

multitek

KILOWATT HOUR METERS



SAVING COST



SAVING SPACE



SAVING INSTALLATION TIME



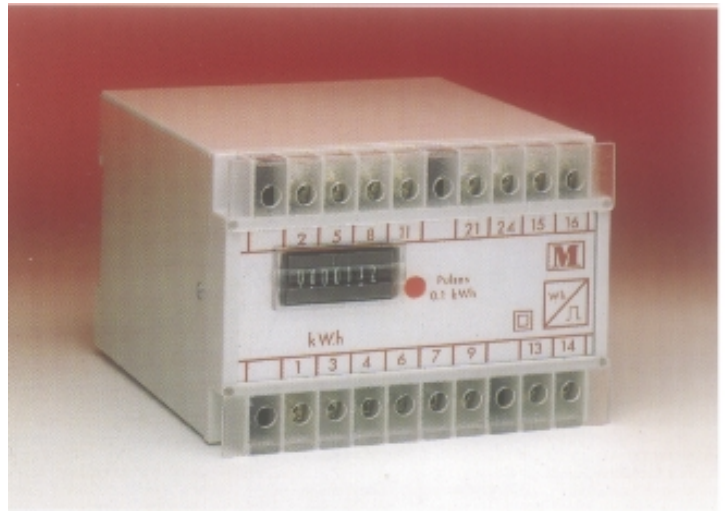
COMPATIBLE TO WORLDWIDE ELECTRICITY SUPPLIES

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 resetable 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)
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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

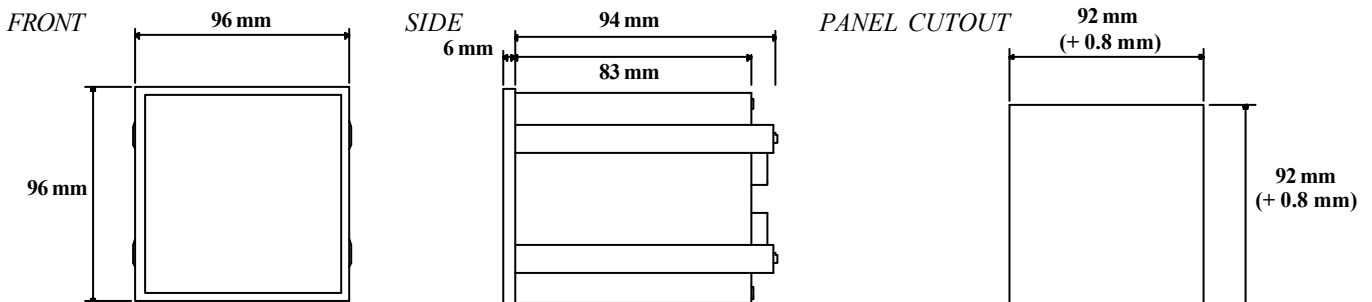
ENVIROMENTAL

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

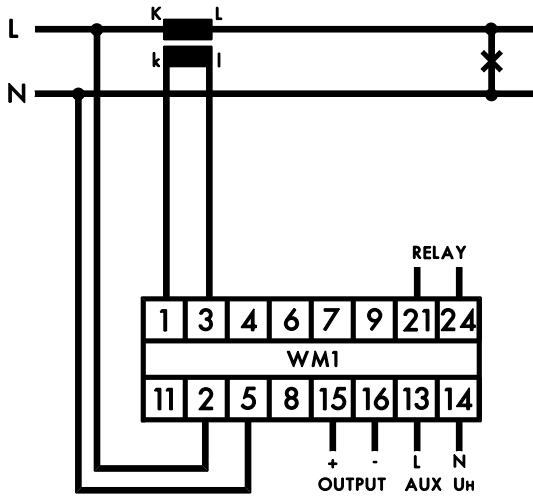
ENCLOSURE

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

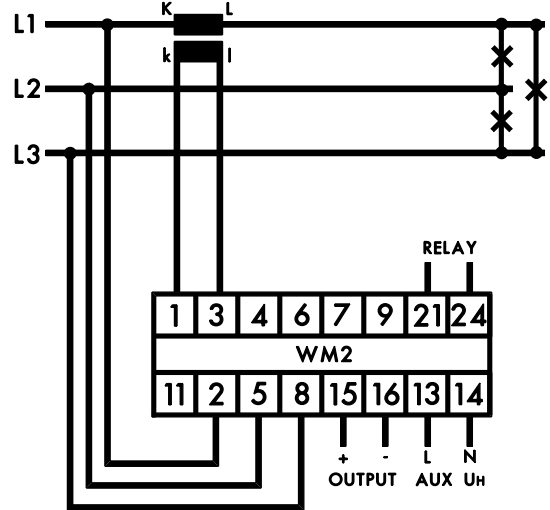
96 x 96 MM CASE DIMENSIONS



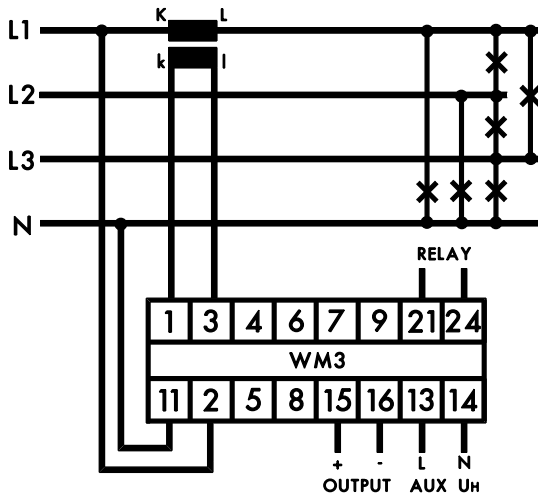
CONNECTION DIAGRAMS



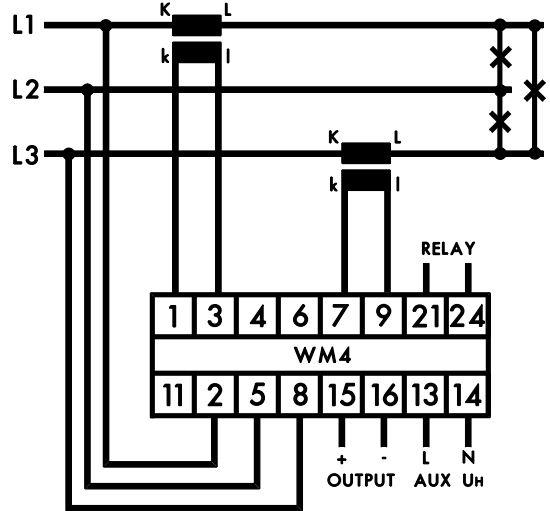
M600-WM1 / M100-WT1



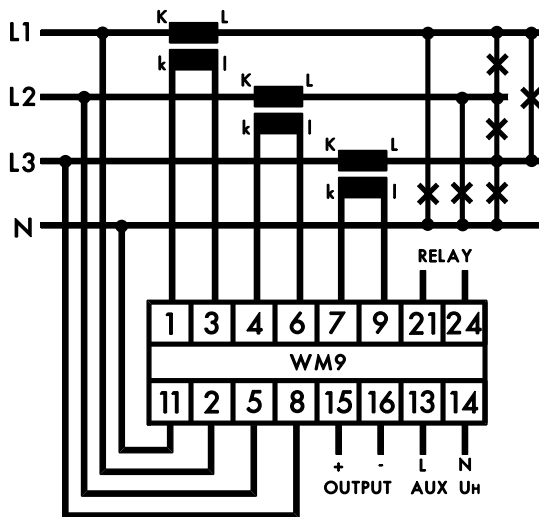
M600-WM2 / M100-WT2



M600-WM3 / M100-WT3



M600-WM4 / M100-WT4



M600-WM9 / M100-WT9

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