

multitek



KILOWATT HOUR METERS



SAVING COST



SAVING SPACE



SAVING INSTALLATION TIME



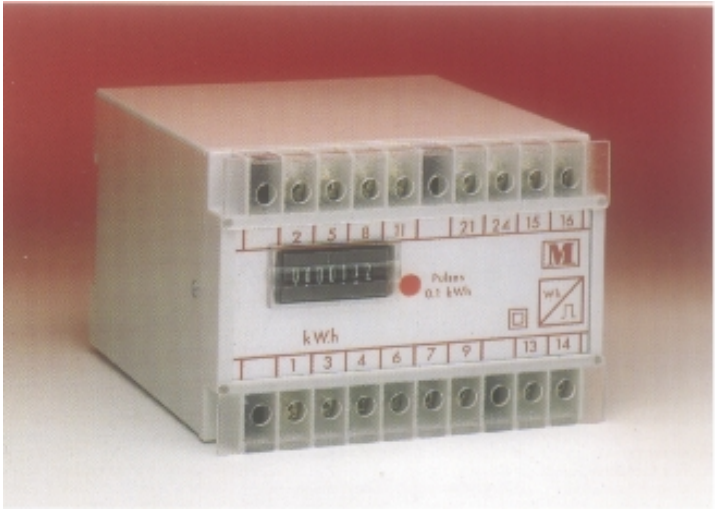
COMPATIBLE TO WORLDWIDE ELECTRICITY SUPPLIES

THE PRODUCTS

The kilowatt hour meter is one of the latest additions to the Multitek range of power measuring products. The kW.h meter has Class accuracy of 1% to IEC 1036. With the advent of the deregulation of electricity supplies and the ever increasing cost of electricity, the requirement for measuring kW.h is becoming paramount. With the savings made by monitoring and using electricity at the optimum time, the cost of the Multitek kW.h products can be redeemed within a few weeks. The DIN 96 x 96 case means the product can be mounted on individual machines as well as control switchboards for complete or part installations.

TRANSDUCER 100mm CASE

An alternative to the DIN panel mount is the DIN rail 100 mm case kW.h transducer. This allows the mounting of kW.h meters inside switchboards and control panels. This model has a 7 digit mechanical counter, and offers options of pulsed output of kW.h and analogue mA output of the instantaneous Watt, kW or MW reading. The instantaneous watt signal can be fed to analogue or digital instruments on the same panel, or remotely transmitted to meters or computers.



DIN 96 X 96 MECHANICAL COUNTER

The mechanical counter version provides an ideal replacement unit for the traditional Ferraris disc kW.h meter, offering numerous advantages over the Ferraris disc :- Standard DIN 96 x 96 cutout, smaller size, matched other DIN instruments. The mechanical counter is 7 digit non resettable when counter passes 9999999 it resets to zero. Optional pulsed output of kW.h, is available to send to remote counters, PLCs data loggers and computers. Analogue mA output of the instantaneous Watt, kW or MW is also an option.

SYSTEM PRODUCT CODES

| | DIN 96 x 96 Mech. Counter | Transducer Mech counter |
|--------------------|------------------------------|----------------------------|
| Single Phase | M600-WM1 | M100-WT1 |
| 3ph 3W bal. load | M600-WM2 | M100-WT2 |
| 3ph 4W bal. load | M600-WM3 | M100-WT3 |
| 3ph 3W unbal. load | M600-WM4 | M100-WT4 |
| 3ph 4W unbal. load | M600-WM9 | M100-WT9 |

ORDERING INFORMATION

| | |
|-------------------|---------------|
| Product Code | M600-WM4 |
| C.T. ratio | 500/5 AMP |
| Frequency | 50Hz |
| Auxiliary Voltage | 230V |
| Options | Pulsed output |

OPTIONS

1. Pulsed output.
2. Analogue output of instantaneous watts
3. Non standard pulsed width.
4. Calibration at temperature other than 23 °C
5. Calibration at nominal Hz 35 450 Hz.

GENERAL SPECIFICATION

INPUT

| | |
|-----------|--|
| Rated Un | 57 to 500V specify nominal voltage. |
| Range | 80-120% Un |
| Burden | <0.2VA per phase |
| Overload | 1.5 x Un continuous 4 x Un for 1 second |
| Rated In | 1 or 5 amp |
| Range | 10-120% In |
| Burden | <0.5VA per phase |
| Overload | 4 x In continuous. 50 x In for 1sec |
| Frequency | 50 / 60 Hz nominal range 45/65Hz |

SYSTEMS

Single phase
3 phase 3 wire balanced load
3 phase 4 wire balanced load
3 phase 3 wire unbalanced load
3 phase 4 wire unbalanced load

INSULATION

| | |
|-------------------|---|
| Test Voltage | 4 kV RMS 50 Hz for 1 min (3kV if analogue output required) |
| Impulse Test | EMC 5kV transient comply with IEC 801 / EN 55020 HF |
| H.F. interference | EHF 2.5 kV 1MHz complying with IEC 255-4 |
| Protection Class | II complying with IEC348 / BS 4743 DIN 57411 / VDE 0411 |

STANDARDS

Designed to IEC 1036 accuracy BS 5685 (IEC 521)

AUXILIARY

A. C. Voltage 115 or 230 or 400 V

CURRENT & VOLTAGE RATIOS

Internally selectable

ACCURACY

| | |
|---------------|---|
| Active Energy | 1% of reading (IEC 1036) Accuracy to IEC 1036 Class 1 BS 5685 (IEC 521) |
|---------------|---|

ANALOGUE OUTPUT

| | |
|-------------|-----------------------|
| Accuracy | Class 1% |
| Rated value | 0-1mA into <5 kOhm |
| Rated value | 0-20mA into <250 Ohms |

OUTPUT RELAY

| | |
|--------------------|---|
| kW.h pulsed output | Normally open volt free contact 50V 150mA 5W ac/dc |
| Pulse rate | Standard 1 pulse per kW.h (1 pulse = 10 kW.h on higher CT & VT ratios |
| Pulse duration | Standard 250 msec other values optional on request |
| Led flash rate | 0.1 kW.h per flash |

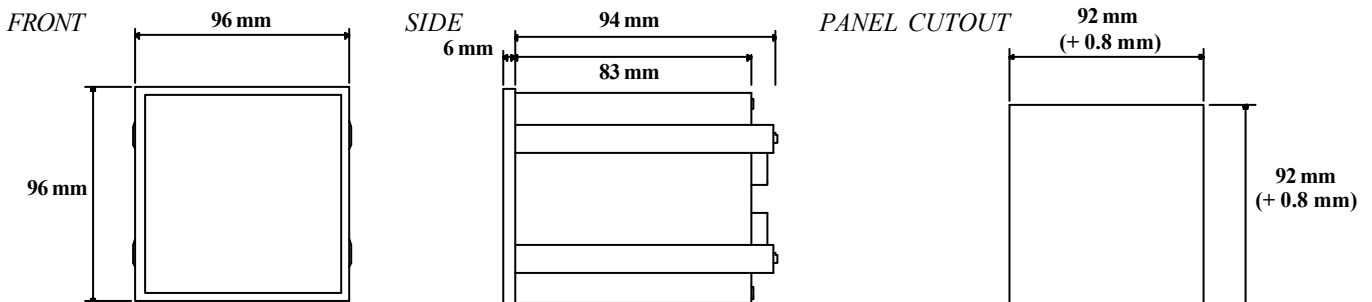
ENVIROMENTAL

| | |
|-------------------------|----------------------|
| Working Temperature | 0 to +60 deg C |
| Function Temperature | - 25 to +70 deg C |
| Storage Temperature | -55 to +85 deg C |
| Temperature Coefficient | 0.01% per deg C |
| Relative Humidity | 0-95% non condensing |
| Warm up time | 1 min. |
| Shock | 30G in 3 planes |

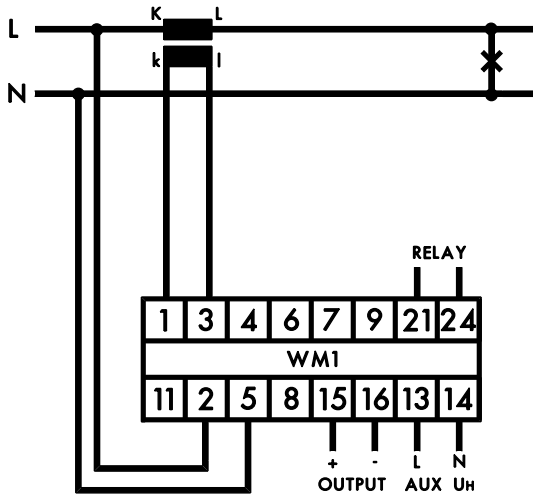
ENCLOSURE

| | |
|-------------------|--|
| Standard DIN case | 96 x 96 x 98mm |
| Panel mount | Via retaining side brackets and screws |
| Panel cutout | 92 + 0.8mm x 92 + 0.8mm |
| Material | Black Polycarbonate complying with UL 94 VO |
| Enclosure code | IP54 |
| 100mm Trans.case | 100 x 70 x 112mm light grey polycarbonate complying with UL 94 VO |
| Fixing | Snap on Din rail 35 x 7.5 mm complies with DIN 50022 BS 5584 |
| Enclosure code | Case IP50 / terminals IP 30 complies with IEC 529 BS 5490 DIN 40050 |
| Terminals | Both case, Screw terminal for 2 x 0.5-3.5mm |

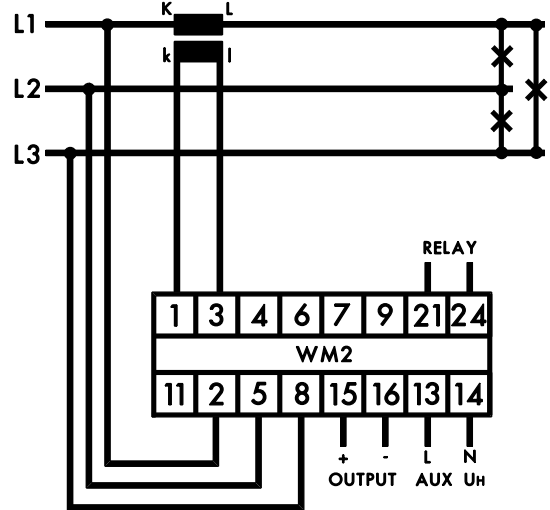
96 x 96 MM CASE DIMENSIONS



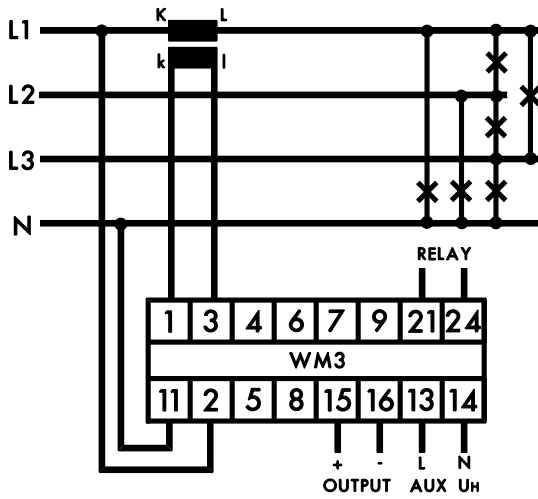
CONNECTION DIAGRAMS



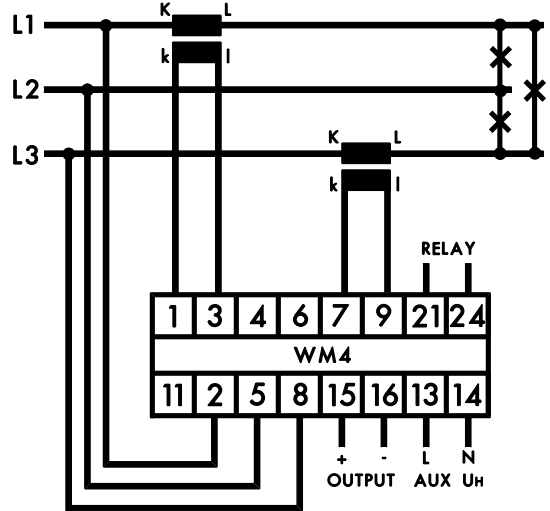
M600-WM1 / M100-WT1



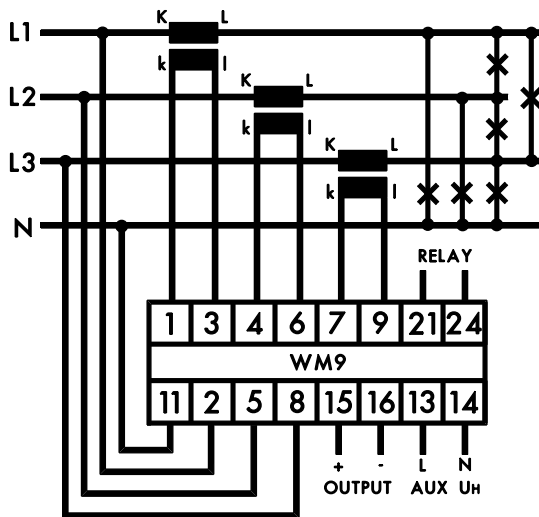
M600-WM2 / M100-WT2



M600-WM3 / M100-WT3



M600-WM4 / M100-WT4



M600-WM9 / M100-WT9

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