InsuLogix® GIC
GEOMAGNETIC INDUCED CURRENT SENSOR

InsuLogix® GIC measures the value of direct current (quasi DC) in transformer windings created by geomagnetic disturbances.

OPERATION
InsuLogix® GIC direct current sensor measures DC current indicating a geomagnetic induced current event is occurring due to a solar flare or similar geomagnetic disturbance. The sensor provides a 4-20 mA output, proportional to the measured value of current.

INSTALLATION
InsuLogix® GIC consists of a clamp-on current sensor and interface box. The clamp-on CT is clamped on the transformer ground cable at a convenient location (see Figure 1). The Interface box can be mounted in or near the control cabinet.

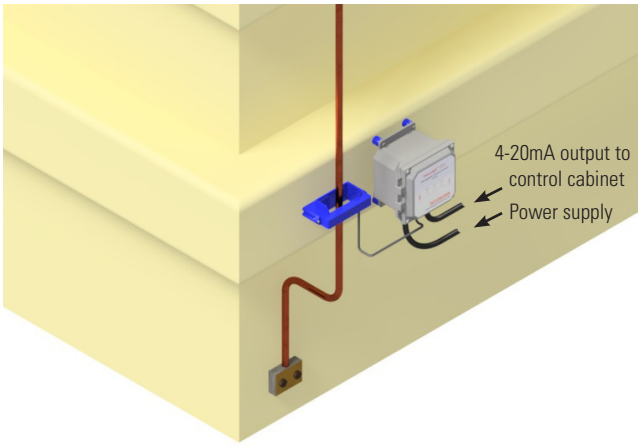


Figure 1

Technical Specifications

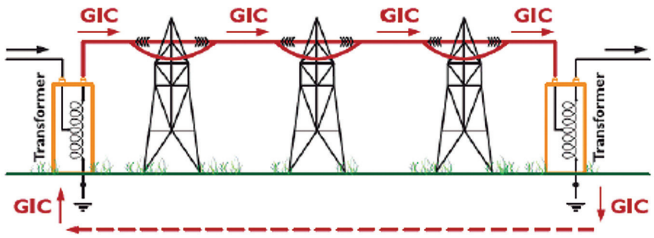
Product Type	Geomagnetic Induced Current sensor
Current Range	+/- 50 ADC or +/- 500 ADC
Power Supply	85-264 VAC, 120-370 VDC
Analog Output	4-20 mA
Accuracy	± 3 %
Environment	Outdoor use, NEMA 4X, IP66
Operating Temperature	-25 to 85 °C (standard model) -50 to 85 °C (special order)
Storage Temperature	-40 to 100 °C

MAINTENANCE
InsuLogix® GIC does not require any calibration or configuration and is a maintenance-free product.

OPTIONS
Temperature hot spot detection, power quality and temperature monitoring are available to create a continuous monitoring solution. InsuLogix® GIC is customizable and offers options to meet your specific needs.

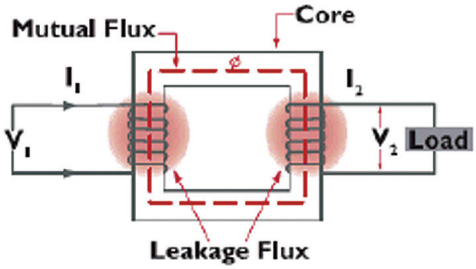
WEIDMANN

Electromagnetic radiation induces an electric current

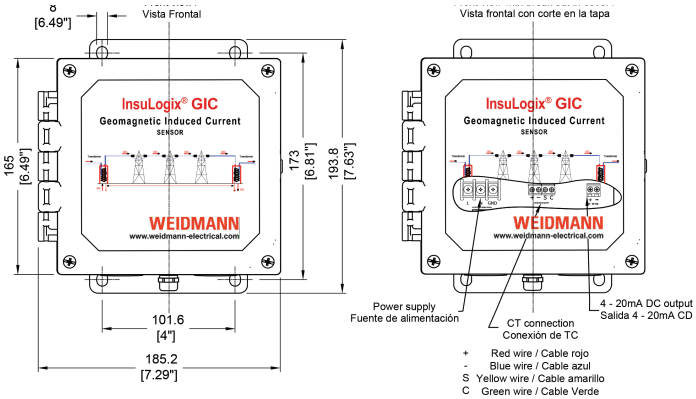


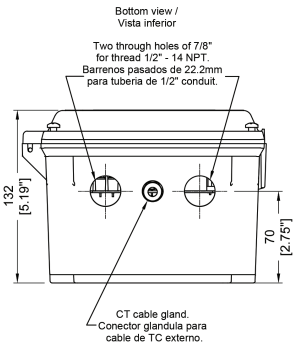
The electromagnetic radiation from the Sun, induces an electric current (quasi DC) in the transmission line, which passes through the coils of the transformer.

Magnetic flux in a transformer

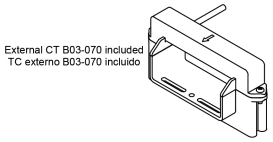


The geomagnetic current flowing through the coils of the transformer, saturates the core increasing the leakage flux which heats the metal parts (coils, metal fittings, tank, etc.).

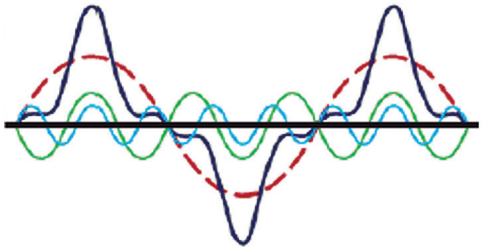




Technical Specifications / Especificaciones Técnicas	
Product type / Tipo de producto	Geomagnetic Induced Current Sensor / Sensor de corriente geomagnética inducida.
Sensed current range/ Rango de corriente sensada	± 500 A quasi DC
Power supply / Fuente de alimentación	85 - 264 VAC (47-63 Hz)120 - 370 VDC
Analog output / Salida analógica	4 - 20 mA
Accuracy /Precision	± 3%
Environment / Condiciones ambientales	Outdoor use, NEMA 4 / Uso intemperie,NEMA 4
Operating temperature / Temperatura de operación	-25 to 85 ºC
Storage temperature / Temperatura de almacenamiento	-40 to 100 ºC



Core Saturation-Harmonics



Core saturation produces harmonics due to the increased demand of excitation current. The value of reactive power increases as well, and may lead to a breaker trip.

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