

# ACTIVE POWER



## TECHNICAL SPECIFICATION

### INPUT

Rated value In	1 or 5 Amp C.T. connected 0.5-10 Amp direct connected
Rated value Un	57.8 < 600 volt
Power consumption	<1 VA voltage <0.2 VA current
Working range	0-125% Un auxiliary powered 75-125% Un self powered 0-150% In
Rated Frequency	50 / 60 / 400 Hz
Frequency influence	0.005 % / Hz
Overload continuous	4 x In 1.5 x Un
Overload for 1 sec.	50 x In 2 x Un

### OUTPUT

Rated value mA	0-1/5/10/20 & 4-20mA
Rated Value Volts	0-5 / 10 & 1-5 V

### ADJUSTMENT

Zero	± 2%
Span	± 10%

### AUXILIARY

A.C. Voltage	115 / 230 / 400 V (± 25% / 45-65 Hz / < 2VA)
D.C. Voltage	24 / 48 / 110 V (± 20% / galvanically isolated / <3 W)

### WEIGHT & CASE SIZE

MI100-WA1,2,3,6,7	Approx. 0.6kg. 100mm case
MI100-WA4,5	Approx. 0.8kg. 100mm case

## SELECTION GUIDE

MI100-WA1	Single phase
MI100-WA2	3 phase 3 wire balanced load
MI100-WA3	3 phase 4 wire balanced load
MI100-WA4	3 phase 3 wire unbalanced load
MI100-WA5	3 phase 4 wire unbalanced load
MI100-WA6	3 phase 3 wire balanced load externally connected reverse C.T.s
MI100-WA7	3 phase 3 wire balanced load internally reversed C.T.s

## TYPICAL APPLICATIONS

The MI100-WA series measure active power in single, 3 phase 3 or 4 wire balanced and unbalanced systems. Using the time division multiplier circuit means that they can be used over a wide range of input waveforms. The D.C. Output signal is directly proportional to the instantaneous power being measured.

Typical applications include the measurement of power in switchboards, power stations, generating sets etc. The high isolation of 4kV as with all the M100 series, allows these watt transducers to be connected to a variety of measuring and control devices and systems, such as analogue meters, PLC, computers, data loggers, digital instruments and telemetry systems.

Both auxiliary powered and self powered versions of each type are available, it is recommended to use an auxiliary powered version if the system being measured has voltage variations in excess of ± 20%.

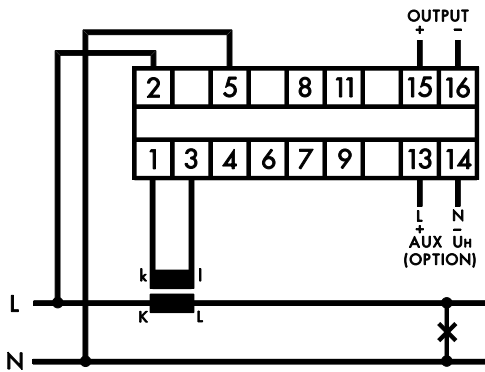
## ORDERING INFORMATION

Product Code	I/P In	Un	O/P	Range	Aux	Freq	Opt.
MI100-WA5	800/5A	230v	0-20mA	600kW	230v	50Hz	

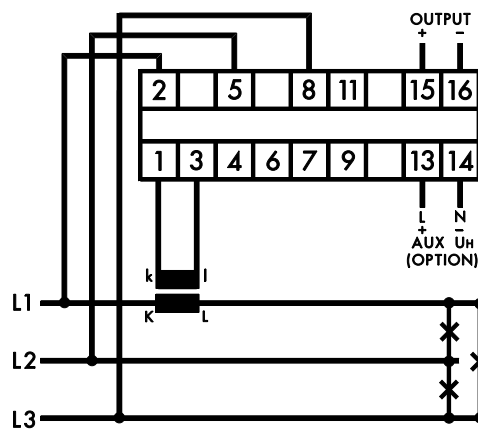
## OPTIONS

1. Non standard inputs / outputs only as far as technically acceptable.
2. A.C. Auxiliary in range 57.7 to 450 volts
3. Calibration at nominal Hz 35.....450Hz
4. Calibration at temperature other than 23°C

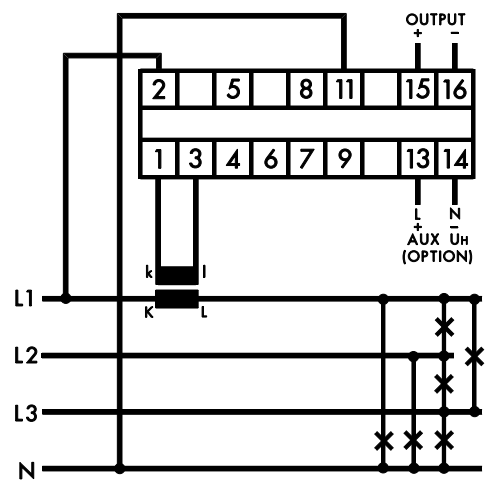
# ACTIVE POWER CONNECTION DIAGRAMS



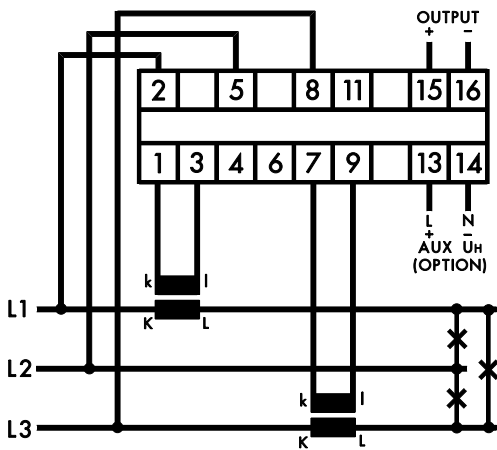
M100-WA1



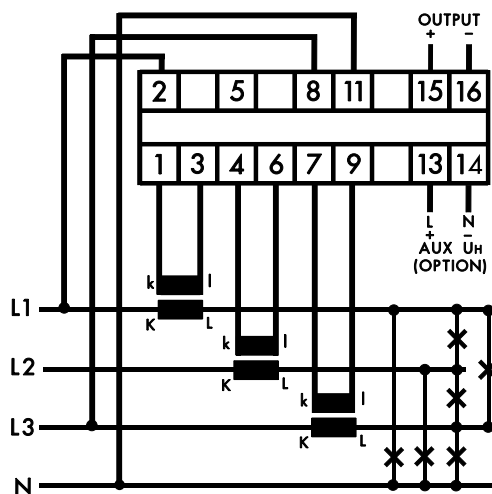
M100-WA2



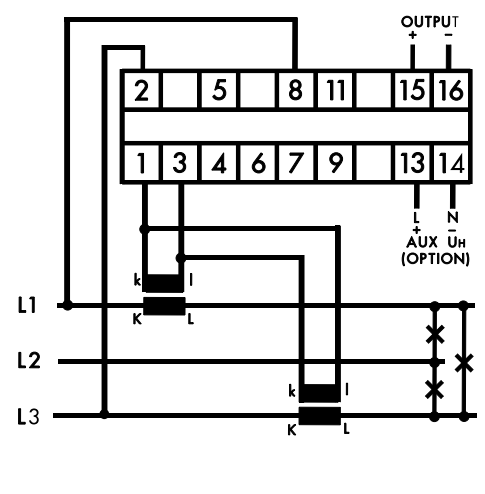
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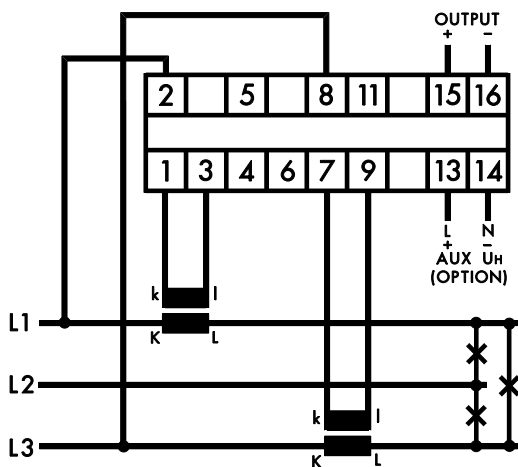
M100-WA4



M100-WA5

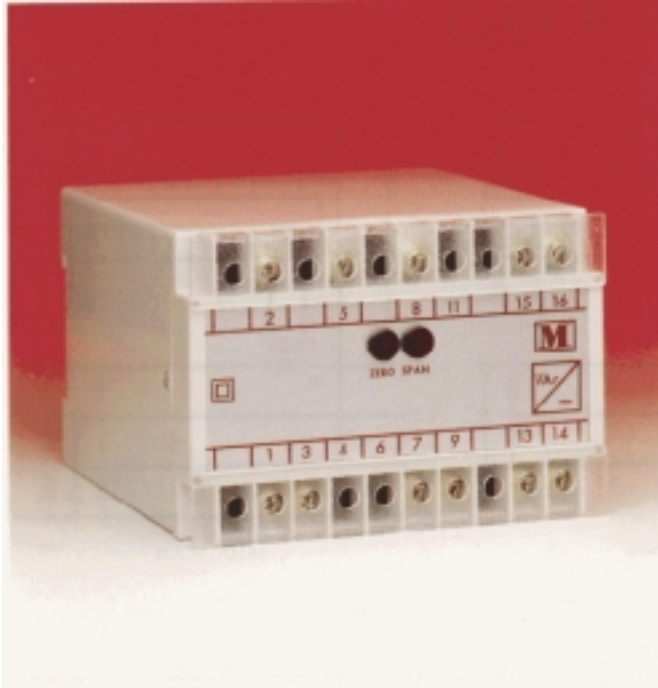


M100-WA6



M100-WA7

# REACTIVE POWER



## TECHNICAL SPECIFICATION

### INPUT

Rated value In	1 or 5 Amp C.T. connected 0.5-10 Amp direct connected
Rated value Un	57.8 < 600 volt
Power consumption	<1 VA voltage <0.2 VA current
Working range	0-125% Un auxiliary powered 75-125% Un self powered 0-150% In
Rated Frequency	50 / 60 / 400 Hz
Overload continuous	4 x In 1.5 x Un
Overload for 1 sec.	50 x In 2 x Un

### OUTPUT

Rated value mA	0-1/5/10/20 & 4-20mA
Rated Value Volts	0-5 / 10 & 1-5 V

### ADJUSTMENT

Zero	± 2%
Span	± 10%

### AUXILIARY

A.C. Voltage	115 / 230 / 400 V (± 25% / 45-65 Hz / < 2VA)
D.C. Voltage	24 / 48 / 110 V (± 20% / galvanically isolated / <3W)

### WEIGHT & CASE SIZE

M100-XA1,2,3,6,7	Approx. 0.6kg. 100mm case
M100-XA4,5	Approx. 0.8kg 100mm case

## SELECTION GUIDE

M100-XA1	Single phase
M100-XA2	3 phase 3 wire balanced load
M100-XA3	3 phase 4 wire balanced load
M100-XA4	3 phase 3 wire unbalanced load
M100-XA5	3 phase 4 wire unbalanced load
M100-XA6	3 phase 3 wire unbalanced load
M100-XA7	3 phase 3 wire balanced load internally reversed C.T.s

## TYPICAL APPLICATIONS

The M100-XA series measure reactive power in single, 3 phase 3 or 4 wire balanced and unbalanced systems. Using the time division multiplier circuit means that they can be used over a wide range of input waveforms. The D.C. Output signal is directly proportional to the instantaneous reactive power being measured.

Typical applications include the measurement of reactive power in switchboards, power stations and generating sets etc. The high isolation of 4kV as with all the M100 series, allows these VAr transducers to be connected to a variety of measuring and control devices and systems, such as analogue meters, PLC, computers, data loggers, digital instruments and telemetry systems.

Both auxiliary powered and self powered versions of each type are available, it is recommended to use an auxiliary powered version if the system being measured has voltage variations in excess of ± 20%.

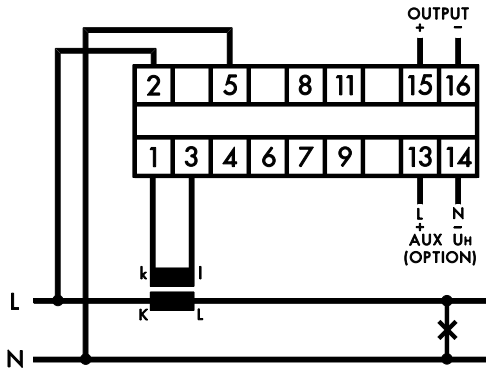
## ORDERING INFORMATION

Product code	I/P	In	Un	O/P	Range	Aux.	Freq.	Opt.
M100-XA4	400/5	400	0-20mA	300kVAr	120	60Hz		

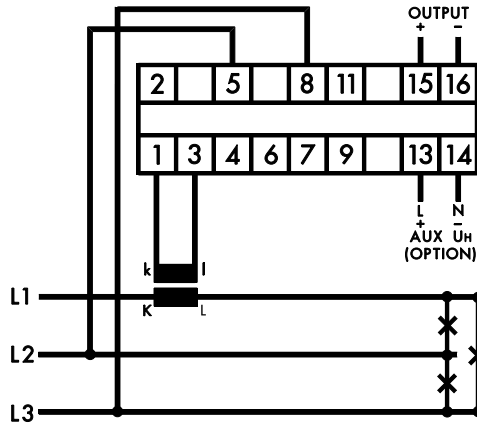
## OPTIONS

1. Non standard inputs / outputs only as far as technically acceptable.
2. A.C. Auxiliary in range 57.7 to 450 volts
3. Calibration at nominal Hz 35.....450Hz
4. Calibration at temperature other than 23°C

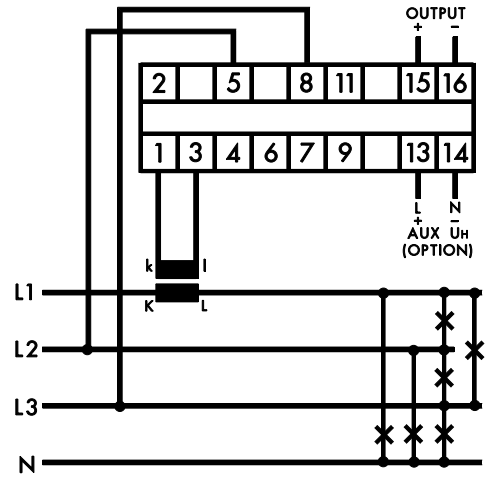
# *REACTIVE POWER CONNECTION DIAGRAMS*



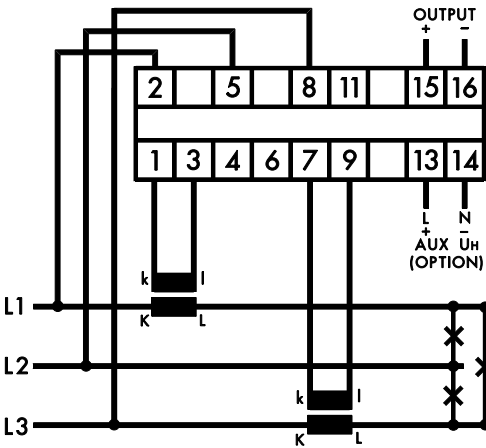
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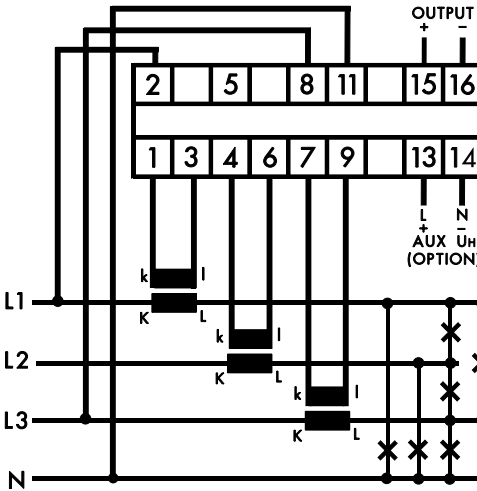
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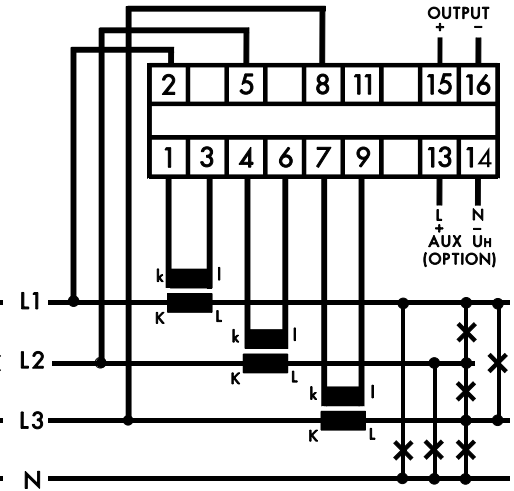
M100-XA3



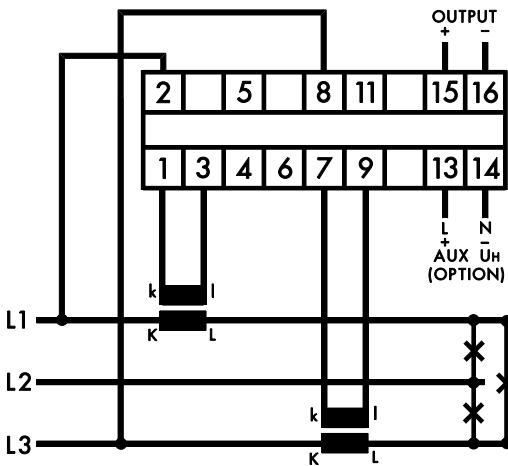
M100-XA4



M100-XA5



M100-XA6



M100-XA7