

# APM-MAX

## M21 and M23



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.

## Key Features

### 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 information
- Full color RGB dynamic backlight for user alerts

## 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)		100-240 V AC (50-60Hz)
Low Voltage (DC)		12-24V AC/DC (50-400Hz 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 <sup>^</sup> , CE

<sup>^</sup> Units with Low Voltage power supplies are not UL compliant

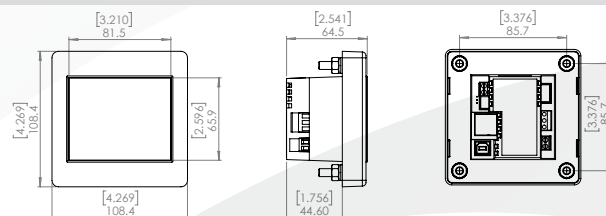
### Programmable:

- 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

### Dimensions:



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

### 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

#### 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

### Options

DESCRIPTOR	DEFINITION	OPTIONS
-?X-XX	LCD Type	P - Positive N - Negative LCD also available*
-X?-XX	PSU Type	U - Universal 100-240V AC 45-65 Hz L - Low Voltage 12-24V DC / AC 45-65Hz also available*
-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

\*MOQ dependant

