

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)