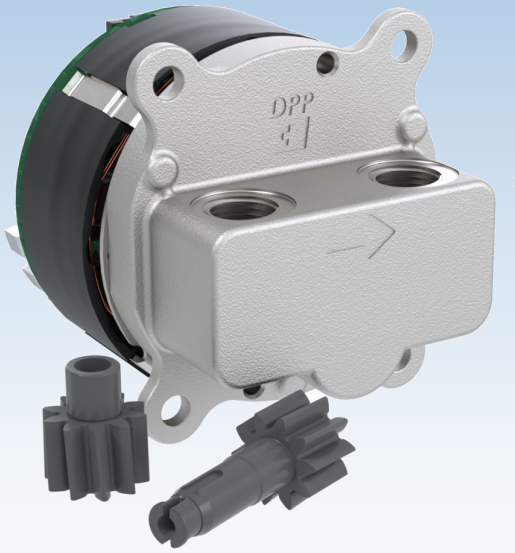
SILENCER LD SERIES GEAR PUMPS

DIENER Precision Pumps



The Silencer LD is an economic solution for lighter duty applications not requiring the extreme capabilities of the Silencer series but still providing a durable, leak-free, reliable, chemically inert and quiet solution.

The space-saving design offers customers multiple port options for easy installation. Custom casting designs can be created for higher volume OEM needs. A magnetic coupling ensures the pump will never leak, and high-quality wetted materials are chosen to withstand a wide range of aggressive chemicals.

The Silencer LD Series - Engineering Your Flow.

- **Life Science Analytical – Diagnostics**
- **Bulk & Sample Fluid Transfer**
- **Dialysis Degas and Dialysate**
- **Fully Automated Coffee Machines**
- **Continuous Ink Jet Printing**
- **Industrial Cooling**

Benefits

Low Cost: Not all applications require maximum pump capability. Silencer LD has been optimized to lower cost while still providing superior Diener quality and reliability.

Long Life: DPP pumps are all characterized by their robustness and performance. Wear and tear is at its lowest, and their smart designs ensure a sustainable reduction of operating costs.

100% Outgoing Test: Before any pump leaves our factory, it is stringently and extensively tested in accordance with its specifications. Our customers receive detailed test reports, to confirm performance.

Chemically Resistant: Our pumps are made from materials resistant to a wide range of aggressive chemicals, operating reliably and precisely in even the harshest environments.

Low Pressure Pulsation: Thanks to their smart drives and innovative helical gear design, our pumps ensure extremely smooth fluid delivery with almost no pressure pulsation.

No Shaft Seals: DPP gear pumps are hermetically sealed instead of using conventional shaft seals. This means low maintenance for you and your customers, a long service life and the highest degree of productivity.

Specifications*

Performance

Max. continuous pressure:	4 bar
Max. intermittent pressure:	6 bar
Max. static case pressure:	15 bar
Flow Rate	(see pages 4-5)
Inlet:	Self-priming
Fluid viscosity range:	0.3 - 1000 cps

Temperature

Fluid temperature range:	0-95°C
Ambient air temp. range:	0-80°C
Relative humidity range:	0-95% non-condensing

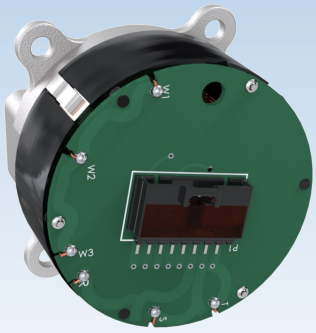
Construction

Metal components:	316L stainless steel
Gears:	PEEK
O-ring options:	EPDM, Silicone, FKM, Nitrile
Inlet/Outlet:	1/4” & 6mm Push Connect, 1/8”-NPT, G1/8, 1/4”-28 UNF
Marking:	Permanent laser-mark identification for 100% traceability

***Performance values are limits and cannot all happen simultaneously.**
Please contact your sales engineer for further technical information and customized options.

Motor Options

12 & 25W Basic BLDC

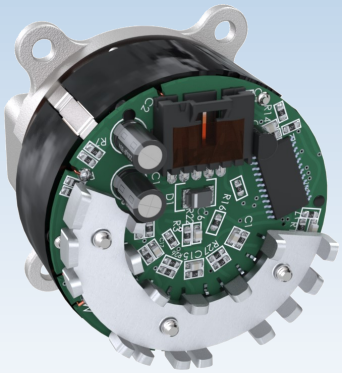


Centralize controls away from the pump onto an OEM circuit board. This gives the customer maximum flexibility and may reduce overall costs.

Specifications

Supply Voltage:	24 vdc
Rotation:	Bi-directional
Control Options:	Customer provided
Max. Current:	2 amps
Feedback:	Hall sensors
IP Rating:	Parylene-C splash protection
Electrical Connection:	Board-mounted connector, flying leads or custom
Total Pump Mass:	0.35 to 0.45 kg

12 & 25W Smart BLDC

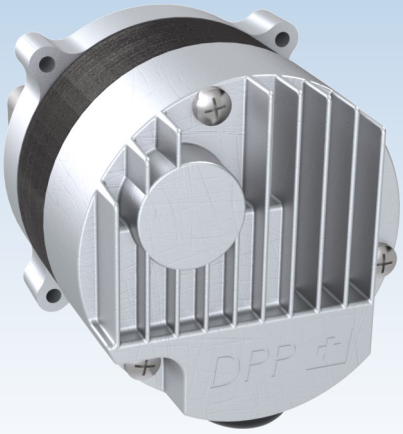


On board control simplifies electronics for the customer. Supply 24 vdc power and a 0-5 vdc control and let the pump do the rest.

Specifications

Supply Voltage:	24 vdc
Rotation:	Bi-directional
Control Options:	0-5 vdc PWM Potentiometer
Max. Current:	1.6 amps
Feedback:	Tachometer
IP Rating:	Parylene-C splash protection
Electrical Connection:	Board-mounted connector, flying leads or custom
Total Pump Mass:	0.40 to 0.50 kg

35W Advanced BLDC



Our most advanced motor offers numerous control options including RS-485 digital communication. Delivered power of 35W in a compact design rivals any stator option on the market.

Specifications

Supply Voltage:	24 vdc
Rotation:	Bi-directional
Control Options:	0-5 vdc PWM RS-485 Digital Pre-programmed
Max. Current:	2.0 amps
Feedback:	Tachometer Digital: Speed & Current
IP Rating:	IP55
Electrical Connection:	Flying leads or custom termination
Total Pump Mass:	0.75 kg

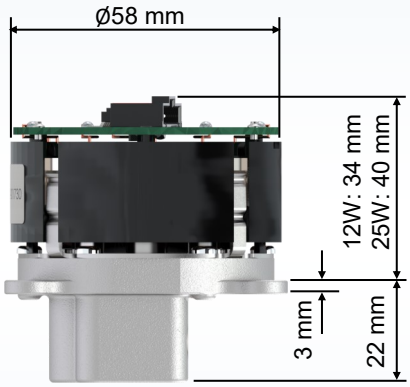
Pump Sizes

Various pump displacements are easily achieved by changing the gear width or tooth profile, all while maintaining the same envelope diameter. Performance values are limits and cannot all happen simultaneously. See flow curves for more information.

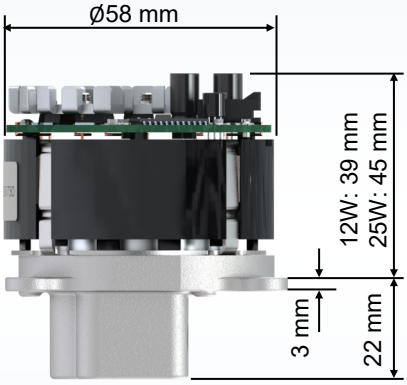
	Silencer LD 250	Silencer LD 500	Silencer LD 1000	Silencer LD 1500	Silencer LD 2000
Maximum Flow Rate (ml/min)	340	700	1600	2200	3700
Maximum Pressure (bar)	6	6	6	6	6

Dimensional Outline

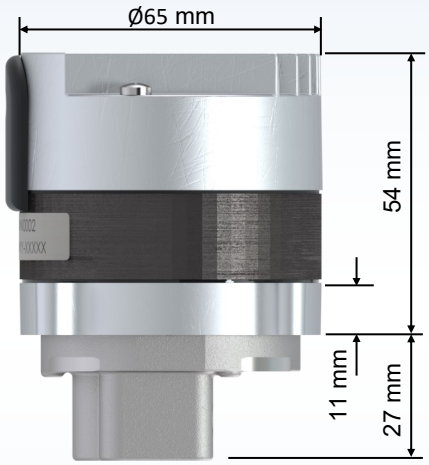
Basic BLDC



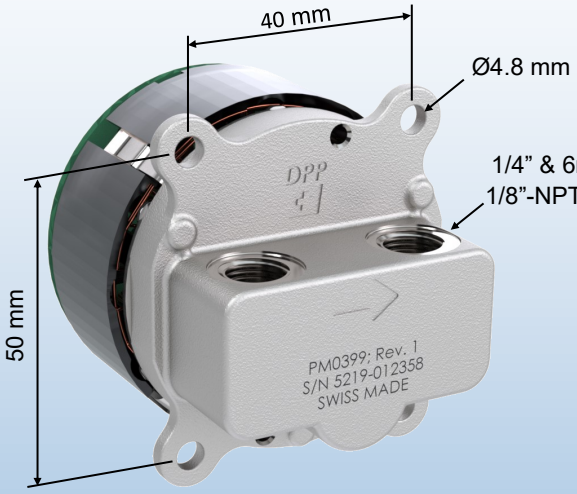
Smart BLDC



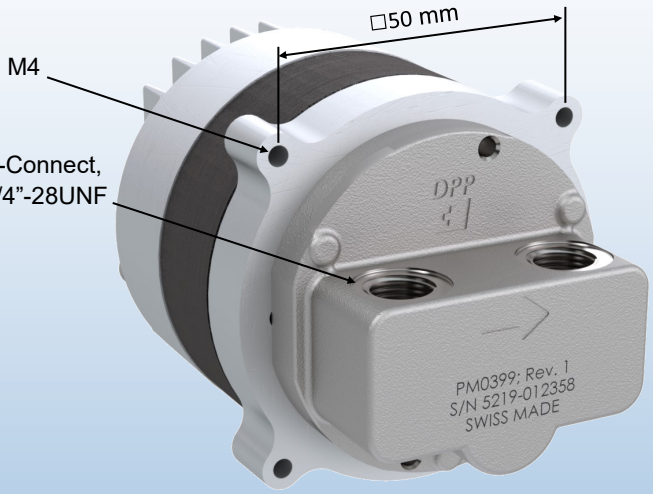
Advanced BLDC



Basic & Smart BLDC



Advanced BLDC

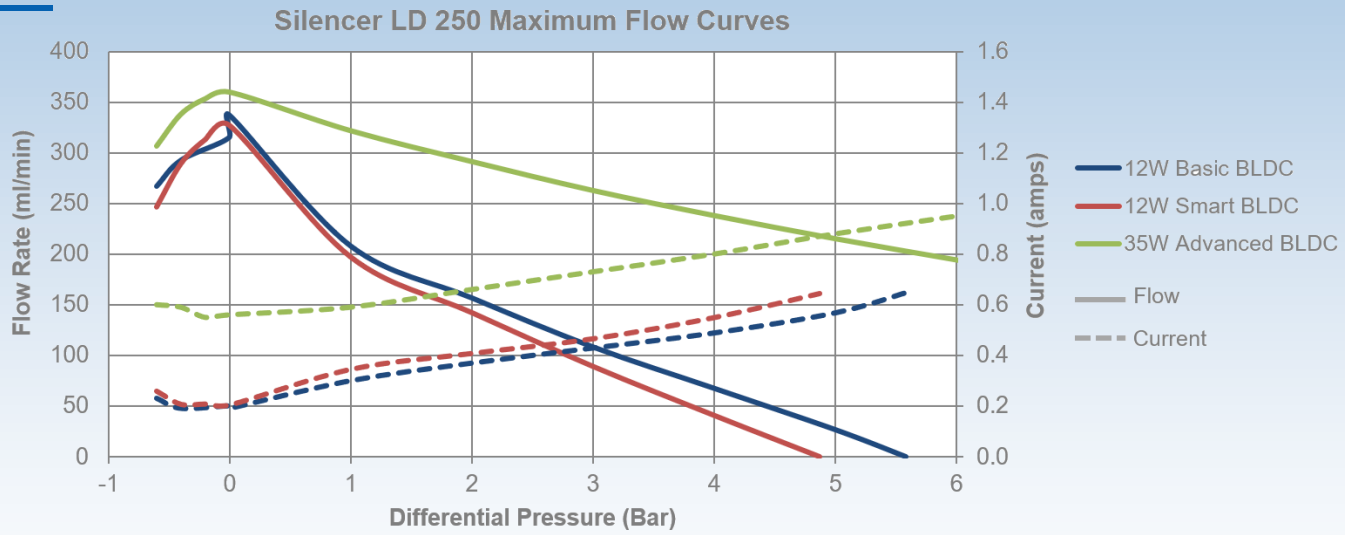


3D models available at www.dpp.swiss

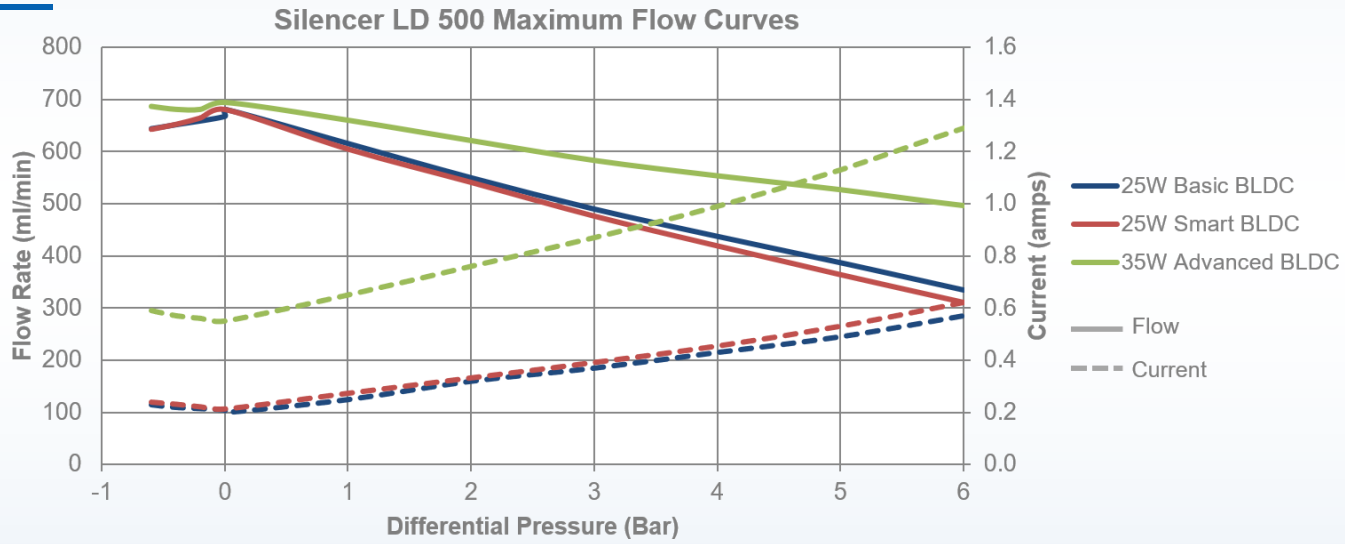
Performance

Data represents performance pumping water at room temperature

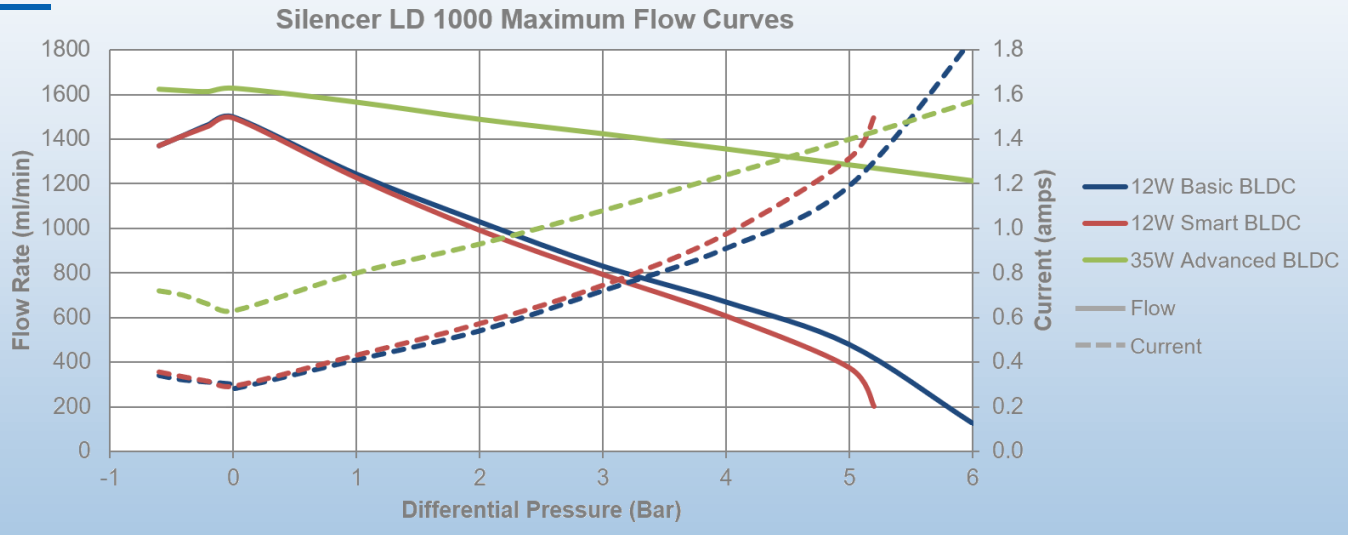
Silencer LD 250



Silencer LD 500



Silencer LD 1000

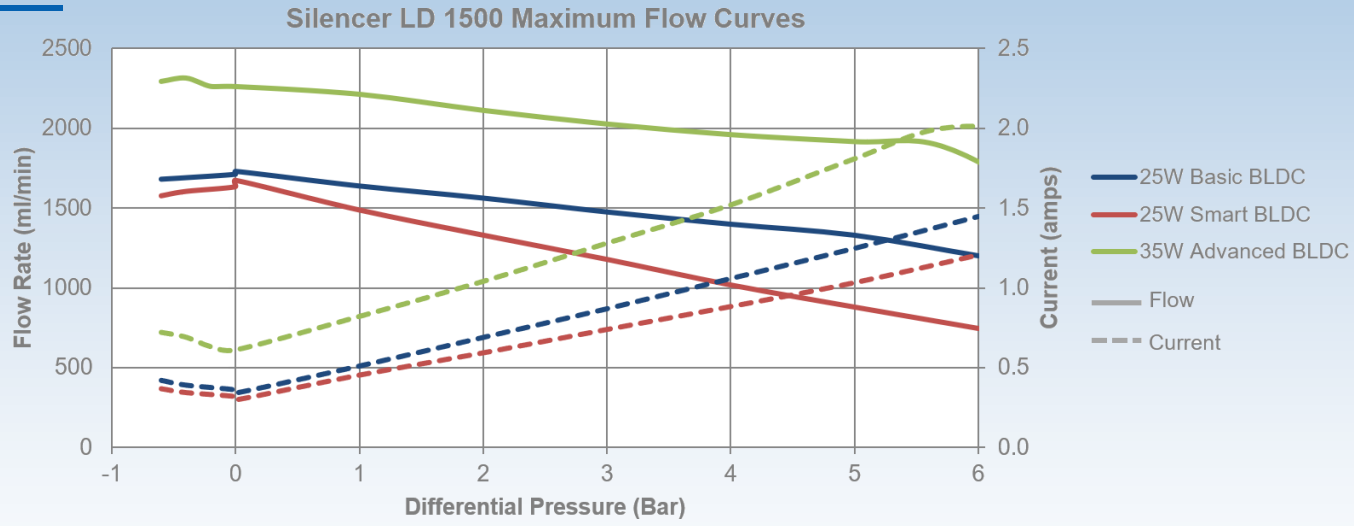


Performance

Data represents performance pumping water at room temperature

DIENER Precision Pumps

Silencer LD 1500



Silencer LD 2000