DIN - Rail mounting resettable fuse module
Provides 4 individually fused outputs from one common 24Vdc supply
Led lights when fuse is tripped
Fuse resets when overload removed

Introduction

The DRT-4RF24 is a DIN rail mounting 4 channel resettable fuse module with individual LED indication of the fuse which has tripped due to an overload condition.

Applications for the DRT-4RF24 include automatic test equipment (ATE), protection of analogue and digital input and output circuits and alarm circuits.

The resettable fuses demonstrate a similar resistance to that of a conventional fuse, however as soon as an overload condition is reached the fuse heats up to a temperature where it trips. When the fuse is tripped it causes the indicating LED for that channel to illuminate. When the overload condition has been removed the LED will turn off to indicate that the fuse has reset.

The module has been designed to work from a common +24Vdc supply and is available with a range of fuse hold values from 50mA to 1.85A, the trip current is normally approximately twice the hold current. Once tripped, the fuse will reset within 20 seconds after removing the overload condition.

The modules are available with either spring clamp terminals or screw terminals.

The mounting foot is compatible with all standard DIN - Rail profiles.

General Ratings

Storage temperature	-20 to +70 °C
Operating temperature	0 to 50 °C
Humidity	10-90% RH non condensing.
Weight	Spring Clamp Terminal Version Typically 36g Screw Clamp Terminal Version Typically 42g
Dimensions	77 mm wide 34 mm long 40 mm high
Screw terminal wire gauge	Up to 14 AWG
Supply voltage	Nominally 24Vdc
Individual Indicating LED current	Typically 7mA @ 24V. Only 'ON' when fuse is tripped.
Fuse values Available	50mA to 1.85A, please see next page for full list

DRT-4RF24

4 Channel Resettable Fuse Module

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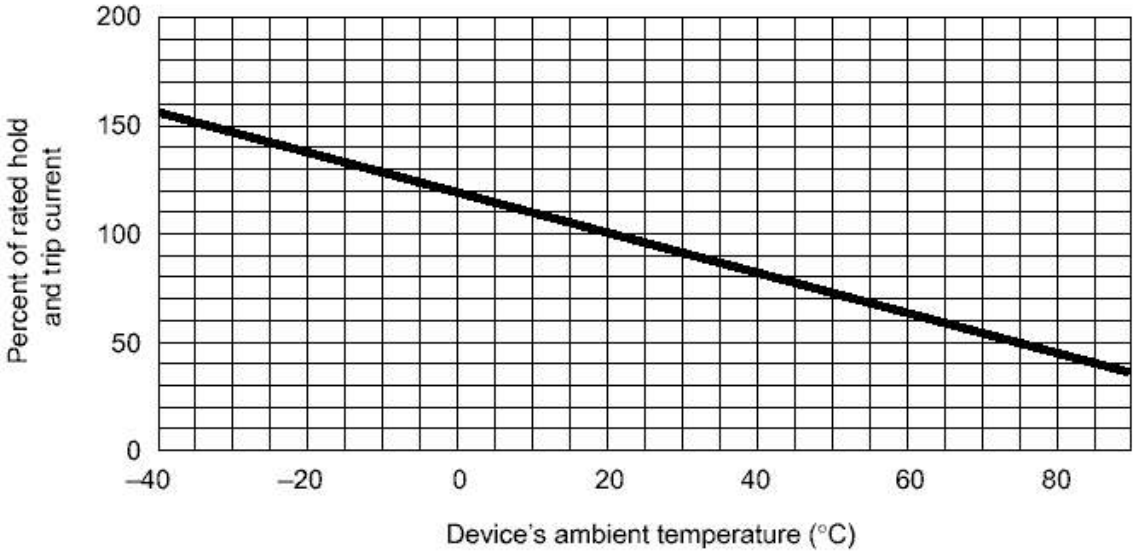
Fuse Values Available and Characteristics

Below is listed the fuse values available and their electrical characteristics at ambient 20°C

Fuse Value (A)	Hold Current (A)	Trip Current (A)	Max Time To Trip (s) At 5 x Hold Current	Min. Initial Resistance Ω	Max. Initial Resistance Ω	Post Trip Resistance (After 1 Hour)
100mA	100mA	200mA	4.00	2.50	4.50	7.50
170mA	170mA	340mA	3.00	3.30	5.21	8.00
200mA	200mA	400mA	2.20	1.83	2.75	4.40
250mA	250mA	500mA	2.50	1.25	1.95	3.00
300mA	300mA	600mA	3.00	0.88	1.33	2.10
400mA	400mA	800mA	3.80	0.55	0.86	1.29
500mA	500mA	1A	4.00	0.50	0.77	1.17
650mA	650mA	1.3A	5.30	0.31	0.48	0.72
750mA	750mA	1.5A	6.30	0.25	0.40	0.60
900mA	900mA	1.8A	7.20	0.20	0.31	0.47
1.1A	1.1A	2.2A	8.20	0.15	0.25	0.38
1.35A	1.35A	2.7A	9.60	0.12	0.19	0.30
1.6A	1.6A	3.2A	11.40	0.09	0.14	0.22
1.85A	1.85A	3.7A	12.60	0.08	0.12	0.19

Thermal Derating of Fuses

Because the fuses are thermal devices their hold and trip currents are affected by the ambient temperature the graph below gives a derating curve for increasing ambient temperature.



DRT-4RF24

4 Channel Resettable Fuse Module

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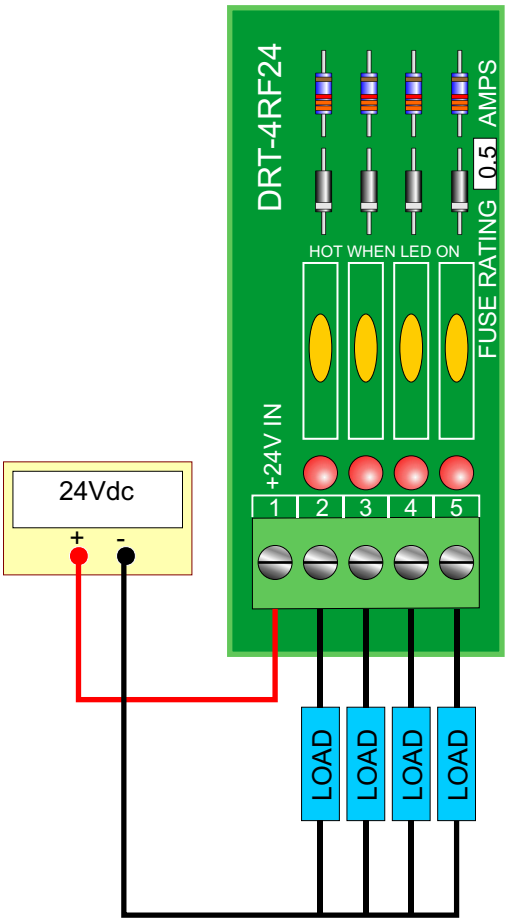
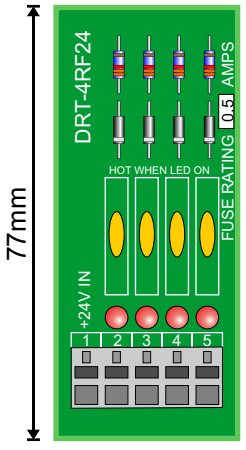
Terminal Connections

The typical terminal connections for the DRT-4RF24 are shown below



Dimensions

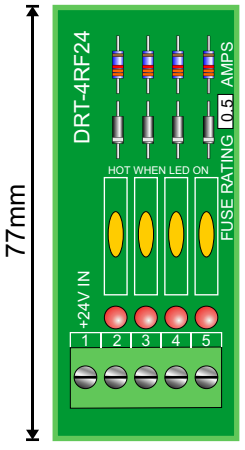
Spring Clamp Terminal Version



34mm

Height 40mm

Screw Clamp Terminal Version



34mm

Height 45mm

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Order Codes

	Part Number
DRT-4RF24-XXX-ST	(Where XXX represents fuse hold value, ST indicates screw terminals)
DRT-4RF24-XXX-SC	(Where XXX represents fuse hold value, SC indicates spring clamp terminals)
Examples:	
DRT-4RF-020-ST	(This means a module with screw terminals and 0.2A fuse hold value)
DRT-4RF-135-SC	(This means a module with spring clamp terminals and 1.35A fuse hold value)

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