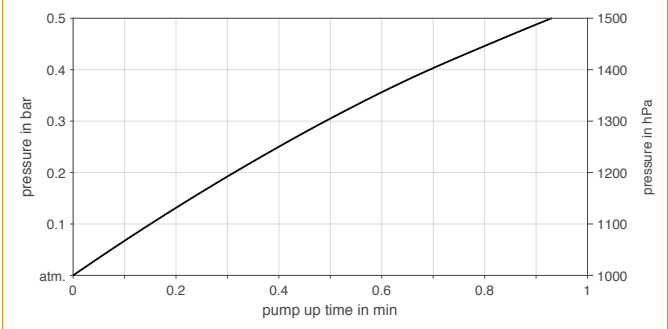
N 816 KNE



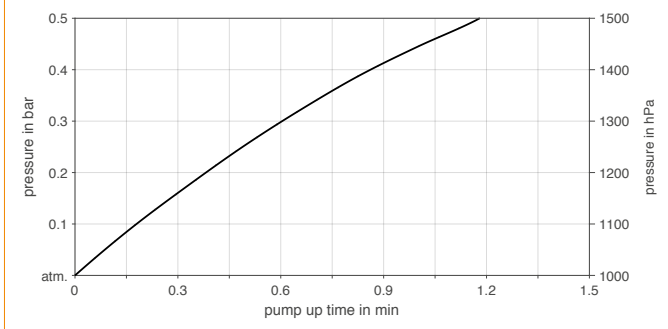
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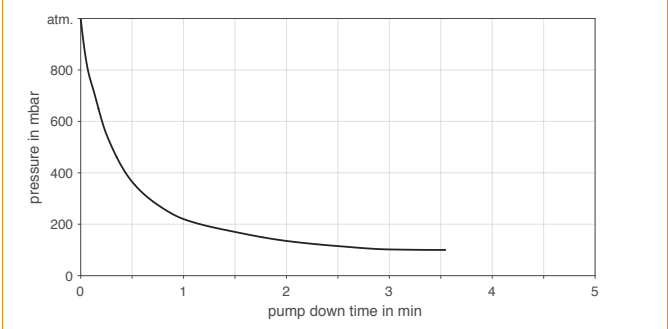
N 816 KNE | PUMP UP TIME FOR 5 LITER VESSEL



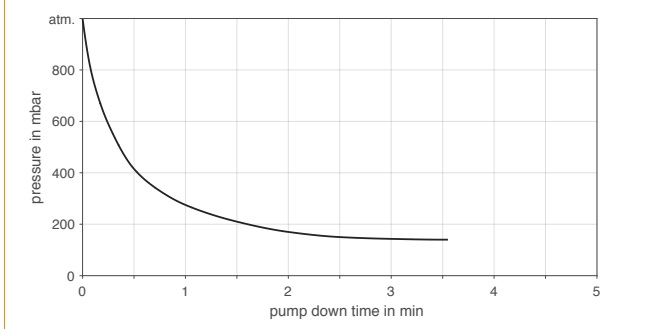
N 816 KTE | PUMP UP TIME FOR 5 LITER VESSEL



N 816 KNE | PUMP DOWN TIME FOR 5 LITER VESSEL



N 816 KTE | PUMP DOWN TIME FOR 5 LITER VESSEL



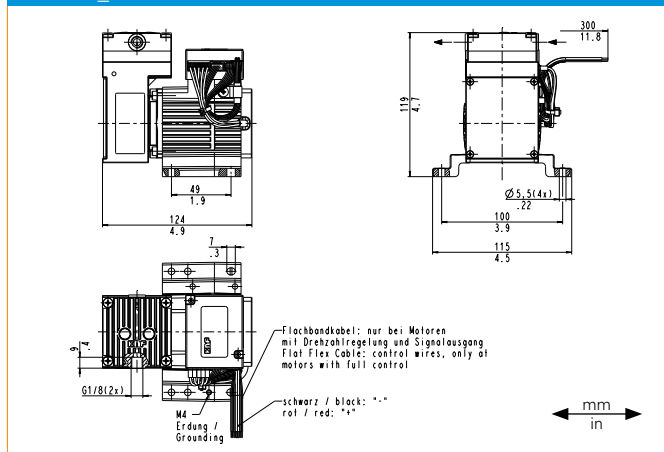
N 816 KNDC-B | KTDC-B

PERFORMANCE DATA

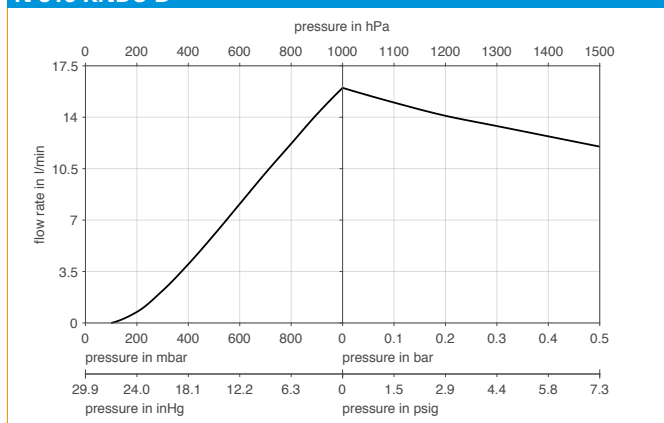
Series model	Flow rate at atm. pressure (l/min) ¹⁾	Max. operating pressure (bar rel./psig)	Ultimate vacuum (mbar abs.)
N 816 KNDC-B	16.0	0.5/7.3	100
N 816 KTDC-B	14.0	0.5/7.3	140

¹⁾ Liter at STP

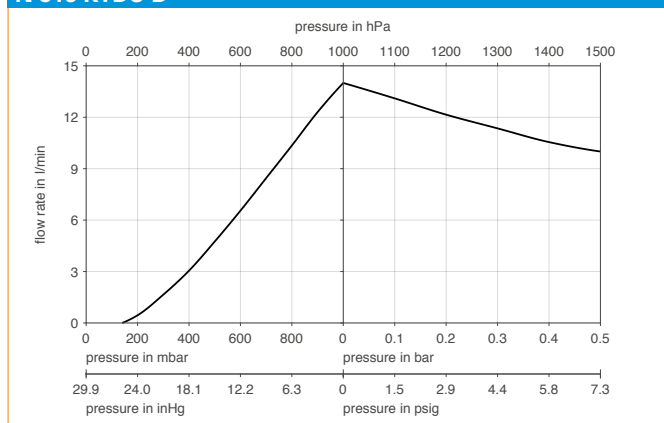
N 816 K_DC-B



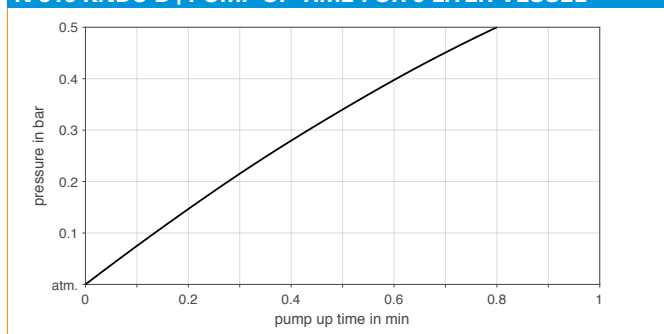
N 816 KNDC-B



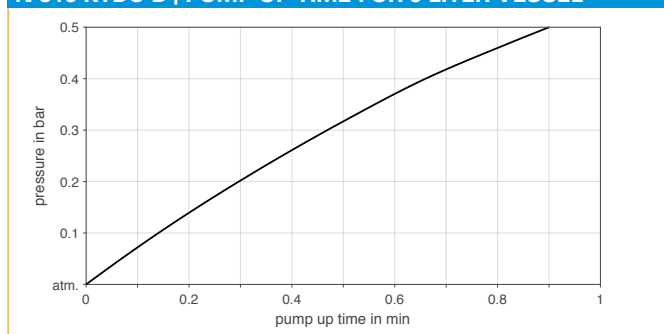
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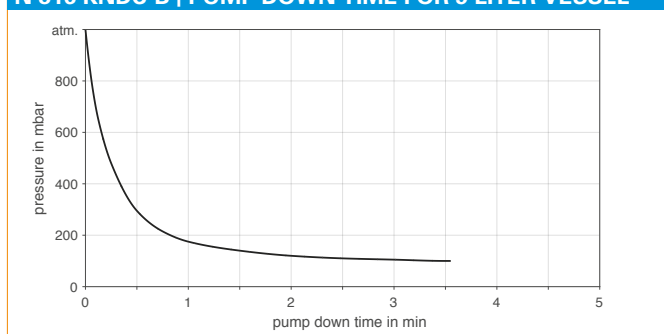
N 816 KNDC-B | PUMP UP TIME FOR 5 LITER VESSEL



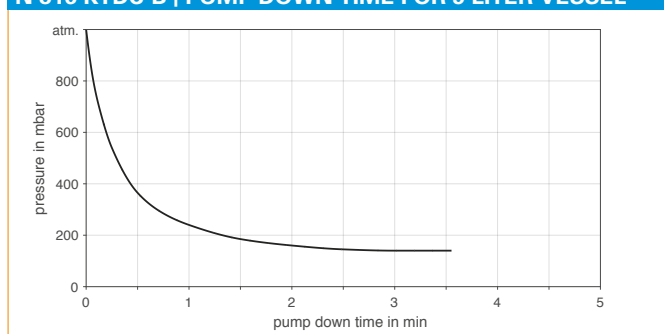
N 816 KTDC-B | PUMP UP TIME FOR 5 LITER VESSEL



N 816 KNDC-B | PUMP DOWN TIME FOR 5 LITER VESSEL



N 816 KTDC-B | PUMP DOWN TIME FOR 5 LITER VESSEL



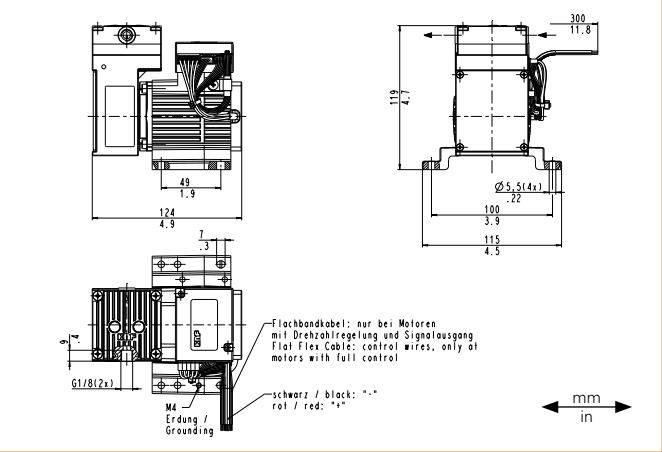
N 816 KN.29 DC-B | KT.29 DC-B

PERFORMANCE DATA

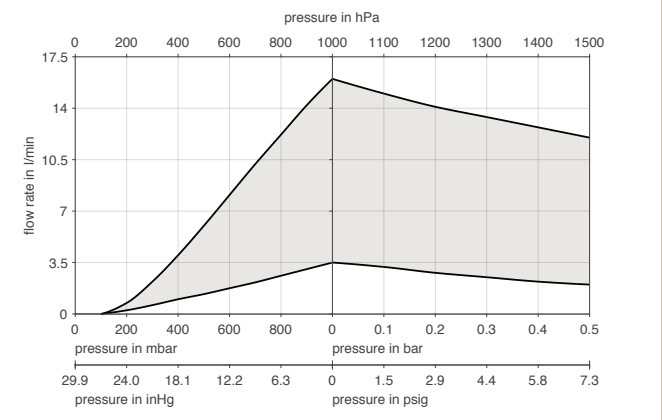
Series model	Flow rate at atm. pressure (l/min) ¹⁾	Max. operating pressure (bar rel./psig)	Ultimate vacuum (mbar abs.)
N 816 KN.29 DC-B	3.5–16.0	0.5/7.3	100
N 816 KT.29 DC-B	3.5–14.0	0.5/7.3	140

¹⁾ Liter at STP

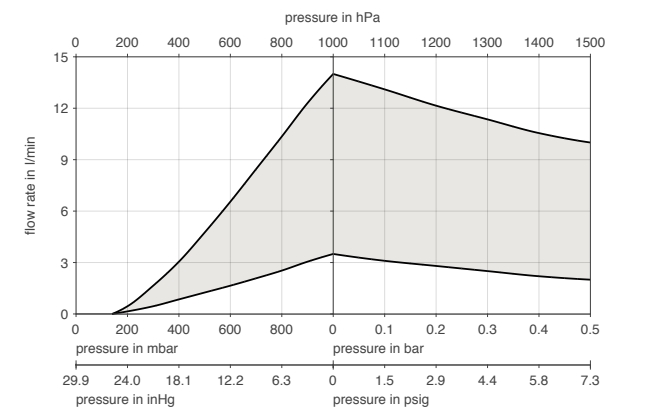
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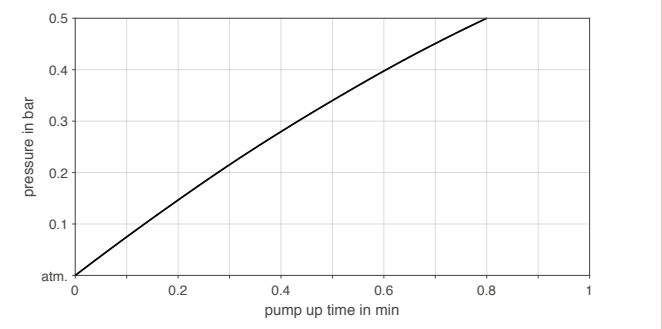
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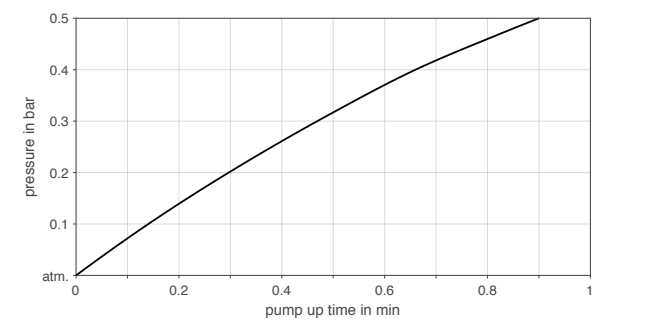
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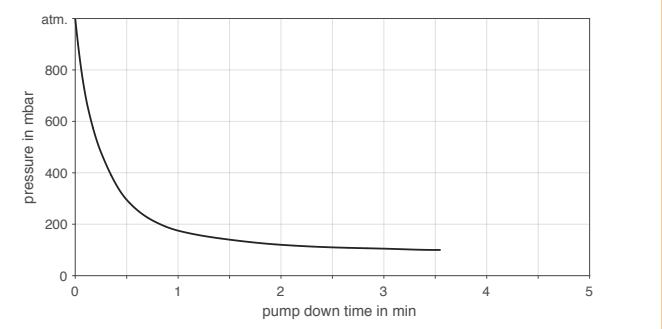
N 816 KN.29 DC-B | PUMP UP TIME FOR 5 LITER VESSEL



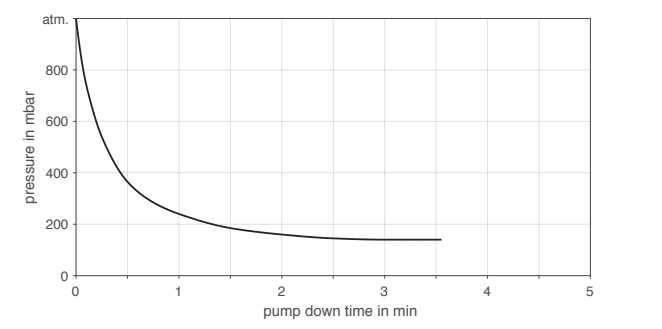
N 816 KT.29 DC-B | PUMP UP TIME FOR 5 LITER VESSEL



N 816 KN.29 DC-B | PUMP DOWN TIME FOR 5 LITER VESSEL



N 816 KT.29 DC-B | PUMP DOWN TIME FOR 5 LITER VESSEL



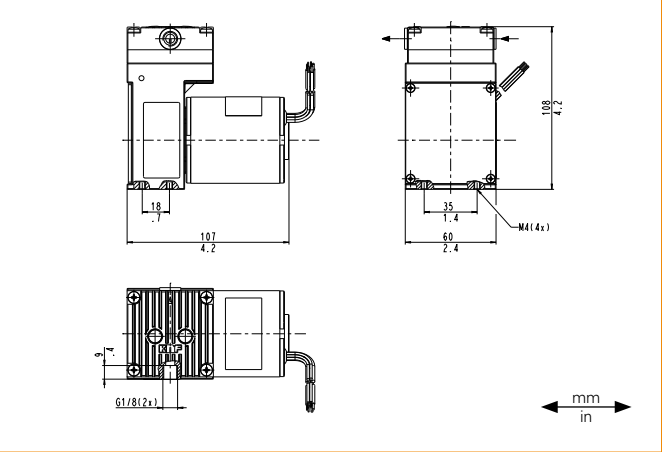
N 816 KN.29 DC-B-M | KT.29 DC-B-M

PERFORMANCE DATA

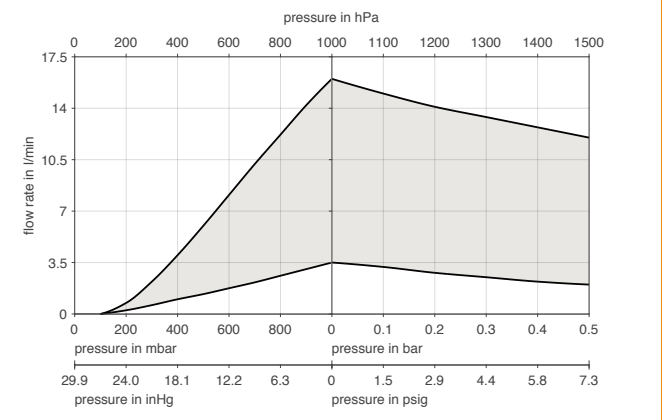
Series model	Flow rate at atm. pressure (l/min) ¹⁾	Max. operating pressure (bar rel./psig)	Ultimate vacuum (mbar abs.)
N 816 KN.29 DC-B-M	3.5–16.0	0.5/7.3	100
N 816 KT.29 DC-B-M	3.5–14.0	0.5/7.3	140

¹⁾ Liter at STP

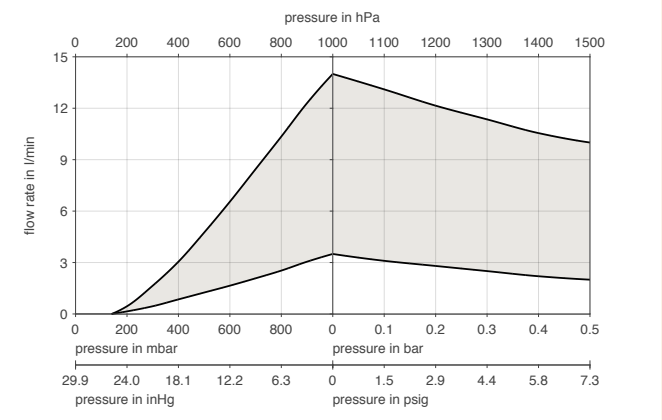
N 816 K_.29 DC-B-M



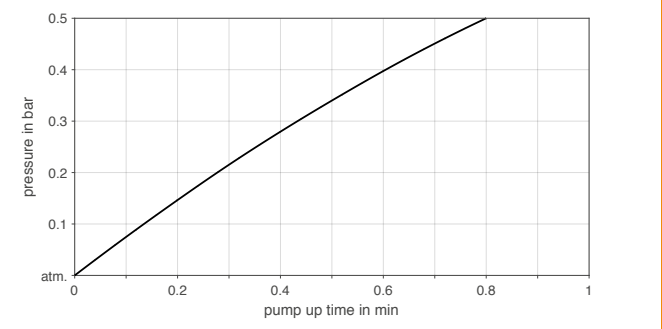
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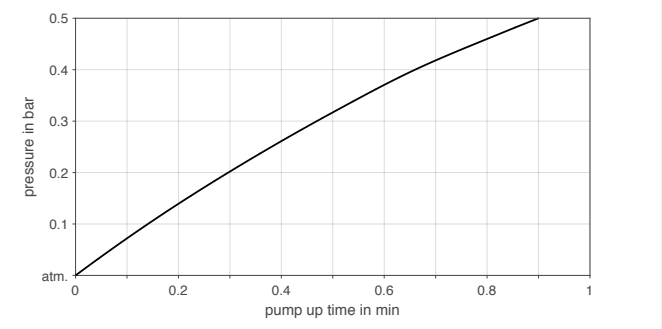
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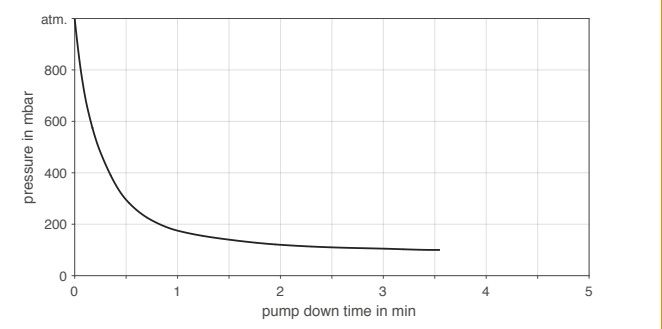
N 816 KN.29 DC-B-M | PUMP UP TIME FOR 5 LITER VESSEL



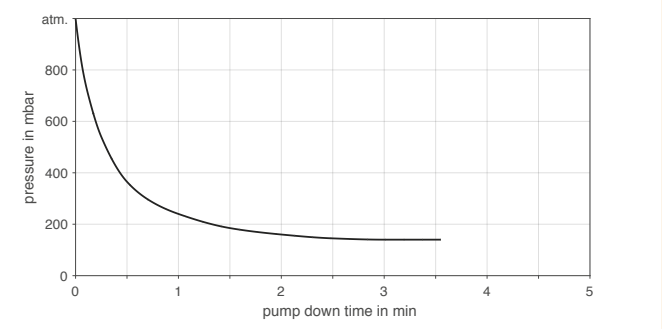
N 816 KT.29 DC-B-M | PUMP UP TIME FOR 5 LITER VESSEL



N 816 KN.29 DC-B-M | PUMP DOWN TIME FOR 5 LITER VESSEL



N 816 KT.29 DC-B-M | PUMP DOWN TIME FOR 5 LITER VESSEL



SPARE PARTS

Description	Part No.
N 816 KN_	
Valve plate/sealing	059267
Diaphragm	052066
N 816 KT_	
Valve plate/sealing	057172
Diaphragm	044973

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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