

CLARK

FG Magnetic Drive Gear Pumps w/Brushless 24VDC Motor

Integrated Motor Driver Circuit, Chemically Resistant Design, Flow to 205 LPH
DESCRIPTION

The FG series combines a 24V brushless DC drive motor electromagnetically coupled to a precision MG series gear pump. This high end unit is capable of handling fluids in the most demanding applications.

The service life of the unit is greatly extended because there are no moving motor parts. This integration of the pump and motor provides a leak free fluidic unit with a high degree of versatility.

The extreme accuracy of this unit delivers a smooth and pulsation free flow in all conditions. Different materials are available for a wide array of fluids and a built-in relief valve is available on request.

SPECIFICATIONS

- Pump housing material: AISI 316L or PPS
- Gears and bushings material: PEEK/PTFE
- Ports: 1/8" NPT
- Motor IP protection: IP52
- Motor Drive Circuit: 24 VDC
 - Analog Input Speed Command- 0-5V, linearity speed vs command ±5% with no load
 - Output: 500-5000 RPM
 - Tach Out: 0-5V, source current max 5 mA;
 - Output square signal frequency, max 2.7 KHz
- Unit weight: AISI 316L- 910g/2Lb; PPS- 550g/1.2Lb
- Speed range: 500 to 5000 rpm
- Max power: 50 W
- Max static pressure: 20 bar/290 psi
- Max Vacuum: 724 mmHg/28.5 inHg
- Wet lift with water (Varies w/fluid & Operating Conditions): ~ 8 m/26.2 ft



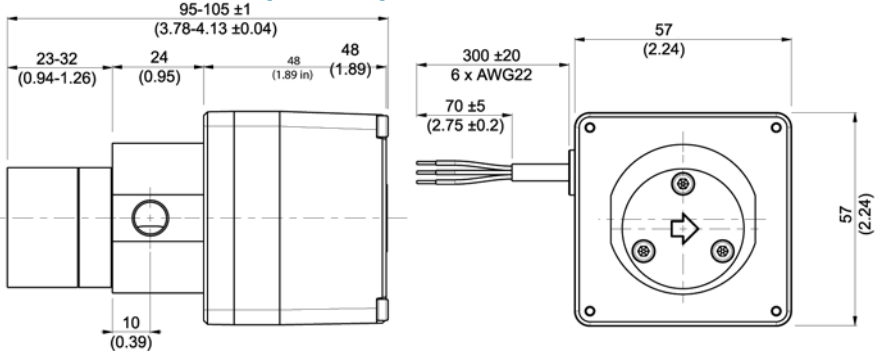
APPLICATIONS

- Medical and surgical equipment
- Hemodialysis apparatus
- Laser apparatus
- Lubrication
- Ink-jet printing systems
- Cooling systems
- Laboratory instrumentation
- Water purification and ultra-filtration
- Sampling
- Food processing equipment

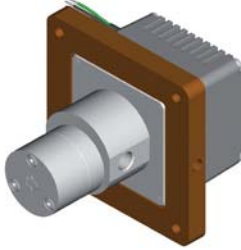


Operating Range			
Max ambient temperature	40 °C/104 °F	70 °C/158 °F	40 °C/104 °F
Fluid temperature	95 °C/203 °F	55 °C/131 °F	40 °C/104 °F
Max torque	30 mNm/4.2 in-oz at 5000 rpm	70 mNm/9.9 in-oz at 3500 rpm	100 mNm/14.1 in-oz at 3500 rpm
Min ambient temperature	5 °C/41 °F		

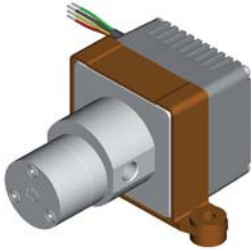
DIMENSIONS MM (INCHES)



MOUNTING

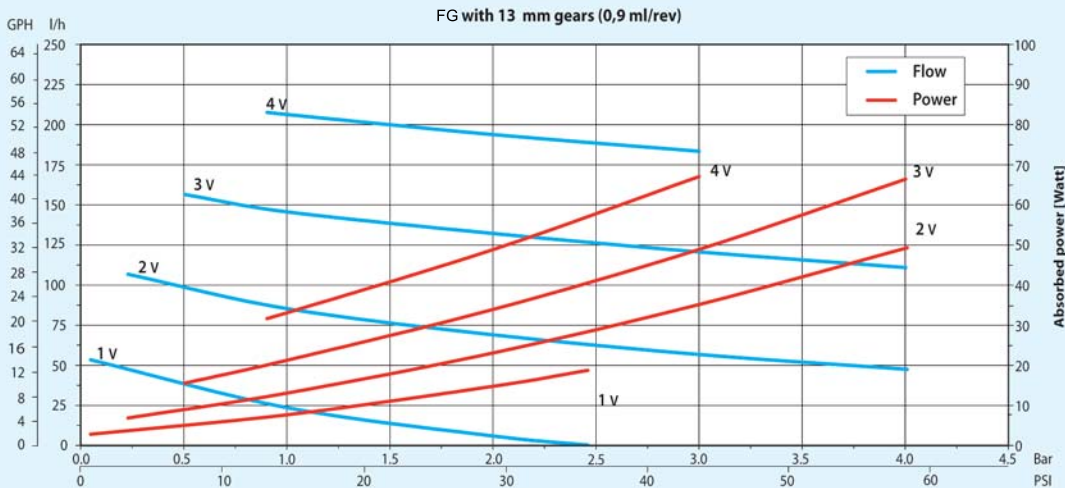
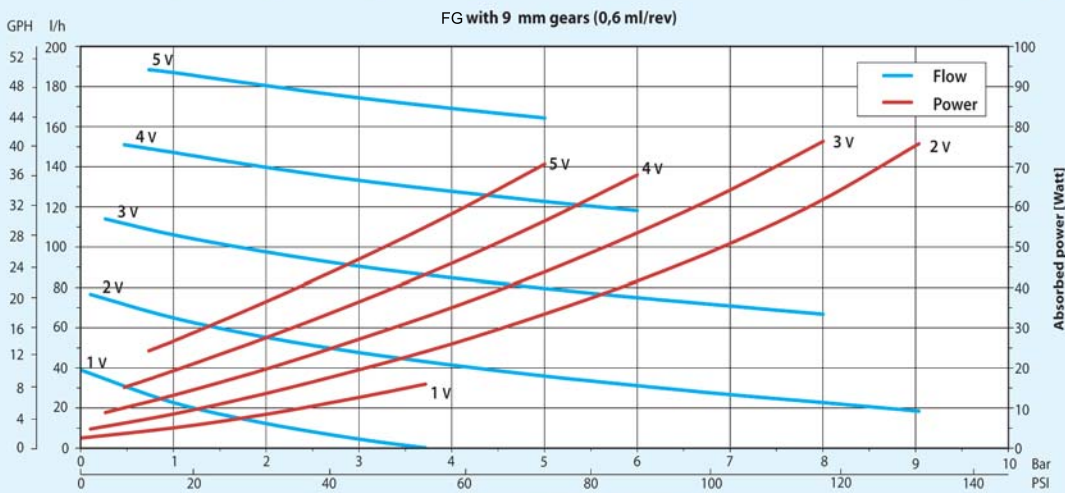
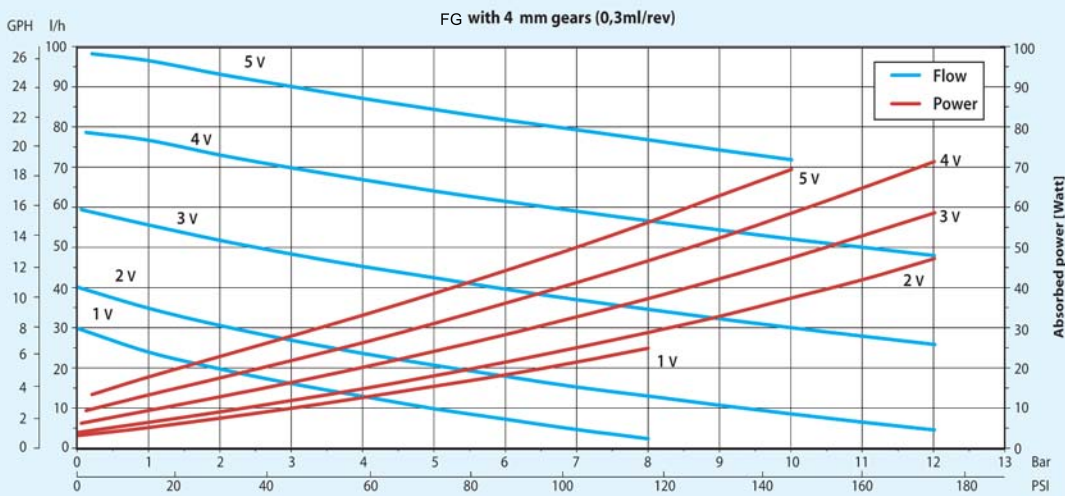


Front Flange Kit 94-83-01



Metal Bracket 94-83-02

An "L" mounting bracket, P/N 94-08-04 is available
 Screws (4) required: P/N90-14-19 (M3x50mm)
 This bracket attaches to the end of the FG motor.



Note: Characteristics with water at 20 °C (68 °F) and without relief valve, max vacuum 724 mmHg. Use a filter before the pump inlet no larger than 10 micron. Temperature requirements different from ambient temperature must be mentioned on the order. Different materials are available upon request

ORDERING INFORMATION

Model	Description
FG204XD0(P,T)1000	24 VDC Brushless Motor, MG2 Pump with 4 mm (PEEK or Teflon) Gears, 316 SS Body & Teflon Static Seal
FG209XD0(P,T)1000	24 VDC Brushless Motor, MG2 Pump with 9 mm (PEEK or Teflon) Gears, 316 SS Body & Teflon Static Seal
FG213XD0(P,T)1000	24 VDC Brushless Motor, MG2 Pump with 13 mm (PEEK or Teflon) Gears, 316 SS Body & Teflon Static Seal
FG204RD0(P,T)1000	24 VDC Brushless Motor, MG2 Pump with 4 mm (PEEK or Teflon) Gears, PPS Body & Teflon Static Seal
FG209RD0(P,T)1000	24 VDC Brushless Motor, MG2 Pump with 9 mm (PEEK or Teflon) Gears, PPS Body & Teflon Static Seal
FG213RD0(P,T)1000	24 VDC Brushless Motor, MG2 Pump with 13 mm (PEEK or Teflon) Gears, PPS Body & Teflon Static Seal

Model	Description
94-83-01	Front Flange Kit
94-83-02	Foot Bracket
94-08-04	"L" Bracket
90-14-19	M3x50mm Screw