DG SERIES
DC Ground Fault Relay

DG Series Ground Fault Sensors keep machinery and their operators safe from accidental shocks. The one-piece, solid-core design allows for installation over wires feeding loads to about fifty amps. The output relay will change state at factory setpoint between 5 and 50 mA of DC current to earth.



Ground Fault Relay Applications

Monitor Photovoltaic Panels
- Detect fault currents before damage can occur. Connect the output to a shunt trip breaker operating solenoid or to the circuit powering a contactor coil.

Water Delivery and Treatment
- Detect moisture ingress in submersible pumps .

Heating Processes
- If an element shorts to ground, the sensor will activate to de-energize the circuit, keeping safety at the forefront.

Communications Towers
- Notification if a battery powered supply is allowing current to earth.

Ground Fault Relay Features

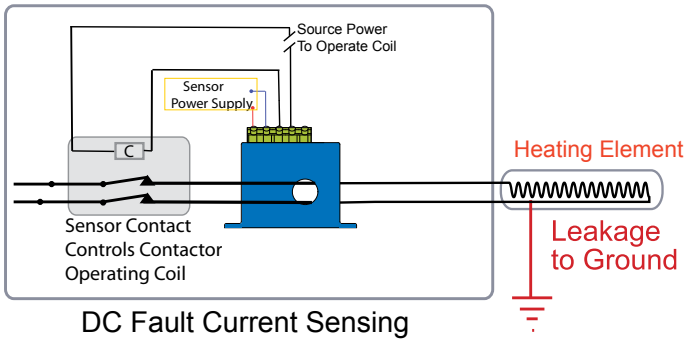
Electromechanical Relay Output
- Auto reset models have both normally open and normally closed contacts.
- Latching models have one normally open and one normally closed contact.
- Compatible with most automation and control systems.

Externally Powered
- A choice of fail safe or standard auto reset operation, or latching contact.

Solid-core Case
- Sensing window provides ample space for multiple conductors.

Designed for UL, CUL and CE Approval
- Accepted worldwide.

DC Fault Current Sensing

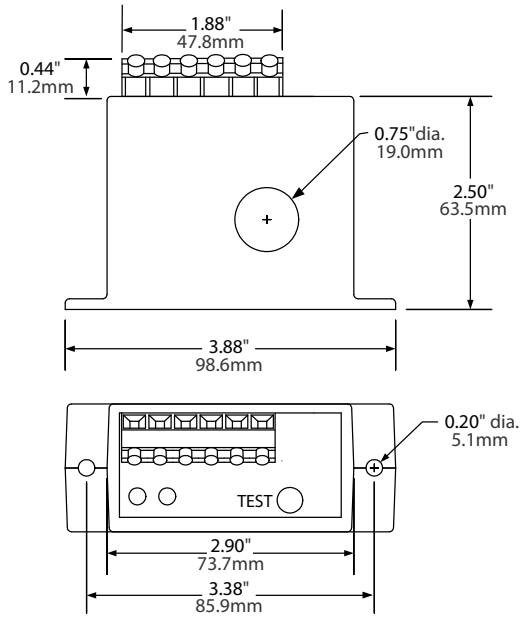


DC Fault Current Sensing

OEMs **Test & Evaluation Units for OEMs**
Free program expedites evaluation process. See page 3 for details.

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Ground Fault Relay Dimensions



Ground Fault Relay Specifications

Power Supply	24 VDC (20–26 V)
Power Consumption	<4VA
Output	Electromechanical relay 1 A @ 120 VAC, 2 A @ 30V DC Max.
Output Operation	Normally energized
	Normally de-energized
	Latching
Output Range	5–50 mA
Response Time	55 ms maximum
Input Range	Up to 1500 VDC (monitored circuit)
Isolation Voltage	tested to 5000 V
Frequency Range	DC
Case	UL94 V-0 Flammability Rated
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
Listings	Designed to meet UL/cUL and CE

Ordering Information

Sample Model Number: DG1-SDT-24D-ENE-010

DC ground fault sensor, output 5–50 mA SPDT relay output, 24 VDC powered, normally energized, 010 factory set trip point.

	(1)		(2)			(3)			(4)			(5)		
DG	1	-				2	4	D						

(1) Range

1	5–50 mA

(2) Output Type

SDT	Single pole, double throw relay (Auto Reset Only)
NCR	Normally Closed, latching model only
NOR	Normally Open, latching model only

(3) Power Supply

24D	24 VDC

(4) Contact Action

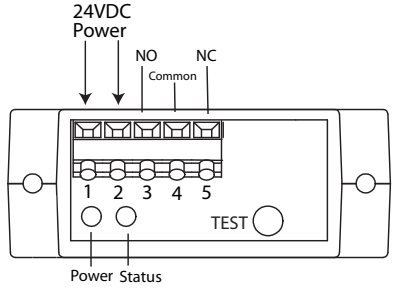
DEN	Normally de-energized ouput
ENE	Normally energized oupt
LA	Latching output

(5) Trip Point

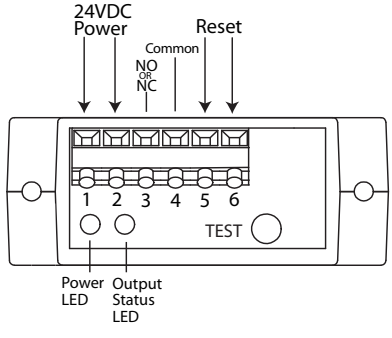
005–050	Factory set trip point

Ground Fault Relay Connections

Auto Reset Connection



Latching Connection



NK Technologies
3511 Charter Park Drive • San Jose, CA 95136
800.959.4014 • www.nktechnologies.com • sales@nktechnologies.com

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000