



APM-MAX

M21 and M23

EVALUATION KIT AVAILABLE
Contact us to request yours



The diagram illustrates the APM-MAX digital meter with various features highlighted:

- RGB DISPLAY:** Shows a color wheel icon.
- 16 million colors:** Programmable RGB backlight for user alerts.
- 60 Segment curved bar graph display:** Shows a blue bar graph with the number 60.
- Programmable scale:** Shows a blue curved scale icon.
- Combined digital and bar graph display:** Shows a box containing both digital and bar graph displays.
- Modbus® RTU/TCP/IP Connectivity:** Shows a network icon.
- USB port for custom user settings via the free easy-to-use software:** Shows a USB cable icon.
- 108mm x 108mm; only 64mm deep and fits in 4" diameter circular cutout:** Shows dimensions and a cutout diagram.
- Selectable to measure voltage, current, frequency or watts:** Shows a list of selectable measurements.
- Full 4 digit readout for accuracy:** Shows a digital display icon.
- WIDE viewing angle:** Shows a wide angle icon.
- Programmable 4 digit starburst display. Custom messages & annunciations:** Shows a starburst icon.
- Alarm set points:** Shows a number 2 icon.
- PLC:** Shows a PLC icon.
- 2 digital outputs 1 analog output:** Shows a PLC icon with output counts.

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
Current Input range (Direct)	0-5A DC/AC 45-65Hz	0-50mA DC
Current Input range (w/shunt)	0-500mV DC/AC 45-65Hz	0-500mV DC
Frequency (AC)	0-400Hz	0-400Hz
Power Measurement	Watts, VA & Power Factor	-
Accuracy (Frequency)		0.1%
Accuracy (Voltage)		0.5%
Display modes	RMS	

ENVIRONMENTAL

Temperature - operating	-10 to +60°C
Temperature - storage	-40 to +70°C
IP rating (from the front)	IP65

POWER SUPPLY

Universal (AC)	100-240V AC (50-60Hz)
Low Voltage (DC)	12-24V DC (50-60Hz AC)

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

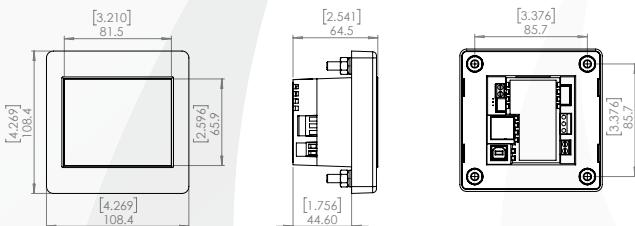
OUTPUTS

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, UKCA

Dimensions:



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

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-4R Negative LCD, low voltage, volt, amp, freq or power monitor, RTU
 APM-MAX-M23-NL-4R 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

024569-21 MAX Meter Evaluation Kit



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