GARD

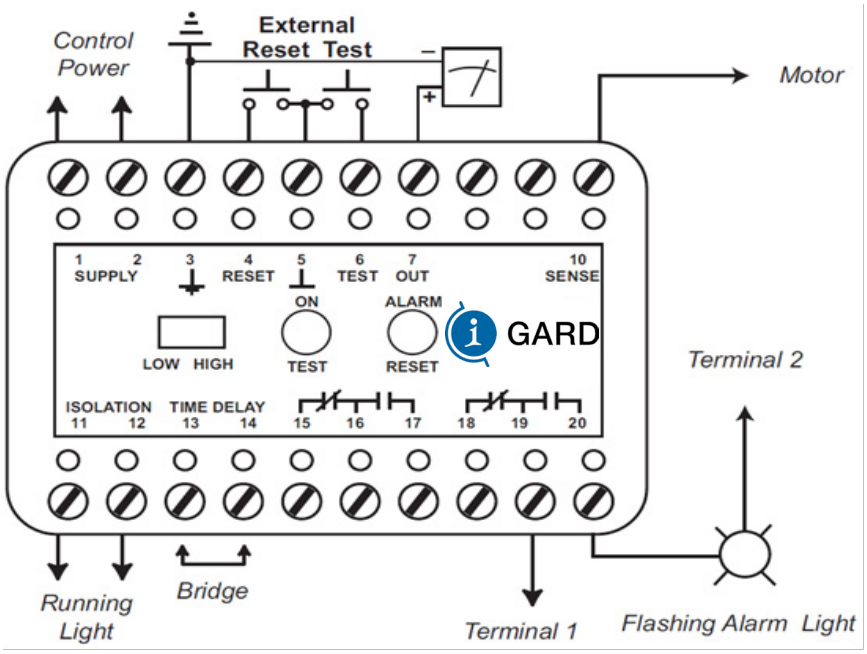
Unparalleled Protection

iM1200

iM1200

iM1200 insulation monitors are designed to monitor low voltage DC or AC motor installations for insulation deterioration whenever they are not energized. They are entirely automatic in operation and are CSA certified and UL listed as industrial control devices.

Connection Diagram:



- Fast and easy installation
- Variable speed drives
- Small footprint DIN Rail mounting
- Integral self-test capability
- Completely automatic in operation
- Early warning of insulation issues
- LED local alarm
- Optional automatic reset mode
- Solid state circuitry
- Contacts provided for local alarm and PLC connection

Technical Specifications:

Maximum Line Voltage	1200V DC; 1000V AC
Control Voltage*	120 or 220V, ± 20%, 50/60HZ
Power Requirements	3VA
Factory Set Point**	Low - 2.5MΩ; High - 5MΩ
Isolation Voltage	24 - 300V AC/DC
Isolation Time	0.5ms
Contact Rating	5 Amp., 250V AC resistive
Dimensions (mm)	103 x 68 x 112
W x H x L (in)	4.05 x 2.67 x 4.4
Weight (kg)/(oz)	0.42/14.8

* DC and 400Hz supply voltage units available – contact factory
** Set points in the range to 10 MΩ available, consult factory

Application:

I-Gard insulation monitors are designed to provide safe monitoring of electrical insulation integrity whenever electrical machines and equipment are not in use.

The primary use of the iM1200 is to monitor motors operating on DC supplies to 1,200V such as drive motors on drilling platforms. A second application is found in mining installations, where they are used to monitor AC motors operating at 600V to 1,000V.

Such motors, which are in intermittent service, are subjected to thermal stresses generated by the repeated starting and stopping of the machines, which causes microcracking of the insulation, thus exposing the conductors to the environment.

Moisture condensing from the air and combining with contamination deposited on the insulation and in the microcracks causes degradation of the insulation's properties. iM1200 detects the deterioration of the insulation which precedes failure, giving early warning in plenty of time for preventative maintenance to prevent the failure.

The speed of insulation deterioration is easily determined by switching from the "High" range to "Low" when the alarm occurs and recording the time interval before an alarm occurs at the "Low" setting.

To maximize personnel safety iM1200 uses a low DC voltage, grounded through terminal 3, to sense insulation resistance and the sense terminal (#10) is connected directly to one of the motor feeder conductors, on the load side of the final running contactor. The iM1200 requires an input from a source, such as the motor running light, which is energized only when the motor is running.

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