



# APM-MAX

## M21 and M23

**EVALUATION KIT AVAILABLE**  
Contact us to request yours



Designed for a wide range of power monitoring applications, the APM-MAX combines the instant visual representation of an analog meter with the speed and accuracy of a digital meter for instant recognition and precision measurement. The large 81.5mm x 66mm display features a two-line display, programmable scale, alarm set-points and color-changing, full color RGB backlight for instant alerts.

**APM-MAX-M21:** for high voltage applications; configurable as an ammeter, volt meter, frequency meter or power monitor (Watts, VA & Power Factor).  
**APM-MAX-M23:** for low voltage applications; configurable as a process meter or to be used in conjunction with a shunt.

Both models feature digital and analog outputs and serial MODBUS® RTU as standard (ethernet MODBUS® also available) for communication with other components in a system as well as an IP65 rating and our industry leading three-year warranty.

## Specifications

MEASUREMENT	M21	M23
Input range (V1)	0-600V DC/AC 47-63Hz	0-10V DC
Input range (V2)	-	0-5A DC
Current Input range (Direct)	0-5A DC/AC 45-65Hz	0-50mA DC
Current Input range (w/shunt)	0-500mV DC	0-500mV DC
Frequency (AC)	0-400Hz	0-400Hz
Power Measurement	Watts, VA & Power Factor	-
Accuracy (DC & Frequency)	0.1%	
Accuracy (AC)	0.5%	
Display modes	RMS	
<b>ENVIRONMENTAL</b>		
Temperature - operating	-10 to +60°C	
Temperature - storage	-40 to +70°C	
IP rating (from the front)	IP65	
<b>POWER SUPPLY</b>		
Universal (AC)	100-240V AC (50-60Hz)	
Low Voltage (DC)	12-24V DC (50-60Hz AC)	
<b>DISPLAY</b>		
Number of digits	4	
Digit height	14.5mm [0.57"]	
Digit height of annunciator	6.8mm [0.27"]	
Number of message characters	4	
Backlight colors	Full RGB backlight and White	
LCD display	Positive or Negative	
<b>OUTPUTS</b>		
Max voltage	34V	
Max current	500mA	
Analog output	4-20mA or 0-10V	
<b>COMMUNICATION</b>		
Modbus®	RTU and/or TCP/IP	
<b>CERTIFICATION</b>		
	UL and cUL, CE, UKCA	

## Large multi-format display that incorporates:

- 60 segment bar graph display
- Large 4 digit display
- Separate Starburst display area for annunciators, custom messages and alarm info
- Full color RGB dynamic backlight for user alerts

## Programmable:

- Scaling and Range (min and max)
- Custom annunciators
- User selectable backlight color and intensity
- Two independent alarm set-points
- Two independent outputs
- 4-20mA analog monitor output

## Visibility:

- The largest display of any APM
- User adjustable RGB backlight provides an almost infinite range of colors for different requirements or environmental conditions.
- Wide viewing angle (both horizontal and vertical)
- Custom annunciators

## Part Numbers

### Standard Models - Modbus RTU

- APM-MAX-M21-PU-4R** Positive LCD, volt, amp, freq or power monitor, RTU
- APM-MAX-M23-PU-4R** Positive LCD, process or shunt meter, RTU
- APM-MAX-M21-NU-4R** Negative LCD, volt, amp, freq or power monitor, RTU
- APM-MAX-M23-NU-4R** Negative LCD, process or shunt meter, RTU
- APM-MAX-M21-PL-4R** Positive LCD, low voltage, volt, amp, freq or power monitor, RTU
- APM-MAX-M23-PL-4R** Positive LCD, low voltage, process or shunt meter, RTU
- APM-MAX-M21-NL-4B** Negative LCD, low voltage, volt, amp, freq or power monitor, RTU
- APM-MAX-M23-NL-4B** Negative LCD, low voltage, process or shunt meter, RTU

### Standard Models - Modbus TCP/IP and RTU

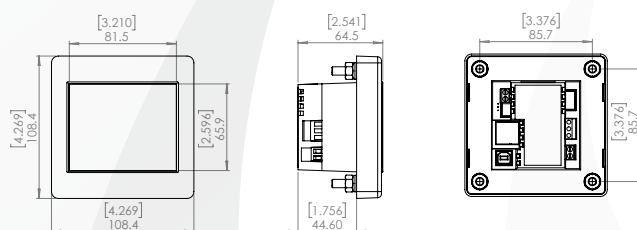
- APM-MAX-M21-PU-4B** Positive LCD, volt, amp, freq or power monitor, TCP/IP and RTU
- APM-MAX-M23-PU-4B** Positive LCD, process or shunt meter, TCP/IP and RTU
- APM-MAX-M21-NU-4B** Negative LCD, volt, amp, freq or power monitor, TCP/IP and RTU
- APM-MAX-M23-NU-4B** Negative LCD, process or shunt meter, TCP/IP and RTU
- APM-MAX-M21-PL-4B** Positive LCD, low voltage, volt, amp, freq or power monitor, TCP/IP and RTU
- APM-MAX-M23-PL-4B** Positive LCD, low voltage, process or shunt meter, TCP/IP and RTU
- APM-MAX-M21-NL-4B** Negative LCD, low voltage, volt, amp, freq or power monitor, TCP/IP and RTU
- APM-MAX-M23-NL-4B** Negative LCD, low voltage, process or shunt meter, TCP/IP and RTU

## Options

DESCRIPTOR	DEFINITION	OPTIONS
-?X-XX	LCD Type	P - Positive N - Negative LCD also available
-X?-XX	PSU Type	U - Universal 100-240V AC 50-60Hz L - Low Voltage 12-24V DC / 50-60Hz AC
-XX-?X	Analog Output	4 - 4 to 20mA / 0 - 20mA switchable 1 - 0 to 10V DC also available*
-XX-X?	Communications	R - Modbus® RTU B - Modbus® TCP/IP and Modbus® RTU

- 022239-01** MAX Meter Evaluation Kit (N. America)
- 022238-01** MAX Meter Evaluation Kit (RoW)

## Dimensions:



Panel cutout: Square: 68mm x 68mm [2.7" x 2.7"] Circle Diameter: 96mm [3.8"]



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