Pump

Series 41.005.300





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
- Basic interference suppression of motor
- PTC - Overload protection in accordance to EN 60335-1

Possible approvals

Approved versions available on request:

- NSF 169
- Others on request

Applications

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

Description

This pump is designed for dispensing tasks. Its use allows flexible placing of dispense valves inside the machine, up to approx. 0,4 meter (15,7 inch) above the water level in the boiler.

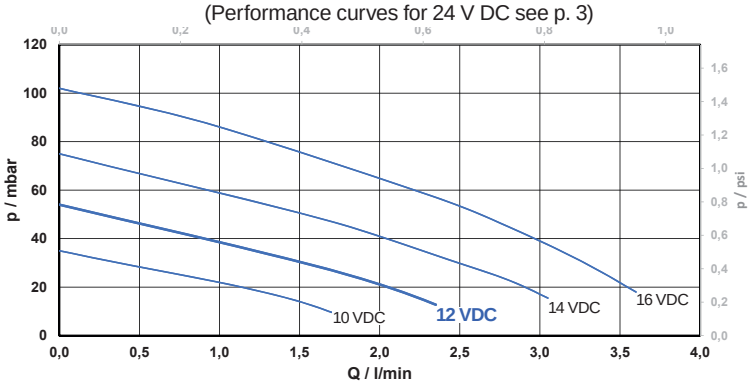
The flow value is dependent on the speed of the pump motor and can be adjusted by the input voltage.

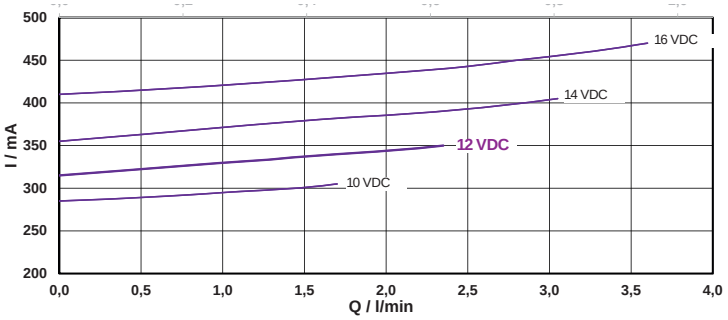
The impeller of the pump is driven by a longer shaft immersed in the medium. Thus the motor is placed 58 mm above the minimum filling levels of the boiler.
The minimum fill level of 35 mm is of importance when placing the pump. Therefore the maximum immersion depth is 93 mm.

The pumps body housing is suitable for use with hot water.

Typical performance curves 12 V DC

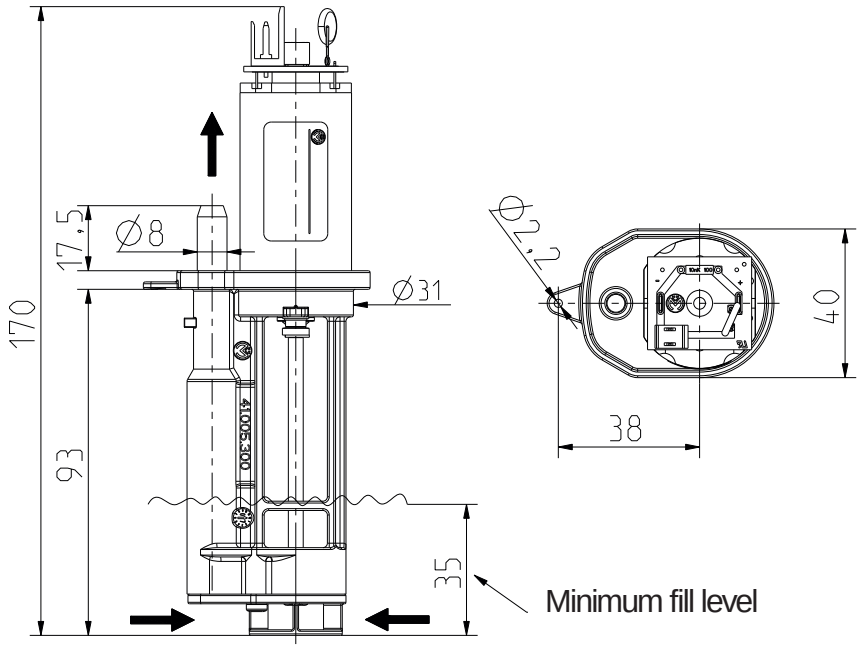
(Performance curves for 24 V DC see p. 3)





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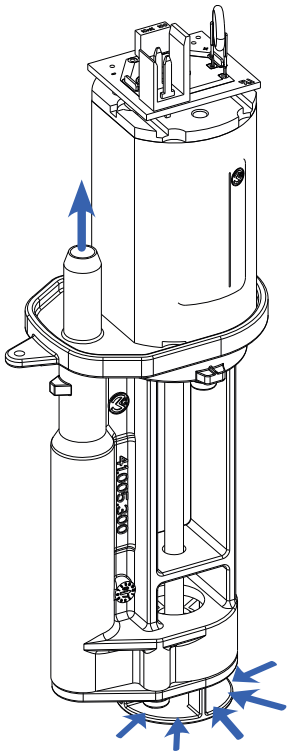
Series 41.005.300



Technical Data

Type	Dispense pump	
Construction	centrifugal pump (not self-priming)	
Fitting position	motor upwards	
Media	cold and heated potable water and physically and chemically similar media	
T-Medium	98 (208	°C max. °F max.)
T-Ambient	70 (158	°C max. °F max.
DN	5	mm
p-max (16 VDC) Q-max (16 VDC) p-max (26 VDC) Q-max (26 VDC)	102 (1.48) 3,6 (0.95) 71 (1.03) 3,0 (0.79)	mbar (psi) l/min (gpm) mbar (psi) l/min (gpm)
Motor type	direct current motor	
Nominal voltage	12 24	V DC V DC
Voltage range	10 - 16 V DC 20 - 26 V DC	
Duty cycle	100%	
Protection Type	IP 00 according to EN 60529	
Motor connections	Tyco 280609-2	
Basic interference suppression	Capacitor across terminals	
Insulation class	B	according to EN 60730
Protection class	III	according to EN 60730

The circuit board located on the terminal side of the motor prevents 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.

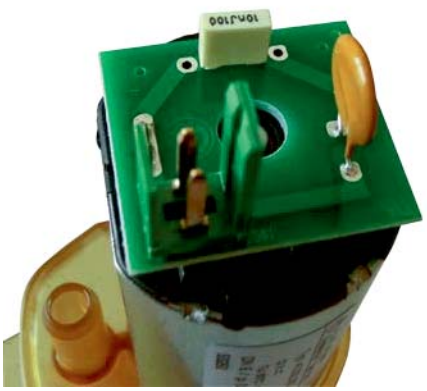


Materials

Pump housing	PEI
Impeller	PEI
Seal	EPDM

Options

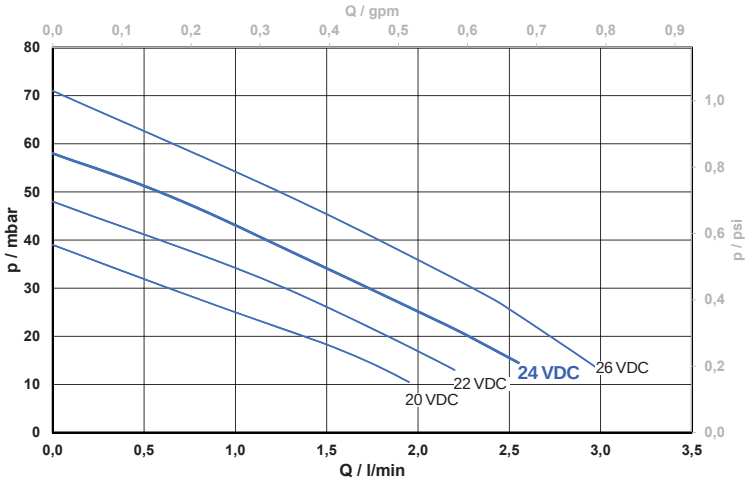
ID	Nominal voltage
053250	12 V DC
053251	24 V DC

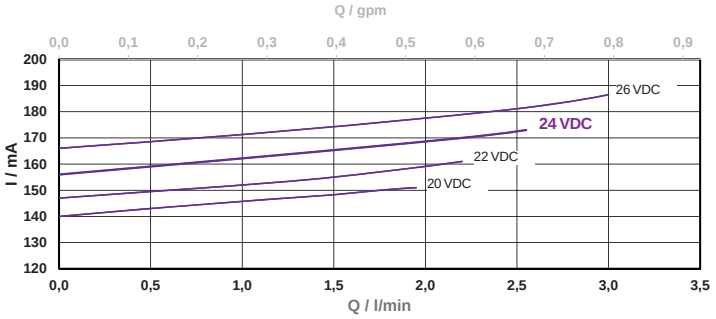


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Series 41.005.300

Typical performance curves 24 V DC





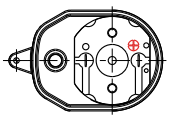
Notes for customers using the pump 41.005.300 without the circuit board

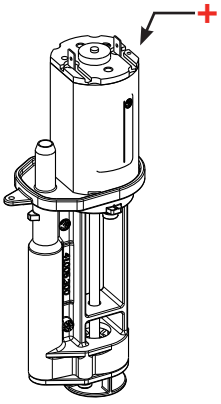
If the pump is used without the overload circuit board, the customer should take appropriate safety measures in the event of motor blockage. For this purpose an overcurrent protection should be provided on the system electronics to prevent overheating of the motor and possible damage to the control circuit 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: 350 mA
12 V motor: 630 mA

For the protection circuit board the following PTC thermistors can be used:
24 V Motor: MF-R040 (holding current : 400 mA, release current: 800 mA @ 23 °C)
12 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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