



# APM-MAX-M21, APM-MAX-M23

## Advanced Panel Meter



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 colorchanging, 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, IP65 and NEMA type 4 & 12 ratings, as well as our industry leading three-year warranty.



**16 million colors**  
Programmable RGB backlight for user alerts.



**60**  
Segment curved bar graph display

**Programmable scale**

**Combined digital and bar graph display**

**2**

Alarm set points



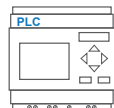
**Modbus®**  
RTU/TCP/IP Connectivity



**Programmable 4 digit starburst display. Custom messages & annunciators**



**USB port for custom user settings via the free easy-to-use software**



**2 digital outputs  
1 analog output**

**WIDE viewing angle**



**Full 4 digit readout for accuracy**

**VOLT  
AMPS  
FREQ  
WATT**  
Selectable to measure voltage, current, frequency or watts

**108mm x 108mm; only 64mm deep and fits in 4" diameter circular cutout**



# APM-MAX-M21, APM-MAX-M23

## Advanced Panel Meter

### 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

#### 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.

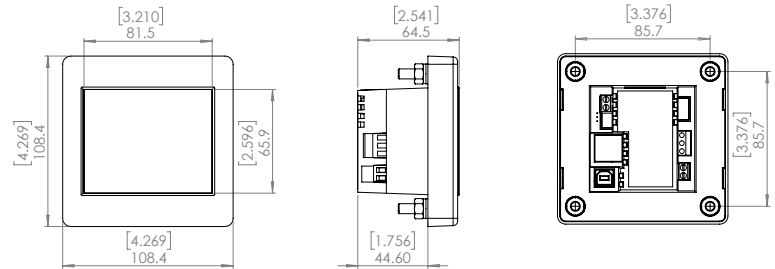
### Specifications

Measurement		
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	
Power Supply		
Universal (AC)	100-240 V AC (50-60Hz)	
Low Voltage (DC)	12-24V AC/DC (50-400Hz AC)	
Environmental		
Temperature - operating	-10 to +60°C	
Temperature - storage	-40 to +70°C	
IP rating (from the front)	IP65 and Nema 4 & 12	
Display		
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	
Outputs		
Max voltage	34V	
Max current	500mA	
Analog output	4-20mA or 0-10V	
Communication		
Modbus	RTU and/or TCP/IP	
Certification		
	UL and cUL, CE	

#### 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 ® RTU TCP/IP and Modbus

\*MOQ dependant

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