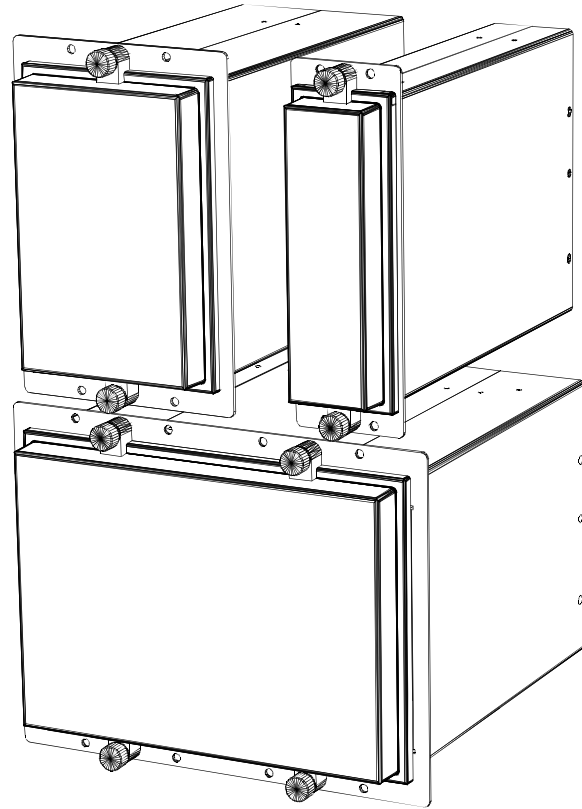


Features

- Modular format
- Simple screw mounting from the front of the panel (Except T & Q sizes)
- M4 self threading screws supplied with H, S & D sizes
- Optional rear mounting clamps
- May be projection mounted or semi-projection mounted
- Optional "short" non draw out version available
- Vertical or horizontal format
- Draw out chassis
- Non-draw out option
- Stud or screw termination
- Compression terminals
- Phoenix plug-in terminals
- Five modular sizes
- CT shorting switches available for draw out cases
- Sealable front cover
- IP51 rating
- Rugged metal construction
- Made in Australia

Application

The D Series range of cases has been specifically designed to meet the demanding & varied requirements for protection relay applications in power utility sub-station environments. The modular design is available in five sizes suitable for flush, projection or semi-projection mounting.



Size H, S & D cases depicted in flush mounted format

Description

Made in Australia

The D Series enclosures consist of a modular range of robust enclosures providing flexibility & a large number of electrical termination options. The D Series cases are of metal construction for durability & electromagnetic compatibility (EMC). This attribute is further enhanced through the use of copper clad fibreglass front panels. The cases may be flush, projection or semi-projection mounted in either orientation (vertical or horizontal) as necessitated by the panel design.

Five sizes of D Series case are available, half, single, double, triple & quadruple:

- **Size H** (Use E Series size 2 for rack mounting)
- **Size S** (Use E Series size 4 for rack mounting)
- **Size D** (Use E Series size 8 for rack mounting)
- **Size T**
- **Size Q**

The size S is also available in a non draw out short version.

E Series Rack Mount Relay Cases

Where standard 19 inch rack mounting is required the E Series case range may be specified. Refer technical bulletin "E Series" & refer to the above equivalents listing.

Technical Data

NUMBER OF OUTPUT TERMINALS

The number of contacts & their configuration may be specified as required with maximums as per the selection chart below.

INSULATION WITHSTAND

In accordance with AS2481-1981 (clause 5-4), IEC 255-5:
 2KV RMS between all terminals & all terminals & frame.
 1.2/50 5KV impulse between all terminals & all terminals & frame.

TERMINAL RATINGS

Stud & screw type	Phoenix compression type
30A continuous	20A continuous
200A 3s	180A 3s

CURRENT TRANSFORMER SHORTING SWITCHES

Up to 10 CT shorting switches per 20 terminals

D Series Case Options

MOUNTING OPTIONS

The coding system described should be used to identify the required case configuration when ordering empty enclosure assemblies or complete protection relays. The following options may also be specified.

SEMI PROJECTION MOUNTING

Required with _____ mm spacing from the front surface of the mounting panel to the rear surface of the relay.

MOUNTING ORIENTATION

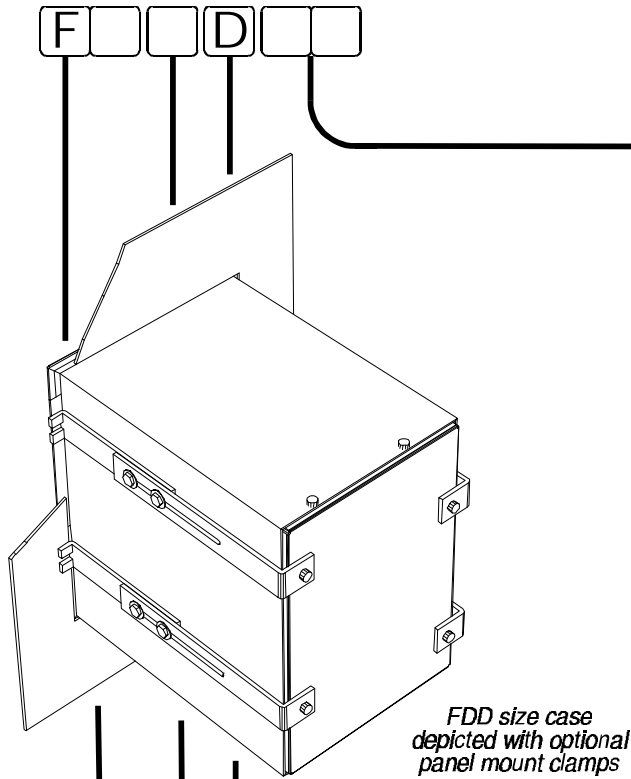
Vertical Horizontal

OPTIONAL MOUNTING CLAMPS

Required

CURRENT TRANSFORMER (CT) SHORTING SWITCHES

- | | |
|---------------------------------|----------------------------------|
| <input type="checkbox"/> 1 & 2 | <input type="checkbox"/> 11 & 12 |
| <input type="checkbox"/> 3 & 4 | <input type="checkbox"/> 13 & 14 |
| <input type="checkbox"/> 5 & 6 | <input type="checkbox"/> 15 & 16 |
| <input type="checkbox"/> 7 & 8 | <input type="checkbox"/> 17 & 18 |
| <input type="checkbox"/> 9 & 10 | <input type="checkbox"/> 19 & 20 |



Terminals

Refer to terminal drawings provided in this data sheet for reference to option numbers.

Stud terminals

1T 12 2BA studs	H non draw out size only
2T 20 2BA studs	S, D, T, Q
2T 24 2BA studs	S non draw out only
4T 40 2BA studs	D, T, Q draw out
6T 60 2BA studs	T, Q draw out
8T 80 2BA studs	Q draw out only

Screw terminals

1S 12 2BA screws	H non draw out only
2S 20 2BA screws	S, D, T, Q
2S 24 2BA screws	D, T, Q draw out
4S 40 2BA screws	S non draw out only
6S 60 2BA screws	T, Q draw out
8S 80 2BA screws	Q draw out only

Phoenix plug-in terminal blocks

61 12 Terminals	FHD, FSD, FDD
62 24 Terminals	FHD, FSD, FDD
63 36 Terminals	FSD, FDD non draw out only
64 48 Terminals	FSD, FDD non draw out only

Series D Case

Case Size

- H Half
- S Single
- D Double
- T Triple
- Q Quadruple

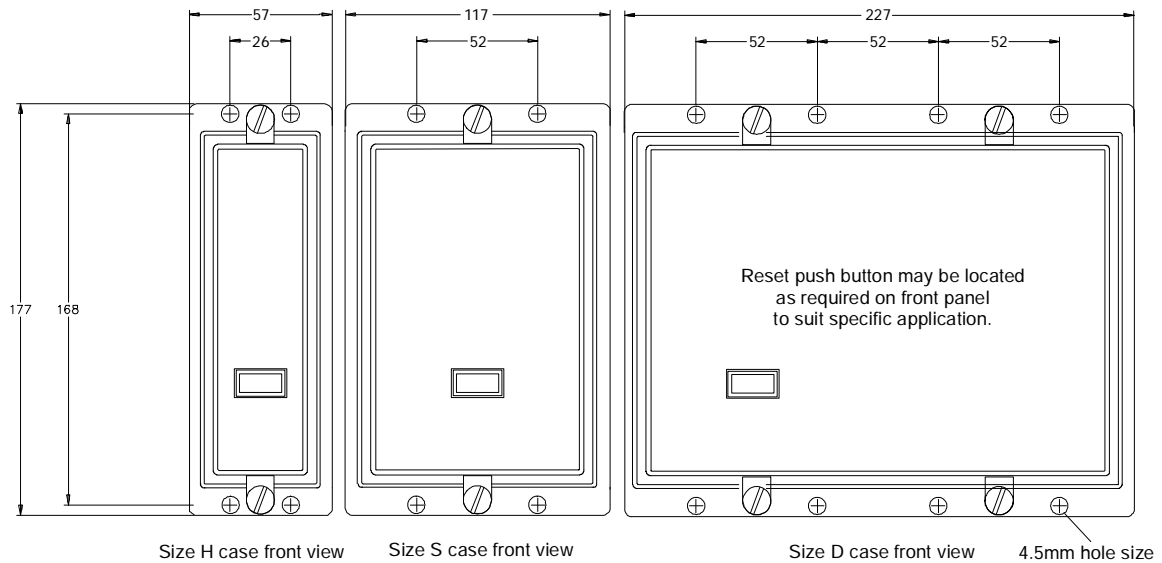
Function

- F Draw out module
- FN Non draw out
- FS Non draw out short version

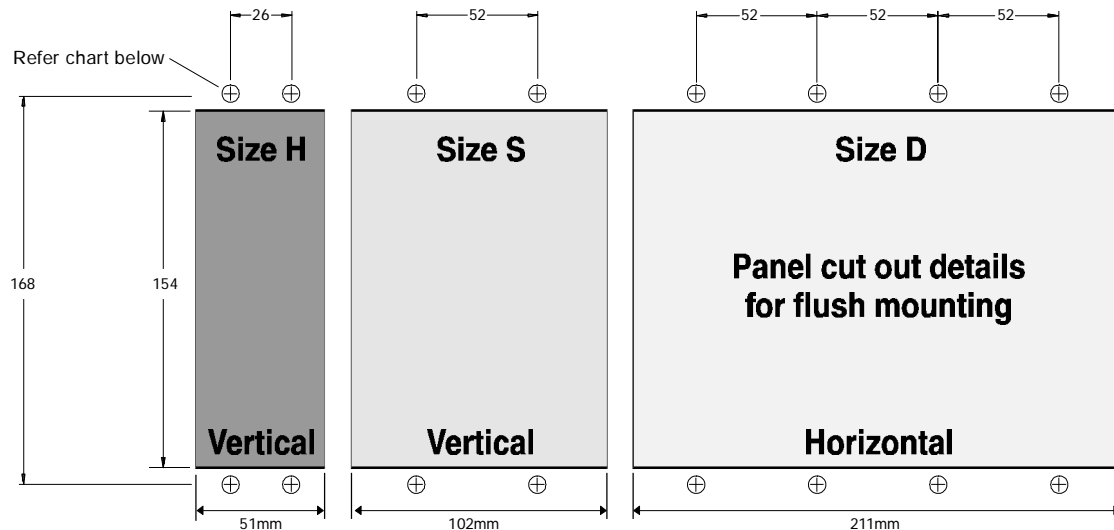
F N H D 6 2

Case definition example: Size H non draw out case with 24 Phoenix terminals for flush mounting

D Series Case Size H, S & D Flush Mounting Details



"Vertical" configuration is defined as being when the LONG dimension of the case is vertical.



Panel Mounting Screws

RELAY PANEL/RACK MOUNTING SCREWS
P/N 290-406-151A
 4 X M4 self threading screws
 Use for RMS 'D' & 'E' Series relay cases

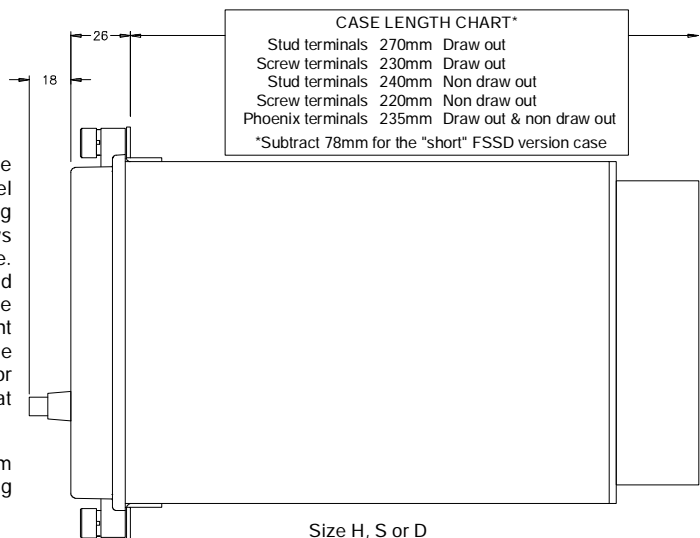
Assembly Details (mm)	
a	b
1-2	3.6
2-3	3.7
3+	3.7

M4 self threading screw 260-014-1108 Mild steel relay mounting panel

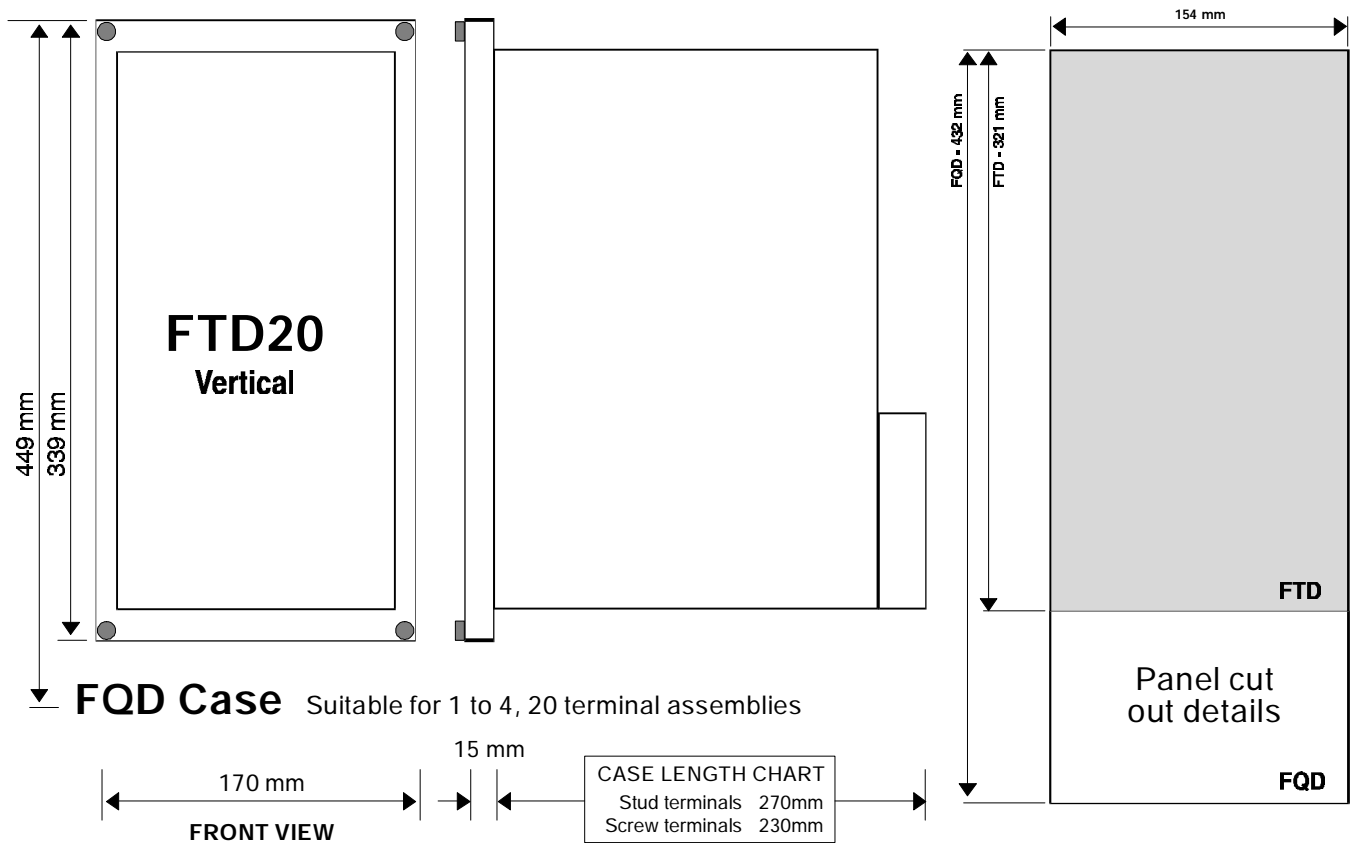
Use RMS clamps for thicker panels P/N 290-402-019M

Size H, S & D cases may be flush mounted to mild steel panel up to 3mm thick using the M4 self threading screws provided with the case. Panel mounting is simplified due to the location of the fixing screws at the front face of the relay. The appropriate hole sizes for mounting are indicated at right.

For panels thicker than 3mm the optional panel mounting clamps should be specified.

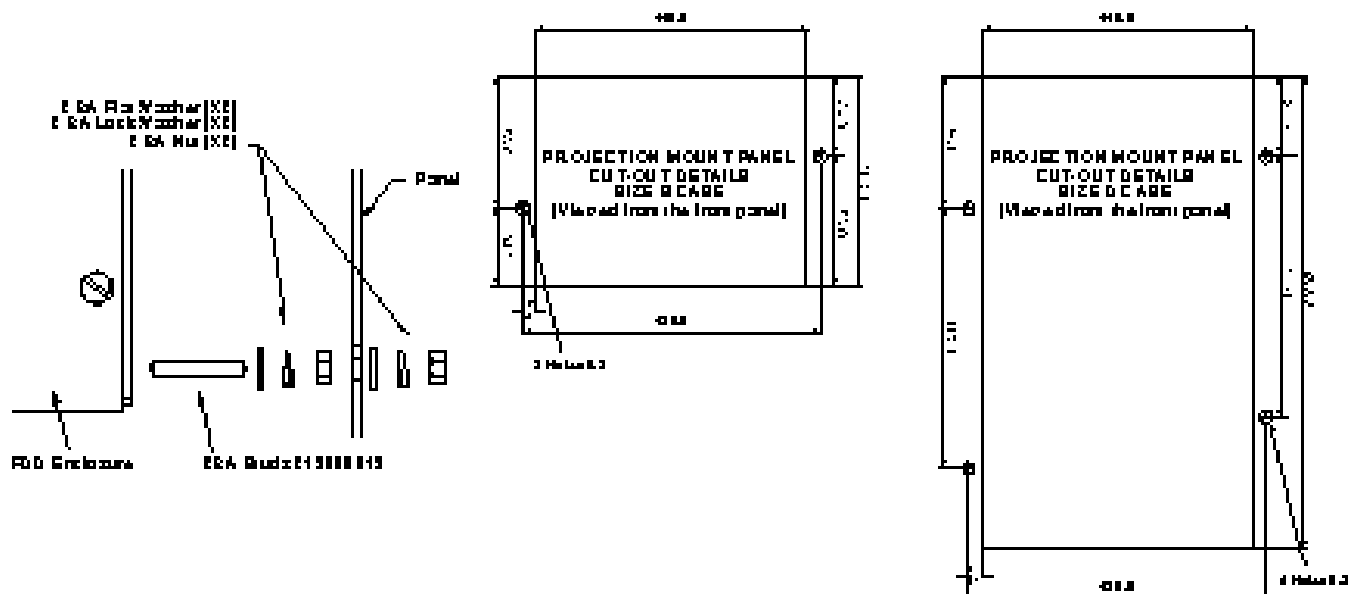


D Series Case Size T & Q Flush Mounting Details



Size T & Q cases must be secured to the panel with the rear mounted clamps provided.

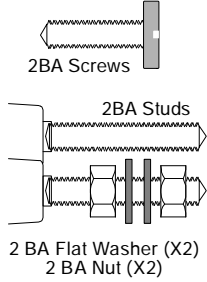
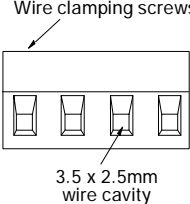
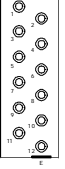
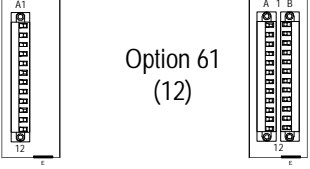
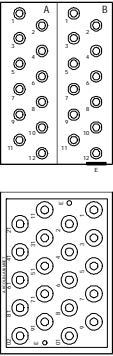
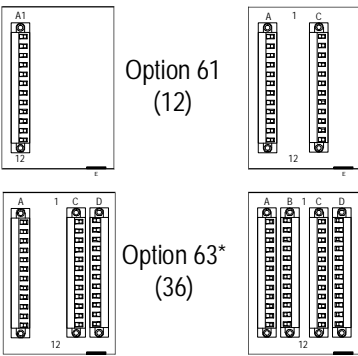
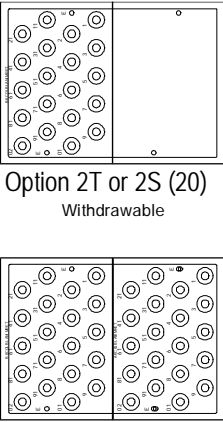
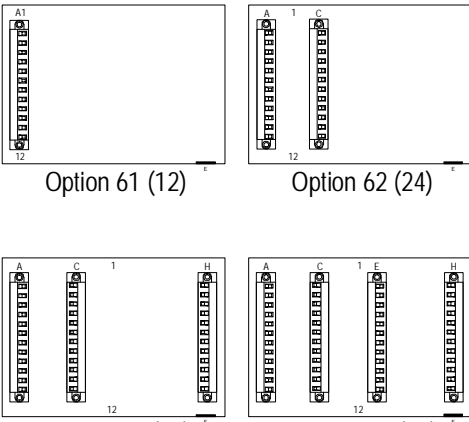
D Series Projection Mount Drawings



D & E Series Case Termination Options

STUD & SCREW TERMINALS provide the ability to fit multiple large diameter wires. Changing relay chassis is achieved with the optional draw out case.

PHOENIX TERMINALS provide a large number of connections per case & the ability to fit multiple large diameter wires. Changing over cases is easily achieved as the terminal blocks are plug-in or the optional draw out case may be specified.

No. of Terminals (xx)	Stud / screw Draw out & non draw out 	Phoenix Compression Terminals Draw out & non draw out* 
D Series Size H E Series Size 2	 Option 1T* or 1S* (12) Non draw out	 Option 61 (12) Option 62 (24)
D Series Size S E Series Size 4	 Option 2T* or 2S* (24) Non draw out Option 2T or 2S (20) Draw out	 Option 61 (12) Option 62 (24) Option 63* (36) Option 64* (48)
D Series Size D E Series Size 8	 Option 2T or 2S (20) Withdrawable Option 4T or 4S (40) Withdrawable	 Option 61 (12) Option 62 (24) Option 63* (36) Option 64* (48)

NOTE: * Non draw out only