Product Information

Pump with magnetic drive

Series 41.008.20x

A.u.K. Müller

Solenoid valves
Control valves
Special valves and systems

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Characteristics

- Low running noise
- Suitable for food and hot water appliances
- Impeller with PTFE or ceramic sliding ring
- Suitable for dry run (max. 5 minutes)
- Basic interference suppression integrated into motor
- Optional: PTC - Overload protection according to EN 60335-1

Description

The pumps, series 41.008.200/~201/~202 are designed to increase pressure to enable a higher flow rate and improved dispense accuracy. They are ideally suited for applications where a low water level in a boiler causes an insufficient flow rate through traditional boiler dispense valves.
Use of the pump allows for flexible siting of dispense valves inside the machine, including up to 3 meter above the water level in the boiler.

The pumps body housing is suitable for use with hot water

Varying the voltage supplied to the pump will change its speed and thus vary the flow rate output.

The impeller is driven by a non-contact magnetic connection which avoids the use of additional seals preventing potential leak paths. The impeller is supported as a slide bearing on a stationary sealing disc.

The pump series distinguish in the material pairing that differ in terms of lifetime, dry running characteristics and mechanical stability.
In the series 41.008.200, a stainless steel sealing disc with PTFE sliding ring is applied. The series 41.008.201 is equipped with the ceramic/ceramic material pairing, leading to an improved dry running performance and service life in hot water applications. In the series 41.008.202, the material pairing stainless steel with anti-wear coating/ ceramic exhibits also an improved lifetime next to mechanical stability.

Applications

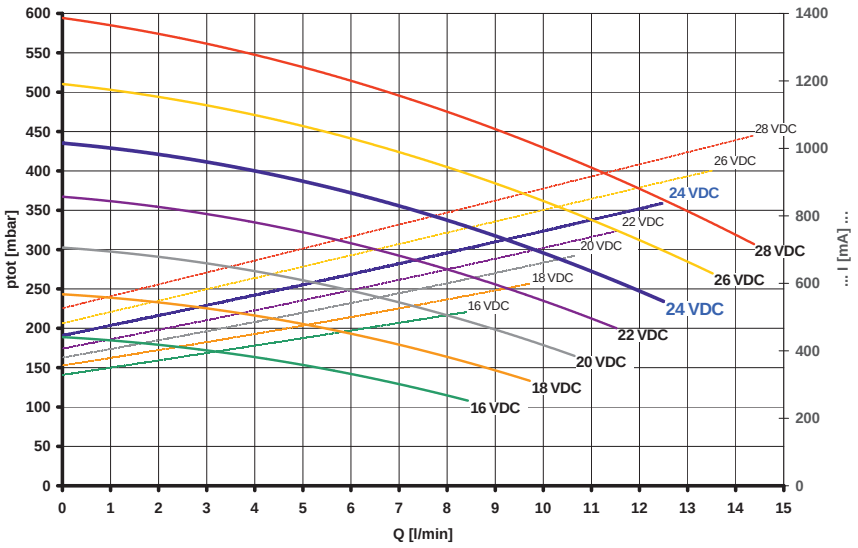
- Hot / cold drink dispensers
- Increase output pressure on low water level boilers
- Tank or boiler draining

Possible approvals

Approved versions available on request:

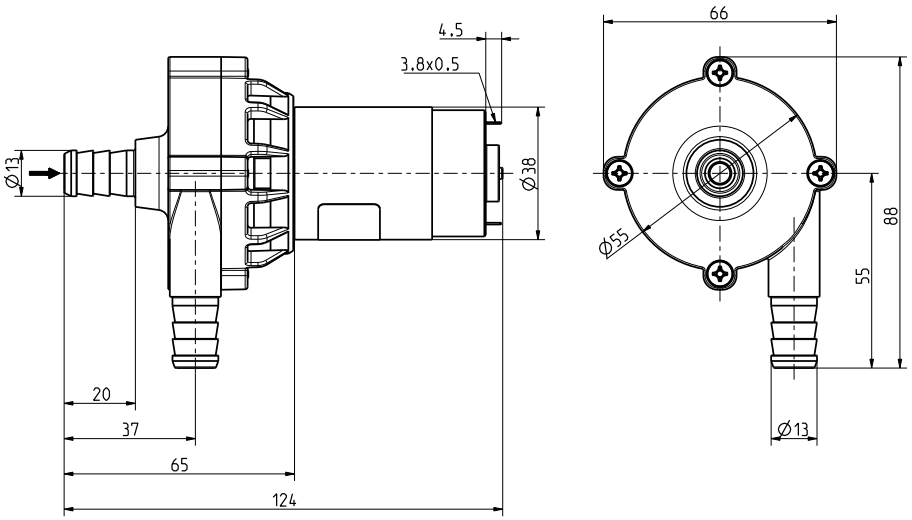
- NSF 169
- Others on request

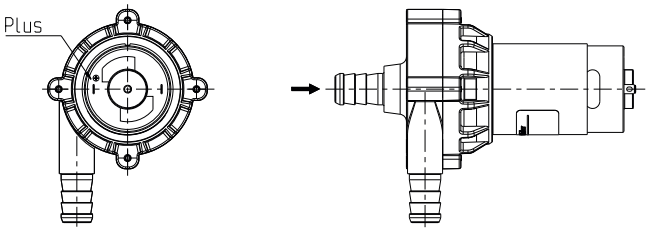
Typical performance curves 41.008.201



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Series 41.008.20x





Technical Data

Type	pressure increasing pump	
Construction	centrifugal pump (not self-priming)	
Fitting position	any, preferably with motor upwards	
Media	cold and heated potable water and physically and chemically similar media	
T-Medium	95	°C max.
T-Ambient	70	°C max.
DN	8	mm
p-max (24 V DC)	430	mbar
Q-max	12	l/min
Motor type	direct current motor	
Nominal voltage	24	V DC
Voltage range	16 - 28 V DC	
Duty cycle	100%	
Protection Type	IP 00 according to EN 60529	
Motor connections	soldering lug 3,8 x 4,5 x 0,5	
Basic interference suppression		ring varistor
Insulation class	B	according to EN 60730
Protection class	III	according to EN 60730

Materials

Motor support	PA 66
Pump housing	PA 6/6
Impeller	PVDF
Slide bearing/slip disc	Stainless steel/PTFE, ceramic/ceramic or stainless steel with anti wear coating/ceramic
Seal	EPDM
Magnetic clutch of impeller	NdFeB

Options

Series	Slide bearing/slip disc	Motor protection	ID
41.008.200	Stainless steel/PTFE	no	53275
		yes	53276
	Stainless steel polished/PTFE	no	53278
41.008.201	Ceramic/ceramic	no	53280
		yes	53277
41.008.202	Stainless steel with anti wear coating/ ceramic	no	53279

Notes for customers using the pump 41.008.200/~201/~202 without the thermal motor protection

If the pump is used without the overload circuit board, the customer should take appropriate safety measures in the event of motor blockage. For this purpose an overcurrent protection should be provided on the system electronics to prevent overheating of the motor and possible damage to the control circuit by an excessive current. This can for, example, be carried out by a PTC thermistor or a fuse.
Further measures for interference suppression should be taken.

The nominal currents of the motors are as follows:
24 V motor: 590 mA

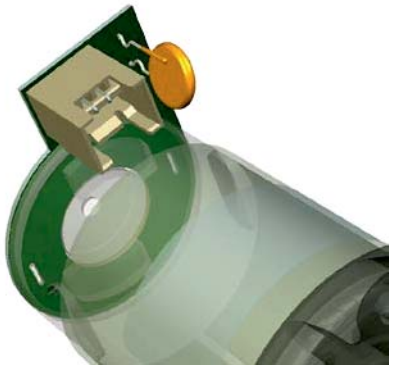
For the protection circuit board the following PTC thermistors can be used:
24 V Motor: MF-R090 (holding current : 900 mA, release current: 1800 mA @ 23 °C)

In order to achieve the intended direction of the impeller, the correct polarity has to be obeyed when connecting the motor.

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Series 41.008.200

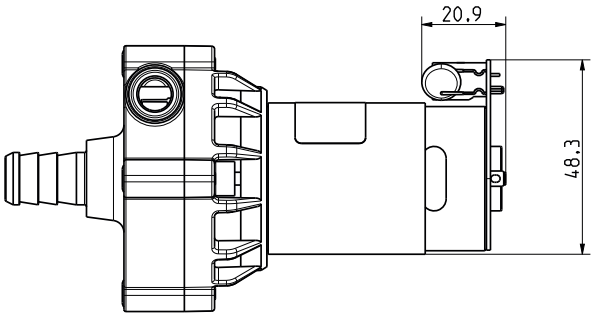
Pump with thermal motor protection

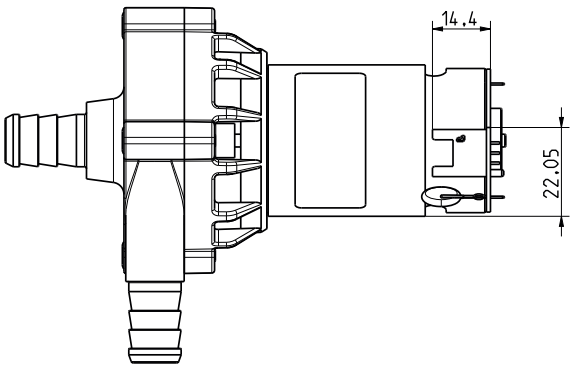


An additional circuit board located on the terminal side of the motor prevented by means of a PTC a temperature critical current of the motor and therefore satisfies the requirements of EN 60335-1.
The thermal overload of the motor, caused by a blocked motor for example, will effectively be avoided.
The electrical connection of the motor is even more simplified by a RAST 2.5 connector.

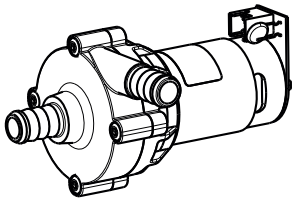
Technical Data

Duty cycle	70% SD 5 min ON: 3,5 min OFF: 1,5 min	
Protection Type	IP 00 according to EN 60529	
Motor connections	soldering lug 3,8 x 4,5 x 0,5	
Basic interference suppression		ring varistor
Overload protection		PTC
Insulation class	B	according to EN 60730
Protection class	III	according to EN 60730







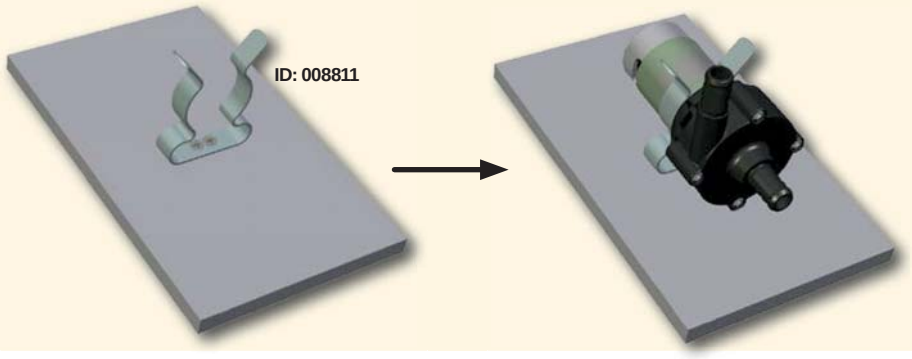


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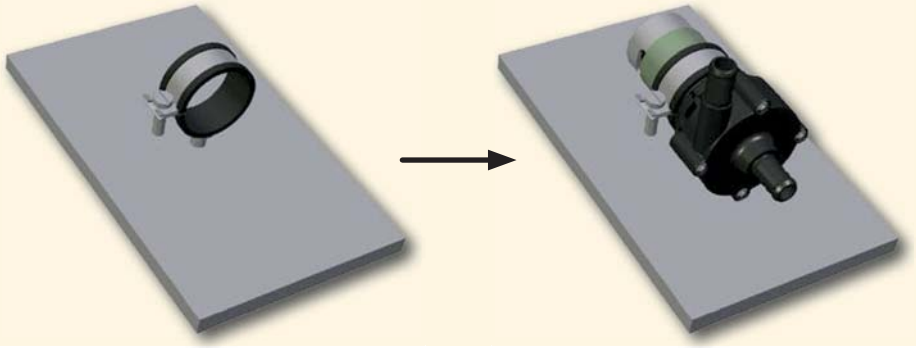
Series 41.008.20x

Typical pump mounting options

Tool Clip



Optionally the mounting can also be carried out via a pipe clamp



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