



## AM-20

Solid State Analog Meter  
Twenty 0.15" LED Segments  
in a Slim Bezel Case



A rugged, high accuracy LED bargraph panel meter with 20MΩ input impedance, multiple display modes, dual scaling and powered from 4V to 6VDC Bargraph mode 4V to 24VDC in Dot mode.

### General Features

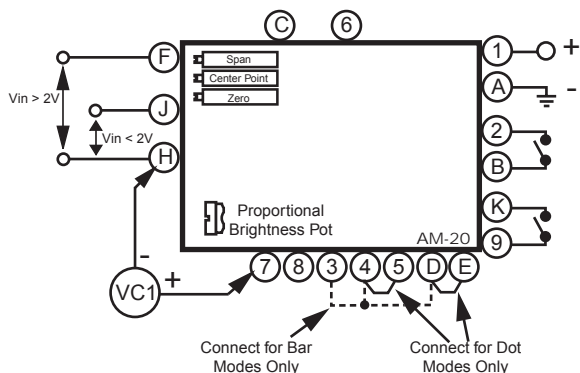
The AM-20 is a highly versatile, solid-state analog meter capable of a variety of user programmable display modes. It is designed to meet the requirement in many applications for a rugged, high input impedance meter that has instantaneous response and is immune to the vibration, sticking and overshoot problems associated with needle-type meters.

The meter's display consists of 20 LED segments individually driven by 20 comparators divided into a left side set and a right side set of ten comparators each.

The user can select and adjust the three internal reference voltages that are applied respectively, to the left side of the left comparator set, the center point where the two comparator sets are joined in series and the right side of the right comparator set. The meter's circuitry detects when the input signal corresponds to the voltage at any one of the 20 points along the two comparator divider networks with a step accuracy of better than 0.1%. The meter can be adjusted so that both comparator sets have an equal reference voltage across them which will produce a linear full scale display, or if required, they can have a different reference voltage which will enable each half of the meter's display to have a different scale or sensitivity.

### Typical Application Connections

Bar or Dot Mode Voltmeter



### Compatibility

The AM-20 is shipped in a standard Slim Bezel case. The Slim Bezel case is compatible with the CM, SM, PM, & SP Series of meters. The AM-20 can be ordered in End Mount cases for front or twin mounting or combinations of multiple center mount cases and two end mount cases for stack mounting.

SLIM



BEZEL

### Specifications

- Input Configuration:** .....Single-ended
- Input Impedance:** .....Exceeds 20MΩ on 2V range; 10MΩ on all other ranges.
- Full Scale Ranges:** .....2VDC (Standard)  
20VDC  
200VDC  
1200VDC (Maximum Input Signal)  
All ranges except 1200VDC are field adjustable from 20% to 120% of the basic full scale range value.
- A/D Converter:** .....Flash Converter
- Accuracy:** .....±0.5% of Full Scale
- Temperature Coefficient:**...150PPM/°C on 2V range; 200PPM/°C on all other ranges
- Warm Up Time:** .....Instantly to specified accuracy
- Conversion Rate:** .....Instantaneous Flash Converter
- Display:**.....0.15" Segment height; 20 LED's
- Over-range Indication:** ....All bars flash
- Power Supply:**.....5V DC @ 280mA
- Operating Temperature:** ...-10°C to +60°C
- Storage Temperature:**.....-20°C to +70°C
- Relative Humidity:** .....95% non condensing
- Case Dimensions:** .....Bezel 2.76" x 1.17" (69.75 x 29.7mm)  
Depth behind Bezel 3.32" (84mm) plus 0.68" (17.27mm) for connector.
- Weight:**.....90.72 gms (3.2 oz)  
136.1 gms (4.8 oz) when packed

### AM-Series, the choice for easy user adjustability

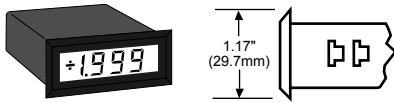
AM-30 .....Red 30 Seg. Bargraph, 0.05/0.1/0.2/1/5/10VDC/4-20mA  
AM-30R1 .....Red 30 Seg. Bargraph, 1 VDC std w/one 2 A/120 VAC relay

AM-30R2 .....Red 30 Seg. Bargraph, 1 VDC std w/two 2 A/120 VAC relays

## AM-20 Case Dimensions and Panel Cutouts

The Slim Bezel Case is supplied as standard. If specified at time of ordering, any combination of Twin Mounting and Multiple Array Cases may be substituted at no additional cost. Extra cases may be ordered separately.

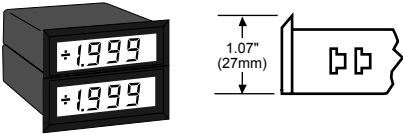
### STANDARD SLIM BEZEL CASE



**SLIM BEZEL CASE**  
Standard Black ABS case with matte finish bezel for single unit mounting.

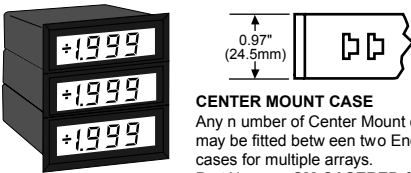
Part No. **SL-CASERED** for LED's  
**SL-CASECLR** for LCD's

### OPTIONAL TWIN MOUNTING OR MULTIPLE ARRAY CASES



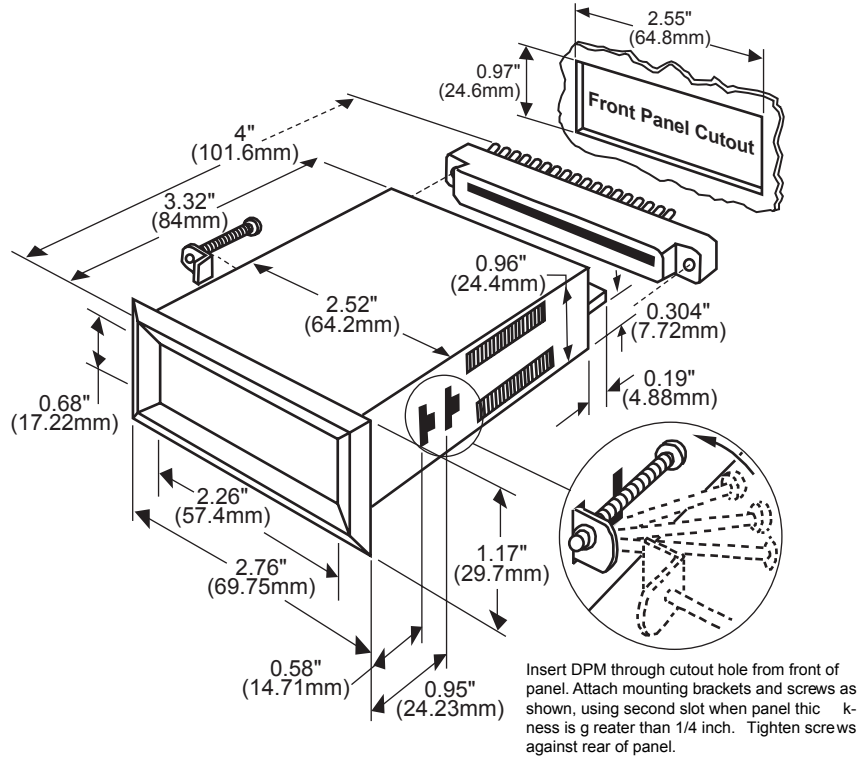
**END MOUNT CASE**  
Same styling as Slim Bezel case but with bottom edge of bezel removed. Two End Mount cases can be twin mounted in a single cutout.

Part No. **EM-CASERED** for LED's  
**EM-CASECLR** for LCD's



**CENTER MOUNT CASE**  
Any number of Center Mount cases may be fitted between two End Mount cases for multiple arrays.

Part No. **CM-CASERED** for LED's  
**CM-CASECLR** for LCD's



Insert DPM through cutout hole from front of panel. Attach mounting brackets and screws as shown, using second slot when panel thickness is greater than 1/4 inch. Tighten screws against rear of panel.

## Ordering Information

### Standard Options for this Model Number

Part Number	Description	List
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#### ► BASIC MODEL NUMBER

AM-20	. . . . .20 segment, 200 mV to 200 V DC, 2V std 5 V DC Power	
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#### ► DISPLAY

STANDARD	. . .Vertical Red	
AM-HORZ/RED	. .Horizontal Red LED option	
AM-VERT/GRN	. .Vertical Green LED option	
AM-HORZ/GRN	. .Horizontal Green LED option	
AM-20DOT	. .Dot mode - one segment display. Specify left or center zero.	

### Special Options and Accessories

Part Number	Description	List
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#### ► SPECIAL OPTIONS (Specify Inputs or Outputs & Req. Reading)

VF-0020V	. . . . .20VDC Range Change	
VF-0200V	. . . . .200VDC Range Change	
VF-1200V	. . . . .1200VDC Range Change	
VS-BAR20	. . . . .4-20mA input signal specified required reading	

#### ► ACCESSORIES (Specify Serial # for Custom Artwork Installation)

CN-L10	. . . . .Edge Connector with Solder eyelet, 10 Pin Dual	
TB-KIT	. . . . .Replacement Terminal Block Connector Kit (3)	
SL.CASECLR	. . .Slim Bezel Case LCD Std case w/mtg hardware	
CM.CASECLR	. . .Slim Bezel Center Case LCD w/mtg hardware	
EM.CASECLR	. . .Slim Bezel End Case LCD w/mtg hardware	

Prices subject to change without notice.

### WARRANTY

Texmate warrants that its products are free from defects in material and workmanship under normal use and service for a period of one year from date of shipment. Texmate's obligations under this warranty are limited to replacement or repair, at its option, at its factory, of any of the products which shall, within the applicable period after shipment, be returned to Texmate's facility, transportation charges pre-paid, and which are, after examination, disclosed to the satisfaction of Texmate to be thus defective. The warranty shall not apply to any equipment which shall have been repaired or altered, except by Texmate, or which shall have been subjected to misuse, negligence, or accident. In no case shall Texmate's liability exceed the original purchase price. The aforementioned provisions do not extend the original warranty period of any product which has been either repaired or replaced by Texmate.

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