MICROPUMP



Series GB

MAGNETIC DRIVE GEAR PUMP

When you need a low-flow pump that delivers high performance in a small package, Series GB is an excellent option. Series GB gear pumps provide precise, pulseless flow, and features Micropump's suction shoe design. The suction shoe self-compensates for wear, ensuring near zero slip and long pump life. This pump, standard with an electromagnetic EagleDriveTM, provides a highly efficient, compact pumping package that easily integrates into your design.

PERFORMANCE SUMMARY

MAX RATED DIFFERENTIAL PRESSURE 8.7 Bar (125 psi)

MAX FLOW RATE (5500 RPM) 6.4 L/min (1.7 US gpm)

MAX RATED SYSTEM PRESSURE 21 Bar (300 psi)

TEMPERATURE RANGE
-29 to 120°C (-20 to 248°F)

VISCOSITY RANGE 0.5 to 1500 cps



HIGH PERFORMANCE OPERATION

- Positive displacement, precision gears for smooth pulseless fluid delivery
- Suction shoe style pumps for improved efficiencies when pumping at higher pressures
- ► Electromagnetic drive, with low inertia and high torque, for fast response times
- Automotive grade electrical components for high temperature operation (up to 120°C) and durability

FLUID PATH INTEGRITY

 The magnetic drive eliminates dynamic shaft seals, keeping the fluid in and contaminants out

LONG LIFE

- Precisely designed and manufactured gears stand the test of rugged duty
- Chemically resistant construction materials stand up to chemically aggressive fluids
- ► Electromagnetic drive means fewer moving parts
- Series GB pumps are easy to service using a Micropump service kit and simple hand tools

EASY DESIGN INTEGRATION

- Series GB pump and EagleDrive provides a compact package, enabling easy integration into system designs
- ► Supports wide range of power supply voltages (10-38V)
- ► Error signals for easy error detection and diagnosis



PUMP CONSTRUCTION

- Magnetic drive gear pump
- Suction shoe style
- ► Two or three helical gears
- Stationary shafts
- ► O-ring seal

WETTED MATERIALS

BASE MATERIAL

▶ 316 stainless steel

GEARS

- PEEK
- PPS

STATIC SEALS

- ▶ TEV
- FKM

MAGNETS

DRIVEN

► Rare earth

DRIVING

Electromagnet

DRIVE SPECIFICATIONS FOR EAGLEDRIVE™ DEELE

SPEED

- ▶ 1000 to 8000 rpm (36V)
- 500 to 5500 rpm (24V)
- 250 to 2650 rpm (12V)

SPEED (AT RATED TORQUE)

> 3750 rpm @ 20 oz-in (24V)

CURRENT AT RATED TORQUE

▶2.9A @ 20 oz-in (24V)

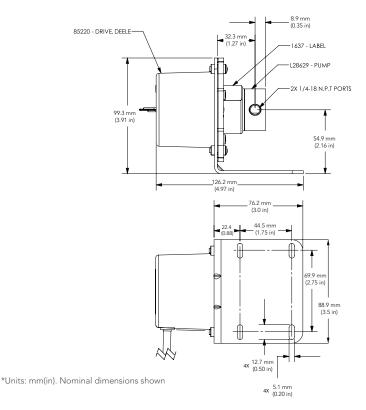
POWER SUPPLY

▶10V to 38V DC

TEMPERATURE RANGE

▶-40 to 120 °C (-40 to 248 °F)

DIMENSIONS



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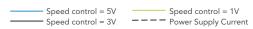
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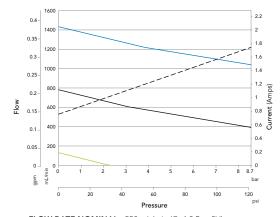
PUMP PERFORMANCE

Power Supply Voltage = 24 VDC

Water @ 1cps



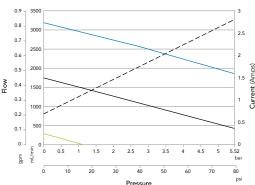
GB-P23-DEELE Performance



FLOW RATE NOMINAL: 550 mL/min (@ 4.3 Bar, 3V)
FLOW RATE MAX: 1430 mL/min (@ 0 Bar, 5V)

DISPLACEMENT: 0.26 mL/rev

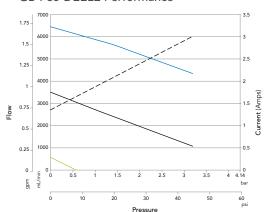
GB-P25-DEELE Performance



FLOW RATE NOMINAL: 1000 mL/min (@ 2.8 Bar, 3V)
FLOW RATE MAX: 3190 mL/min (@ 0 Bar, 5V)

DISPLACEMENT: 0.58 mL/rev

GB-P35-DEELE Performance



FLOW RATE NOMINAL: 2700 mL/min (@ 1.4 Bar, 3V) FLOW RATE MAX: 6435 mL/min (@ 0 Bar, 5V)

DISPLACEMENT: 1.17 mL/rev