POWER MEASURING TRANSDUCER (WATT & VAr)

MPxWx/MPxRx

- **Active Power (Watt) or Reactive Power (kVAr) Transducer for balanced or unbalanced load**
- **Precision true RMS class 0,5 (kW) and class 1 (kVAr) measurement, not affected by any waveform distortion**
- **For use with 1A or 5A current transformers**
- **Very fast analogue output response time (<50mS)**
- **1500V Galvanic isolation**

Specifications

Monitored Voltage	100-120V, 200-240V, 380-415V or 440-460V or 480VAC 40-70Hz (Fuse 0,5A)
Optional Separate Auxiliary Voltage DC:	24, 48 or 110VDC (Fuse 2A)
Optional Separate Auxiliary Voltage AC:	100-120V, 200-240V, 380-415V or 440-460V or 480VAC 40-70Hz (Fuse 0,5A)
Supply tolerance:	± 10%
Power rating:	1,5VA
Current Input:	1 or 5A C.T. <0,1VA
Analogue Output: (other outputs available on request)	-1/0/+10mA -10/0/+10mA -20/0/+20mA 0-10mA 0-20mA 4-20mA 4,3-20mA 4/5,45/20mA 4/12/20mA (max 500ohm for all mA outputs) - 0-10V 0,2-10V (min 100kohm for all V outputs)
Accuracy:	Class 0,5 (kW) Class 1 (kVAr)
Temperature:	-20 to +70ºC
Weight:	0.6kgs
Front protection:	IP52 (IP65 optional)

The unit meets EN 61010-1 Cat. III, Pollution degree 2 and the relevant environmental and EMC tests specified in EN 61326-2-4 to comply with the requirements of the major Classification Societies.

Description

The digital controlled MPxWxE or MPxRxE is a precision power transducer for balanced or unbalanced load system active (W) or reactive (Var). To be used in applications that require a very fast response, precision monitoring of active/reactive power. Ideal for systems for regulation and control of the load on generators, motors and inverters.

The unit measures the voltage and current true r.m.s. value, and accuracy is independent of any wave form distortion. The unit has ONE very fast response analogue output signal, with amplitude proportional to the measured active power (W) or reactive power (VAr) level. Note that the instrument needle is a class 1,5 moving coil.

The standard version takes the auxiliary voltage from the monitored voltage on terminal 1 & 2. It can be delivered with separate AC (term. 26 & 27) or DC (term. 31 & 32) auxiliary voltage, but that must be specified when ordering.

The noise-immune mA output is isolated from both the C.T. and voltage inputs and auxiliary power.

A green “Supply On” LED indicates the auxiliary supply presence. If output is used for remote meter reading, we recommend 0-1mA for the slave indicator.

Shown below are designations for the available circuit configurations:

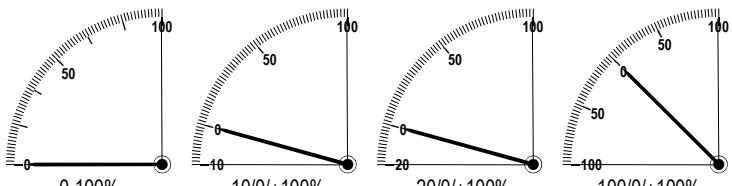
ACTIVE POWER (W)

MP1W2E - 1 element, single phase
MP1W3E - 1 element, 3 phase, 3 wire, balanced load
MP1W4E - 1 element, 3 phase, 4 wire, balanced load
MP2W3E - 2 element, 3 phase, 3 wire, unbalanced load
MP3W3E - 3 element, 3 phase, 3 wire, unbalanced load
MP3W4E - 3 element, 3 phase, 4 wire, unbalanced load

REACTIVE POWER (VAr)

MP1R2E - 1 element, single phase
MP1R3E - 1 element, 3 phase, 3 wire, balanced load
MP1R4E - 1 element, 3 phase, 4 wire, balanced load
MP2R3E - 2 element, 3 phase, 3 wire, unbalanced load
MP3R3E - 3 element, 3 phase, 3 wire, unbalanced load
MP3R4E - 3 element, 3 phase, 4 wire, unbalanced load

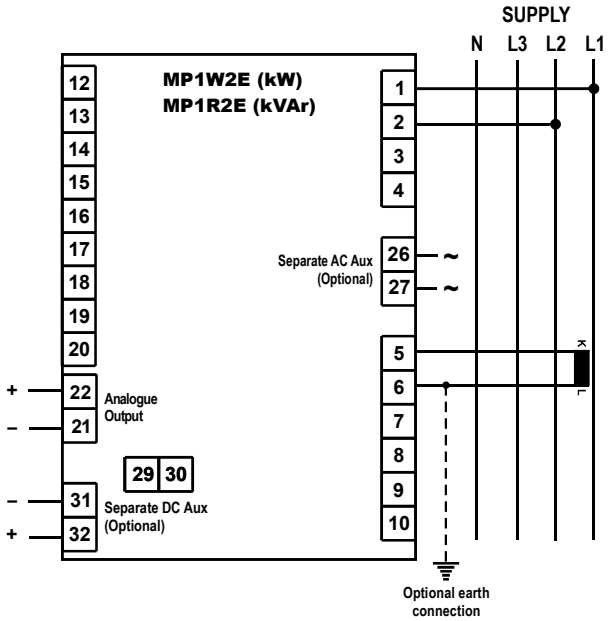
SCALING

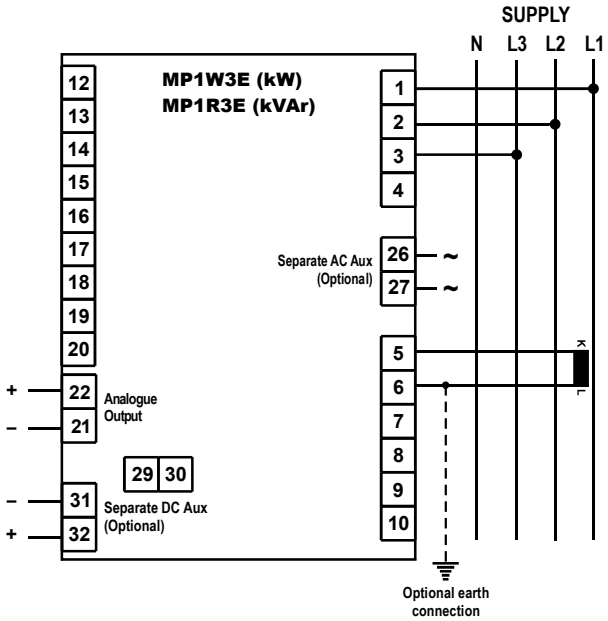


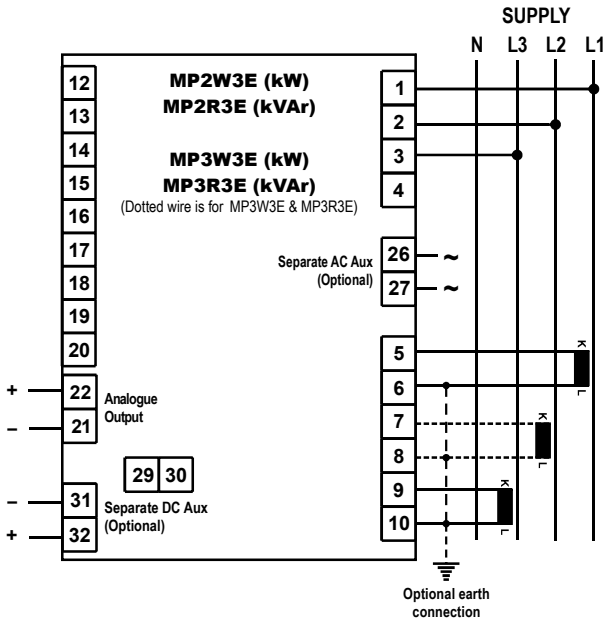
MPxWx/MPxRx

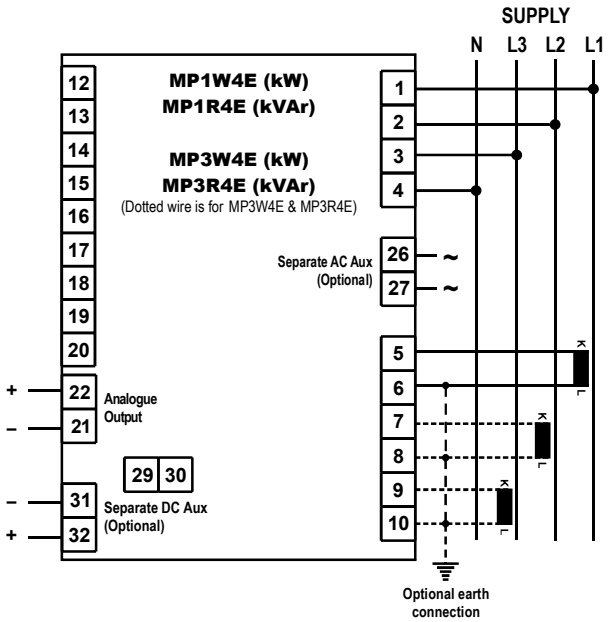
Connection Diagrams

To ensure correct kW measurement voltage phase sequence and CT connections MUST be as shown on connection diagram.

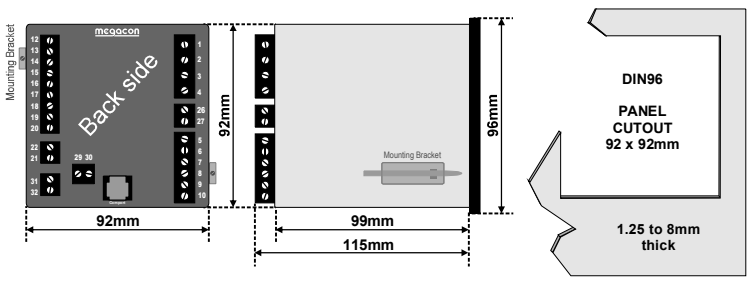








Dimensions



The MEGACON policy is one of continuous improvement, consequently equipment supplied may vary in detail from this publication.

ORDERING EXAMPLE:

Type:	MP2W3E
Sep. Aux. Supply (optional):	24VDC
System Voltage:	690:230V
Input Current:	1500/5A
Range:	-150/0/+1500kW
Analogue O/P:	-1/0/+10mA

IS range