

Securefast

ADP324-FR



24VDC 500mA Switched-mode power supply, ideal for powering magnetic fire door retainers and general 24VDC applications

Installation Manual

Overview

The Securefast ADP324-FR power supply is a switched-mode power supply with an internal fire relay and is ideal for powering magnetic door retainers, door locking devices that do not require battery back-up, and general 24VDC applications. It also has with a normally closed, voltage-free output for signalling status and serviceability of the unit.

The ADP324-FR power supply provide a nominal 24VDC when powered from a 230V AC supply and has the following features:

- **Power OK ON LED, indicating normal operation**
- **4 X LED's show status of relay and its outputs**
- **Electronic overload protection with automatic reset**
- **Highly efficient power conversion**

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Securefast ADP324-FR

The Securefast ADP324-FR supply unit is a 24VDC switched-mode 500mA power supply with an integral fire relay fitted and connected. It is specially designed to power magnetic fire alarm door retainers and general 24 Volt DC applications. It is supplied in a very compact and attractive, 1.5mm steel housing, powder-coated, spray painted and heat-treated to provide a durable, wipe-clean surface. It is secured by a single screw lid fixing for ease of servicing. The 24VDC output is designed for the highly inductive loads that magnetic door retainers present, eliminating the need for additional control relays and reducing the chance of an 'electrical spike' causing problems. The ADP324-FR is protected by intelligent electronic fuses with automatic reset to reduce system downtime, and it features unique, protective technology, including intelligent and capacitive load switching, surge protection and snubbing. The ADP324-FR can handle up to 4 double doors with 8 magnetic door retainers, based on 50 mA each.

Installation

- Mount the housing onto the wall.
- Connect the Live, Earth and Neutral terminals to an un-switched fused spur.
- Connect the Fire relay to the system. This can be used to provide Volt free relay or a 24VDC switched output.
- Set the jumper VR for power out or VF if a volt free switching relay is required.
- Relay switches when A to B is closed .
- For voltage-free switch, use C (common) and either NO (Normally Open) or NC (Normally Close)
- Switch on the 230VAC supply and confirm that the **Power OK** LED is lit and that the appropriate relay LED's are also lit.

External Power Supply (AC Supply)

The power supply has a three-way terminal block for Live, Earth and Neutral connections. When supplied, earth is connected to the metal enclosure and the lid earthed with a flying push-fit lead.

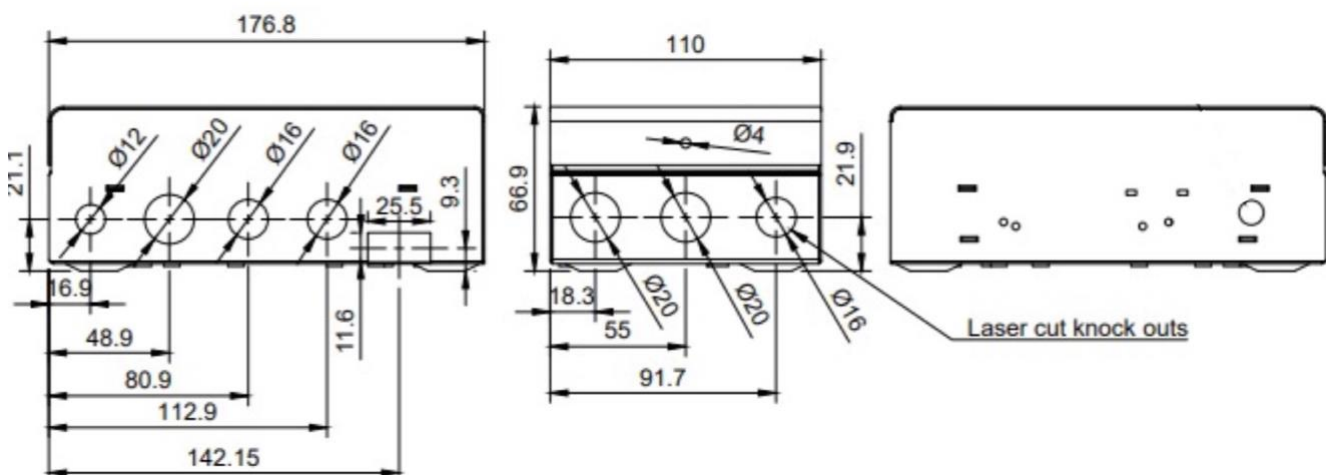
24V Power Output

Terminal blocks are provided to connect to systems. The output is floating and can be referenced to earth, if required. It is short circuit and overload electronically protected and is suitable for switching highly inductive loads.

'OK ' LED

The **OK LED**, when lit, will indicate if the mains voltage and the 24VDC output are both present.

Knock-out sizes and positions on the housing

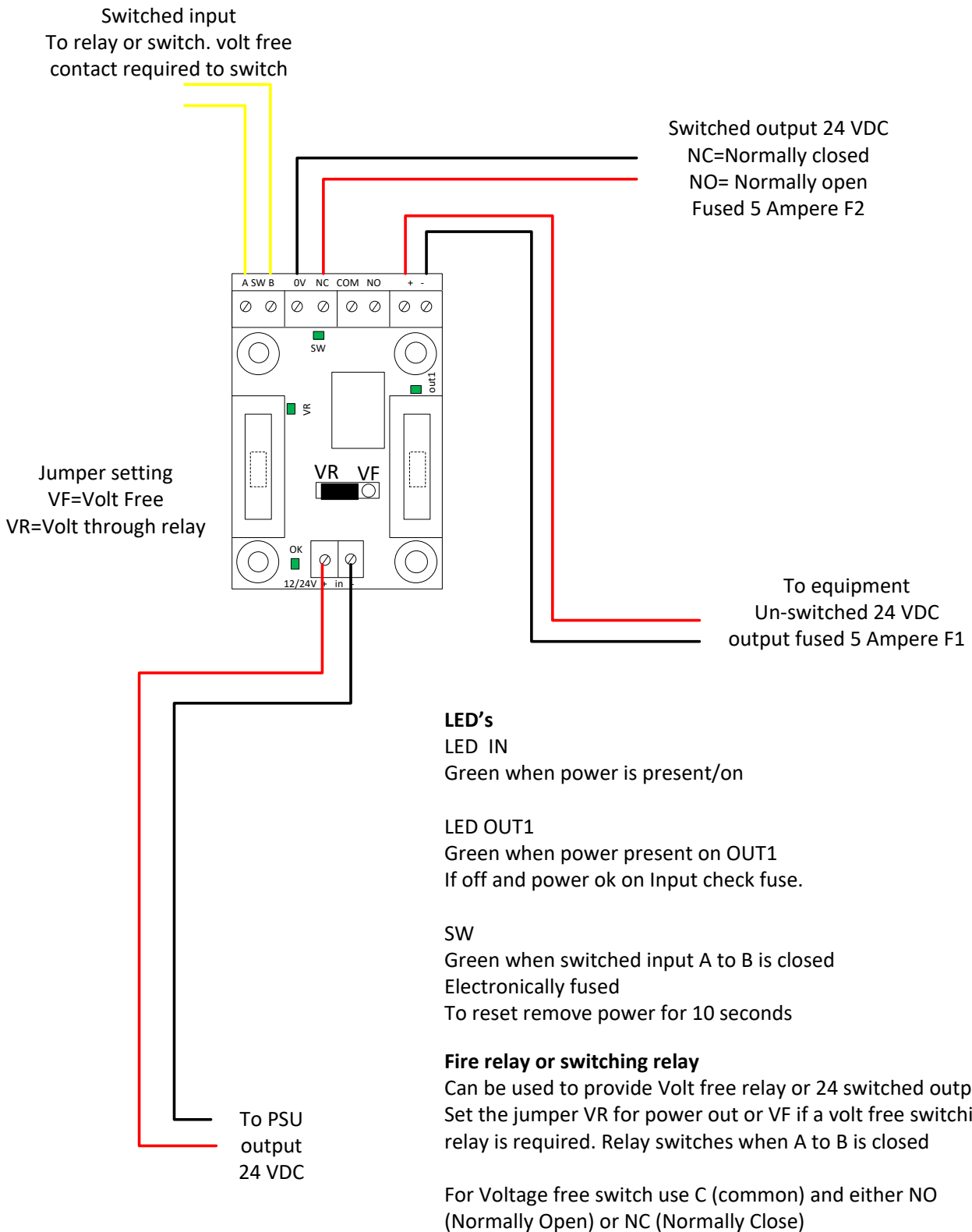


Maintenance

There are no serviceable parts. No maintenance is required other than routine periodic testing.

Please note that high voltage is present under the cage – handle with care. Do NOT touch. Do NOT remove the cage.

Layout and connections - ADP324-FR fire relay connections



Specification

Output	DC voltage	24VDC
	Voltage tolerance	±1%
	Rated current	0.5A
	Current range	0~0.5A
	Rated power	12W
	Ripple & noise	120mVp-p
	DC voltage ADJ. range	±10%
Input	Voltage range	90~264VAC
	Frequency	47~65Hz, 125~373VDC
	AC current	0.25A/115VAC o.15A~373VAC
	Efficiency	81%
	Inrush current	Cold start 15A/115V. 30A/230VAC
	Leakage current	<0.25mA/240VAC
Protection	Over-load	Rated power output 115%-135% start overload protection
		Protection type: hiccup mode, auto recovery after fault is removed
	Over-voltage	125%~150%
		Protection type: hiccup mode, auto recovery after fault is removed
Environment	Working temp, humidity	-10°C~+60°C, 20%~90%RH
	Storage temp, humidity	-20°C~+85°C, 10%~95%RH non-condensing
	Withstand vibration	10~500HZ, 2G 10min/1cycle, period for 60 minutes, each axis
Safety	Withstand voltage	I/P-O/P: 1.5KVAC I/P-FG: 1.5KVAC O/P-FG: 0.5KVAC
	Isolation resistance	I/P-O/P, I/P-FG, O/P-FG:100Mohms/500VDC
Standards	Safety standard	Compliance to UL1012
	EMC standard	Compliance to EN55022, Class A
Others	Dimensions (h x w x d)	Module = 48 x 28 x 21mm; Housing = 178 x 110 x 68mm
	Weight/packing	Module 0.08kg; Housing 1.09 kg

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