

PP8FR – V4 Data Sheet

Fused power distribution module for access control with integral fire trip relay.

The Power Port 8FR is an expandable module designed to provide protected power distribution for building electronic access control and security devices.

In addition the PP8FR also interfaces electronic access control devices to a buildings fire detection and emergency evacuation system.

Applications

- Power distribution for electronic access control and security devices
- Fused over current protection
- Automated fire alarm emergency release of electric door locks
- Fire trip alarm monitoring

Features

- Eight individually fused outputs each with status LED
- Field replaceable fire trip relay
- Individually field selectable power outputs – fire power or standard power.
- On board spare fuse holders
- Wide range of operation voltages
- Unlimited local and remote expansion options
- Fire relay status output with on board customisable EOL resistors, or
- N/C output for failsafe fire trip connection to extra modules or other equipment
- Drive fire relay directly from FIP voltage or onboard voltage via N/C FIP contact
- Unfused auxiliary output for expansion (see module *PP4F*)
- Drastically reduced material list, cost and install time compared to traditional methods

Technical Data

Input voltage range	0-26V DC
Fire relay coil voltage	12-26V DC
Max standard power current	8A
Max fire power current	8A (with supplied relay)*
Max constant current per output	2.5A
Max alarm contact current	2A
Fused outputs	8
Fuse type	2A M205 NB
Mounting	DIN rail
On board spare fuse holders	2
Dimensions (with relay and mounting options)	110 L X 75 W X 50 H (mm)
Mounting holes	8 X 3.5mm (to suit M3 bolts or #4 Screws)

*Peak current only – resistive load. A 20% load current margin is recommended for fire power current (6.4A). Many devices including electric locks have a higher current on start up and at other times; this must be accounted for in the peak current. Current ratings are valid for operating temperatures up to 24 degrees C with a fire trip of 12VDC. Factors such as lock types, external heat and higher fire trip voltages must be taken into account when designing power loads.

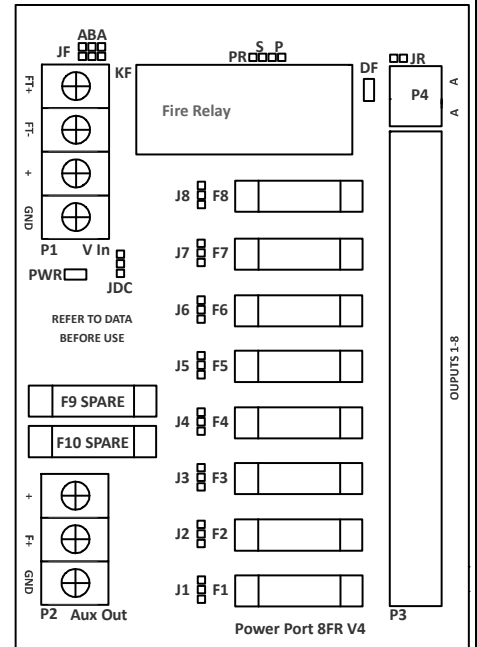


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Connections

Terminal	Description	Max Conductor Size
(P1) FT - FT+	Fire panel trip interface	2mm ²
(P1) GND & +	DC power supply input	2mm ²
(P2)	Expansion output	2mm ²
(P3) 1 - 8	Fused outputs	1.5mm ²
(P3) A - A	Monitoring output	1.5mm ²
(PR)	EOL resistor sockets	1/4 -1/2 Watt resistors (X2)

Function:

Power Input

The PP8FR module is powered by any suitable DC supply connected to the clearly marked input barrier terminals. A green power LED indicates power is available.

Fused Outputs

The eight power outputs are each individually protected by a glass fuse that will activate when a current greater than the fuse rating is drawn via the output.

The eight outputs can be fed either directly from the power input or indirectly via the fire trip relay (for 'fire power'). This function is set via a link for each output and can be changed at any time to suit requirements.

Each output has an individual status LED. The LED will be active when ever power is available at the output. The LED will deactivate in the event of a blown fuse or if that output is set to fire power and the fire relay has tripped or been removed. Each status LED is located directly under the appropriate glass fuse to greatly aid visual confirmation of fuse status.

Fire Trip Relay

The fire trip relay may connect to the fire indication panel in two modes. It can be activated by 12 or 24VDC from the fire panel or via a voltage free N/C contact at the fire panel or other device. The operation mode and voltage used is set by on board links. The pluggable type relay can easily be replaced.

When the relay is active power will be available via one the primary relay contact, this power is the input power switched via the relay and is commonly known as *fire power*. This power can then be used at each output. If the relay de-activates due to a fire alarm then the fire power will no longer be available.

Fire Trip Monitoring

A secondary contact of the fire relay is used for monitoring. The status of the fire trip relay can be indicated to any security panel via an output. Suitable End of Line (EOL) resistors can be fitted to onboard sockets so no soldering is required. Alternatively a link setting will allow the output to convert to an N/C voltage free contact for connection to another PP8FR module or other equipment. (See *Expansion*)

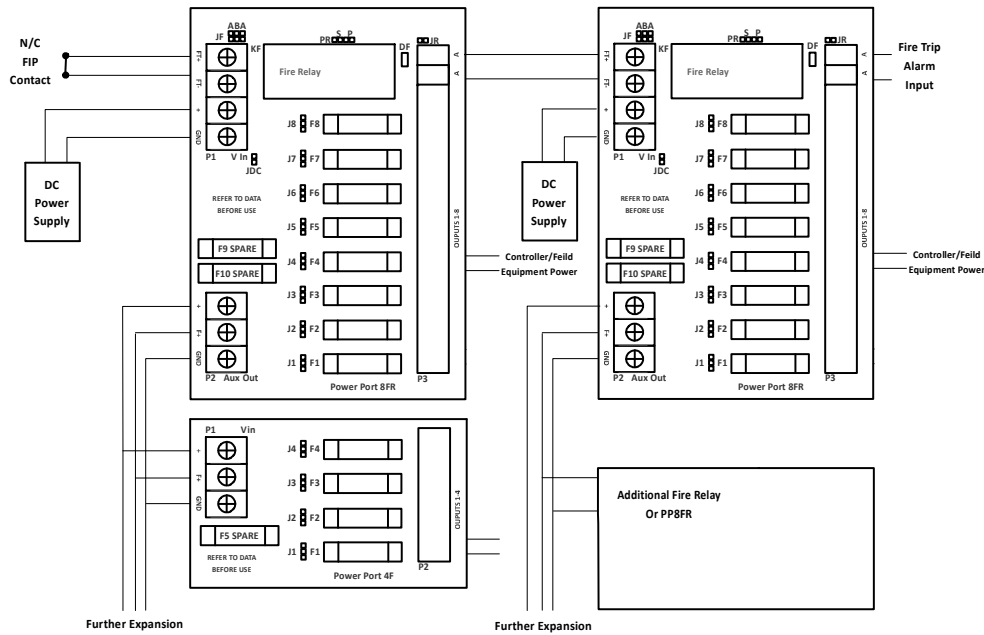
A LED provides visual indication of the fire relay status and will be active when the fire relay is active.

Expansion

Output terminals are provided for connection to expansion module PP4F or other equipment. The expansion output provides supply power, fire power and a common ground. A number of additional PP4F modules can be fitted at any time as long as current limits of the fire relay, modules and power supply are not exceeded.

Additionally the N/C relay status output can be used to operate an additional PP8FR either in a local panel or remotely. In this way modules can be added to suit any size access control/security system.

Expansion Example



Mounting

The PP8FR module is supplied pre-fitted with cost effective DIN rail mount clips suitable for most DIN rail profiles.

Several other mounting options are possible. The PP8FR PCB has a number of 3.5mm mounting holes that can be used in conjunction with M3 spacers, standoffs or self adhesive pillars. Offset mounting holes are provided to allow use of adhesive standoffs where modules are mounted immediately next to each other. The PP8FR is also suitable for use with popular “Snap Track” made by TE Connectivity part number 4TK2.

Relay Replacement

The on board fire relay may be damaged by power spikes, incorrect use or physical factors. The relay should only be replaced with a 12VDC 8A DPDT model. Recommended relay is Tyco/Schrack RTE24012 or similar.

Ordering Code

PP8FR	Power Port 8FR supplied with a din rail mount kit, fire relay and 2A NB fuses.
PP4F	Power Port 4F supplied with a din rail mount kit and 2A NB fuses

More Information

For complete install notes, data sheets and technical support please visit www.jackfuse.com

