

Description

Introduction

The **Brushless Mini Pump** is a DC circulation pump used for UWE Verken's shunt programme, heating stations, stationary bus heating systems, etc.

The magnetic drive spherical motor design offers many benefits over other pump styles: it operates on extremely low input; the spherical permanent magnet eliminates impeller slippage; the motor does not have a shaft, is fully potted and has no moving parts; the pump has no seals; and both the drive and motor magnets have thick cross-sections that resist cracking due to thermal shock.

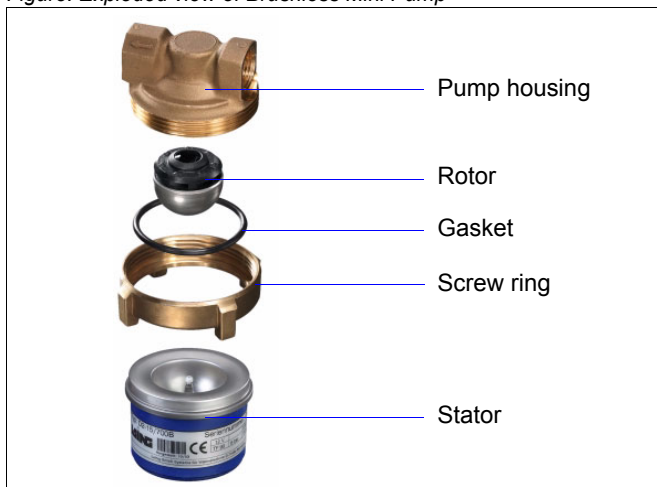
Description

The pump consists of a stator and a rotor which is magnet operated. These are assembled with the pump housing with help of a screw ring and an O-ring. The pump is delivered with electrical-, and water connection and also a bracket for easy mounting.



Figure: Brushless Mini Pump

Figure: Exploded view of Brushless Mini Pump



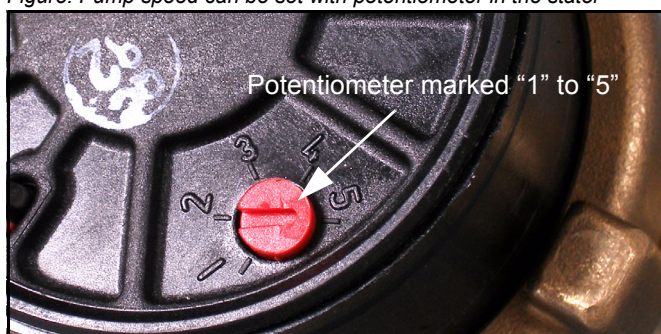
The brushless mini pump has a unique screw ring design allowing replace of motor without changing pump housings., see figure below.

Figure: Replacing of motor is simple



This pump also has an integrated potentiometer which allows to adjust the pump performance in 5 different positions, according to the required pump speed. See figure below, also see diagram next page for corresponding performance curve.

Figure: Pump speed can be set with potentiometer in the stator

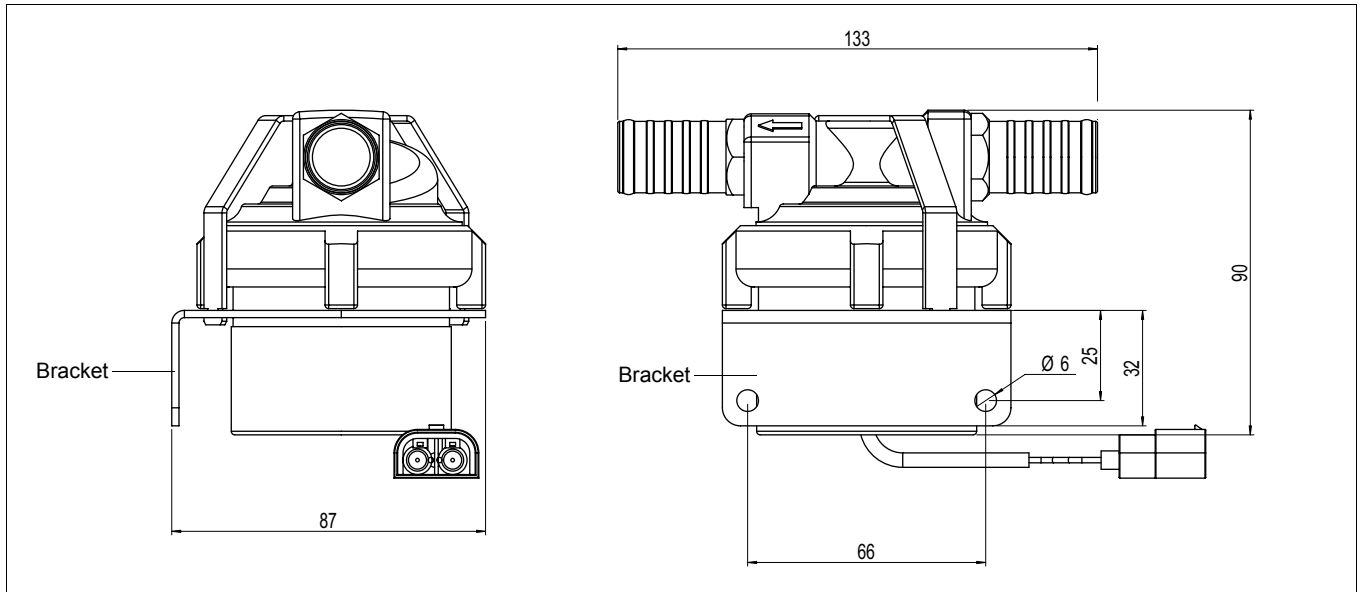


Application

The brushless mini pump is primarily intended for recirculating water/glycol mixtures in vehicle heating systems.

Technical Data

Dimensions (mm)



Limitations

Temperature range	-10°C to +95°C (non-freezing)
Maximum system pressure	10 bar

Electrical Specifications

Nominal voltage	24 volts DC
Voltage	6-30 Volts DC
Pins	Red =+24V Black=GND

Figure below: Performance diagram with different potentiometer settings (P1-P5)

Connections

Water	Outside diameter 19,8 mm
Electrical	Connect black (-), red to (+)

Materials

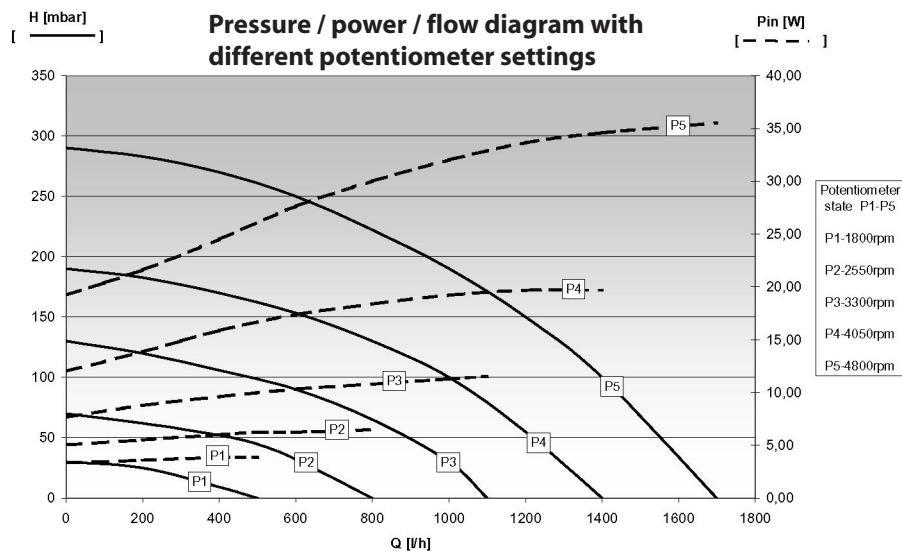
Housing	Brass
Rotor	Stainless steel

Certification

The pump is CE-marked in accordance with the Directive 89/336.

Acceptable media

Domestic hot water, heating water, Water/Glycol mixture.
Other media on request.



Product range

Description	Part Number
Brushless mini pump (with cable and contact), bracket, and plastic cover	18432

