Reduce Downtime & Maintenance with DuraLev® Bearingless Pumps!

No Seals, No Bearings, No Problems!

DuraLev® R65S

4 bar	*(58 psi)*
100 liters/min	*(26 gallons/min)*

DuraLev® R65S pump systems with LPC-2000 controller models shall not be used anymore for new applications. Refer to DuraLev® R65S.S product literature with LPC-2000S controllers for replacements with same fit form and function.

Levitronix® MagLev Pump Technology
Your Solution for Trouble-Free Pumping!

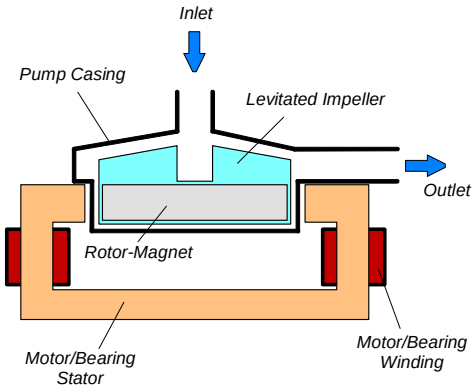


Figure 1: *Schematic of the main elements of the maglev centrifugal pump*

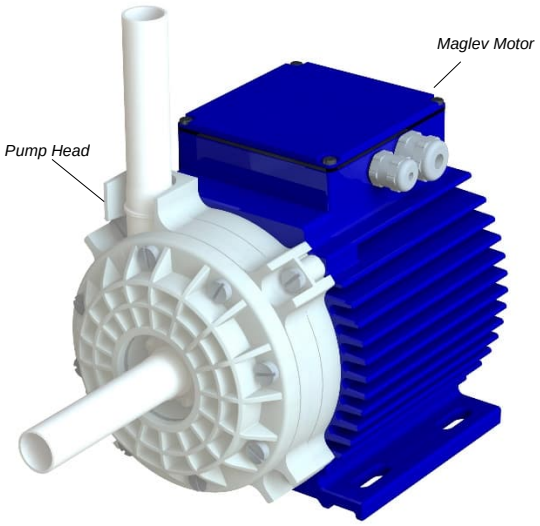


Figure 2: *Maglev motor with pump head*

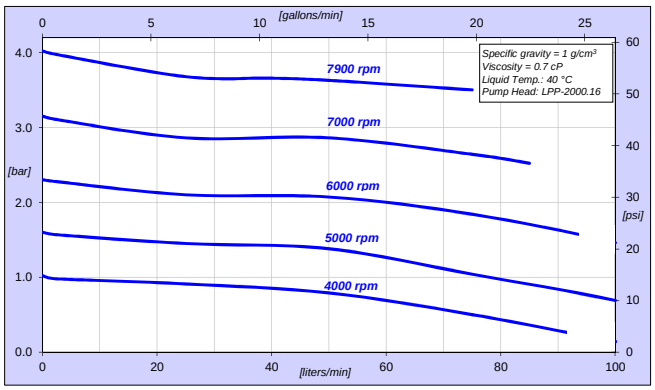


Figure 3: *Pressure/flow curves*

REVOLUTIONARY MAGNETICALLY LEVITATED CENTRIFUGAL PUMP

The *DuraLev® R65S* pump system is a revolutionary centrifugal pump that has no bearings to wear out or seals to break down and fail. Based on the principles of magnetic levitation, the pump's impeller is suspended, contact-free, inside a sealed casing and is driven by the magnetic field of the motor (*Figure 1*). The impeller and casing are both fabricated from chemical-resistant high purity fluorocarbon resins. Together with the rotor magnet they make up the pump head. Fluid flow rate and pressure are precisely controlled by electronically regulating the impeller speed and eliminating pulsation.

The pump system consists of a controller with an integrated user panel allowing the operator to set the speed manually (see *Figure 4*). The speed is automatically stored in the internal EEPROM of the controller. As an option, the speed can also be set with an analog signal (see specification for *Position 3a* in *Table 2*).

SYSTEM BENEFITS

- Low particle generation due to the absence of mechanically contacting parts.
- Increases equipment uptime.
- Lower maintenance costs by eliminating valves, bearings, rotating seals and costly rebuilds.
- Reduced risk of contamination due to the self-contained design with magnetic bearings.
- Very gentle to sensitive fluids due to low-shear design.
- Smooth, continuous flow without pressure pulsation.
- Electronic speed control.
- Compact design compared to pneumatic and magdrive pumps. Saves valuable space in process tools by having a smaller footprint.
- Proven technology in medical and semiconductor industry (MTBF > 50 years).

APPLICATIONS

- Semiconductor wet processing.
- Solar cell production.
- Metal plating
- Flat panel display manufacturing.
- Hard-disk fabrication.
- Printer ink handling.

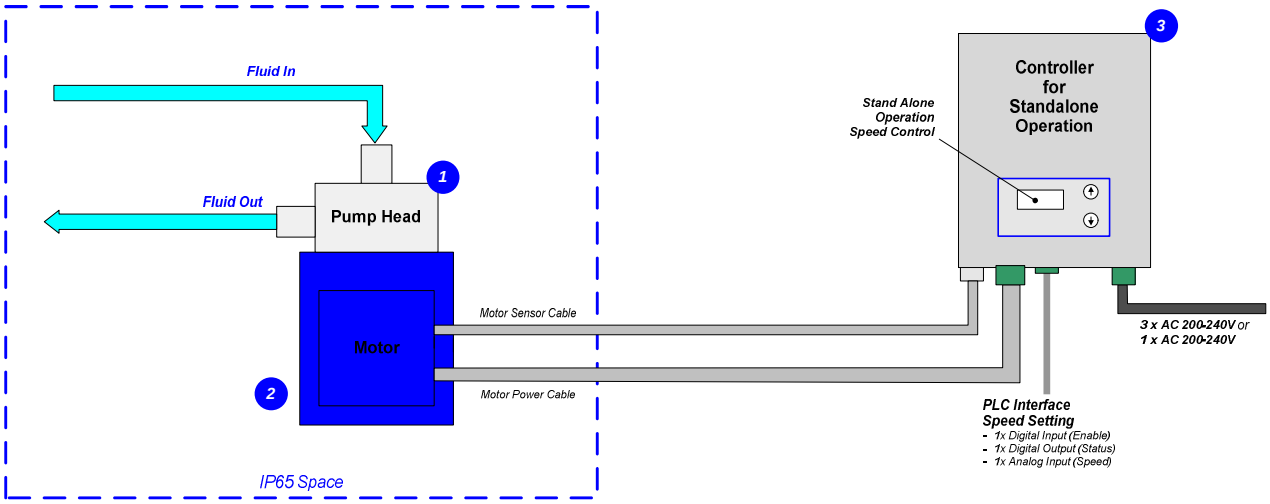


Figure 4: *Standard system configuration*

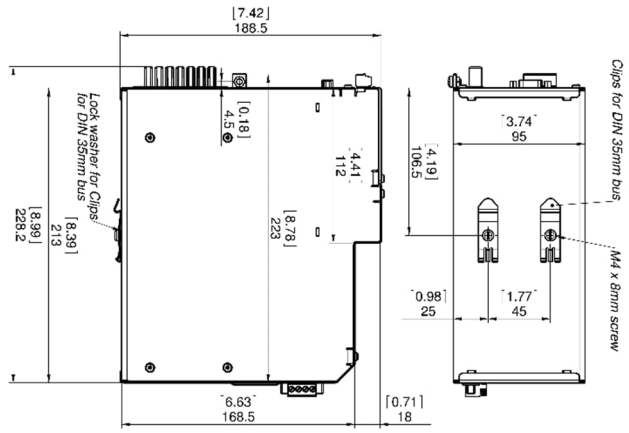
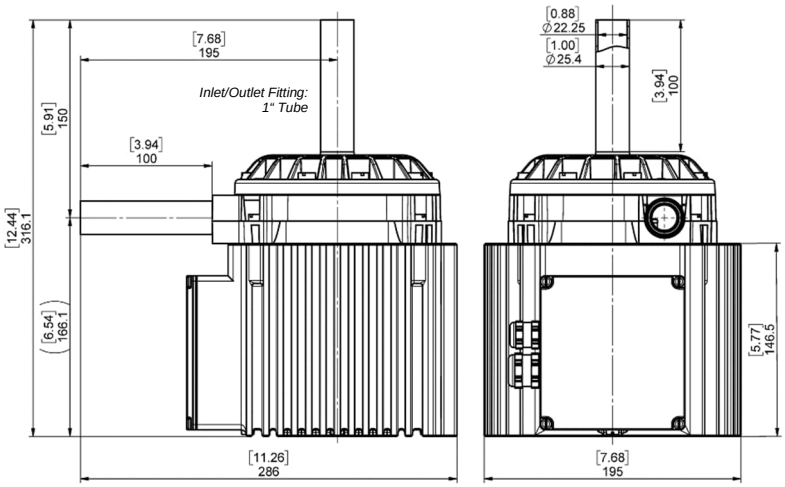


Figure 5: *Dimensions of controller LPC-2000.1-10*
Note 1: Non-tolerated dimensions are for reference only.



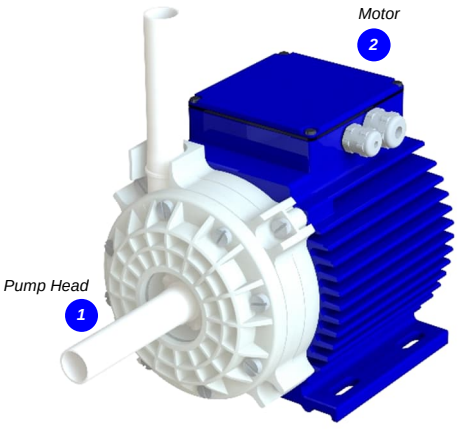


Figure 6: *Dimensions of motor LPM-2000.12 with pump head LPP-2000.16*
Note 1: Non-tolerated dimensions are for reference only.

ORDER INFORMATION

System Name	*Article #*	*Pump Head*	*Controller*	*Motor*	*Note*
DuraLev-R65S.1	100-91056	LPP-2000.16	LPC-2000.1-10	LPM-2000.12	*Certifications: CE*

Table 1: *Standard system configuration*

Pos.	*Component*	*Article Name*	*Article #*	*Characteristics*	*Value / Feature*
1	Pump Head	LPP-2000.16	100-91042	Impeller / Pump Housing Reinforcing Housing Sealing Ring / Fittings	*PFA / PFA (wet parts)* *PP + GF30* *FFPM (=FFKM) (perfluoroelastomer) / Tube 1"*
				Max. Flow Max. Diff. Pressure Max. Viscosity Max. Liquid Temperature	*100 liters/min / 26 gallons/min* *4 bar / 58 psi* *30 cP* *80°C / 176°F*
2	Motor	LPM-2000.12	100-10102	Housing	*Epoxy coated Aluminum, IP65 without connectors*
				Cable / Connectors	*2x 6m cables with PVC jacket and direct connection to the controller.*
3	Standalone Controller (User Panel)	LPC-2000.1-10	100-30075 (Supply and PLC connector included)	Voltage / Power Housing Rating	*1 or 3 x 200-240 V AC ±10% / 2kW @ 50/60Hz* *IP20*
				Interfaces for Standalone Controller	*Panel to set speed (automatic storage on internal EEPROM)*
				PLC with	*1x analog input ("Speed")* *4 - 20 mA* *1x digital input ("Enable")* *0 - 24 V (optocoupler)* *1x digital output ("Status")* *0 - 24 V (relais)*
				Standard Firmware	E0.25

Table 2: *Specification of standard components*

Figure 7: *Pump system with standard components*

LEVITRONIX® THE COMPANY

Levitronix® is the world-wide leader in magnetically levitated bearingless motor technology. *Levitronix®* was the first company to introduce bearingless motor technology to the Semiconductor, Medical and Life Science markets. The company is ISO 9001 certified. Production and quality control facilities are located in Switzerland.

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