

# OSI DC CURRENT SENSOR (GEOMAGNETICALLY INDUCED CURRENTS)

**DESCRIPTION** GIC-xxxz transducers are able to measure DC currents in the presence of higher levels of AC. This enables accurate measurement of Geomagnetically Induced Currents (GIC) on power grids, and of the DC components potentially present in Photo-Voltaic system and inverters. The device operates over a wide dynamic range and maintains low-level accuracy even after a large over-range. The GIC's inherently low residual effect eliminates the need to degauss in all but extreme circumstances. The split-core enclosure, with captive hardware and outdoor rating, makes installation easy and does not require circuit interruption.



## FEATURES

- High resolution (1000:1)
- Low residual offset
- Split-core
- Bidirectional
- Non-contact
- Input/Output isolation
- Low power consumption
- Outdoor installation
- Wide temperature range
- Conduit attachment (Rigid 1/2" NPT)

## MODEL SELECTION

### MODEL NUMBER

GIC-XXX Z

**ORDERING INFORMATION**  
 Example:  
 600Adc Input 0-±1mAdc Outputs  
**GIC-601B**

XXX	DC Range	Z	Output Type
051	±0-50Adc	B	0-±1mAdc
101	±0-100Adc	D	0-±10Vdc
151	±0-150Adc	X5	0-±5Vdc
201	±0-200Adc	E	4-20mAdc
301	±0-300Adc	EM	4/12/20mAdc
401	±0-400Adc		
501	±0-500Adc		
601	±0-600Adc		
801	±0-800Adc		
102	±0-1000Adc		
122	±0-1200Adc		
152	±0-1500Adc		

## SPECIFICATIONS

### INPUT

Current Range ..... See model selection  
 Over-range (w/o damage) ..... >8000A  
 Bandwidth.. (1.5Hz low pass filter on output) .. dc to 1.5Hz

### DIELECTRIC TEST

Input window.....2200Vac  
 Inst. Power to output.....1kVdc  
 Insulation class.....600Vac

### INSTRUMENT POWER

Standard..... 24Vac/24Vdc, ±10%  
 Option "-12" ..... 12Vac/12Vdc, ±10%  
 Current...nominal ..... 80mA  
 maximum..... 100mA

### TEMPERATURE

Operating range.....-40°C to +85°C  
 Temperature effect..... ±0.025%/°C  
 Storage.....-40°C to +85°C

### OUTPUT

Scaling...Models B, D, X5 ... 0 to ±FS dc in = 0 to ±FS out  
 Model EM  
 -FS dc/0/+FS dc in = 4/12/20mAdc out  
 Model E (unidirectional)  
 0-FS dc in = 4-20mAdc out  
 Loading...Models E and EM .....0-500Ω  
 Model B .....0-10kΩ  
 Models D and X5 .....≥2kΩ  
 Response time (90%).....<350ms (typical)

### ACCURACY

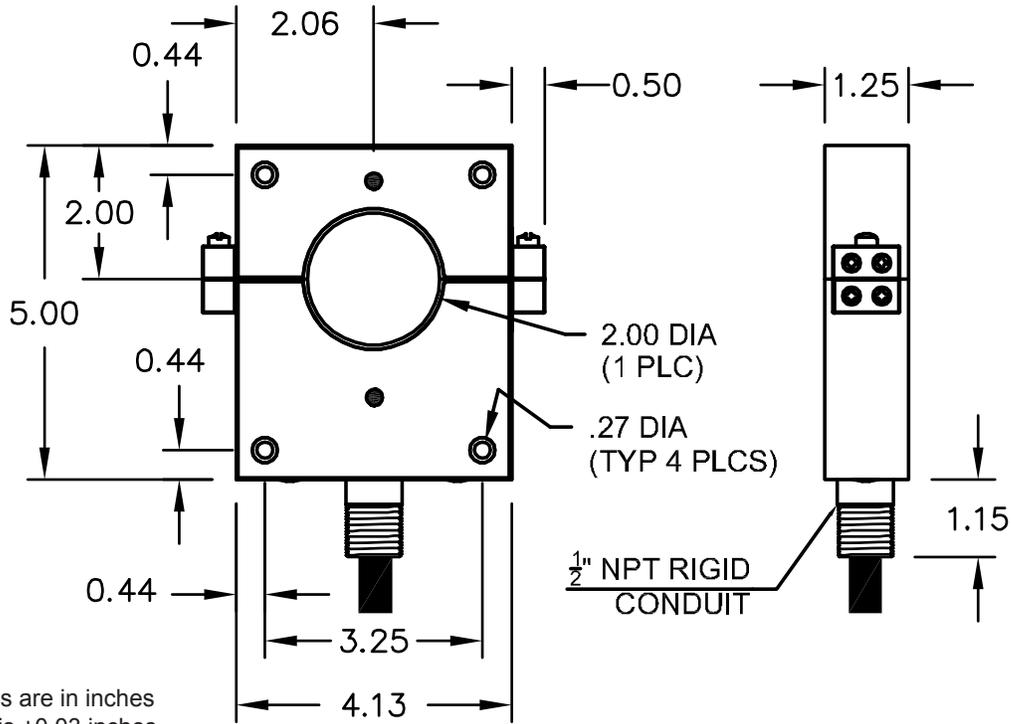
Linearity, offset, setpoint and repeatability .....≤0.5% F.S.  
 Over-range residual offset ....0.0007A/A of input current  
 (max offset = 350mA)  
 Linearity.....≤0.1%F.S.

### PHYSICAL

Weight ..... 2.0lbs

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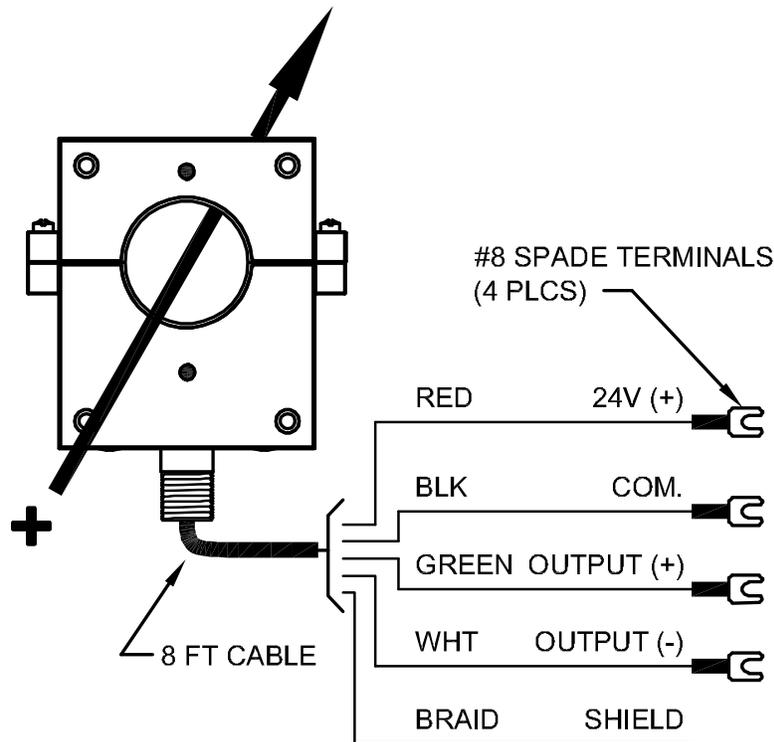
**CASE DIMENSIONS**



Dimensions are in inches  
Tolerance is ±0.03 inches

Dwg# 0902-01051-B Rev-B

**CONNECTION DIAGRAM**



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