

Product Datasheet: 1000ml/min Optima Series

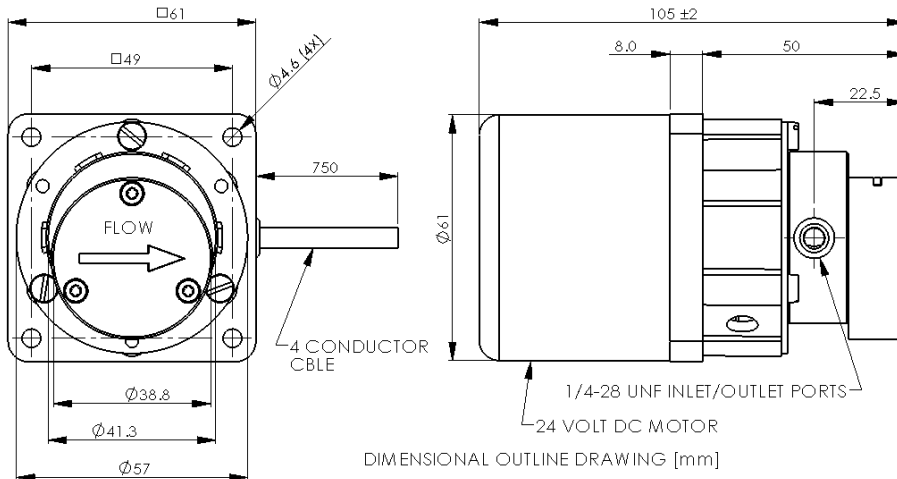
All Diener pumps are customized to suit your requirements: the information below represents one of the possibilities...



Pump shown with 1/4-28 UNF side ports and 3mm I.D. tube fittings.

The Optima series is designed for applications requiring accurate flow in a very small package size. The wetted materials and gear construction are the same as those of its larger cousins, but by removing one of the shaft bearings the overall length is much shorter. In addition, the magnetic coupling has been miniaturized to further reduce the overall length without sacrificing high-pressure performance. The inlet and outlet port locations can be located on the side, top, or end of the pump, and are available in a variety of sizes. The brush-less DC motor has an integral flange allowing bulkhead mounting, and its IP55 rating ensures it will stand up to harsh environments.

- Magnetically Coupled: No seal leaks
- Positive Displacement: Pulse-less flow delivery across pressure range.
- Inert Construction Materials: Compatible with wide range of fluids
- Mounting Versatility: Motor flange mounting with a variety of porting styles/locations



Specifications

Performance:

Max. continuous pressure: 4 bar
 Max. intermittent pressure: 6 bar
 Max. static Case pressure: 20 bar
 Inlet: Self-priming
 Speed range: 300-4500 rpm
 Fluid viscosity range: 0.3 to 1000 cps

Electrical:

Supply voltage: 24vdc
 Speed Control: 0-5vdc
 Tach. Output: 5 volt TTL, 4 pulses per revolution.
 Rotation: Clockwise
 Max. current: 2 amps
 Current Overload Protection: 1.8 amps
 4-conductor Teflon cable: 24 AWG
 Color code: Black = ground, Red = +24vdc, Green = Tach. Output, White = 0-5 vdc speed control
 Motor rating: IP-55

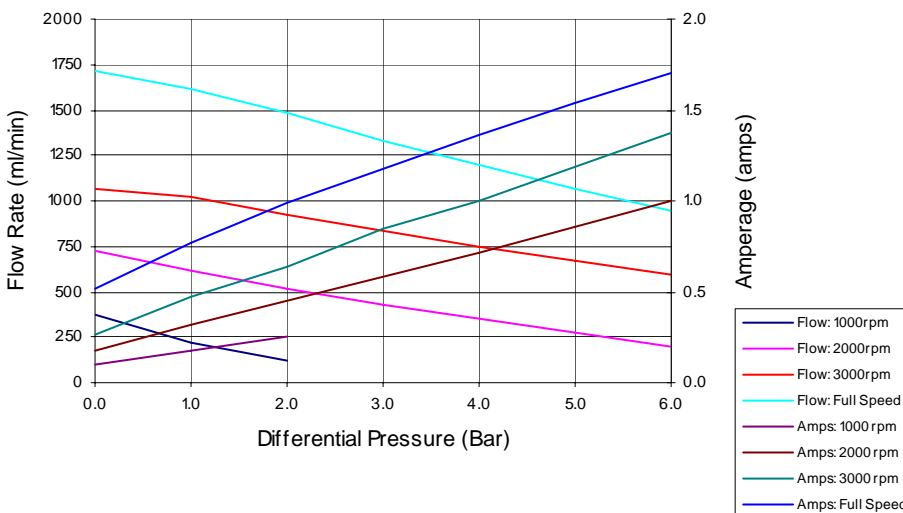
Temperature:

Fluid temp. range: -20 to +100°C
 Ambient air temp. range: 0-40°C
 Relative humidity range: 0-95% non-Condensing
 Thermal protection: Internal thermal sensor off at 90°C, resets at 80°C

Construction:

Standard: 316L stainless steel, PEEK®, EPDM. Optional: 304 SS, Alloy-C, PPS, Teflon®, Silicone, Viton®, Kalrez®
 Inlet/Outlet: 1/4-28 UNF1 (standard); Optional: 1/8"-NPT, 1/4"-NPT, G1/8, G1/4, exiting the side, top, or end of the pump.
 Marking: Permanent laser-mark identification for 100% traceability.
 Mass: 0.8 kg

Typical Performance Curve: Water at Room Temperature



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