

Dynalco Magnetic Pickups (Speed Sensors)

Dynalco *magnetic pickups* convert mechanical motion to ac voltage without mechanical linkage or external power. These self-contained transducers produce a magnetic field which, when altered by a moving ferrous object, generates an ac voltage. It assumes a material that is attracted to a magnet, such as the pole piece of a magnetic pickup.

When the pickup is mounted in proximity to the teeth of a gear on a rotating shaft, the generated voltage has a frequency in direct proportion to RPM. Although a gear is preferable, a proper signal may be derived from evenly spaced screws, holes, or flats on a rotating ferrous shaft, or by using Dynalco's exclusive *TT-100 Tach Tape*, especially designed for smooth ferrous or nonferrous shafts.



Features

- ▶ Passive (non-powered) and active (powered) models available.
- ▶ Variable Reluctance (VR) and Hall-Effect (HE) technologies available.
- ▶ Special bi-directional version available.
- ▶ Standard, high and ultra-high sensitivity.
- ▶ In many cases, a Dynalco magnetic pickup can be the power source for Dynalco self-powered devices.
- ▶ CSA Class 1, Div. 1; CSA Class 1, Div. 2; ATEX approvals.

Advantages

- Dynalco pickups provide lower maintenance and operating costs because they have no switches to wear out, no rotating couplings to snap, no bulbs to burn out and do not require protection from dirty environments. They are compact, rugged sensors that are able to withstand wide temperature extremes and endure severe shock and vibration.
- ▶ Compact
 - ▶ Rugged
 - ▶ Durable

Industries

- ▶ Oil & Gas Exploration & Production
- ▶ Refining, Petrochemical & Chemical
- ▶ Process industries
- ▶ Power Generation
- ▶ Marine
- ▶ Water & Wastewater Management
- ▶ Pulp & Paper
- ▶ Factory Automation
- ▶ Rail
- ▶ Mining

Applications

- ▶ Diesel & Spark Ignited Engines
- ▶ Steam Turbines
- ▶ Turboexpanders
- ▶ Process Variable Measurement (4-20ma)
- ▶ Turbine Flow Meters
- ▶ Emissions Compliance
- ▶ Shaft / Conveyor Direction Sensing
- ▶ Rotating Machinery
- ▶ Speed Measurement & Control
- ▶ Position Sensing
- ▶ Pumps

Dynalco Magnetic Pickups Selection Guide

Active (Powered) Magnetic Pickups

▶ Ordinary Area

TTL Output Source Tracking

M928 - 5/8-18 x 2.5" - 3 Pin

M928-24 - 5/8-18 x 2.5" - 3 Pin

Zero Speed Hall-Effect Sensors

M806 - 5/8-18 x 4.5" - 3 Pin

M919-3-25 - 5/8-18 x 2.5" - 3 Pin

M951 - 5/8-18 x 4.5" - 3 Pin

M919-3-45 - 5/8-18 x 4.5" - 3 Pin

▶ Hazardous Area

Zero Speed Hall-Effect Sensors

M920 Series - Multiple Thread Sized and Lengths

Passive (Variable Reluctance) Magnetic Pickups

▶ Ordinary Area

Standard Sensitivity (min. Speed > 500 RPM)

M101 - 5/8-18 x 1.125" - 2 Pin

M151 - 5/8-18 x 2.5" - 2 Pin

M356 - 3/4-16 x 2" - 17" cable - Power Source

M101-6 - 5/8-18 x 6" - 2 Pin

M183-6-N - No Header, #20, 12" Leads

M332 - 5/8-18 x 2.5" - 2 Pin

M104-6 - 3/4-20 x 1.875" - 30" Leads

M189 - 5/8-18 x 2.5" - 2 Pin

M193 - 5/8-18 x 4" - 72" Leads

M107 - 5/8-18 x 1.125" - 2 Pin - Power Source

M192 - 5/8-18 x 4" - 72" Leads

M131 - 5/8-18 x 4" - 2 Pin

M304 - 3/4-16 x 4" - 2 Pin

M131-6 - 5/8-18 x 6" - 2 Pin

M320 - M18 x 1.5 - 2 Pin

M137 - 3/8-24 x 1.250" - 6" Leads - Miniature, Gear <2"

M343 - 3/4-20 x 2" - 6 Pin - Dual output (Bi directional)

M143 - 10-32 x 0.875" - 14" Leads - Miniature, Gear <2"

M354 - M16 x 1.5 - 17" cable

High Sensitivity (min. Speed > 300 RPM)

M102 - 5/8-18 x 1.125" - 2 Pin

M183 - 5/8-18 x 2.5" - 2 Pin

M303 - 5/8-18 x 1.125" - 2 Pin

M133 - 5/8-18 x 4" - 2 Pin

M183-6 - 5/8-18 x 6" - 2 Pin

M334 - 3/8-24 x 1.25" - 12" cable - Miniature, Gear <2"

M138 - 3/8-24 x 1.250" - 6" Leads - Miniature, Gear <2"

M202-6 - 5/8-18 x 6" - 2 Pin

M155 - 5/8-18 x 1.125" - 2 Pin - Low Drag, flow meter

M207 - 3/4-16 x 4" - 2 Pin - Power Source

M168 - 5/8-18 x 1.75" - 12" Leads

M233-6 - 5/8-18 x 6" - 2 Pin

Ultra-High Sensitivity (min. Speed < 300 RPM)

M142 - 5/8-18 x 1.125" - 2 Pin

M203-6 - 5/8-18 x 6" - 2 Pin - Zener-Limited

M208 - 3/4-16 x 4" - 2 Pin - Power Source

M184 - 5/8-18 x 2.5" - 2 Pin

M204-6 - 5/8-18 x 6" - 2 Pin - Zener-Limited

M281 - M16 x 1.5 - 2 Pin

M185 - 5/8-18 x 4" - 2 Pin

M205-6 - 5/8-18 x 6" - 2 Pin - Zener-Limited

▶ Hazardous Area

Standard Sensitivity (min. Speed > 500 RPM)

M104 - 3/4-20 x 1.875" - 30" Leads

M135 - 5/8-18 x 4" - 2 Pin

M201 - 5/8-18 x 1.125" - 2 Pin

M134 - 5/8-18 x 1.125" - 2 Pin

M139 - 3/4-20 x 2" - 2 Pin

M231 - 5/8-18 x 4" - 2 Pin

High Sensitivity (min. Speed > 300 RPM)

M140 - 3/4-20 x 1.875" - 30" Leads

M219 - 5/8-18 x 3.5" - 15' Leads

M319 - 5/8-18 x 3.5" - 30" Leads

M180 - 5/8-18 x 1.5" - 30" Leads

M233 - 5/8-18 x 4" - 2 Pin

M337 - 5/8-18 x 6" - 30" Leads

M202 - 5/8-18 x 1.125" - 2 Pin

M318 - 3/4-20 x 3.5" - 30" Leads

Ultra-High Sensitivity (min. Speed < 300 RPM)

M203 - 5/8-18 x 4" - 2 Pin - Zener-Limited

M204 - 5/8-18 x 2.5" - 2 Pin - Zener-Limited

M205 - 5/8-18 x 4" - 2 Pin - Zener-Limited

▶ Speed Sensing Accessories

C101 Magnetic Pickup/Speed Sensor 2-Pin Cable/
Connector Assembly

C917 Magnetic Pickup/Speed Sensor 6-Pin Cable/
Connector Assembly

TT-100 Tach Tape

C910 Magnetic Pickup/Speed Sensor 3-Pin Cable/
Connector Assembly

PG-100 Pulser

ISB-101 Intrinsically Safe Barrier (Hazardous Area)