



www.regulus.eu



CSE OTS MFB+ZV G

Installation and Operation Manual | **EN**
CSE OTS MFB+ZV G PUMP STATION

CSE OTS MFB+ZV G

1. Introduction

CSE OTS MFB+ZV G Pump Station is designed for installation on a heating system flow pipe. The pump station contains two ball valves, one ball valve is fitted with an integrated filter and magnet. The filter can be easily removed and cleaned without any tools. The pump station is intended for installation directly on a pipe, the minimum pipe centre distance from wall is 100mm.

2. Description of the Pump Station

Main Features	
Application	heating system flow
Description	consists of UPM3 FLEX AS 25-75 130 mm pump (control possible either by PWM signal or by selecting a pump performance curve) , ball valve w. check valve, ball valve w. filter and magnet, thermometer, insulation
Working fluid	water, water/glycol mixture (max. 1:1) or water-glycerine mixture (max. 2:1)
Installation	flow pipe, min. pipe centre distance from wall = 100 mm
Code	17922

Data for CSE OTS KKMF+ZV G Pump Station	
Fluid working temperature	5 - 95 °C
Max. working pressure	10 bar
Min. working pressure	0.5 bar
Ambient temperature	5 - 40 °C
Max. rel. humidity	80 % non condensing
Power supply	230 V, 50 Hz
Insulation material	EPP RG 60 g/l
Overall dimensions	345 x 140 x 150 mm
Total weight	3.6 kg
Connections	2 x G 1" F

3. Direction of Flow through the Pump Station

← FLOW DIRECTION



4. UPM3 FLEX AS 25-75 130 mm Pump

Design

Wet-running circulation pump with G 6/4" M threaded connections.

Electric Data	
Power supply	230 V, 50 Hz
Power input (min./max.)	2/60 W
Current (min./max.)	0.04/0.58 A
IP rating	IP44
Max. speed	5991 rpm
Weighted average power	≤ 28 W
Energy Efficiency Index	≤ 0.20 by EN 16 297/3
Motor protection	not needed



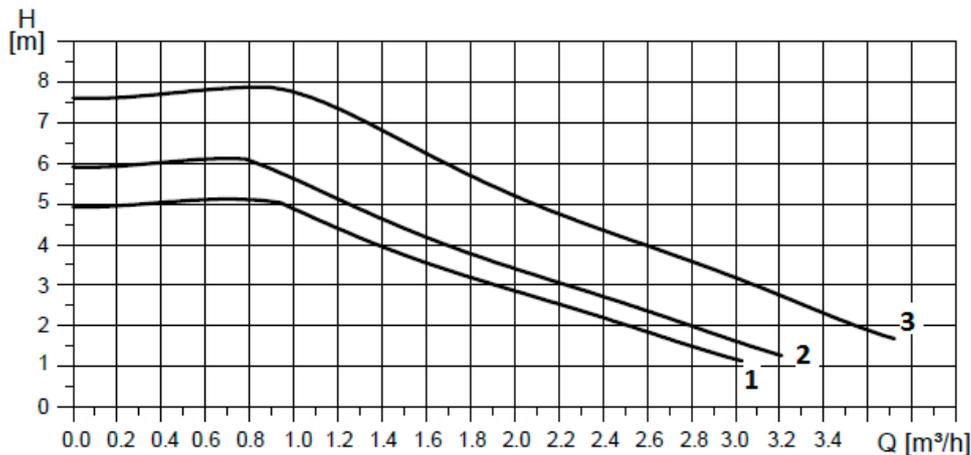
Pump Control

The circulation pump can be controlled by an external PWM signal (profile for use in heating systems) or without a PWM signal by selecting a pump performance curve.

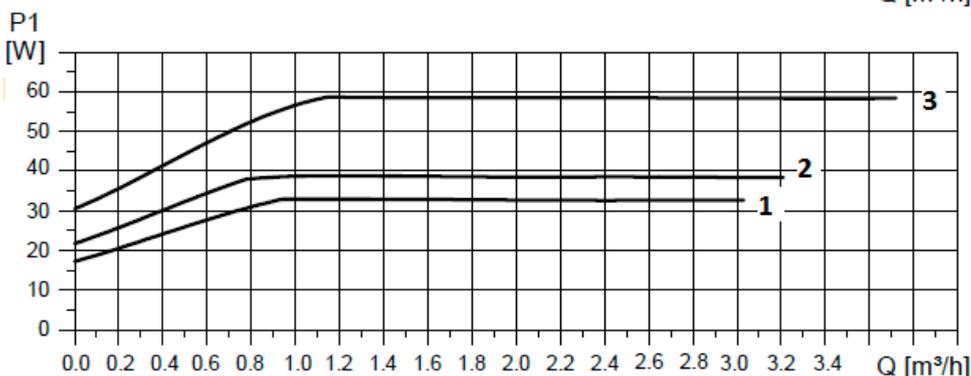
The maximum operating curve of the pump can be defined.

- with PWM signal the pump speed changes with the signal value up to the maximum of the selected curve
- without PWM signal the pump runs at maximum speed according to the selected curve

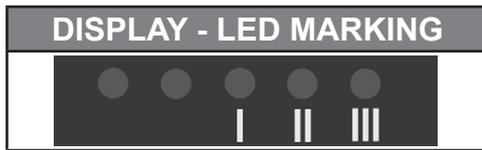
Performance Curves



Curve	Max. H (upper graph)	Max. P ₁ (lower graph)
1	5 m	33 W
2	6 m	39 W
3	7.5 m	60 W



Performance Display



The LED marking is further omitted for better clarity.

DISPLAY	PERFORMANCE CURVES	STATE	Max. H (upper graph)
	1	LOW PERFORMANCE	5 m
	2	MEDIUM PERFORMANCE	6 m
	3	HIGH PERFORMANCE	7,5 m

WARNING: LEDs may be turned by 90° or 180°, depending on the specific pump type.

GREEN LED FLASHING FREQUENCY	PWM SIGNAL RECEPTION
1 flash per second	NO
8 flashes per second	YES

When switched on, the pump runs at factory settings or the last setting. The display shows the current pump performance.

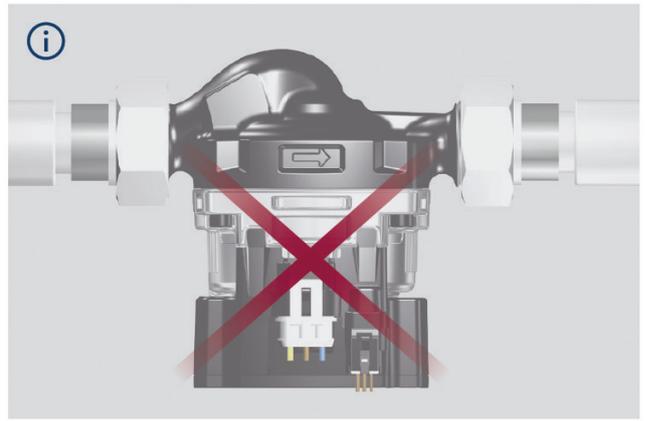
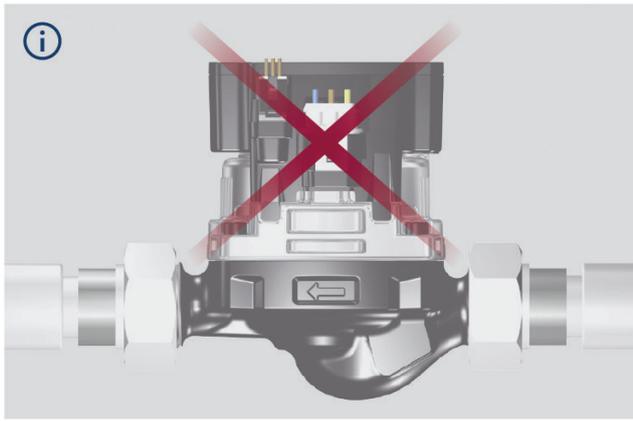
Setting selection for UPM3

To select your desired setting, press the button repeatedly until you find the setting you need (see the table above). If you pass the desired setting, you have to go one more round until it appears again.

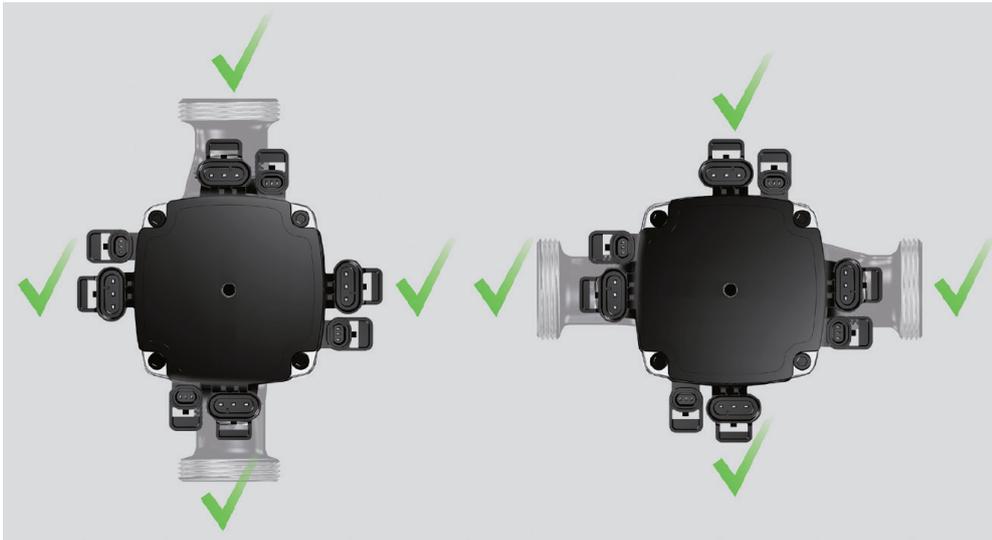
Error Display

DISPLAY	CONTROL MODE
	Seized pump
	Too low power supply voltage
	Electric fault

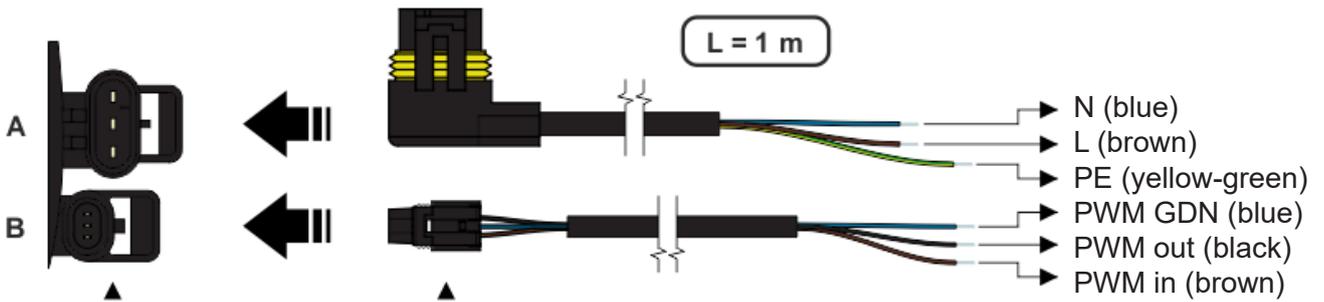
Prohibited pump positions



Permissible pump (actuator) positions



Pump Wiring



socket for power supply (A)
and signal transmission (B)

power supply (A) and
signal (B) connectors

5. Ball Valve with Filter & Magnet



5.1. Maintenance, Cleaning

1. Close the ball valve by turning the lever by 90° in the direction of the OFF arrow (Fig. 1).
2. Unscrew the lid with magnet manually and take out the strainer (Fig. 2, 3).
3. Remove impurities from the magnet and strainer.
4. Return the clean strainer back to its place and screw on the lid with magnet.
3. Open the ball valve by turning the lever by 90° in the direction of the ON arrow (Fig. 4).



Fig. 1



Fig. 2



Fig. 3

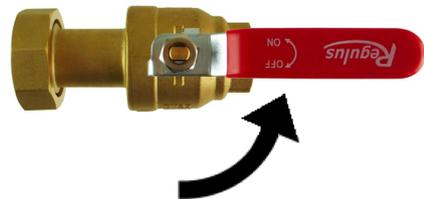


Fig. 4

