

Not of unauthorized commercial use

MICROCONTROLLER BASED VOLT/AMPERE/POWER MONITORS (D.C./A.C.) Average/R.M.S type

Introduction:

MDVM/MAPM range of voltmeters/ammeters/kilo watt meter DC/AC] indicator are available in 8 different regular models apart from tailor made solutions virtually covering all industrial and research applications meeting all electrical, thermal, mechanical, and environmental specifications. These indicators are first choice for online monitoring of voltage/current [D.C./A.C.] at generation, transmission/distribution or at user end. These meters also find application in heavy electrical engineering industries, defense, electrical/mechanical m/c testing instrument, industrial electronics, railway, and avionics and many research and development activities. These meters are compatible to any standard CT/PT or hall/shunt sensor and display with very high degree of accuracy/repeatability/reliability. These indicators are available in different constructional material like ceramic-coated ms/poly carbonate.

Benefits:

- Simple installation and operational compatibility.
- Consistent performance over large temperature range (70°C)
- Scaled directly in Volt/Ampere with repeatable accuracy.
- Auto zero offset without drift.
- All standards din sizes and custom sizes.



MVPM-00099.9



MAPM- 00999.9



TRIVECTOR VOLTmeter

VOLTMETER(A.C./D.C.) Voltage < 99999.9 volts **AMPERMETER(A.C./D.C.) AMPERE < 99999.9amps**

Model	Volts	Volts Signal a.c. Milli volts	Volts Signal d.c. milli volts	k.hz	Display	Model	Amps	Current Signal A.C. Milli volts	Current Signal D.C. Milli volts	k.hz	Display
MDVM-00099.9	00099.9	75.0/option	75/option	0-50	LCD/LED	MAPM-00099.9	00099.9	75.0/option	75/option	0-50	LCD/LED
MDVM-00999.9	00999.9	75.0/option	75/option	0-50	LCD/LED	MAPM-00999.9	00999.9	75.0/option	75/option	0-50	LCD/LED
MDVM-09999.9	09999.9	75.0/option	75/option	0-50	LCD/LED	MAPM-09999.9	09999.9	75.0/option	75/option	0-50	LCD/LED
MDVM-99999.9	99999.9	75.0/option	75/option	0-50	LCD/LED	MAPM-99999.9	99999.9	75.0/option	75/option	0-50	LCD/LED

General electrical/mechanical specifications:

Operating voltage: 220 volts A.C. (50-20,000 Hz) / 12 volts D.C.
 Volt/Current range: 1999/19999 (mili volt/volt/kilo volt)
 1999/19999 (mili ams/amps)

Permissible harmonic: upto 33% of principle harmonic
 Signal Frequency: 50-20,000 Hz
 Voltage transformer signal: 5/12 volts AC/DC or Direct
 Current transformer signal: 75-mili-volts/5 volts AC/DC
 Frequency: 5/12 A.C./DIRECT
 Accuracy: 0.5/1.0/2.0 % reading
 Control: two set point control (low/high)
 Display: 3 1/2, 4 1/2

Repeatability: 100 of reading
 Resolution: 1/10 of least significant bit
 Size: 48x48/48x96/96x96/192x96

NOTES:
 The numeral after product code indicates the (volt/ampere) range and last digit corresponds to size of panel (48x48-1, 48x96-2, 96x96-3, 96x192-4 As for example, MDVM-999991 corresponds to 99999 volts (max) and panel body is ceramic coated mild steel.



Volt/Ampere meter in various model

MICROCONTROLLER BASED VOLT/AMPERE/POWER MONITORS (D.C./A.C. TYPE)

WATTMETER

Micro/Mili-WATTS < 99999.9/Frequency < 50: p.f. < 0.2

Model	VOLTS AC/DC	Volts Signal/sensor	current	current Signal/sensor	Frequency Option	Range	Accuracy
MDPM-000196	Mili range/micro range/12/option	Direct/PT/HALL	12/Mili range/micro range/option	Direct/CT/HALL	0-2000	00019 X10 ⁻⁶	0.2/0.5/1%
MDPM-001996	Mili range/micro range/12/option	Direct/PT/HALL	Mili range/micro range/12/option	Direct/CT/HALL	0-2000	00199 X10 ⁻⁶	0.2/0.5/1%
MDPM-019996	Mili range/micro range/12/option	Direct/PT/HALL	Mili range/micro range/12/option	Direct/CT/HALL	0-2000	01999 X10 ⁻⁶	0.2/0.5/1%
MDPM-199996	Mili range/micro range/12/option	Direct/PT/HALL	Mili range/micro range/12/option	Direct/CT/HALL	0-2000	19999 X10 ⁻⁶	0.2/0.5/1%
MDPM-000193	Mili range/micro range/12/option	Direct/PT/HALL	Mili range/micro range/12/option	Direct/CT/HALL	0-2000	00019 X10 ⁻³	0.2/0.5/1%
MDPM-001993	Mili range/micro range/12/option	Direct/PT/HALL	Mili range/micro range/12/option	Direct/CT/HALL	0-2000	00199 X10 ⁻³	0.2/0.5/1%
MDPM-019993	Mili range/micro range/12/option	Direct/PT/HALL	Mili range/micro range/12/option	Direct/CT/HALL	0-2000	01999 X10 ⁻³	0.2/0.5/1%
MDPM-199993	Mili range/micro range/12/option	Direct/PT/HALL	Mili range/micro range/12/option	Direct/CT/HALL	0-2000	19999 X10 ⁻³	0.2/0.5/1%
MDPM-000191	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	00019 X10 ³	0.2/0.5/1%
MDPM-001991	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	00199 X10 ³	0.2/0.5/1%
MDPM-019991	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	01999 X10 ³	0.2/0.5/1%
MDPM-199991	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	19999 X10 ³	0.2/0.5/1%

NOTES: The numeral after product code indicates the watts range.

General electrical/mechanical specifications:

- Operating voltage: self-excited
 - Current range: 0-0.01/0.5/1.0/5.0/25.0 A.C./D.C. Amps or option
 - Voltage: 0-25/250/500/1000/3000 Volt D.C. or option
 - Power range: 19999 micro/ mili watt/19999 watt/1000 watt/19999 KW
 - Power factor: 0.2/0.5/1.0
 - TDH: 3%/5%/10% or as option for non-linear loads
 - Burdon: 50 mili-watt/1.0 watts/5.0 Watt
 - Voltage/current ripple (for D.C.) 3% of peak voltage/current
 - Effect of Ripple: 3% of D.C. of frequency > 1/Tm
 - Signal Frequency: 0-20,000 Hz
 - Voltage transformer signal: 5/12 volts/100 volt/220 volts AC/DC
 - Current transformer signal: 0-5 amps ac/50 Hz or option
 - Accuracy: 0.2/ 0.5/1.0/2.0 % reading
 - Sensitivity: 1.0 micro-amp/degree without scaling to higher ranges of wattmeter
 - Resolution: 1/10 of least significant bit
 - Repeatability/Resolution: 100% and 1:50/1:100/1:200
 - TCV: 0.0002/°C
 - Control: two set point control (low/high)
 - Material: GLASS FILL NYLON/ABS
 - Size: 72x72/96x96/144x144 or option/MOUNTING:
- NOTES:**
The numeral after product code indicates the watt.



Explosion proof wattmeter

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WATTMETER

Micro/Mili-WATTS< 99999.9/Frequency<50: p.f. <0.5

Model	VOLTS AC/DC	Volts Signal/sensor	current	current Signal/sensor	Frequency Option	Range	Accuracy
MDPM-000196	Mili range/micro range/12/option	Direct/PT/HALL	12/Mili range/micro range/option	Direct/CT/HALL	0-2000	00019X10 ⁻⁶	0.2/0.5/1%
MDPM-001996	Mili range/micro range/12/option	Direct/PT/HALL	Mili range/micro range/12/option	Direct/CT/HALL	0-2000	00199 X10 ⁻⁶	0.2/0.5/1%
MDPM-019996	Mili range/micro range/12/option	Direct/PT/HALL	Mili range/micro range/12/option	Direct/CT/HALL	0-2000	01999 X10 ⁻⁶	0.2/0.5/1%
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MDPM-001993	Mili range/micro range/12/option	Direct/PT/HALL	Mili range/micro range/12/option	Direct/CT/HALL	0-2000	00199 X10 ⁻³	0.2/0.5/1%
MDPM-019993	Mili range/micro range/12/option	Direct/PT/HALL	Mili range/micro range/12/option	Direct/CT/HALL	0-2000	01999 X10 ⁻³	0.2/0.5/1%
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MDPM-000191	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	00019 X10 ³	0.2/0.5/1%
MDPM-001991	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	00199 X10 ³	0.2/0.5/1%
MDPM-019991	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	01999 X10 ³	0.2/0.5/1%
MDPM-199991	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	19999 X10 ³	0.2/0.5/1%

WATTMETER

Micro/Mili-WATTS< 99999.9/Frequency<50: p.f. < 0.9

Model	VOLTS AC/DC	Volts Signal/sensor	current	current Signal/sensor	Frequency Option	Range	Accuracy
MDPM-000196	Mili range/micro range/12/option	Direct/PT/HALL	12/Mili range/micro range/option	Direct/CT/HALL	0-2000	00019X10 ⁻⁶	0.2/0.5/1%
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MDPM-000191	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	00019 X10 ³	0.2/0.5/1%
MDPM-001991	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	00199 X10 ³	0.2/0.5/1%
MDPM-019991	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	01999 X10 ³	0.2/0.5/1%
MDPM-199991	0-500	Direct/PT/HALL	0-50 amps	Direct/CT/HALL	0-2000	19999 X10 ³	0.2/0.5/1%

NOTES: The numeral after product code indicates the watts range.

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