



PU-2E

PATENT # 4,376,915

## PU-E Series Hall-Effect Pick-up

The PU-E Series pick-up is an economical and reliable way to **monitor motor speed**. Its patented design provides ease of installation in otherwise difficult to reach areas. The PU-E pick-up operates at a 5 to 24 volt level producing a sharp square wave output, which may be fed into Dart's field programmable tachometer, closed-loop control, counter, or any other digital device.

The PU-E pick-up series also includes a quadrature model to monitor both motor speed and direction by providing two square wave output signals 81° out-of-phase.

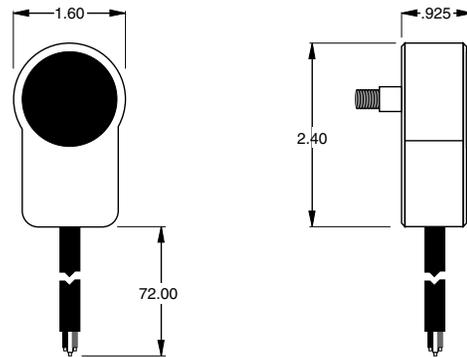
### STANDARD FEATURES

- PU-E Series pick-up mounts directly on shaft being monitored using a single 10-32 screw.
- Maximum speed: 5,000 RPM or 50,000 pulses per minute.
- Supply voltage +4.5 VDC to +24 VDC.
- NPN open collector output signal with built-in pull-up resistor. Square wave output, signal voltage equals supply voltage. +5 VDC to 24 VDC supply voltage. Current sink: 50mA absolute maximum.
- Operating temperature: -10° C. to +45° C.
- Stainless steel ball bearing.
- Compact housing of molded "Santoprene" plastic rubber.
- Output cable-6' rubber jacketed, 3-wire 18AWG conductors;
  - red wire: +VDC supply input
  - black wire: Common
  - white wire: Signal A
  - brown wire: Signal B (model PU-20EQUAD only)

### PU-E SERIES SELECTION GUIDE

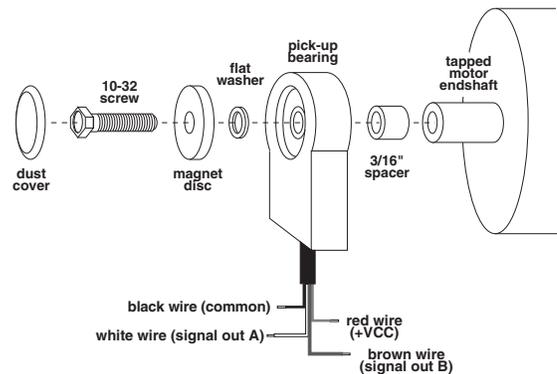
| MODEL                           | PULSES PER REVOLUTION |
|---------------------------------|-----------------------|
| PU-2E                           | 1                     |
| PU-4E                           | 2                     |
| PU-20E                          | 10                    |
| PU-40E                          | 20                    |
| PU-20EQUAD (quadrature pick-up) | 10                    |

### DIMENSIONAL SPECIFICATIONS



No other mounting brackets or screws are necessary, as the cord will keep the unit from rotating. The PU-E gives a high signal when the south pole of the magnetic disc crosses the Hall-Effect transistor. The signal is switched low when the north pole crosses this same transistor.

### INSTALLATION AND WIRING



**CAUTION: DO NOT OVER TIGHTEN MOUNTING SCREW !!!**

**CAUTION:** The PU-E cord should not be grouped with any other wires or cords. For applications with PU-E wires over 6 feet long, or particularly noisy environments, a **SHIELDED CABLE** is recommended. Connect the shield to the **COMMON** terminal of the control device, leaving the shield at the pick-up end floating.

### PU-2E, PU-4E, PU-20E, PU-40E SCHEMATIC

