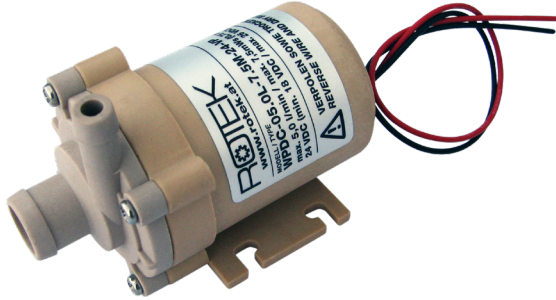


General Information

The mini centrifugal pump of the WPDC series is a food-safe, submersible pump with a brushless DC motor. It features an extremely low operating noise level and is specially designed for continuous operation in the medium.



Thanks to the all-plastic construction (without bronze, stainless steel, or aluminum), the pump offers high resistance and is suitable for a variety of media such as demineralized water and solvents. The materials used include polypropylene and Peek, while the seal is made of silicone. Due to these materials, the pump is also conditionally resistant to alkalis and acids.

Safety Instructions

- When using hazardous substances, the pump must be regularly inspected in accordance with the Occupational Safety Ordinance (BetrSichV).
- Appropriate safety measures must be taken, especially when using explosive or highly flammable substances.

Installation Instructions

The outlet of the pump can be rotated in 90° steps to flexibly adjust the position to different applications.

Reversing the polarity of the power supply is not permitted, as this would damage the pump. A polarity protection device should be provided depending on the application.

Dry running of the pump should be avoided; the minimum flow rate should always be at least 5% of the maximum flow rate.

The operating voltage can be reduced to adjust flow and pressure to the specific application requirements.

The pumped medium must not contain ferromagnetic particles, as these could accumulate between the rotor and stator. In such cases, a magnetic trap should be installed.

The pump is not self-priming; a natural inflow must be ensured.

Technical Data

| Model | WPDC- | | |
|------------------------------|--|------------------------|--|
| | 4.5L-3.1M-12-VP | 5.0L-5.4M-12-VP | 6.7L-10M-24-VP |
| Rotek Part Number | PUM337 | PUM287 | PUM409 |
| EAN (GTIN13) | 9009970002466 | 9009970002473 | 9009970018320 |
| Max. Flow rate ¹⁾ | 4,5 l/min | 5,0 l/min | 6,7 l/min |
| Min. Flow rate | 5% of max. flow rate (Q _{MAX}) | | |
| Max. Head ¹⁾ | 3,1 mWs (~0,31 bar) | 5,4 mWs (~0,54 bar) | 10 mWs (~1,00 bar) |
| Self priming height | 0 mWs, not self-priming | | |
| Inlet hose nozzle (bore) | ∅ ₀ : 13,4 mm (∅ ₁ : 10,2 mm) | | |
| Outlet hose nozzle (bore) | ∅ ₀ : 7 mm (∅ ₁ : 4 mm) | | |
| Direction of rotation | counterclockwise | | |
| Allowed Medium Temperature | Free-standing (outside): ≤ +95°C Submersed in medium: ≤ +40°C | | |
| Used materials ²⁾ | Bearings: Peek, Seals: Silicone, other components: Polypropylene | | |
| Operating Voltage | 12 V _{DC} (8 - 14 V _{DC}) | | 24 V _{DC} (18 - 26 V _{DC}) |
| Current Consumption | valid for nominal operating voltage (12 / 24 V _{DC}) | | |
| at Q _{MAX} | 810 mA | 1.300 mA | 1.110 mA |
| at P _{MAX} | 540 mA | 920 mA | 830 mA |
| Connection cable | Stranded-wire, 2-pole (0.3mm ²), Length: 150mm | | |
| Insulation resistance | ≥ 10 MΩ (500 V) | | |
| Surge resistance | 500 V, 10 mA, 1s | | |
| Dimensions | see dimensional drawing | | |
| Weight | 183 g | | |
| Noise level | ≤ 30 dB(A) @ 1m / ≤ 55 dB(A) @ 0,1m | | |
| MTBF ³⁾ | > 50.000h, suitable for continuous operation | | |

¹⁾ The specified values for head height and flow capacity are maximum values and represent the endpoints of the pump performance curve.

Value for maximum flow rate: Open outlet, no height difference, viscosity=1
Value for maximum head height: At a flow rate of Q_{MIN} (=5% of Q_{MAX})

²⁾ Only materials that come into contact with the medium are listed.

³⁾ To protect the electronics of the brushless DC motor, the lowest possible housing temperature should be maintained.

Disposal

At the end of its service life, the device must be handed over to an appropriate electronic waste disposal company (WEEE No.: DE 95178600).

