

**THE HOCKEY PUCK DESIGNER KIT:**  
THE HOCKEY PUCK DESIGNER KIT PROVIDES THE ENGINEER WITH ALL THAT IS NEEDED TO DISCOVER THE FEATURES AND OPPORTUNITIES WITH THE NEW HOCKEY PUCK ENCODER. IT INCLUDES A FULLY FUNCTIONAL ENCODER, ASSORTED MAGNETS, A 9 VOLT BATTERY, POWER CABLE AND CONNECTOR, ALL ENCLOSED WITHIN A HANDY CARRY CASE.

PLAY WITH THE MAGNETS AND THE ENCODER AND LET YOUR IMAGINATION GO!



## USING THE DESIGNER KIT

### Power and Outputs

Connect the battery to the 2-wire power cable and plug the 5 pin connector into the 5 pin header on the encoder.

Ch A and Ch B outputs on the connector will pulse ON and OFF in quadrature fashion. The Mkr output, also called Zero or Index, will pulse ON once per revolution at the absolute zero position.

### LED Indicators

P = Power On LED (Green)

V = Variable intensity LED, shows no brightness at absolute position 0, and full brightness at position 1023 (for a 256 ppr resolution encoder)

A and B = Channel A and Channel B LED blink following the state of the output signal states.

M = Marker (Zero/Index) blinks ON at absolute zero position, like the output.

### Playing with the Magnets

Each magnet is polarized with one North and 1 South pole. The "Sweet Spot" of the encoder is on the bottom at the center of the radius. The various magnets can be rotated, moved linearly, on center, adjacent, used together... you decide. Observe the Ch A, Ch B and Mkr LEDs to see the encoder count as the magnets are manipulated. Connect the outputs to a counter, a PLC or a scope to observe the counting behavior.

## STANDARD SPECIFICATIONS

### Mechanical

**Enclosure:** 58mm diameter delron

**Mounting:** Servo ring / 3 through mounting holes

**Weight:** 2oz

**Maximum RPM:** 6000 PRM

### Environmental

**Temperature:** -25 to +70 degrees C

**Humidity:** 100% relative humidity

**Potting Compound:** Non-porus, water and chemical resistant, RoHS compliant

### Electrical

**Supply Voltage:** 6 to 30 VDC, 60mA

**Output Format:** Incremental quadrature (Ch A and Ch B, with optional Marker/Index)

**Output Resolution:** 256 quadrature pulses per revolution

**Output Driver:** Push/Pull (OLP7272)

**Protection:** reverse polarity, spike, noise, open circuit, short circuit

**Electrical Connections:** 5 wire plug-able terminal strip

**LED Indicators:** Power, Channel and Marker

Encoders come standard with 5 pin connector with M2 locking screws capable of terminating a 16 to 28 gauge wire. Connector simply plugs in for easy installation.

**Pin 1 : +V (6 to 30 VDC)**  
**Pin 2: Gnd**  
**Pin 3: Channel A output**  
**Pin 4: Channel B output**  
**Pin 5: Marker pulse M (Index/Zero)**

