

832DMAC

Digital Monitored AC Module

E-PLEX

Powering Systems - Empowering Designers



Key Features:

- Up to 32A max current per channel.
- Up to 8 channels maximum.
- Isolation between high and low voltage systems.
- Utilizing readily available MCB's and enclosures.
- Circuit breaker status monitoring.
- User defined default relay state with operation via traditional MCB's providing manual override capabilities.
- DIN Rail Mounting.
- Designed to fit into standard contractor/ consumer units.
- Ability to parallel channels for current sharing or double pole protection.
- LEN value 2.

Part Number:
EP3-832DMAC

General Description

The E-Plex 832DMAC has been designed to simplify electronic systems wiring by providing more control over AC loads. The module provides AC distribution and control for 115V and 230V single and split phase applications.

Manual override capabilities are provided through the use of a user defined default relay state with operation via traditional miniature circuit breakers (MCB).

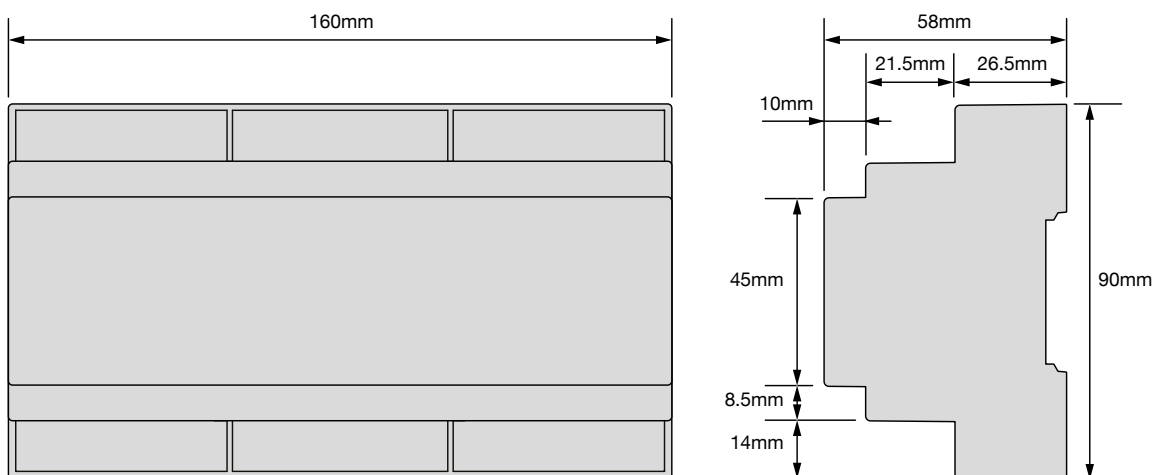
The 832DMAC can be combined with the 829PFM for a robust AC energy management solution.

Specifications

ELECTRICAL SPECIFICATIONS

Operating voltage	85 to 264V AC
Operating current	Less than 1 Amp
Low detection threshold (fault)	50V Ac
Hi detection threshold (power present)	60V
Relay contact rating	240V AC 25 Amps (continuous)
Over voltage category	2

PHYSICAL SPECIFICATIONS



Front bezel material	ABS	Storage Temperature	-30°C – 85°C (-22°F – 185°F)
Back case material	ABS	Environmental	IP20 protected
Label material	Polycarbonate	Weight	450g (15.87oz)
Operating temperature	-20°C – 50°C (-4°F – 122°F)	Mounting Hole Size	DIN rail mounted

TERMINAL CONNECTOR SPECIFICATIONS

Connector type	Phoenix Contact 3 way screw clamp connector
Wire gauge	0.2mm ² (24AWG) min to 4mm ² (10AWG) max
Wire strip length	5 – 7 mm (.19" – .27")

COMMUNICATIONS CONNECTORS SPECIFICATIONS

Connector type	4 way mini lock connector Supplied with 4 way mini lock to EP3 connector lead.
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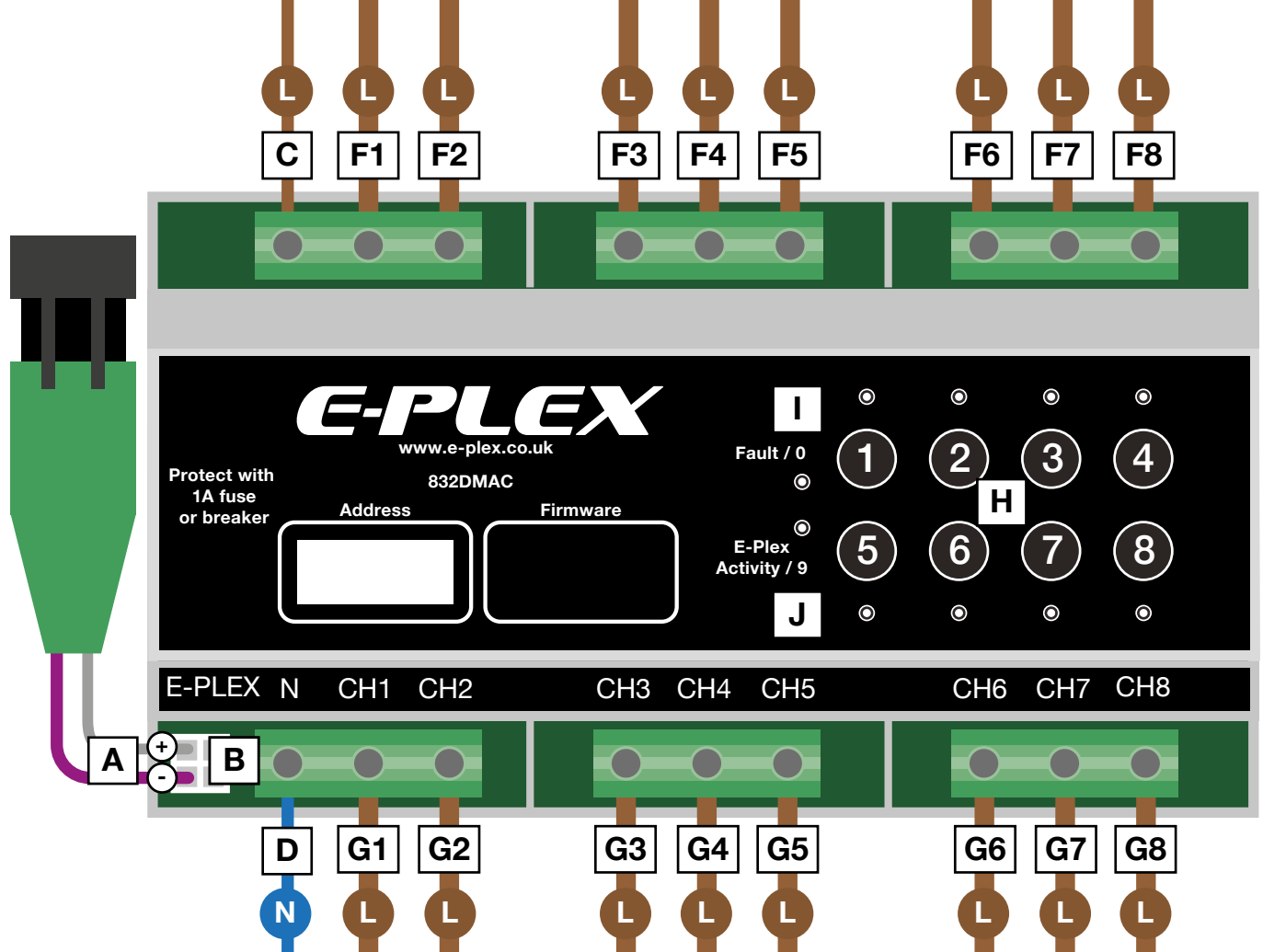


Diagram 1 - Typical wiring - common neutral and switched live

Connections

A E-Plex (in)

B For future expansion

C Live supply for module

85 to 264VAC 1 Amp max

D Neutral supply for module

85 to 264VAC 1 Amp max

F Circuits 1-8 (in)

Live feed from the same number MCB (MCB Protected)

G Circuits 1-8 (out)

Switched live from the correspondingly numbered MCB (To rating Of MCB*)

LED Indicators

H Channel status LEDs

LED on: Channel on

LED off: Channel off

Flashing: No power detected on channel

I Fault LED

LED on: No fault

LED off: Outside of operating conditions

J E-Plex activity LED

LED on: E-Plex activity

LED off: No E-Plex active

* The unit's channels must be protected by an external MCBs. Which must be turn off when working on any output wiring. Maximum MCB rating should be no greater than 25 Amps as damage to module may occur.

E-Plex Address Indication

At power up the module will indicate its E-Plex address by flashing the LEDs. One of the LEDs will flash for 2 seconds, this indicates the most significant digit of the address. This will be followed by one second with all LEDs off. Then another LED will flash to indicate the next digit of the address. This pattern will repeat until all 4 digits have been displayed. For example if LED 1 flashes followed by LED 6, then fault (0), then 8, the modules address is 1608.

If all LEDs flash repeatedly with the above sequence at power up if the module has not been assigned an address.

Manual Mode

Manual mode is a backup mode of operation which is automatically enabled if no commands are received from the main control unit (clock module).

This allows for a minimum level of device control even when there are faults with other parts of the system.

If a module is un-programmed all channels are disabled by default.

When the network is inactive there are two parameters that may be configured for output channels;

Automatic and Manual Control

Automatic control

When automatic control is enabled the channel can be set to turn its output on or off when the module enters manual mode.

When disabled the output will remain in the same state as it was in before entering manual mode.

Manual control

The keypad switches may be programmed to override the automatic control with either momentary or latching behavior.

When the network is active the functionality of the buttons is determined by the system software.

Parallel Operation

Channels can be assign as parallel this means that two adjacent channels will operate together, this allows a load to be shared across two circuits.

This can also allow for a split rail system (L1 & L2 with common neutral)

This should also allow you to run one as a live feed and the second parallel channel as a neutral return this could provide an isolated output.

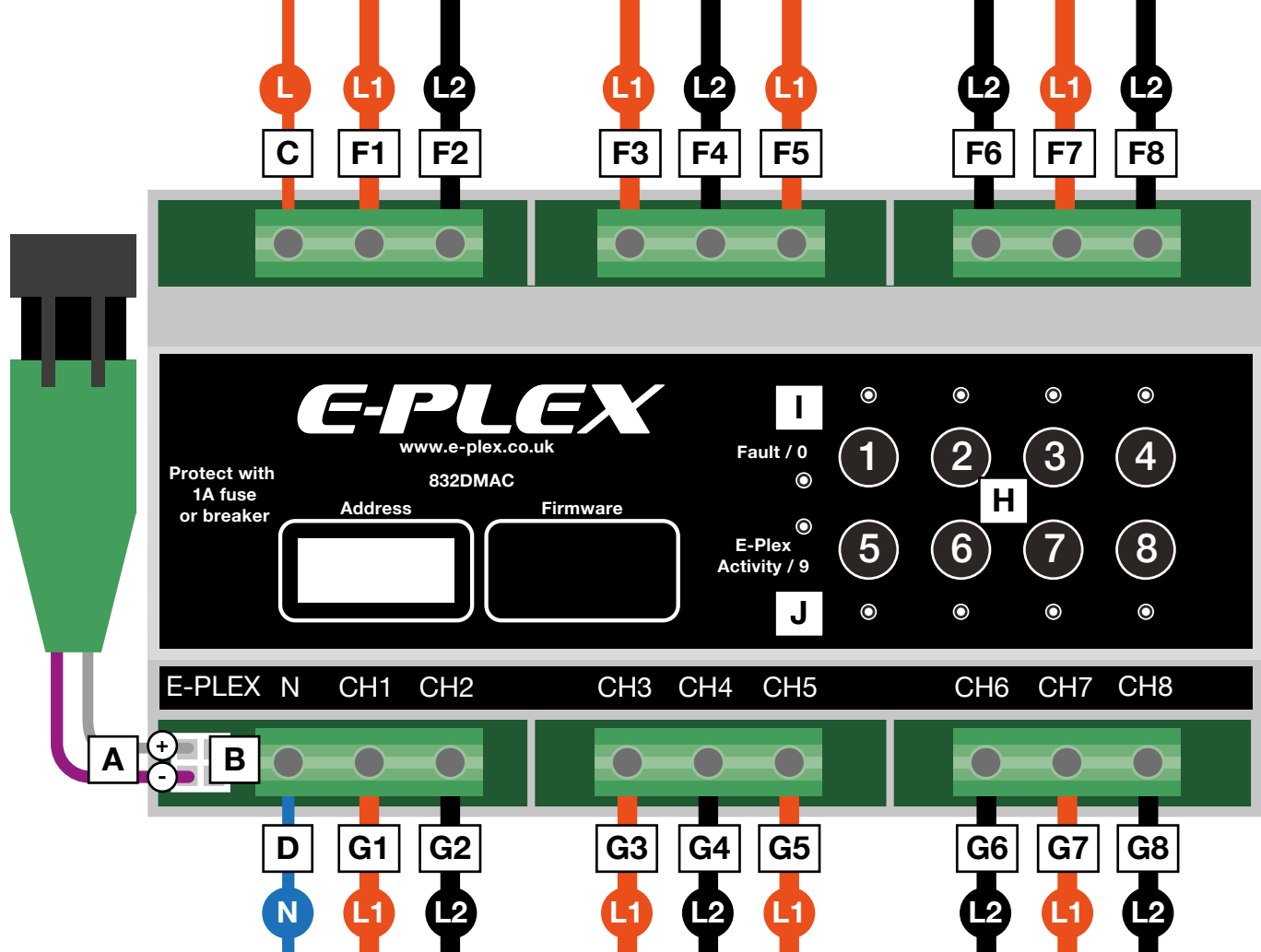


Diagram 2 - Split rail supply using parallel operation

Connections

A E-Plex (in)

B For future expansion

C L1 or L2 supply for module

85 to 264VAC 1 Amp max

D Neutral supply for module

85 to 264VAC 1 Amp max

F Circuits 1-8 (in)

L1/L2 Feed from the same number MCB (MCB Protected)

G Circuits 1-8 (out)

Switched live from MCB (To rating Of MCB*)

LED Indicators

H Channel status LEDs

LED on: Channel on

LED off: Channel off

Flashing: No power detected on channel

I Fault LED

LED on: No fault

LED off: Outside of operating conditions

J E-Plex activity LED

LED on: E-Plex activity

LED off: No E-Plex active

* The unit's channels must be protected by an external MCBs. Which must be turn off when working on any output wiring. Maximum MCB rating should be no greater than 25 Amps as damage to module may occur.

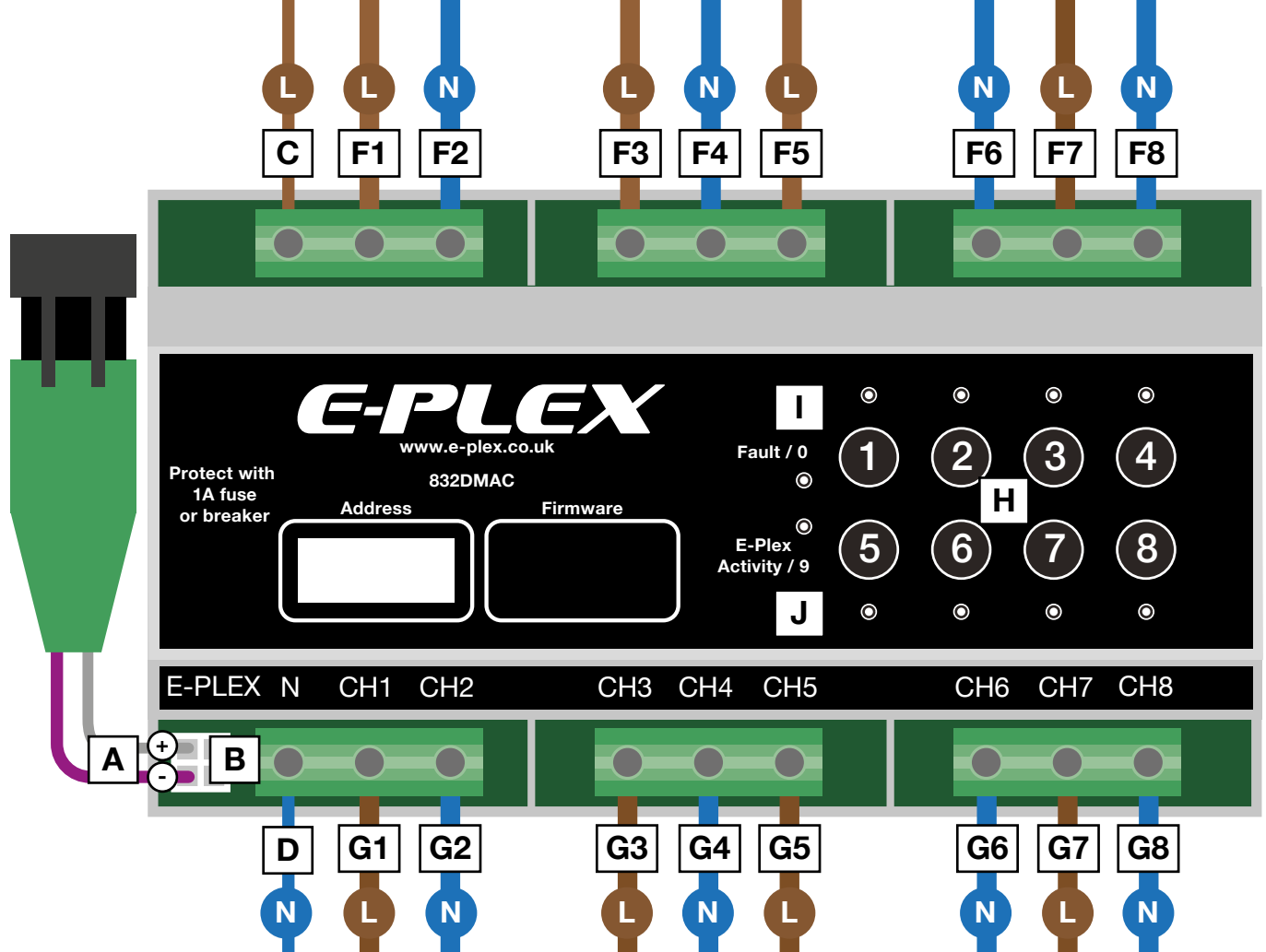


Diagram 3 - Isolated supply using Parallel operation

Connections

A E-Plex (in)

B For future expansion

C Live supply for module

85 to 264VAC 1 Amp max

D Neutral supply for module

85 to 264VAC 1 Amp max

F Circuits 1-8 (in)

Live/Neutral feed from the same number MCB (MCB Protected)

G Circuits 1-8 (out)

Switched live/neutral from the same number MCB

LED Indicators

H Channel status LEDs

LED on: Channel on

LED off: Channel off

Flashing: No power detected on channel

I Fault LED

LED on: No fault

LED off: Outside of operating conditions

J E-Plex activity LED

LED on: E-Plex activity

LED off: No E-Plex active

* The unit's channels must be protected by an external MCBs. Which must be turn off when working on any output wiring. Maximum MCB rating should be no greater than 25 Amps as damage to module may occur.

Spare parts

Replacement E-Plex EP3 cable - EP3-CA-F/EP3-MINILOCKLEAD



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