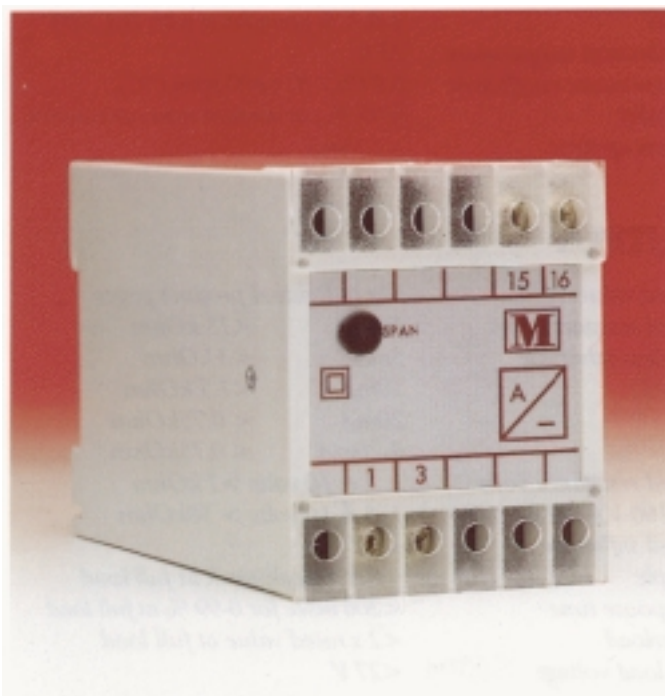


# AC CURRENT



## TECHNICAL SPECIFICATION

### INPUT

Rated value In	1 or 5 Amp C.T. connected 0.5-10 Amp direct connected
Power consumption	<1 VA (AA1, AA3) <0.2 VA (AL1, AL3, AR1)
Working range	10-125% In (AA1, AA3) 0-125% In (AL1, AL3, AR1)
Rated Frequency	50 / 60 / 400 Hz
Frequency influence	0.005 % / Hz
Overload continuous	4 x In
Overload for 1 sec.	50 x In

### OUTPUT

Rated value mA	0-1/5/10/20mA (AA1, AA3)
Rated value mA	0-1/5/10/20 & 4-20mA (AR1)
Rated value mA	4-20mA (AL1 AL3)
Rated value volts	0-5 / 10 V (AA1 AA3)
Rated value volts	0-5 / 10 & 1-5 V (AR1)
Rated value volts	1-5 V (AL1 AL3)

### ADJUSTMENT

Zero	No adjustment (AA1 AA3)
Zero	± 2% (AR1, AL1 AL3)
Span	± 10% (AA1, AR1, AL1 AA3 AL3)

### 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)
	Note M100-AA1 AA3 are self powered

### WEIGHT & CASE

M100-AA1	Approx. 0.3 kg. 55mm case
M100-AL1, AR1	Approx. 0.4 kg. 55mm case
M100-AA3	Approx. 0.6 kg. 100mm case
M100-AL3	Approx. 0.7 kg. 100mm case

## ORDERING INFORMATION

Product Code	Input	In	Output	Aux	Freq.	Options
M100-AL1	5A		4-20mA	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

## SELECTION GUIDE

M100-AA1	1 ph. self powered ave. sensing RMS calibrated
M100-AL1	1 ph. aux. powered ave. sensing RMS calibrated
M100-AR1	1 ph. aux powered true RMS sensing RMS cal.
M100-AA3	3 ph. self powered ave. sensing RMS calibrated
M100-AL3	3 ph. aux powered ave. sensing RMS calibrated

## TYPICAL APPLICATIONS

The M100 series current transducers are designed to measure A.C. Current in single and 3 phase systems. They convert the A.C. signal to a D.C. Output that is directly proportional to the input signal.

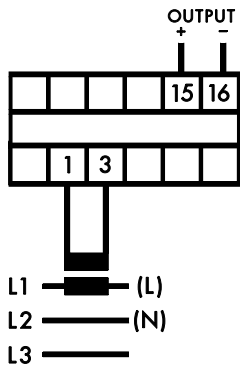
The M100-AA1 AA3 are self powered (i.e. no auxiliary required) average sensing RMS calibrated current transducers, mA and voltage outputs are available.

The M100-AL1 AL3 are average sensing RMS calibrated, live zero current transducers. Auxiliary is required to provide power, so that 4mA output signal is present, when the input is zero.

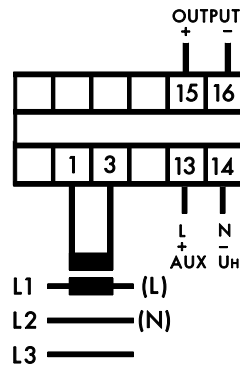
The M100-AR1 is true RMS sensing RMS calibrated allowing measurement of distorted waveforms of up to 9th harmonic with a crest factor of 5. The AR1 is typically used in current measurement where distorted waveform is common, such as thyristor drives

The above units are used to measure current in energy management systems, switchboards, generator and telemetry controls. Isolation of 4kV is provided between the input and output signal, allowing the output to be fed to conventional analogue meters, digital meters, PLC, and computer systems.

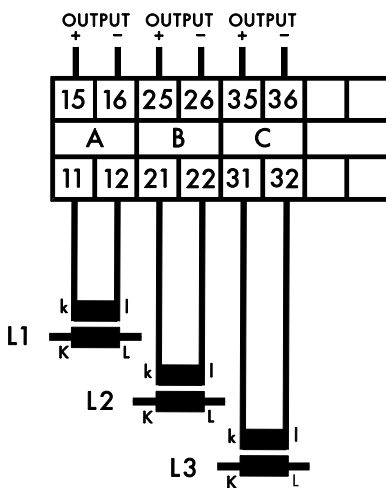
# AC CURRENT CONNECTION DIAGRAMS



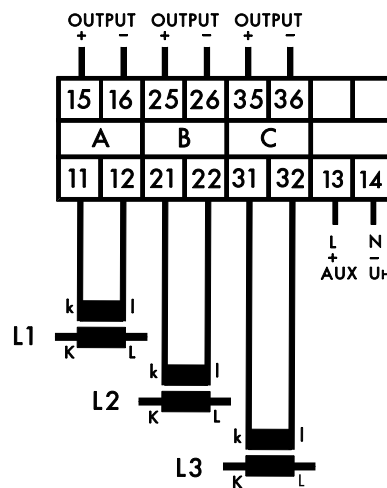
M100-AA1



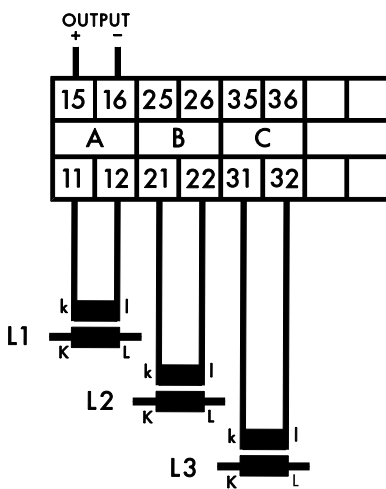
M100-AL1 / AX1 / AR1



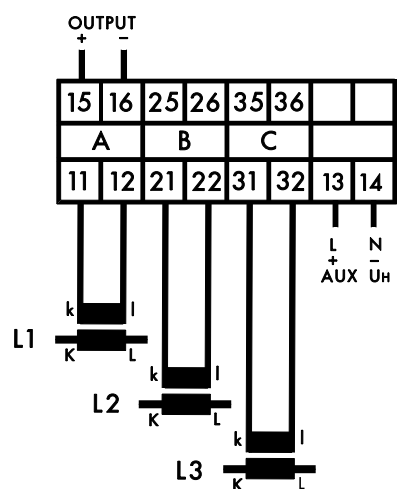
M100-AA3



M100-AL3 / AX3



M100-AAS



M100-ALS