

**Fluxgate-Closed Loop**

**DESCRIPTION**

The model CTU-4837 is a closed-loop fluxgate current transducer. The 2 core fluxgate principal is used to detect the strength and direction of the magnetic flux created by current flowing in a conductor. Signal conditioning provides an output proportional to both the amplitude and direction of the measured current.



**SPECIFICATIONS**

**INPUT**

Current ..... Range ..... 0-±0.4A<sub>dc</sub>  
Over-range (with proportional output) ..... ±0.8A<sub>dc</sub>  
Over-range (without damage) ..... ±40A<sub>dc</sub>

**OUTPUT**

Type ..... ±5.0V<sub>dc</sub>  
Scaling ..... -0.4/0/+0.4A<sub>dc</sub> Input = -5/0/+5V<sub>dc</sub> Output  
Loading ..... 10kΩ  
Response Time to 90% of input step ..... ≤20ms  
Frequency Bandwidth (-3db) ..... DC to >18kHz

**DIELECTRIC TEST**

Conductor through Window to Output ..... 3500V<sub>dc</sub>

**ACCURACY**

Setpoint, Linearity & Repeatability ..... <±25mV  
Electrical Offset ..... <±75mV  
Zero Offset ..... I = ±0.4A<sub>dc</sub> Vos = ±2mV  
I = ±40A<sub>dc</sub> Vos = ±20mV  
AC Ripple ..... <13mV<sub>ac</sub>  
Position (window) sensitivity relative to center reading ..... ±3mV

**INSTRUMENT POWER**

Voltage ..... ±15V<sub>dc</sub> ±5% (16.5V<sub>dc</sub> max)  
Current ..... ≤45mA<sub>dc</sub>

**TEMPERATURE**

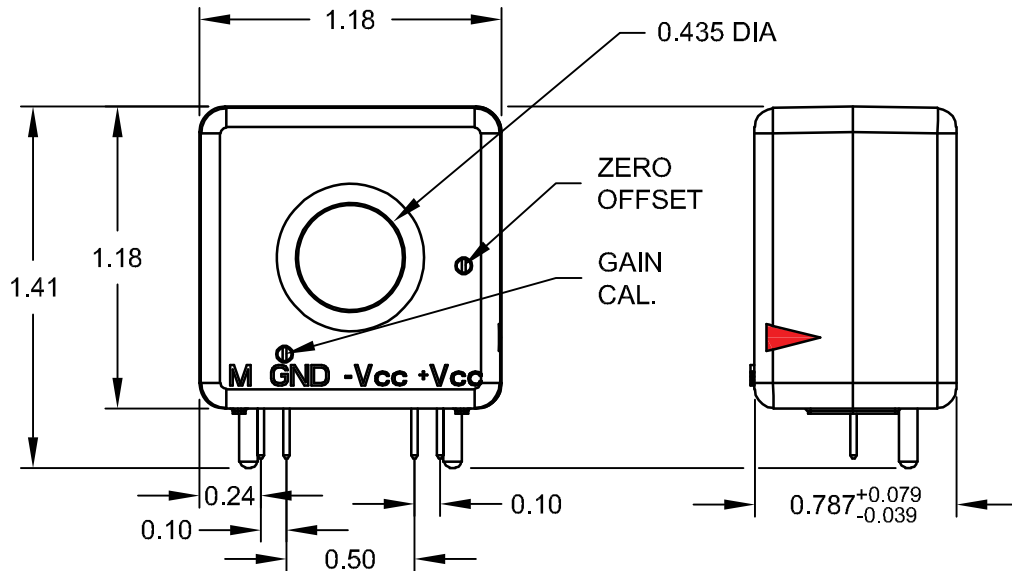
Operating Range ..... -40 to 85°C  
Effect ..... (-40 to +85°C) ..... ≤1.0mV/°C

**PHYSICAL**

Operating Humidity ..... 0-95% non-condensing  
Weight ..... 17gm Typical  
Termination ..... PCB mounting pins  
Shock & Vibration ..... TBD

**ENCLOSURE** ..... Photopolymer Resin FLGPCL03  
(See page 2 for connection and dimension information.)

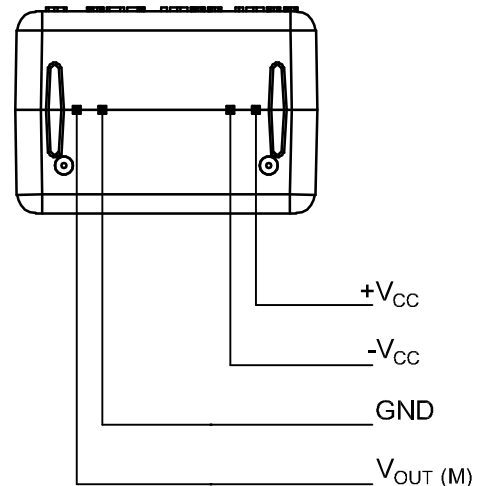
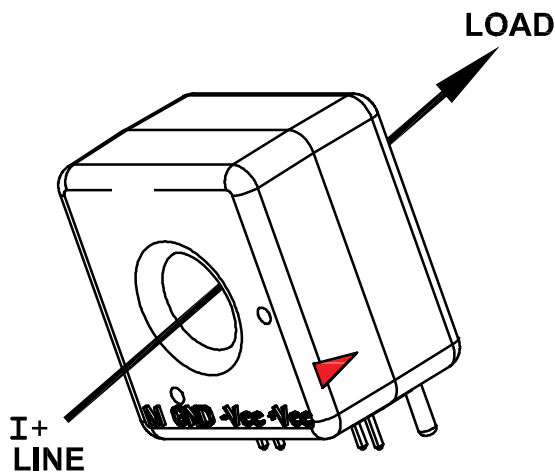
**CASE DIMENSIONS**



**ALL DIMENSIONS IN INCHES.  
TOLERANCE: ±0.03 INCHES.  
UNLESS OTHERWISE INDICATED.**

DWG# 09C  
Dwg# 0902-01017-B Rev-B

**CONNECTION DIAGRAMS**



Dwg# 0902-01017-B Rev-B