

# MG200 Gear Pump with Brushless DC Motor

0 to 210 LPH, Pressure to 5 bar

## DESCRIPTION

The MG200 Series magnet drive gear pumps are compact precision performance products for high technology applications. The magnet drive principle provides a totally sealed pump chamber that is capable of handling a wide range of corrosive liquids with a high degree of safety. The housing of the pump and the internal metal parts are AISI 316 stainless steel. The gears are available in PTFE or PEEK.

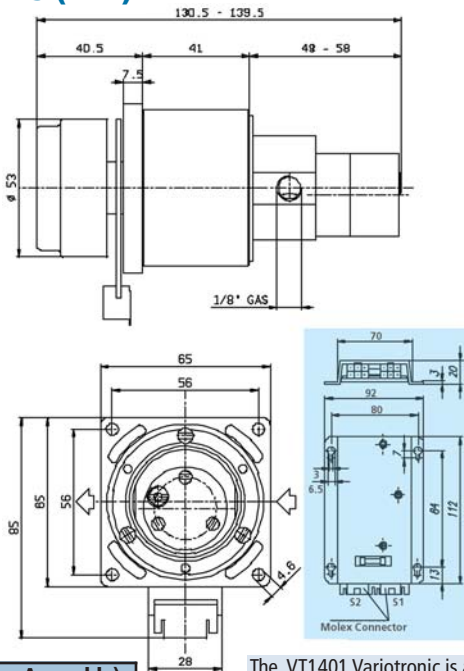
In operation the MG 200 Series pumps are noiseless, pulsation-free and capable of handling relatively hot liquids i.e. 120°C (248°F) at a low coefficient of expansion. The principle of the magnet drive comprises an inner PEEK encapsulated magnet embodied in the pump, connected to the driving gear and an outer magnet connected to the motor shaft. The pole-to-pole alignment of the magnets provides the driving motion to the pump. Decoupling occurs when the pump load exceeds the coupling torque between the magnets.

In/out ports have 1/8" NPT female threads. A built-in relief valve is available upon request. The unit is supplied with 24 Volt brushless DC motor and Variotronic speed control system.



MG Gear Pump Shown With Motor & Drive

## DIMENSIONS (MM)



| MGBR1 (Motor Assembly) |           |
|------------------------|-----------|
| Nom. Voltage           | 24 VDC    |
| Voltage Range          | 10-30 VDC |
| Nom. Speed             | 6000 RPM  |
| Nom. Torque            | 56 mNm    |
| Nom. Current           | 2.8 A     |
| Nom. Output Power      | 35 W      |

The VT1401 Variotronic is a compact electronic drive for operating brushless, electrically commutated direct current motors.

Speed is set via a command voltage of 0-10 V. A speed controller compares the command voltage with the actual speed value and preset PI control settings adjust the motor speed.

Note: See our Model FG, for a gear pump with integrated brushless DC motor and controller.

## ORDERING INFORMATION

- 1) Order motor assembly separately- (MGBR1)
- 2) Order optional Variotronic controller- (VT1401)
- 3) Build Pump Part Number From Table- (MG209XP017)

| Model | Gear Width                  | Housing                   | Gear/Bushing     | ReliefValve   | Connections                      |
|-------|-----------------------------|---------------------------|------------------|---------------|----------------------------------|
| MG 2  | 04=4mm<br>09=9mm<br>13=13mm | X=Stainless<br>Steel(316) | P=PEEK<br>T=PTFE | 1=Yes<br>0=No | 17= 1/8" NPT<br>Threaded in-line |

## TYPICAL APPLICATIONS

- Medical equipment & Lab instruments
- Lubrication
- Sampling
- Cooling systems & Lasers
- Ink-jet printing systems

