

DESCRIPTION

The 157 is an **output relay expansion module** for DSE control modules. It can be configured to provide volt-free contacts, which allow the OEM to meet increasingly complex specifications in the industry by adding to the capacity of the controllers.

The module comprises a single 'DIN' rail mounted module with an interconnecting FCC 68 cable. This enables rapid fixing into a panel and can be situated up to 50 metres away from the host module.

The relay expansion features eight 5A DC rated, voltage-free relay contacts which can be configured to be normally de-energised, close on command, or normally energised, open on command.

The relay expansion is an extension of the modules' output capabilities. Simply connect the relay board to a correctly configured module expansion socket.

Supported controllers are configured to control the expansion relays. The 157 relay expansion will operate with the following controllers:
520, 521, 530, 540, 541, 550, 555, 556, 560, 5210, 5220, 5310, 5320, 5510, 5520, 5560.

(NB. The 157 relay expansion module will NOT operate with module types 511, 512, 5110, 5120 or 509)

On the 55x, 53xx and 55xx modules two 157 relay boards can be used to give 16 independent relay outputs. This is achieved by identifying one of the 157 modules as module 'A' and the other as module 'B' by means of a small selector switch fitted to the 157.

Using this modular approach and utilising the benefits of single wire host connection, enhanced specifications can be achieved with minimum modification to standard panels.

Traditional methods would have required the use of a PLC based system or extensive additional relay logic with all its added complexity.

For a complete list of all the possible control sources for the 157 relay module, please refer to the appropriate configuration Software manual.

CONFIGURATION

The module will automatically respond to signals from a correctly configured module, which must be configured via the appropriate interface and a PC. The Expansion relays appear in the Output configuration menu. For more information on configuration and output states refer to the appropriate Software Manual.

NOTE:- The 157 Relay Expansion Module must only be connected to module types 520, 521, 530, 540, 541, 550, 555, 556, 560, 5210, 5220, 5310, 5320, 5510, 5520, 5560 or future compatible modules.

NOTE:- Input expansion modules are available for all modules :

- 540 / 541 protection expansion annunciators can be used with all DSE control modules to increase the number of basic digital inputs.
- P130 input expansion module is compatible with module types 5310, 5310, 5510, 5520 and 5560 and provides an additional two analogue inputs and eight enhanced digital inputs.



SPECIFICATION

DC SUPPLY :

The 157 is powered from the plant battery or from a low voltage supply between 8V to 35V DC. It is able to survive 0V for 50ms during cranking, providing supply was at least 10V before dropout and supply recovers to 5V. This is achieved without the need for internal batteries.

MAX. OPERATING CURRENT:

120mA @ 12V, 70mA @ 24V.

MAX. STANDBY CURRENT:

25mA @ 12V, 18mA @ 24V

AUXILIARY RELAY CONTACTS:

5A DC rated voltage free.

DIMENSIONS:

160mm x 77mm x 72mm
(6.3" x 3" x 2.8")
DIN Rail mounted housing.

OPERATING TEMPERATURE RANGE:

-15 °C to +55 °C

SELECTOR SWITCHES:

Test - Operates all relays to test operation.

Unused - No Function.

Enable Lamp Test - Relays will energise on receipt of a Lamp test signal from compatible Host module.

A/B Select - Determines whether the 157 responds to signals for Expansion A or B relays - (See Note)

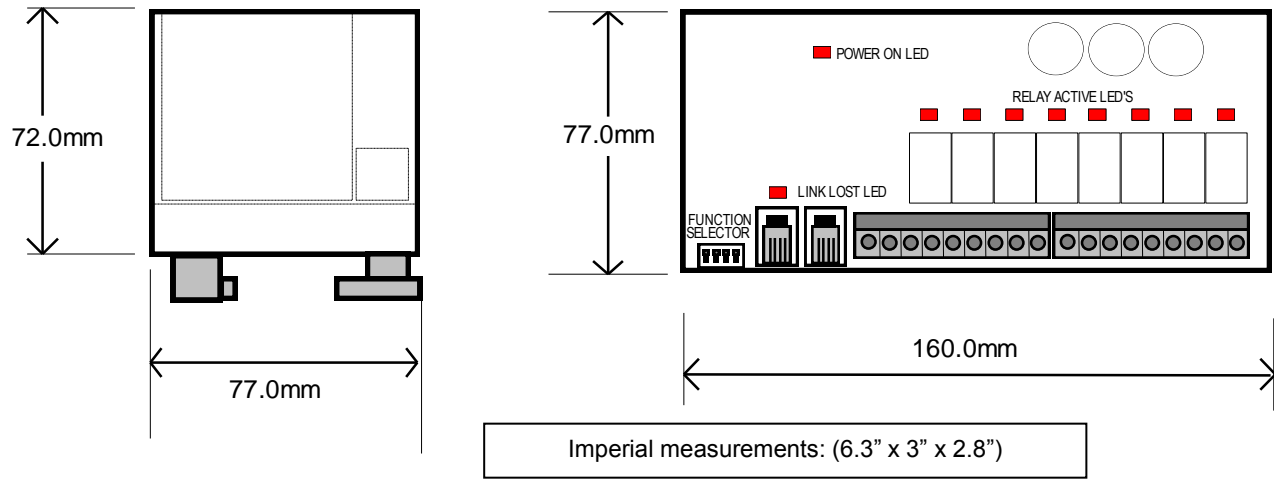
INDICATIONS:

Power On LED

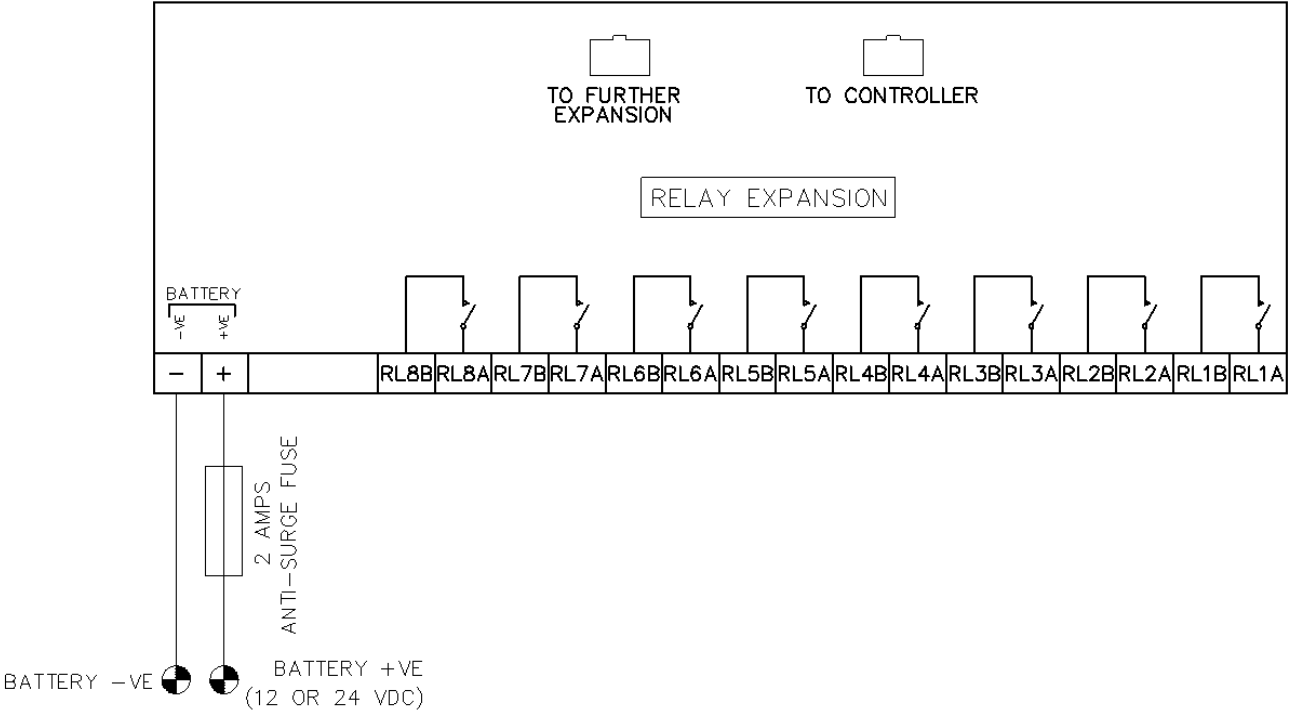
'Link Lost' (to controller) LED *Flashing*
8 Relay active LED's

In line with our policy of continual improvement, DSE reserve the right to change the specification without prior notice.

CASE DIMENSIONS



TYPICAL CONNECTIONS



NOTE: The 157 relay status is updated a minimum of twice a second. While this makes the response of the relays fast enough for annunciation, remote monitoring and normal system control it is not considered suitable for use in time critical applications such as high speed breaker tripping etc. If this type of function is intended we would recommend using the host modules own relay outputs to control such systems.

NOTE: The 157 must be used in the correct mode to function correctly. The 'A' mode is used to number the 157 Relays 1 through to 8. The 'B' mode is used to number the Relays 9 through to 16. Thus using one 157 in 'A' mode and one 'B' mode 157 give 16 independent Relays. Mode selection is via a function selector switch on the module.

The A/B selector switch must be set to the 'A' position for the 157 module to operate the following modules as these support only one expansion module and do not support 'B' mode: 520, 521, 530, 540, 541, 560, 5210, 5220.