Maximum Demand Meters

Maximum demand meters are suitable for measuring the maximum average load current over a 15 minute time period. Due to their inherent time lag the bimetallic movement remains unaffected by any momentary or short duration overloads. The mean maximum demand is therefore indicated by a red 'drag' pointer which can be set or reset to zero using the front control knob.

The FE96MDIA version also includes an instantaneous reading ammeter for constant monitoring of current demand. The meters are available to operate from 5A secondary rated current transformers. Scales are non-linear and are calibrated from 20% to 120% of full scale current.

Models Available

FE96MDI DIN96 Maximum Demand Meter
FE96MDIA DIN96 Maximum Demand Meter with Ammeter

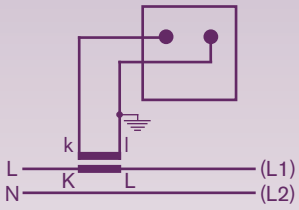
Product Features

- Maximum current demand measurement
- Standard DIN square size
- Interchangeable scaleplates
- Many options available (see page 16)

For dimensions see pages 17-18

Maximum Demand – for measuring the maximum average load current

Connections



Ordering information

Code	DIN Square Size & Meter Type	Input & Scaling
FE96MDI	96 x 96mm Maximum Demand Meter	–
FE96MDIA	96 x 96mm Maximum Demand with Ammeter	–
Specify	–	50/5A to 2500/5A (specify)
Example	**FE96MDIA**	**100/5A**

Specification

Accuracy:
- Class 1.5 (±1.5% max. error)

Input Current, *In*:
- 5A CT operated

Scales:
- 0-50, 100, 150, 200, 250, 300, 400, 500, 600, 800, 1000, 1200, 1500, 1600, 2000, 2500A

Response Time:
- 15 minutes

Overload:
- 1.2 x *In* for 2 hours
- 10 x *In* for 5 seconds

Frequency:
- 50/60Hz (400Hz upon request)

Burden:
- < 2.5VA

Weight:
- FE96MDI 260g
- FE96MDIA 300g

Meter Options

Meter Terminal Covers
Available for FE72 and FE96* meters is a plastic terminal cover to finger-proof the terminals.
(Order Code: **FE72TC, FE96TC**) *All FE48 meters are supplied with terminal covers

Meter Terminal Covers
Available for all sizes of FE72, FE96 and EL meter are a pair of plastic terminal covers to finger-proof the terminals.
(Order Code: **MTC**)

DIN Square Blanking Plates
Available on all sizes of meter is a black plastic blanking plate to cover a DIN square hole.
(Order code: **FE48BP, FE72BP, FE96BP**)

Adjustable Red Pointer
Available on all sizes of shortscale meter is an adjustable red pointer which can be adjusted by a screwdriver from the front fascia. Not available on longscale meters.
(Order code: **ARP**)

Calibration Certificate
Calibration certificates traceable to national standards can be supplied on all meters.
(Order code: **CALCERT**)

6x Overload
Available on all ac ammeters is an overload reading of 6x the full scale current (2x is standard).
(Order Code: **6X O/L**)

Red Line On Scale
Available on any scale is a red line marked at any point on the scale, as specified by the customer.
(Order Code: **RL@ - specify**)

Coloured Sector On Scale
One or more specified coloured (red, green, yellow) sectors on the scale are available on all meters.
(Order Code: **Coloured Sector - specify**)

Heavily Damped Movements
1A or 5A DIN96 moving iron ammeters are available with a damped viscous movement and all moving coil meters are available with an electronically damped movement.
(Order Code: **HD movement**)

IP65 Sealing
All meters are available with a front sealed to IP65 and a neoprene gasket to retain sealing against the panel.
(Order Code: **IP65**)

Gaskets
Gaskets are available for all meters.
(Order Code: **G48F, G72F, G96F**)

Centre Zero Movement
Moving coil meters are available with a bi-directional reading, centre zero movement and scale. Moving coil meters are also available with an offset centre zero movement and scale.
(Order Code: **C/Z movement or O/Z movement**)

Suppressed Zero Movement
Moving Coil meters are available with a suppressed zero movement and scale (e.g. 15Vdc with suppressed scale from 0 to 10Vdc).
(Order Code: **S/Z movement**)

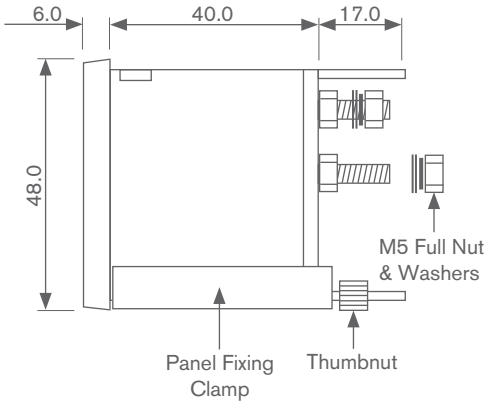
External Adjustable Trim Potentiometer
All moving coil meters are available with an external trim multi-turn potentiometer which is accessible from the back of the meter and adjusts the full scale reading by a minimum of ±20%.
(Order Code: **EXT. TRIM. POT.**)

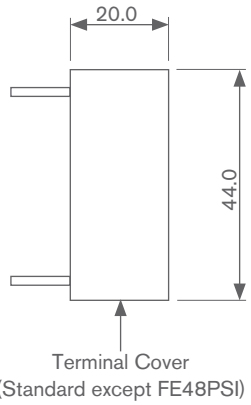
Polycarbonate Window
All sizes of FE meters have a glass window but a polycarbonate window is available. All sizes of EL meters have polycarbonate windows as standard.
(Order Code: **POLY window**)

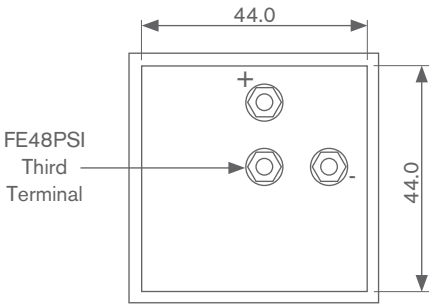
Anti-Glare Window
Anti-glare windows are available for all meters.
(Order Code: **AG window**)

Dimensions

FE48 Enclosure

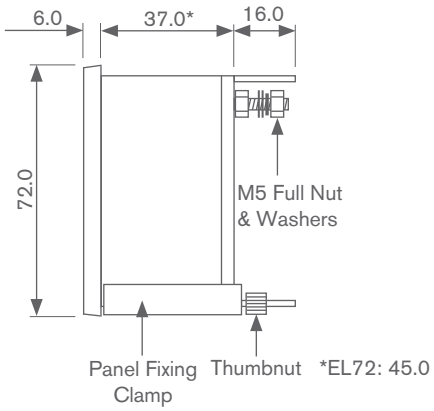


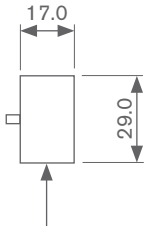


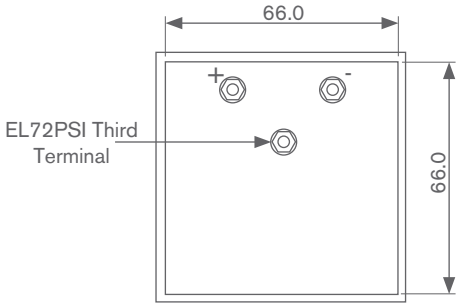


Max. Panel Thickness 12mm
Panel Cutout 45mm square

FE72/EL72 Enclosure

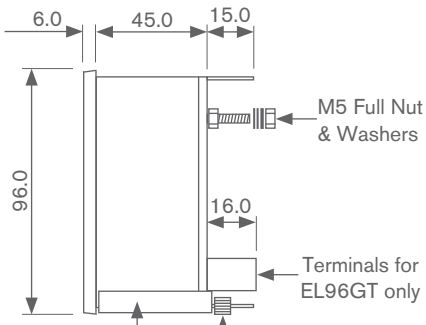


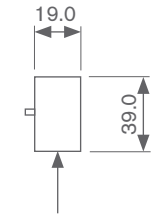


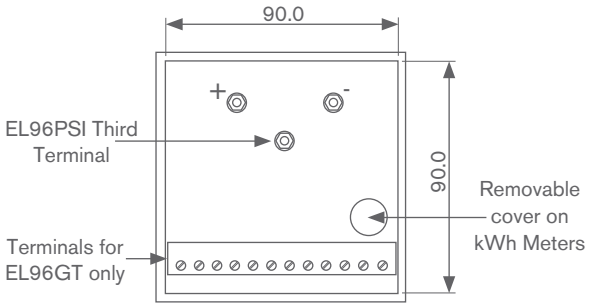


Max. Panel Thickness 10mm
Panel Cutout 68mm square

FE96/EL96 Enclosure

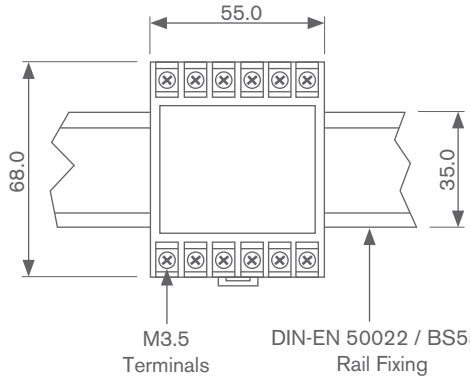


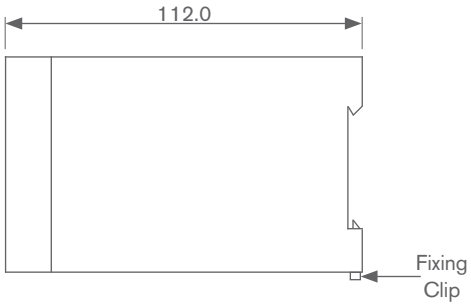




Max. Panel Thickness 9mm
Panel Cutout 92mm square

Watt/Var/cosØ Converter Unit Enclosure





All dimensions in mm

General Specification

Reference Standards

Performance / Accuracy:	BS EN 60051-1, BS 89 and DIN 43780
Enclosure:	DIN 43700
Vibration Resistance:	DIN 43780
Measuring Ranges:	DIN 43701
Safety:	IEC 414
Dial Symbols:	IEC 51

Environmental

Calibration Temperature:	23°C
Operating Temperature:	-25°C to 50°C
Temperature Coefficient:	±0.03%/ °C
Relative Humidity:	0 - 90% non-condensing

Input

Input Burden:	See individual specifications
Overload:	See individual specifications
Response Time:	< 2seconds

Scales

Dials:	White with black legends
Reference Standard:	DIN 43802
Scale Length:	DIN48 - 37mm
	DIN72 - 65mm
	DIN96 - 90mm

Enclosure

Enclosure:	Flame retardant white ABS plastic case with black bezel
	Plain glass window is standard* but a polycarbonate window is available.
	(*Polycarbonate window is standard on EL meters)
Enclosure Code:	Case IP52 (IP65 with gasket optional) to IEC529 and BS5490
Insulation Test:	2kV rms 50Hz 1min (to IEC 414)
Markings:	CE marked

Specification subject to change without notice.