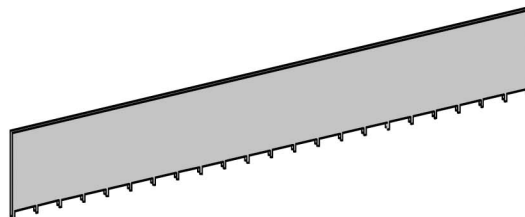


## **RFI/EMI Metal Screening Enclosures**

carefully manufactured by:

# **PERANCEA**

6-7, Rosebery Mews, Rosebery Road, London N10 2LG, England



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Email: [sales@perancea.com](mailto:sales@perancea.com)  
Website: [www.perancea.com](http://www.perancea.com)

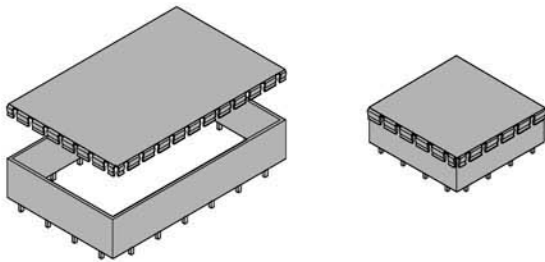
# Perancea RFI/EMI Metal Screening Enclosures

Our RFI/EMI Screening Enclosures are a cost effective and efficient method of specific board level shielding. As well as screening complete circuits and modules they can be used to screen individual components or circuits from other sensitive areas within a unit. The four standard styles give a choice between PCB Mounting for full or partial screening of a board, or Can and Open Frame styles for enclosing a complete circuit. Three styles have removable fingered lids which combine the advantage of access with optimum attenuation. The PCB Mounting Can versions offer a lower cost option where access to the components and circuitry is not required. Screening strips for creating partitioning inside the

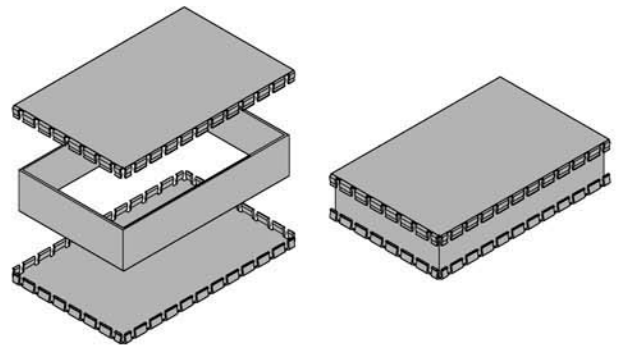
enclosure to segregate sensitive areas of circuitry and components; can be supplied loose or fitted to specification and where required complex labyrinths can be achieved. With our advanced technology we can produce (**without tooling charges**) virtually any “**custom**” size to meet your specification, allowing prototypes and low volumes to be economically produced. Additional features such as; holes, cut-outs, mounting brackets, etc., can be incorporated in manufacture to accommodate the requirements of your product design. Advice on what can be achieved is given on the back page and our technical staff will work with you to optimise cost efficient designs to suit your requirements.

## Contents

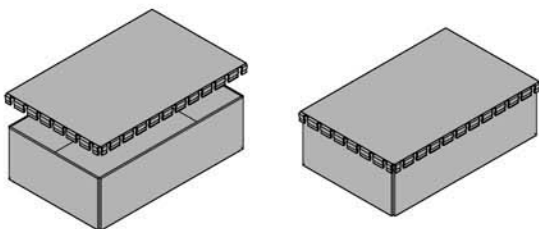
### PCB Frame & Fingered Lid - Page 3



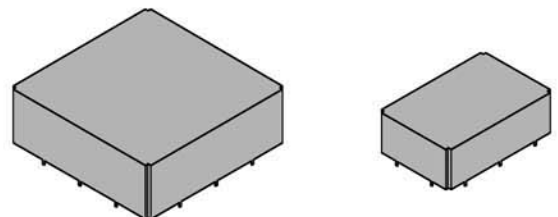
### Frame & Fingered Lids - Page 4



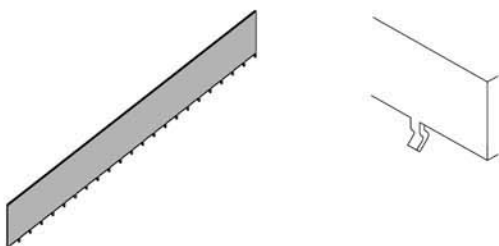
### Can & Fingered Lids - Page 5



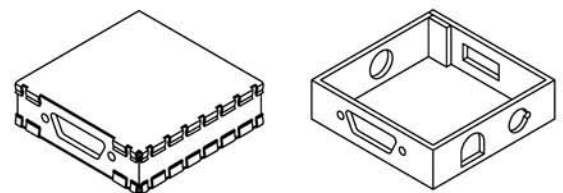
### PCB Mounting Can - Page 6



### Screening Strips & Locking Pin - Page 7



### Customising Options - Page 8



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Email: [sales@perancea.com](mailto:sales@perancea.com)

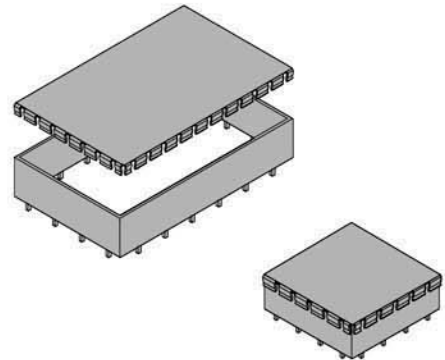
Website: [www.perancea.com](http://www.perancea.com)

In line with our policy of continuous improvement we reserve the right to make design or product alterations without prior notice.

# PFL Series: PCB Frame & Fingered Lid

Standard and custom PCB mounting enclosures offering individuality and functionality, ideally suited to board level screening applications where good RFI/EMI attenuation and accessibility are required.

- ◆ **Removable Fingered Lid**  
giving easy access and excellent attenuation
- ◆ **PCB Mounting Pins**  
bright acid tinned for solderability
- ◆ **Locking Pins (optional)**  
for positive placement & retention (see page 7)  
ideal for reflow soldering applications
- ◆ **Internal Dividers (optional)**  
for discrete screening within the frame (see page 7)
- ◆ **Custom Sizes**  
can be manufactured without tooling charges  
making prototypes and low volumes viable
- ◆ **Additional Features**  
holes, brackets, cut outs, lid captivation, etc., can be incorporated during manufacture (see back page)
- ◆ **Alternative Materials/Finishes**  
copper, brass, tinplate, nickel, nickel plate



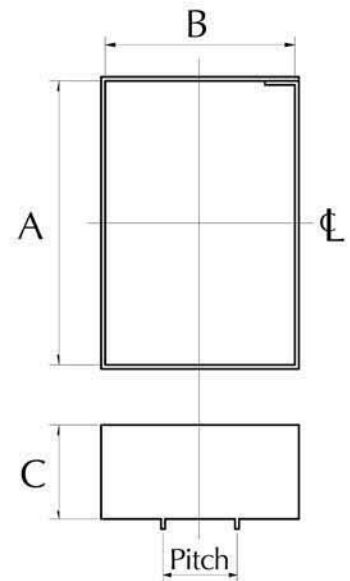
## Specification

<b>Material:</b>	Bright Mild Steel BS EN 10130 DC01
<b>Frames:</b>	20swg (0.914mm)
<b>Lids:</b>	24swg (0.559mm)
<b>Finish:</b>	Bright Acid Tin: Good Commercial Grade
<b>Surface resistivity:</b>	$20 \times 10^{-6} \Omega$ per square
<b>Conductivity:</b>	$5 \times 10^4 S$ (mho)
<b>Tolerance:</b>	+/- 0.25mm (general) +/- 0.10mm (PCB pin pitch)
<b>Pin Size:</b>	1mm x 2.25mm

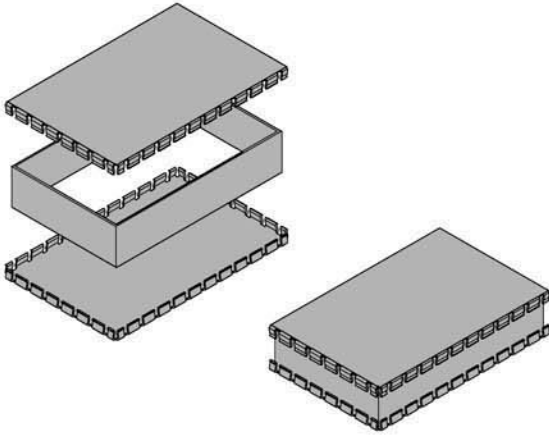
## STOCK SIZES - Internal & overall dimensions (mm)

Part No.	Dim. A	Dim. B	Dim. C	Nominal overall size including lid (excluding pins)	Number of Pins	Pin Pitch
PFL1T	20	20	10	25 x 25 x 11	4	C/L
PFL11T	25	25	10	30 x 30 x 11	4	C/L
PFL5T	30	30	15	35 x 35 x 16	8	10.5
PFL12T	40	40	15	45 x 45 x 16	8	20
PFL2T	50	25	15	55 x 30 x 16	10	10.5
PFL6T	50	50	15	55 x 55 x 16	8	20
PFL9T	75	50	15	80 x 55 x 16	12	20
PFL3T	75	50	25	80 x 55 x 26	12	20
PFL7T	75	75	25	80 x 80 x 26	16	20
PFL4T	100	50	25	105 x 55 x 26	12	20
PFL8T	125	75	25	130 x 80 x 26	20	20
PFL10T	160	100	35	165 x 105 x 36	24	20

**NOTE:** A4 dimensioned drawings for each part are available on request.



# FFL Series: Frame & Fingered Lid



## Specification

<b>Material:</b>	Bright Mild Steel BS EN 10130 DC01
<b>Frames:</b>	20swg (0.914mm)
<b>Lids:</b>	24swg (0.559mm)
<b>Finish:</b>	Bright Acid Tin: Good Commercial Grade
<b>Surface resistivity:</b>	$20 \times 10^{-6} \Omega$ per square
<b>Conductivity:</b>	$5 \times 10^4 S$ (mho)
<b>Tolerance:</b>	+/- 0.25mm (general)

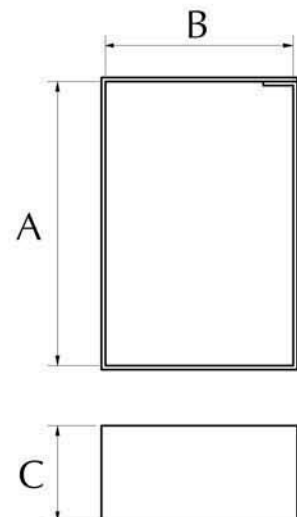
Open frame EMI/RFI housings with removeable lids in both standard and custom versions specifically designed for total board screening with excellent attenuation and access to both sides of the PCB.

- ◆ **Removable Fingered Lids**  
giving easy access and excellent attenuation
- ◆ **Lid Fingering Clearance**  
selective fingers can be omitted for clearance around components mounted through the frame wall
- ◆ **PCB Locations (optional)**  
lancings or brackets can be specified to act as guides or supports (see back Page)
- ◆ **Internal Dividers (optional)**  
for discrete screening within the frame (see page 7)
- ◆ **Custom Sizes**  
can be manufactured without tooling charges making prototypes and low volumes viable
- ◆ **Additional Features**  
holes, brackets, cut outs, lid captivation, etc., can be incorporated during manufacture (see back page)
- ◆ **Alternative Materials/Finishes**  
copper, brass, tinfoil, nickel, nickel plate

## STOCK SIZES - Internal & overall dimensions (mm)

Part No.	Dimension A	Dimension B	Dimension C	Nominal overall size including lids
FFL6T	20	20	10	25 x 25 x 12
FFL7T	30	30	15	35 x 35 x 17
FFL1T	50	50	15	55 x 55 x 17
FFL5T	75	50	15	80 x 55 x 17
FFL8T	75	50	25	80 x 55 x 27
FFL9T	75	75	25	80 x 80 x 27
FFL2T	100	50	25	105 x 55 x 27
FFL10T	125	75	25	130 x 80 x 27
FFL3T	160	100	35	165 x 105 x 37
FFL4T	220	100	50	225 x 105 x 52

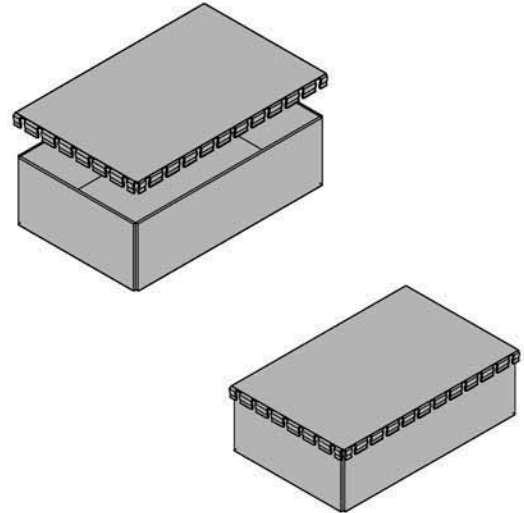
**NOTE:** A4 dimensioned drawings for each part are available on request.



# CFL Series: Can & Fingered Lid

A range of standard and custom RFI/EMI cans that offer good attenuation and accessibility where screening of complete boards or circuits is required.

- ◆ **Removable Fingered Lid**  
giving easy access and excellent attenuation
- ◆ **Lid Fingering Clearance**  
selective fingers can be omitted for clearance around components mounted through the frame wall
- ◆ **Component/PCB Locations (optional)**  
lancings or brackets can be specified to act as guides or supports (see back page)
- ◆ **Butt Jointed Corners**  
bright acid tin finish allows corners to be easily soldered for increased screening
- ◆ **Internal Dividers (optional)**  
for discrete screening within the can (see page 7)
- ◆ **Custom Sizes**  
can be manufactured without tooling charges making prototypes and low volumes viable
- ◆ **Additional Features**  
holes, brackets, cut outs, lid captivation, etc., can be incorporated during manufacture (see back page)
- ◆ **Alternative Materials/Finishes**  
copper, brass, tinplate, nickel, nickel plate



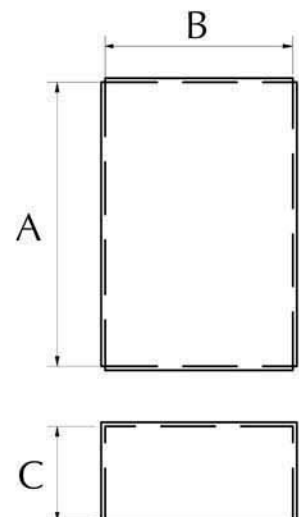
## Specification

<b>Material:</b>	Bright Mild Steel BS EN 10130 DC01
<b>Frames:</b>	20swg (0.914mm)
<b>Lids:</b>	24swg (0.559mm)
<b>Finish:</b>	Bright Acid Tin: Good Commercial Grade
<b>Surface resistivity:</b>	$20 \times 10^{-6} \Omega$ per square
<b>Conductivity:</b>	$5 \times 10^4 S$ (mho)
<b>Tolerance:</b>	$\pm / - 0.25mm$ (general)

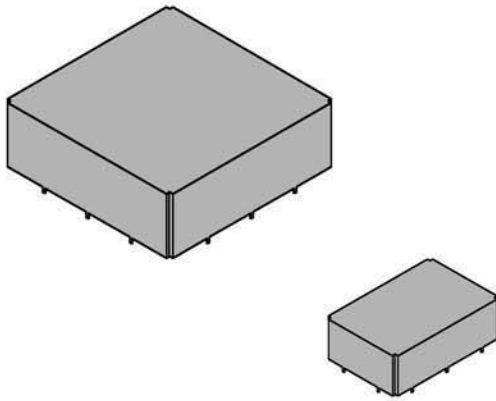
## STOCK SIZES - Internal & overall dimensions (mm)

Part No.	Dimension A	Dimension B	Dimension C	Nominal overall size including lid
CFL5T	20	20	10	25 x 25 x 12
CFL6T	30	30	15	35 x 35 x 17
CFL7T	50	25	15	55 x 30 x 17
CFL1T	50	50	15	55 x 55 x 17
CFL2T	75	50	25	80 x 55 x 27
CFL8T	75	75	25	80 x 80 x 27
CFL3T	100	50	35	105 x 55 x 37
CFL4T	160	100	50	165 x 105 x 52

**NOTE:** A4 dimensioned drawings for each part are available on request.



# PCMC Series: PCB Mounting Cans



## Specification

<b>Material/Finish:</b>	Tinplate to BS EN 1202
<b>Thickness:</b>	0.54mm
<b>Surface resistivity:</b>	$20 \times 10^{-6} \Omega$ per square
<b>Conductivity:</b>	$5 \times 10^4 S$ (mho)
<b>Tolerance:</b>	+/- 0.25mm (general) +/- 0.10mm (PCB pin pitch)
<b>Pin Size:</b>	1mm x 2.25mm

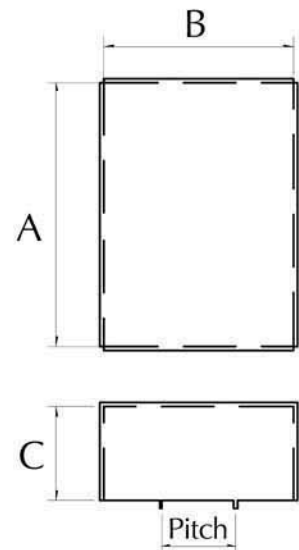
A low cost range of single piece PCB mounting cans giving good attenuation for applications where board level RFI/EMI screening is required, available in standard or custom options.

- ◆ **PCB Mounting Pins**  
tinplate finish for solderability
- ◆ **Locking Pins (optional)**  
for positive placement & retention (see next page)  
ideal for reflow soldering applications
- ◆ **Butt Jointed Corners**  
tinplate finish allows corners to be easily soldered for increased screening
- ◆ **Custom Sizes**  
can be manufactured without tooling charges  
making prototypes and low volumes viable
- ◆ **Additional Features**  
holes, cut outs, etc., can be incorporated during manufacture (see back page)
- ◆ **Alternative Materials**  
copper, brass, steel, nickel
- ◆ **Alternative Finishes**  
bright acid tin, nickel plate

## STOCK SIZES - Internal & overall dimensions (mm)

Part No.	Dim. A	Dim. B	Dim. C	Nominal overall size	Number of Pins	Pin Pitch
PCMC1	20	20	15	21 x 21 x 16	4	C/L
PCMC2	25	25	15	26 x 26 x 16	8	10.5
PCMC3	30	25	20	31 x 26 x 21	8	10.5
PCMC4	30	30	15	31 x 31 x 16	8	10.5
PCMC5	40	30	15	41 x 31 x 16	10	10.5
PCMC6	40	35	20	41 x 36 x 21	12	10.5
PCMC7	40	40	15	41 x 41 x 16	8	20
PCMC8	50	50	15	51 x 51 x 16	8	20
PCMC9	60	40	20	61 x 41 x 21	10	20
PCMC10	70	50	25	71 x 51 x 26	10	20
PCMC11	75	75	25	76 x 76 x 26	12	20
PCMC12	100	50	25	101 x 51 x 26	12	20

**NOTE:** A4 dimensioned drawings for each part are available on request.



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**PERANCEA LTD**

Page 6

Email: sales@perancea.com

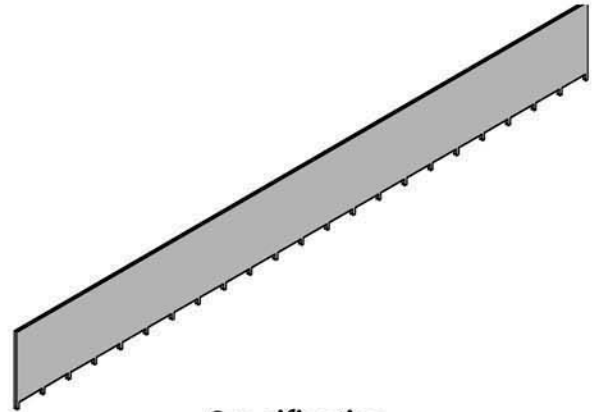
Website: www.perancea.com

*In line with our policy of continuous improvement we reserve the right to make design or product alterations without prior notice.*

# SS Series: Screening Strips

An ideal solution for the segregating of sensitive components or circuitry to eliminate or minimise interference between different parts of the circuit.

- ◆ **Range of Heights**  
to suit standard enclosures
- ◆ **Adaptable**  
easily cut to length, bent and soldered
- ◆ **Custom Fit**  
can be supplied pre-fitted by either spot welding in position or by tab and slot location
- ◆ **Labyrinths**  
multi segmented areas optimise discrete screening
- ◆ **Custom Sizes**  
no tooling costs makes prototypes and low volumes viable
- ◆ **Alternative Materials/Finishes**  
copper, brass, steel, nickel/tin, nickel, bright acid tin



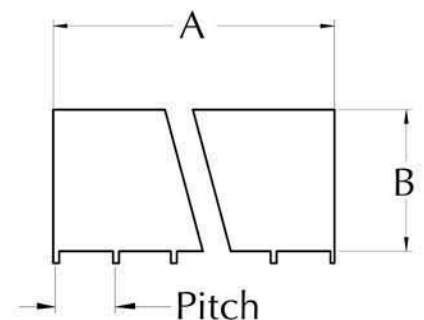
## Specification

<b>Material/Finish:</b>	Tinplate to BS EN 1202
<b>Thickness:</b>	0.54mm
<b>Surface resistivity:</b>	$20 \times 10^{-6} \Omega$ per square
<b>Conductivity:</b>	$5 \times 10^4$ S (mho)
<b>Tolerance:</b>	$\pm 0.25$ mm (general) $\pm 0.10$ mm (PCB pin pitch)
<b>Pin Size:</b>	1mm x 2.25mm

## STOCK SIZES - Internal & overall dimensions (mm)

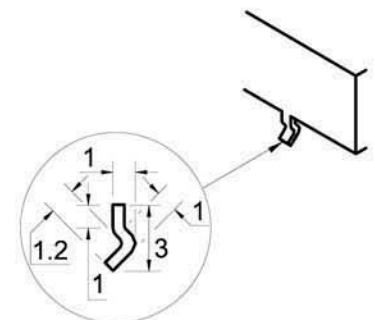
Part No.	Dimension A	Dimension B	Number of Pins	Pin Pitch
SS232/10	232	10	23	10.5
SS232/15	232	15	23	10.5
SS232/20	232	20	23	10.5
SS232/25	232	25	23	10.5
SS232/35	232	35	23	10.5
SS232/50	232	50	23	10.5

**NOTE:** A4 dimensioned drawings for each part are available on request.



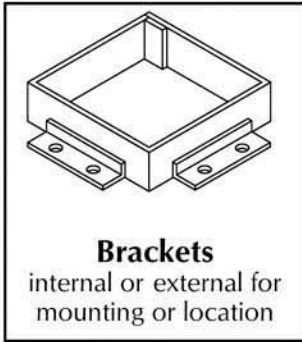
# Perancea Locking Pins

This special pin has been designed to retain the enclosure securely in place on the PCB during reflow soldering ensuring full contact between the frame or can edge and the solder paste. An extremely reliable solder joint with optimum screening is therefore achieved. The pin design is such that only minimal force is required to place the enclosure on the board making it ideally suited to pick and place applications. This unique concept in PCB mounting also has hand soldering advantages as the operator is ensured that the enclosure is held in position during soldering, giving increased reliability and the potential for higher production rates. This new Locking Pin can be offered as a standard feature on all sizes of PCB mounting frames and cans.



# Custom Options

DESIGN YOUR OWN ENCLOSURES CHOOSING FROM OUR STANDARD STYLES

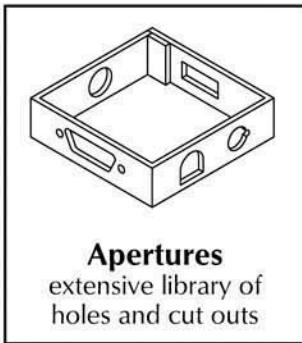
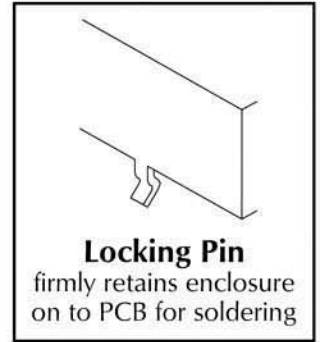


**STYLE.** Specify CFL, FFL, PFL or PCMC (see prev. pages).

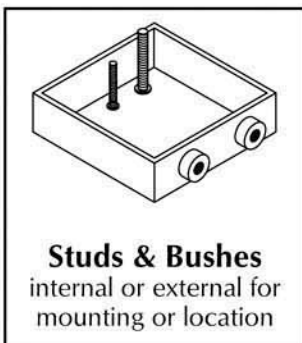
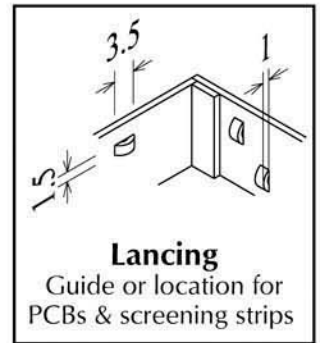
**DIMENSIONS.** Specify length, width & height as internal. Others dimensions from centre lines.

**MATERIAL.** Options: steel; tin plate; copper; brass; nickel. Specify thickness or gauge.

**FINISH.** Nickel Plate, Zinc Plate or Bright Acid Tin: Good Commercial Grade; BS 1872:1984 Service Condition 2 or Def Stan 03-8 Iss 1.



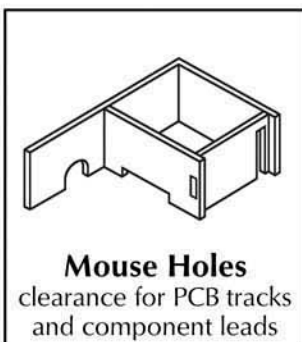
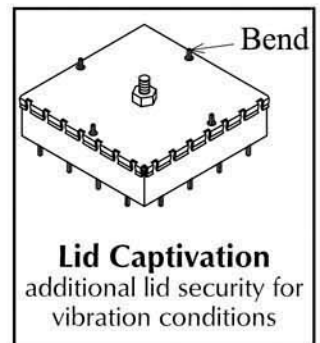
**MOUNTING.** **Brackets:** specify size and position.  
**Bushes:** specify thread and position.  
**Studs:** specify thread, length and position.



**APERTURES.** Holes or cut outs. Specify style, size and position. Most component sizes are available as standard.

**CORNER OVERLAP.** For frames specify corner. Minimum is 5mm. External option available.

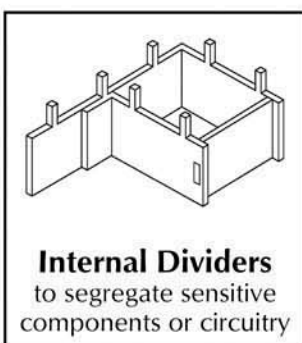
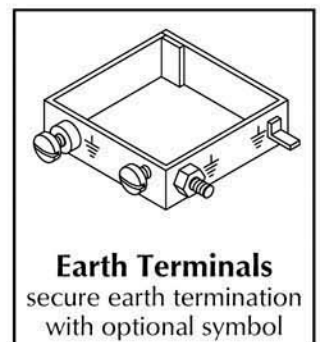
**INTERNAL DIVIDERS.** Specify as required. Can be supplied loose, spot welded or with tabs to mate with slots in wall. Multi compartments can be achieved by a labyrinth of dividers.



**PCB LOCATIONS.** Lancings can be horizontal or vertical for PCB supports or staggered to act as guides (see diagram).

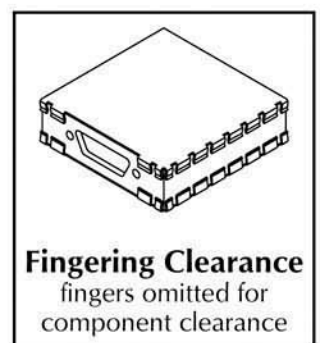
**PCB PINS.** Specify size and position. Min. size 0.75mm x 1mm.

**EARTH TERMINALS.** Specify type, size, and position. Options: push-on/solder tags; studs; earth symbol.



**LID FINGERING.** Size and style is standard, fingers can be omitted for clearance around through wall components.

**MARKING.** Alpha numeric 2mm impressed characters available as standard. Also earth symbol. Specify position.



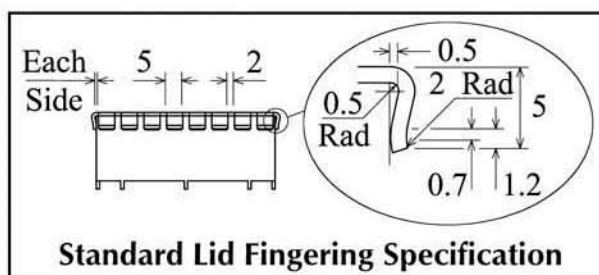
**MOUSE HOLES.** Walls and dividers can have small cut outs on the edges to clear PCB tracks and component leads.

**LANCINGS.** For mounting component leads or location points.

**LOCKING PIN.** Locates and retains enclosure on PCB for soldering (see page 7).

**LID CAPTIVATION.** Locking devices for additional lid security.

## Solder Anti-Migration System - prevents solder creepage



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