

FRM-050™

Fuse Replacement Module (50 Ampere)

ENERGY & MINING

Description

Corrpro's electronic Fuse Replacement Module (FRM) is a microprocessor controlled device which monitors the AC secondary current of the rectifier inductively (non-contact). Should the current exceed the programmed maximum value by the programmed trip rating, the module will lock into a trip algorithm that will trip the circuit breaker, thereby shutting down the rectifier. If the FRM tripped the circuit breaker, upon power up the FRM will indicate that it tripped the circuit breaker via a violet status indicator (trip memory). Unlike traditional fuses, the electronic module produces no wasted energy as heat and has no live components exposed on the front panel of the rectifier. Additionally, the module can be factory programmed with adjustable time delays from 0-2 seconds programmable in 0.25 second increments to handle inrush currents which may occur at rectifier start up. The FRM module can replace almost any AC fuse, and can be retrofitted into just about any manufacturer's rectifier. An optional TTL-RS232 converter is available to allow field programming/adjustments of the module.

Features

- Infinite programmable maximum value
- Programmable inrush current delay
- Programmable trip point (125%, 150% or 175%) from maximum value
- High intensity RGB LED status indicator
- FRM trip memory (upon power up)
- Real time clock (optional) for logging when the module tripped
- Field programmable utilizing any terminal program and optional converter module



Advantages

- No heat generation
- No temperature de-rating
- No need for spare fuses
- Trips faster than a fuse (depending on fault)

Specifications

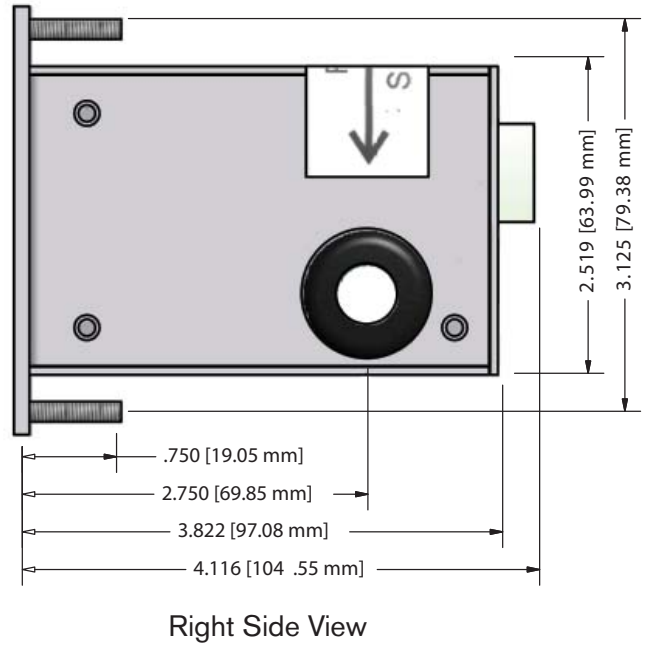
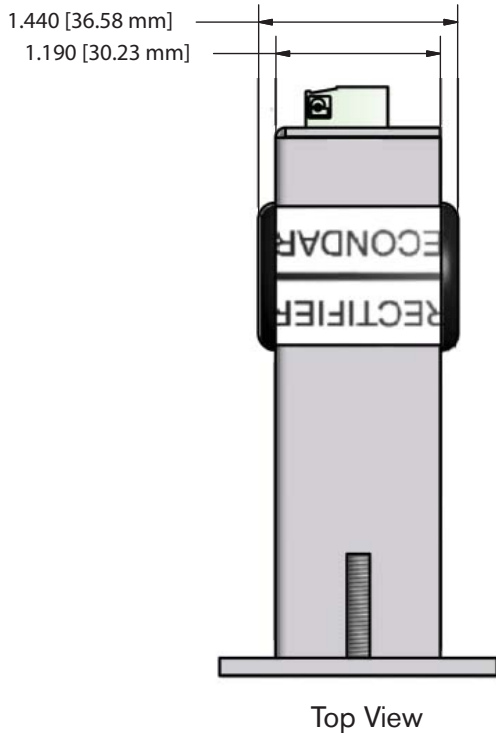
- Current input range 5-50 Amperes AC
- Operating ambient: -40° to +45°C (-40° to 113°F)
- Robust housing constructed from marine grade aluminum
- Durable lexan front panel
- Externally powered from a 12 to 24 volt AC step-down transformer or DC supply

* Denotes additional hardware module(s) required.

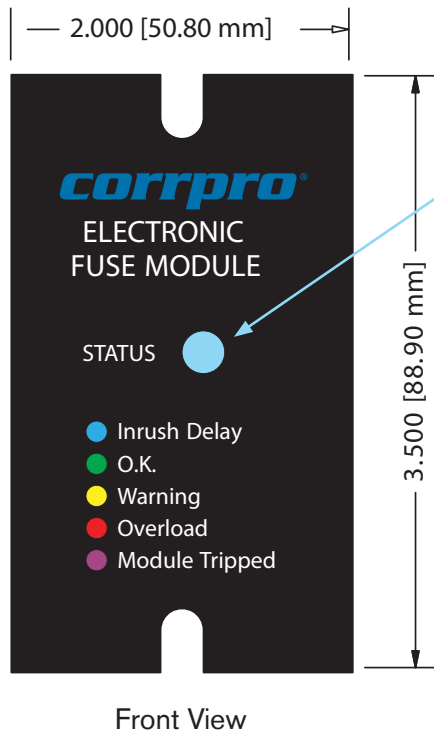
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Enclosure Dimensions



Front Panel



Status Indicator LED:
None = No power

Cyan = Inrush delay time (Programmable from 0 to 2 seconds)

Green = Current is within limit

Yellow = Current is approaching trip limit (approx 10-20% from trip point)

Red = Current is at trip point, the FRM will now enter tripping algorithm (Flashing Red/Blue)

Violet = FRM caused breaker to trip

White = Programming mode

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