

**MICROPUMP®**

# Series GJ

MAGNETIC DRIVE GEAR PUMP  
EAGLEDRIVE™

Series GJ pumps deliver exceptional pumping performance for any high-precision application. These compact magnetically driven gear pumps feature a cavity style design for smooth pulseless fluid delivery. The magnetic drive eliminates leak points associated with dynamic shaft seals, while providing energy-efficient fluid delivery. This pump, standard with an electromagnetic EagleDrive™, provides a highly efficient, compact pumping package that easily integrates into your system design.

## PERFORMANCE SUMMARY

**MAX RATED DIFFERENTIAL PRESSURE**  
5.6 Bar (80 psi)

**MAX FLOW RATE**  
5700 mL/min (1.51 gpm)

**MAX RATED SYSTEM PRESSURE**  
21 Bar (300 psi)

**TEMPERATURE RANGE**  
-46 to 120°C (-50 to 248°F)

**VISCOSITY RANGE**  
0.2 to 1500 cps

### HIGH PERFORMANCE OPERATION

- ▶ Positive displacement, precision gears for smooth pulseless fluid delivery
- ▶ 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
- ▶ Cavity Style pumps are excellent for wide-ranging inlet and outlet operating conditions, and allow for intermittent reverse operation

### FLUID PATH INTEGRITY

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

### LONG LIFE

- ▶ Precision design 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 GJ pumps are easy to service using a Micropump service kit and simple hand tools.

### EASY DESIGN INTEGRATION

- ▶ Series GJ 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

# Series GJ

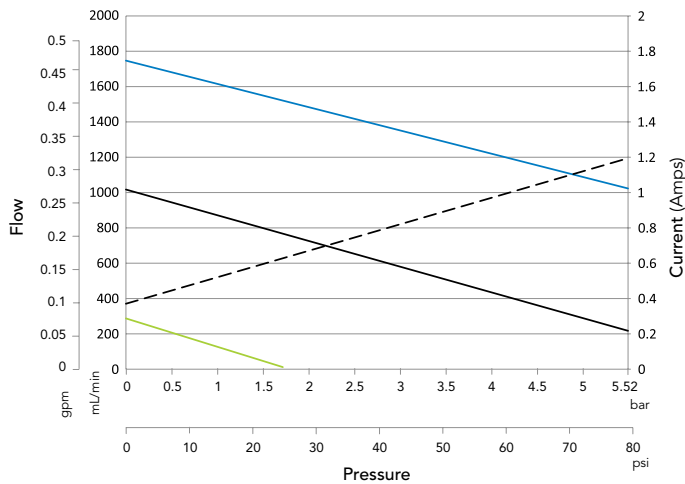
MAGNETIC DRIVE GEAR PUMP N21 & N23  
EAGLEDRIVE™



## PUMP PERFORMANCE

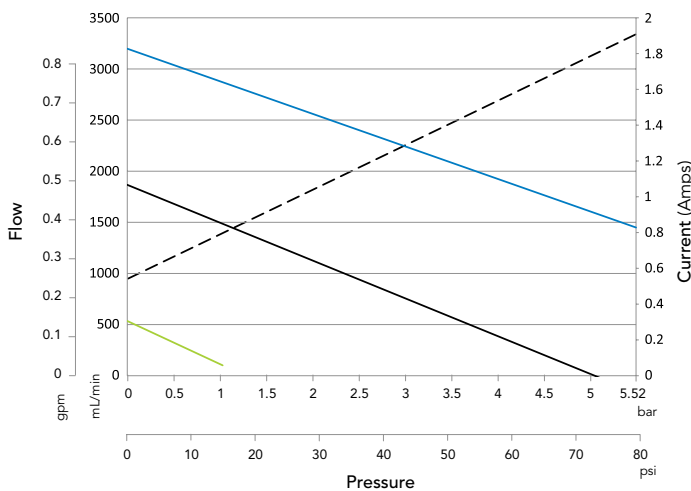
Speed control = 5V ————  
 Speed control = 3V ————  
 Speed control = 1V ————  
 Power Supply Current - - - - -

### GJ-N21-DEMSE Performance



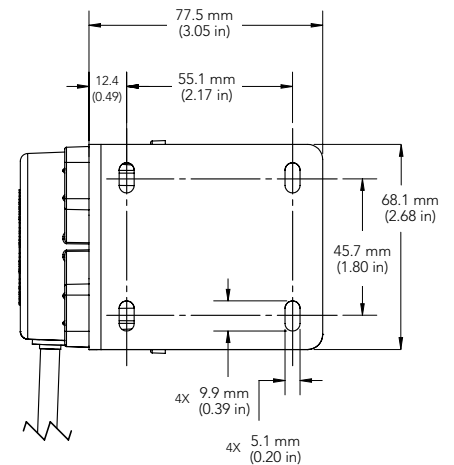
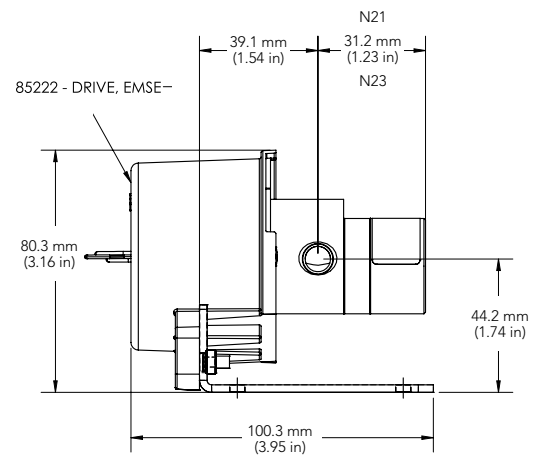
**FLOW RATE NOMINAL:** 610 mL/min (@ 2.8 Bar, 3V)  
**FLOW RATE MAX:** 1700 mL/min (@ 0 Bar, 5V)  
**DISPLACEMENT:** 0.32 mL/rev

### GJ-N23-DEMSE Performance



**FLOW RATE NOMINAL:** 850 mL/min (@ 2.8 Bar, 3V)  
**FLOW RATE MAX:** 3200 mL/min (@ 0 Bar, 5V)  
**DISPLACEMENT:** 0.64 mL/rev

## DIMENSIONS



\*Units: mm(in). Nominal dimensions shown

# Series GJ

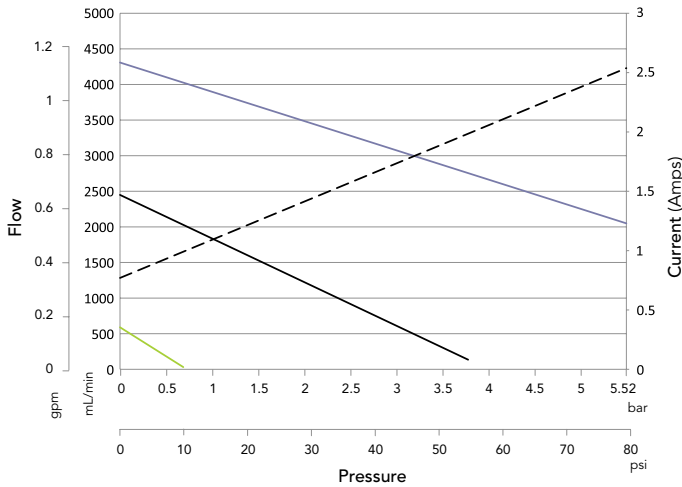
MAGNETIC DRIVE GEAR PUMP N25 & N27  
EAGLEDRIVE™



## PUMP PERFORMANCE

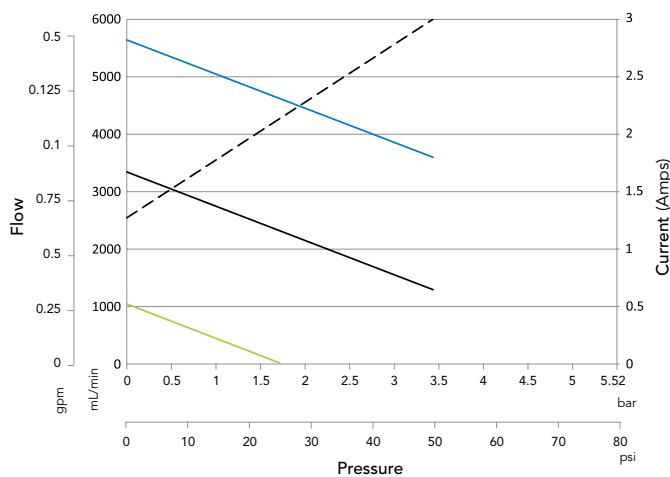
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 Speed control = 3V ————  
 Speed control = 1V ————  
 Power Supply Current - - - - -

### GJ-N25-DEMLE Performance



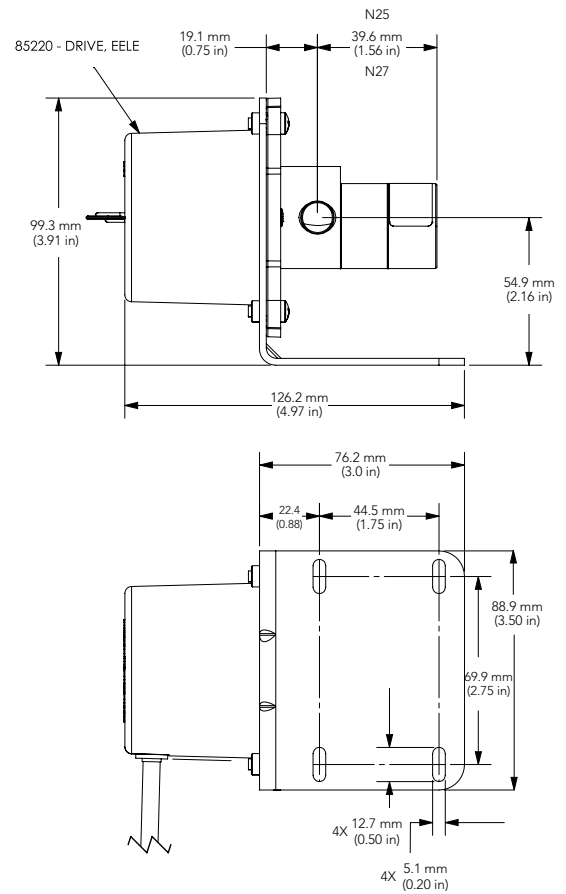
**FLOW RATE NOMINAL:** 1180 mL/min (@ 2.8 Bar, 3V)  
**FLOW RATE MAX:** 4300 mL/min (@ 0 Bar, 5V)  
**DISPLACEMENT:** 0.91 mL/rev

### GJ-N27-DEMLE Performance



**FLOW RATE NOMINAL:** 2300 mL/min (@ 1.7 Bar, 3V)  
**FLOW RATE MAX:** 5700 mL/min (@ 0 Bar, 5V)  
**DISPLACEMENT:** 1.23 mL/rev

## DIMENSIONS



\*Units: mm(in). Nominal dimensions shown

# DRIVE SPECIFICATIONS - EAGLEDRIVE™

## SPEED

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

## SPEED (AT RATED TORQUE)

- ▶ 3750 rpm @10 oz-in (24V) (MSE)
- ▶ 3750 rpm @20 oz-in (24V) (ELE)

## CURRENT AT RATED TORQUE

- ▶ 2A @10 oz-in (24V) (MSE)
- ▶ 2.9A @20 oz-in (24V) (ELE)

## POWER SUPPLY

- ▶ 10V to 38V DC

## THERMAL PROTECTION-SAFETY

- ▶ Ambient Temperature: 120°C Max
- ▶ 85°C at Max Power

*Note: Series GJ come standard with an EagleDrive™ but mounting brackets are available for use with other drives.*

## PUMP CONSTRUCTION

- ▶ Magnetic drive gear pump
- ▶ Cavity style
- ▶ Two helical, shafted gears
- ▶ Sleeve bushings
- ▶ PTFE bevel or o-ring seal

## WETTED MATERIALS

### BASE MATERIAL

- ▶ 316 stainless steel

### GEARS

- ▶ PEEK
- ▶ PPS
- ▶ PTFE

### STATIC SEALS

- ▶ PTFE

## MAGNETS

### DRIVEN

- ▶ Rare earth

### DRIVING

- ▶ Electromagnet

**MICROPUMP®**



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