

Emphatec DePro[®] - FSMM/24V/5A

Solid State Relay



Features

- 24Vdc@5A max.
- Low power dissipation
- Compact, just 16.2mm wide
- Built in fuse
- Overcurrent and back-EMF protection
- cCSAus certified for Class 1 Division 2 applications

This module is the perfect power supply accessory. Solid state switches, in this case a MOSFET, offer faster switching times and longer operating life than mechanical relays. The on-board fuse eliminates the need for an additional fuse terminal, saving panel space and cost.

The fuse is a TR5 micro style. These are available with ratings up to 5A continuous and a 50A interrupting capacity. Each module comes with a 5A, slow blow fuse installed. Socket mounting makes replacement quick and easy. When properly sized the occurrence of a fault causes the fuse to fail before the 24Vdc power supply shuts off (the user may need to select a fuse with a lower rating). The micro style fuse keeps the module size as small as possible.

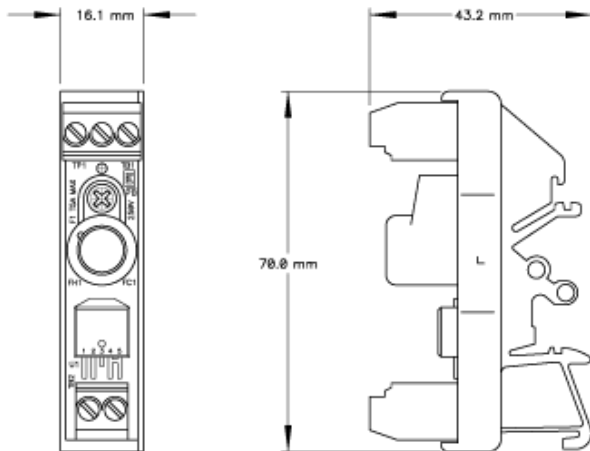
The fuse cover, developed by Emphatec, secures the fuse in the socket and allows the module to meet the requirements for Class 1 Division 2 and Zone 2 certification.

A status LED provides indication of both the input and output status. The LED illuminates if the input is energized, the fuse is healthy and the output MOSFET is conducting a current. If the fuse is blown or the load is disconnected the LED will not illuminate. If the MOSFET is in a short circuit condition the LED will illuminate when the input is not energized.

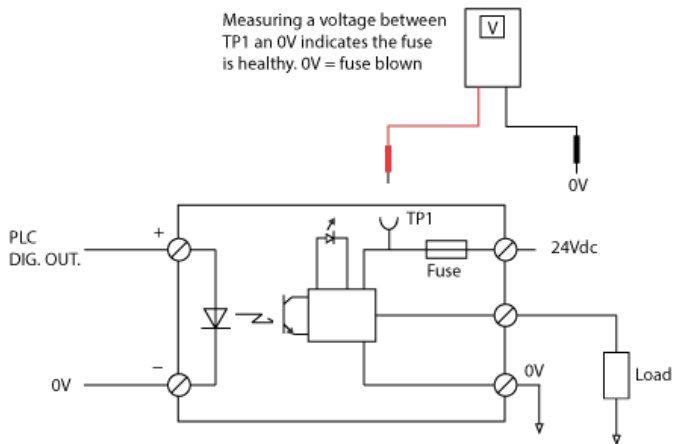
Ordering Data

Type	Order Number
Emphatec DePro [®] - FSMM/24V/5A Solid State Relay	330193

Technical Data



Measuring a voltage between TP1 and 0V indicates the fuse is healthy. 0V = fuse blown



Emphatec DePro® FSMM/24V/5A : Solid State Relay

Order Number 330193

Input (Control): 20-30Vdc, 3mA @ 24Vdc

Output: 20-30Vdc, 5A maximum
Power dissipation (fuse+MOSFET):<2W

Fuse: 5A slow blow provided
Littelfuse / Wickmann TR5 or equivalent
Fuse status can be determined by measuring a voltage between TP1 and the output 0V terminal

LED: Green indicates output is active. Illuminated when the fuse is healthy and current is flowing to the load.

Input-output Isolation: 1500V for 1 minute

Switching time: 60µs nom. turn-on
150µs nom. turn-off

Overcurrent Protection: Fuse and internal electronic protection.
MOSFET turns off if load current>10A for >150ms.

Temperature: -25°C to +60°C

Terminations: 26 - 12AWG
0.5-0.6Nm torque,6mm stripping length

Approvals: cCSAus, Class 1 Division 2
Groups A, B, C and D, Temperature code T5
Ex nA IIC, Zone 2, AEx nA IIC

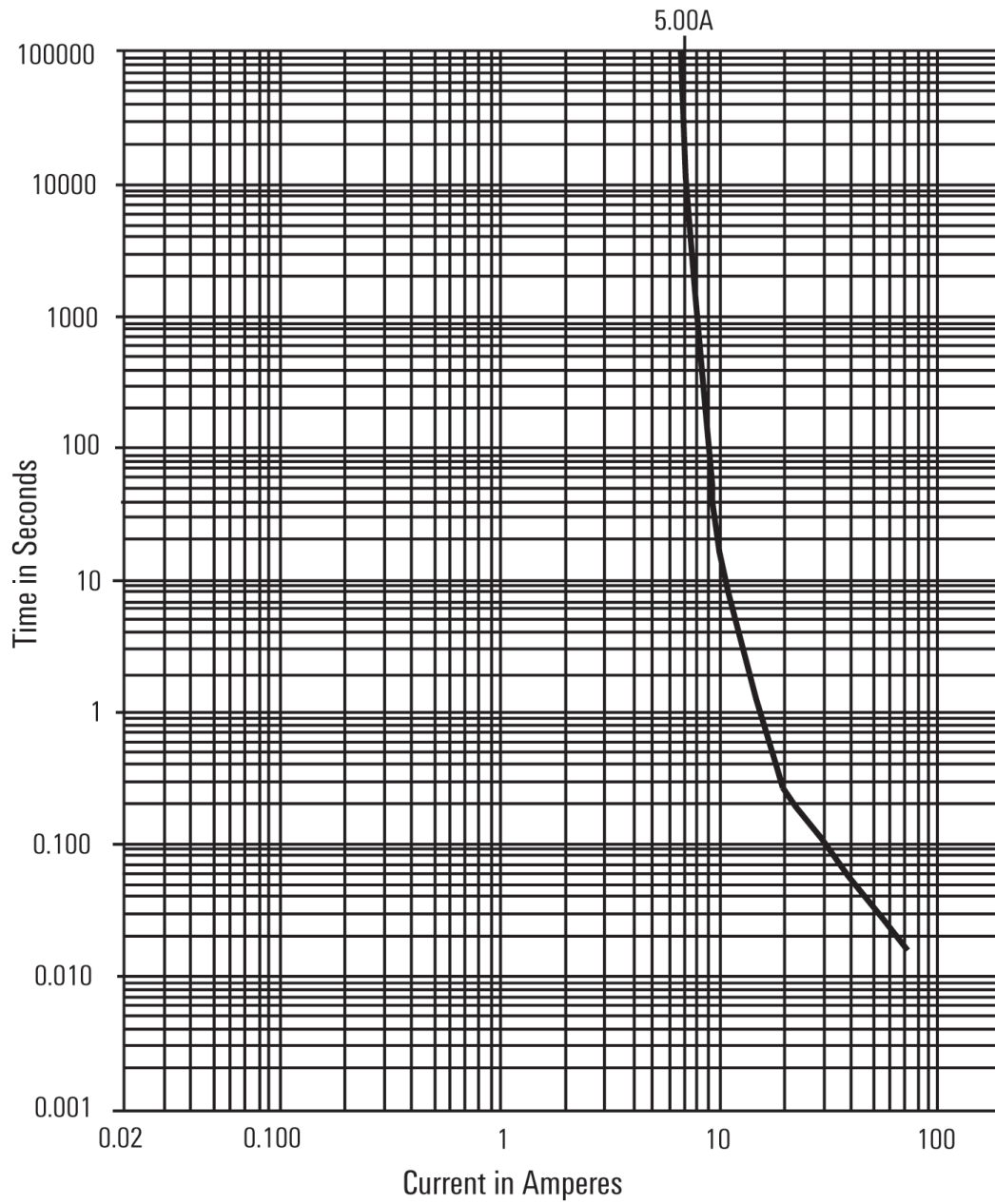
Spare fuse cover and retaining screw (package of 8):
Order Number 330316



For Class 1 Division 2 Applications

EXPLOSION HAZARD: SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS 1, DIVISION 2; DO NOT DISCONNECT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS

Average Time Current Curves



Other Emphatec DePro® Products



Emphatec DePro® HCRM High current Relay Module

Order Number : 330218

- 24Vdc coil
- 1 form C 20A contact
- C1D2 certified

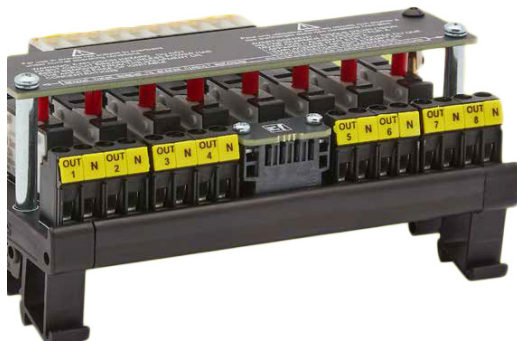


Emphatec DePro® QTD

Disconnect Modules

Order Number : 330240

- Quarter turn disconnect rated 24Vdc/120Vac, 1A
- Optional status outputs
- C1D2 certified



Emphatec DePro® CBM

8 Supplemental Circuit Breaker Module

Order Number: 330731

- 8 supplemental breakers with common or independent inputs
- 24Vdc and 120Vac versions
- Provision for quick connection to Emphatec DePro FMON monitoring module
- C1D2 certified for short circuit protection

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Subject to technical changes

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