

ACTIVE POWER



SELECTION GUIDE

M100-WA1	Single phase
M100-WA2	3 phase 3 wire balanced load
M100-WA3	3 phase 4 wire balanced load
M100-WA4	3 phase 3 wire unbalanced load
M100-WA5	3 phase 4 wire unbalanced load
M100-WA6	3 phase 3 wire balanced load externally connected reverse C.T.s
M100-WA7	3 phase 3 wire balanced load internally reversed C.T.s

TYPICAL APPLICATIONS

The M100-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 $\pm 20\%$.

TECHNICAL SPECIFICATION

INPUT

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

OUTPUT

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

ADJUSTMENT

Zero	$\pm 2\%$
Span	$\pm 10\%$

AUXILIARY

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

WEIGHT & CASE SIZE

M100-WA1,2,3,6,7	Approx. 0.6kg. 100mm case
M100-WA4,5	Approx. 0.8kg. 100mm case

ORDERING INFORMATION

Product Code	I/P	I_n	U_n	O/P	Range	Aux	Freq	Opt.
M100-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