

PG-100

RPM Pulser

Converts Shaft Rotation into Signal Frequency

The PG-100 RPM Pulser provides an output frequency directly proportional and numerically equal, in Hz, to the RPM of the shaft on which it is mounted. No external power required. Shaft diameters from 1/2 inch to 1-1/4 inches, in increments of 1/16 inch, can be accommodated. The PG-100 develops a signal frequency used with Dynalco's electronic tachometers, other totalizers, frequency-to-DC converters, and similar equipment.



FEATURES

The PG-100 can be used when a gear is not available on the shaft to generate a signal frequency from a magnetic pickup, or when it is more convenient to slip on this transducer than to mount a gear or sprocket with associated bracket to hold the magnetic pickup with appropriate spacing.

There are 60 gear teeth on the rotor inside the PG-100. The gear teeth face the pole piece of the magnetic pickup mounted on the fixed-position outer ring. The pickup guard is positioned against a fixed surface to prevent movement of the outer ring. As the shaft rotates, a signal frequency, numerically equal to rpm, is generated by the pickup. The waveshape of the output voltage is approximately sinusoidal.

For every shaft revolution, 60 pulses or cycles are produced; a shaft rotating at 1 rpm produces 60 cycles in one minute or 1 cycle per second so:

$$\text{Rpm (of shaft)} = \text{Frequency in Hz} \\ \text{(of pickup output voltage).}$$

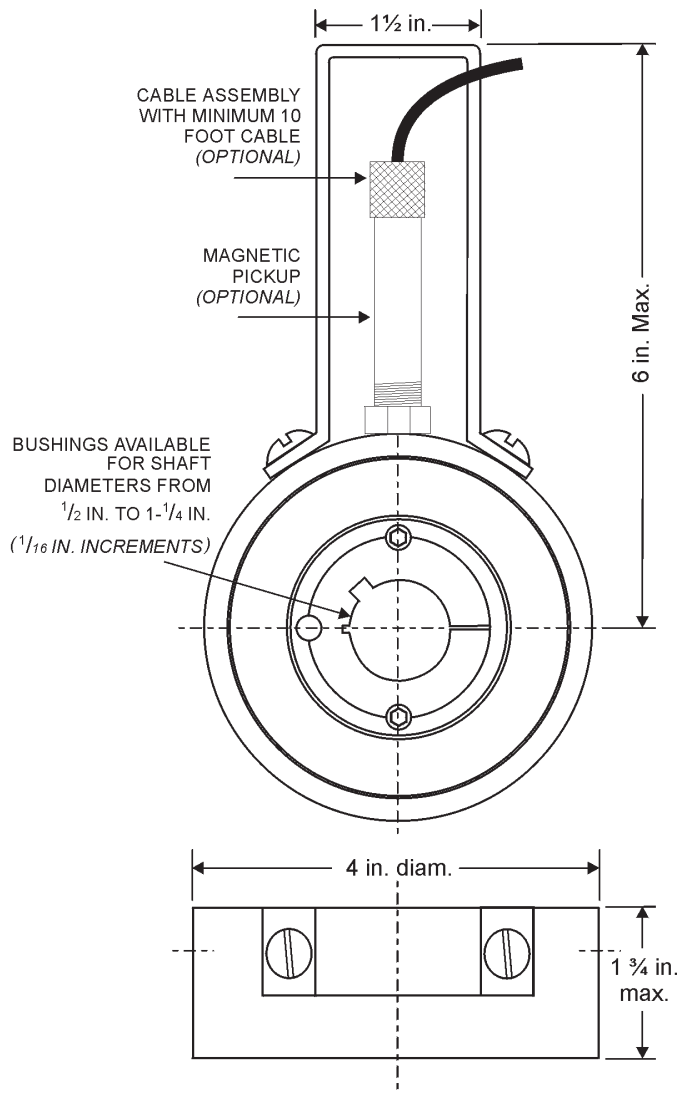
The PG-100 can be equipped with magnetic pickup M101 (standard), M102 (for low speed applications), or any other Dynalco pickup with a pole piece of 0.106 inch diameter or less. Refer to the Dynalco pickup catalog for full specifications and characteristics of these pickups.

At a load resistance of 5,000 ohms or greater, 0.005 inch gap, typical outputs are:

$$\text{M101: } 2 \text{ mVrms per rpm} \\ \text{M102: } 6 \text{ mVrms per rpm}$$

The PG-100 Rpm Pulser is designed for use over shaft speed ranges up to 0 - 2000 rpm. It employs a permanently lubricated, shielded, and sealed bearing. No brushes, slip rings, or other parts that wear out over time are used.

PG-100 RPM Pulser



BUSHING DIMENSIONS

BORE DIAMETER
 1/2 in. to 9/16 in.
 5/8 in. to 7/8 in.
 15/16 in. to 1-1/4 in.

KEYWAY SIZE
 1/8 in. X 1/16 in.
 3/16 in. X 3/32 in.
 1/4 X 1/8 in.

WEIGHT

Less than 4 lbs (1.8 kgs)—including optional pickup and cable assembly.

- ◆ PG-100-1: tapped for 5/8-18 pickup
 - ◆ PG-100-2: tapped for 3/4-20 pickup
 - ◆ Converts shaft rotation into signal frequency output via internal 60 tooth gear.
 - ◆ Maximum shaft speed: up to 2,000 RPM
 - ◆ Permanently lubricated, shielded, sealed bearing. No brushes or slip rings.
 - ◆ Output waveform is approximately sinusoidal.
 - ◆ For every shaft revolution, 60 pulses or cycles are produced.
- A shaft rotating at 1 RPM produces 60 cycles in one minute or 1 cycle per second, so: RPM (of shaft) = Frequency in Hz (of pickup output voltage).
- ◆ For shaft diameters from 1/2 inch to 1 1/4 inches (in increments of 1/16 inch). Specified when ordering.
 - ◆ Pickup guard to be positioned against a fixed surface to prevent movement of the outer ring.

Pickup Specs: Acceptable Pickups

- ◆ M101 (standard).
- ◆ M102 (low speed applications).
- ◆ Any other Dynalco pickup with a pole piece diameter of 0.106 inch diameter or less.
- ◆ At a load resistance of 5,000 ohms or greater, 0.005 inch pole piece gap, typical outputs are:
 - ◆ M101: 2 mVrms per RPM
 - ◆ M102: 6 mVrms per RPM



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