

# Magnet drive gear pump-motor units FG400 series

The FG400 series magnet drive gear pump-motor units are designed for heavy duty applications where reliability in harsh environments is key. The combination of the magnet drive with the use of ceramic for the internal components makes of the FG400 series an exceptionally robust pump capable of handling a wide range of liquids with a high degree of safety.

The Fluid-o-Tech® FG series combines a 24V brushless DC drive motor in a rotor-less configuration with a high precision mag drive MG series gear pump to deliver a system capable of handling fluids in the most demanding applications.

The service life of the unit, due to fewer moving parts and to the excellent balance of the system, is greatly extended compared to the traditional pump-motor units.

The integration of the pump, motor and variable speed controller provides an electromagnetically coupled, leak free unit with a high degree of versatility. The extreme accuracy of the design and of the finishing allows the unit to deliver a smooth and pulsation free flow in all conditions. A range of materials is available for a wide array of fluids.



## MAIN APPLICATIONS

- Medical equipment
- Hemodialysis apparatus
- Laser apparatus
- Lubrication
- Ink-Jet printing systems
- Cooling systems
- Laboratory instrumentation
- Water treatment
- Sampling
- Food processing equipment
- Sanitization



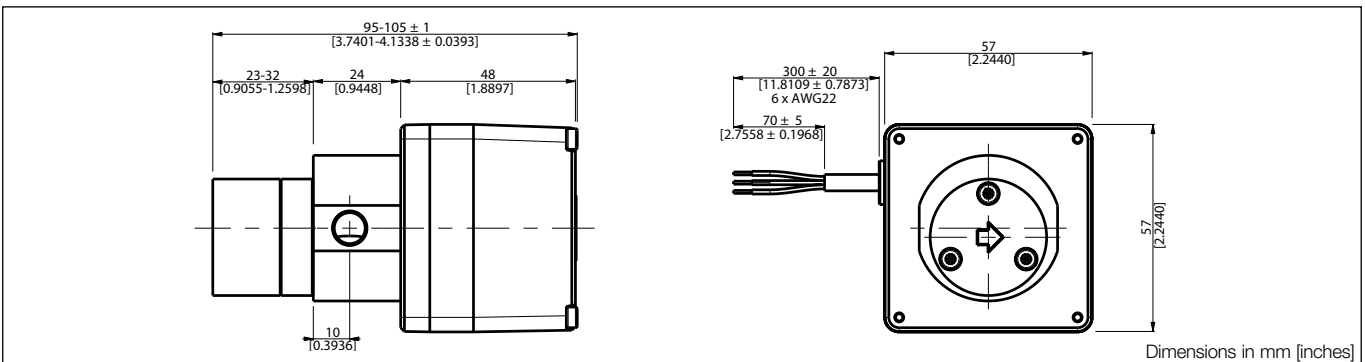
## TECHNICAL INFORMATION

Pump housing material	AISI 316L	Motor type	24 V BLDC
Gears and bushing material	Peek/PTFE™	Speed range	from 300 to 5000 rpm
Ports	1/8" GAS or NPT	Max output power	50 W
Max static pressure	20 bar/290 psi	Motor IP protection	IP 52
Max vacuum	724 mmHg/28.5 inHg	Insulation class	F
Wet lift with water*	~ 8 m/26.2 ft	Unit weight	810 g (1.8 lb)

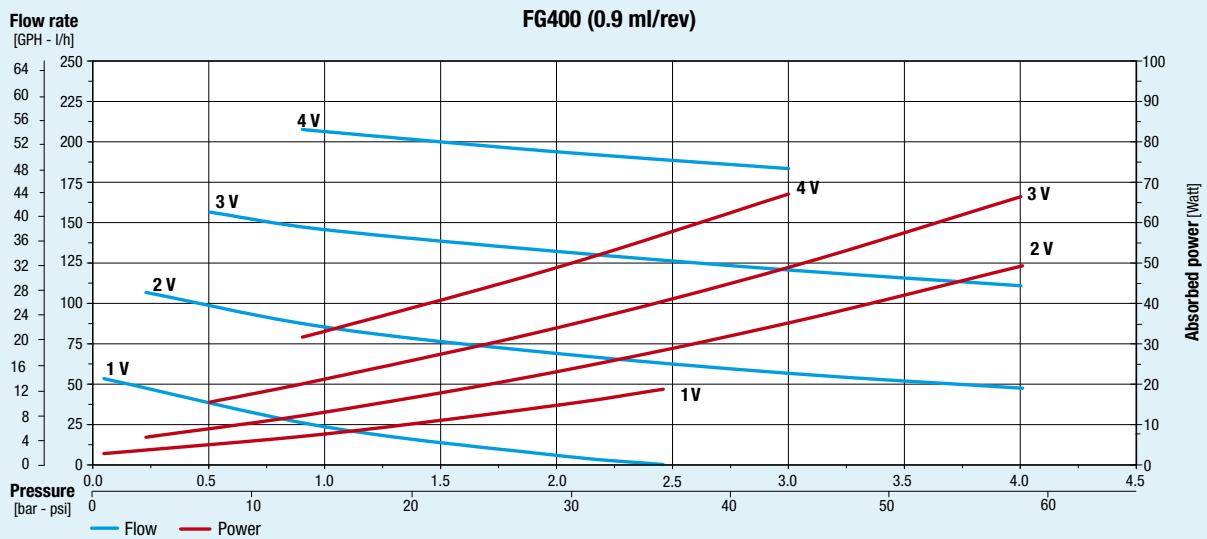
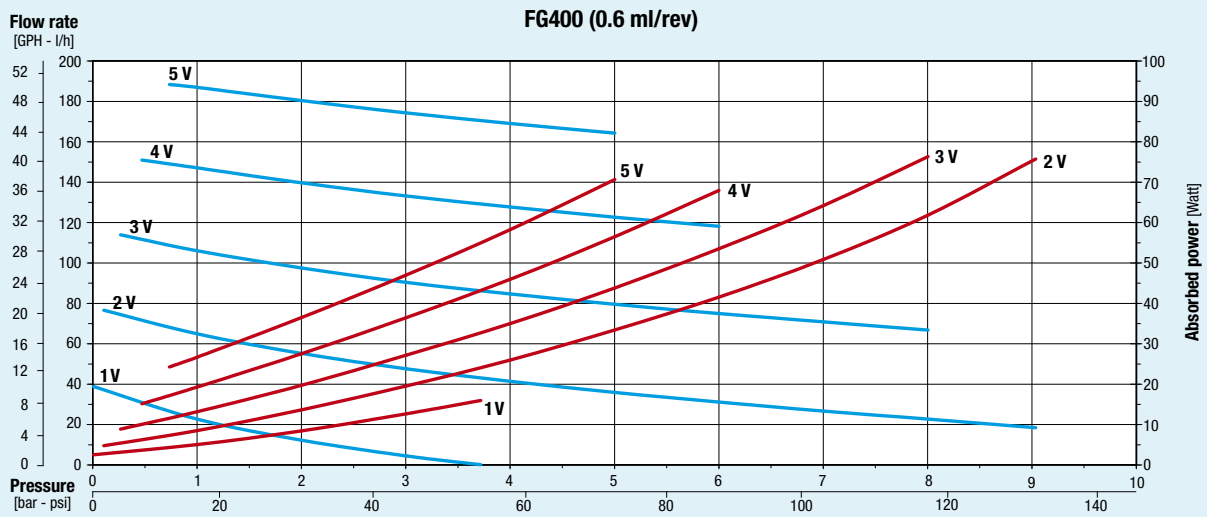
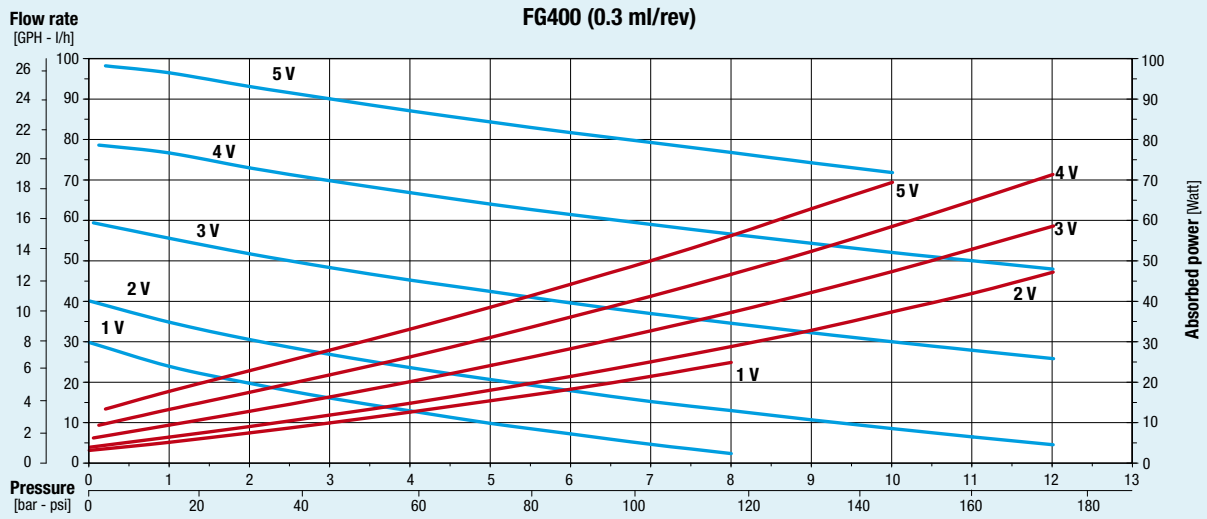
\* Priming ability varies with operating conditions and fluid characteristics

## OPERATING RANGE

Max ambient temperature	40 °C/104 F	70 °C/150 F	40 °C/104 F
Fluid temperature	95 °C/203 F	55 °C/131 F	40 °C/104 F
Max torque	30 mNm/4.2 in-oz at 5000 rpm	70 mNm/9.9 in-oz at 3500 rpm	100 mNm/14.1 in-oz at 3500 rpm
Min ambient temperature	5°C/41 F		



Dimensions in mm [inches]



Note: Characteristics with water at 20 °C (68 F) and without relief valve. Fluids different from water must be validated by the Customer. Temperature requirements different from ambient temperature must be mentioned on the order. Different materials are available upon request. Use a filter before the pump inlet no larger than 10 micron

Fluid-o-Tech reserves the right to alter the specifications indicated in this catalogue at any time and without prior notice.

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