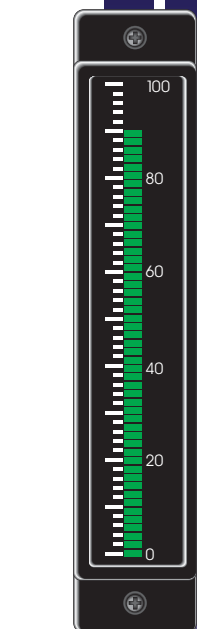


# Bowmar Series Single Edgewise BarGraphs™

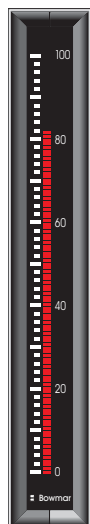
The Weschler Bowmar Series Single Edgewise BarGraphs feature bright, easy-reading 3" to 10" LED bars for OEM and process applications. The Bowmar Series offer 51 or 101 segment bar displays with 2% or 1% resolution. Choose from red, green or amber LEDs on most larger models. Colors can also be mixed within the bar to provide permanent indication zones. An optional low/high brightness control adjusts LED intensity for operator and control room conditions. Standard white on black or custom black on white scales can be provided. Expanded scales can also be ordered to view the most important part of a measurement in greater detail.

Screw terminal connectors are standard on the APM series. Connections to the BG series are made to a rear panel card edge connector. Front panel, mounting and performance are identical in both series.

The Bowmar BarGraph instruments accept DC process inputs, either voltage or current. Other BarGraph models can be configured for a wide variety of input signals. Retrofit sizes are available for most panel and switchboard meters in use today. These instruments satisfy the high quality standards set forth by the utility, OEM and process control industries.



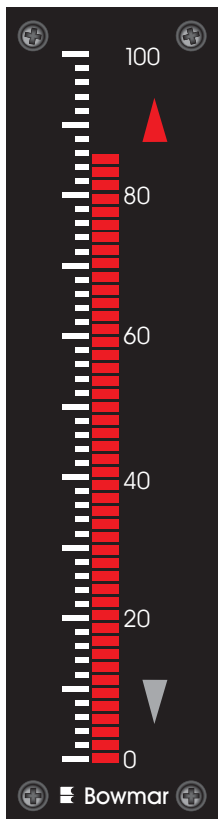
APM-500



APM-100



APM-800  
with MX option



APM-600

## FEATURES

- 51 or 101 segment LED bar array
- Red, green, or amber LEDs
- Programmable LED brightness
- DC inputs to 10A and 100V
- Differential input
- Harsh environment enclosures



16900 FOLTZ PARKWAY - CLEVELAND, OH 44149  
Phone: (440) 238-2550 - Fax: (440) 238-0660  
www.weschler.com e-mail: sales@weschler.com

# SPECIFICATIONS

## Bar Display

APM500, APM600, BG600

51 segment LED plus underrange and overrange  
5" display

APM100, APM200, BG100

101 segment LED plus underrange and overrange  
3" display

APM800

100 segment LED plus underrange and overrange  
10" display

## Input Type

DC Volts 50mV to 100V  
DC Amps 10mV to 10A

## Response Time

25msec full scale, damping to 1sec available

## Temperature

Operation 0 to 50°C  
Storage -60 to 71°C

## Shock

to 8.5 G's

## Humidity

0 to 95% RH, non-condensing

## Weight

6 to 27 oz.

## Calibration

NIST traceable factory calibration. Some models may be field adjusted  $\pm 20\%$  at Zero and Full Scale

## Power Requirement

5VDC  $\pm 0.25V$ , 400mA typical

## Input Impedance

$\geq 100k\Omega$  typical, 50mV current shunt for most ammeters

## Linearity

0.5% (from 0 to 50°C)

## Gain Temperature Coefficient

$\pm 0.015\%/^{\circ}C$  maximum

## Zero Temperature Coefficient

$\pm 0.01\%/^{\circ}C$  maximum

## Under-range

150% of input

## Over-range

250% of input

## Display Modes

Bar and Point

## Power Supply Sensitivity

$\pm 0.1\%/volt$  maximum

## Input Bias Current

100 nA typical

## Common Mode Rejection

60dB typical

## Standard Scales

0-10  
0-50  
0-100  
-10/0/+10  
-50/0/+50  
-100/0/+100  
Available with % signs  
Over 2300 scales available

# OPTIONS MATRIX GUIDE

## BG SERIES

Option Code	100	600	500	800	DESCRIPTION
G	●	●			Custom Input Range
T					Screw-Terminal Barrier Strip
Z	●	●			Bezel
Gr	●	●	●	●	Green 3" Bargraph
F	●	●	●	●	Increased Damping
S	●	●	●	●	Library Scale (Scale #)
MX		●	●	●	Mixed Display (Red, Green, Yellow)
YL		●	●	●	Yellow Display
X		●			Drip Proof Bezel

● = Available

## APM SERIES

Option Code	100	150		500	600	800	DESCRIPTION
F	●	●		●	●	●	Increased Damping
G	●	●		●	●	●	Custom Input Range
Z	●	●			●		Black Metal Bezel
X					●		Drip Proof Bezel
P					●	●	Red Filter
G	●	●		●	●	●	Green Display
YL				●	●	●	Yellow Display
MX				●	●	●	Mixed Display (Red, Green, Yellow)
S	●	●		●	●	●	Library Scales (Scale #)

● = Available

# ORDERING GUIDE

## SAMPLE PART NUMBER

(SEE BOTTOM OF PAGE FOR EXAMPLE)

A	P	M	1	0	0	V	V	0	1	0	S	1				
---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--

## PART NUMBER

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

### TYPE:

APM1 = 3" LED BarGraph  
 APM5 = 5" LED BarGraph, with bezel  
 APM6 = 5" LED BarGraph  
 APM8 = 10" LED BarGraph  
 BG1 = 3" LED BarGraph  
 BG6 = 5" LED BarGraph

### INPUT TYPE:

00 = DC  
 10 = Digital Input\*  
 20 = AC\* Volts/Amps  
 50 = Center Zero (APM only)  
 \*Not available on BG100/BG600

### INPUT SENSITIVITY:

VV = Volts  
 MV = Millivolts  
 AA = Amps  
 MA = Milliamps  
 UA = Microamps

### INPUT LEVEL:

Example 4/20, 10, 150  
 Indicate Full Scale Value

### SCALE NUMBER:

(Consult factory for exact need)

VERTICAL	HORIZONTAL	RANGE
S12	S13	0-10
S8	S11	0-50
S3	S1	0-100
S3%	S1%	0-100%
S136	S137	-10, 0, +10
S113	S112	-50, 0, +50
S4	S2	-100, 0, +100
S242	S10	Tick Marks Only
Sbnk	Sbnk	Blank
SH	SH	Custom Artwork

### OPTIONS:

If more than one option is required, continue placing each respective option letter after each other.  
 See *Options Matrix Guide page 2*, or *Consult*

### ACCESSORIES:

ACC-001 Card Edge Connectors (BG/BGD)  
 ACC-002 Screw Type Barrier Strip (BG/BGD)  
 ACC-003 Power Supply (120VAC to 5VDC @ 3 Amps)

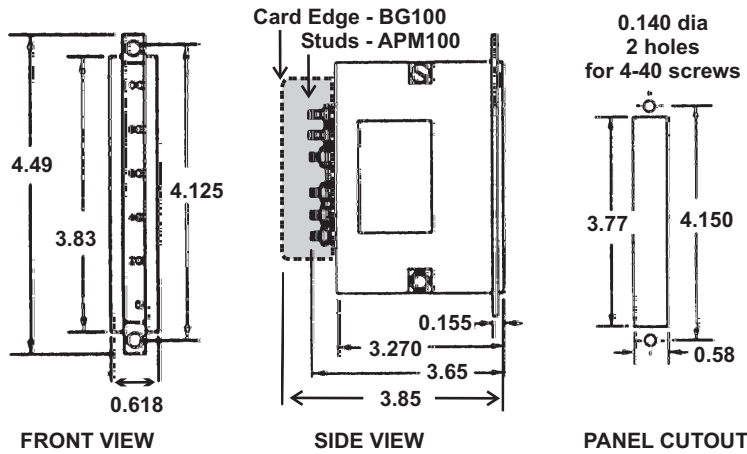
EXAMPLE: 

A	P	M	1	0	0	V	V	0	1	0	S	1				
---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--

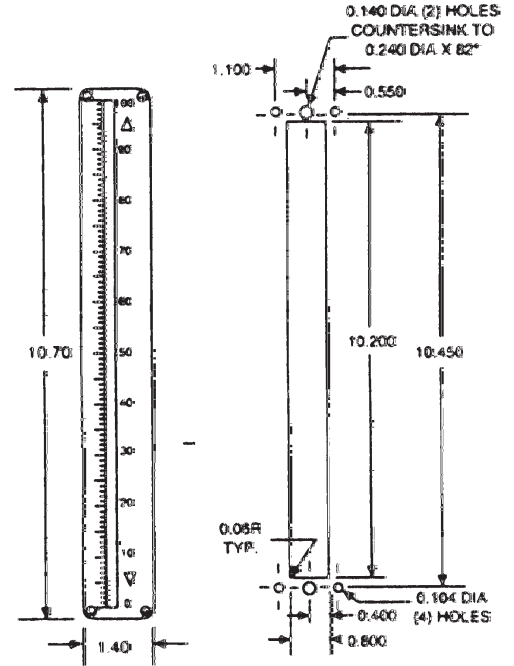
(APM1) 3" LED BarGraph, (00) DC input, (VV) Volts input sensitivity, (010) 0-10 input level, (S1) 0-100 horizontal scale.

# DIMENSIONS

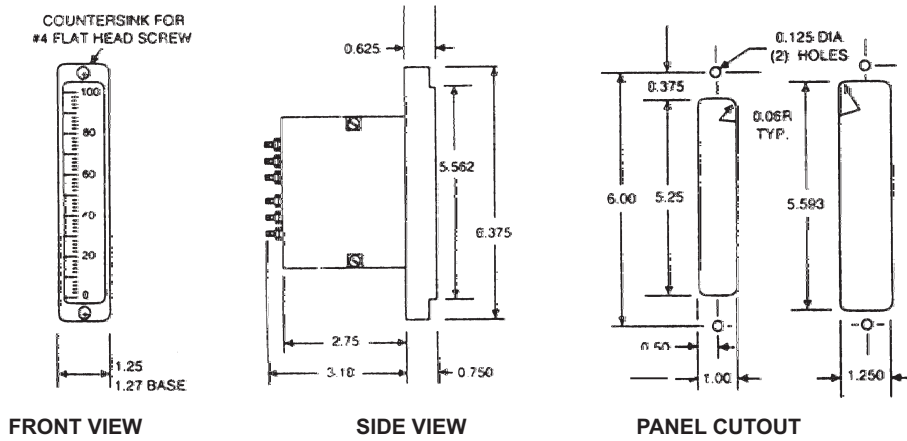
## APM 100



## APM 800

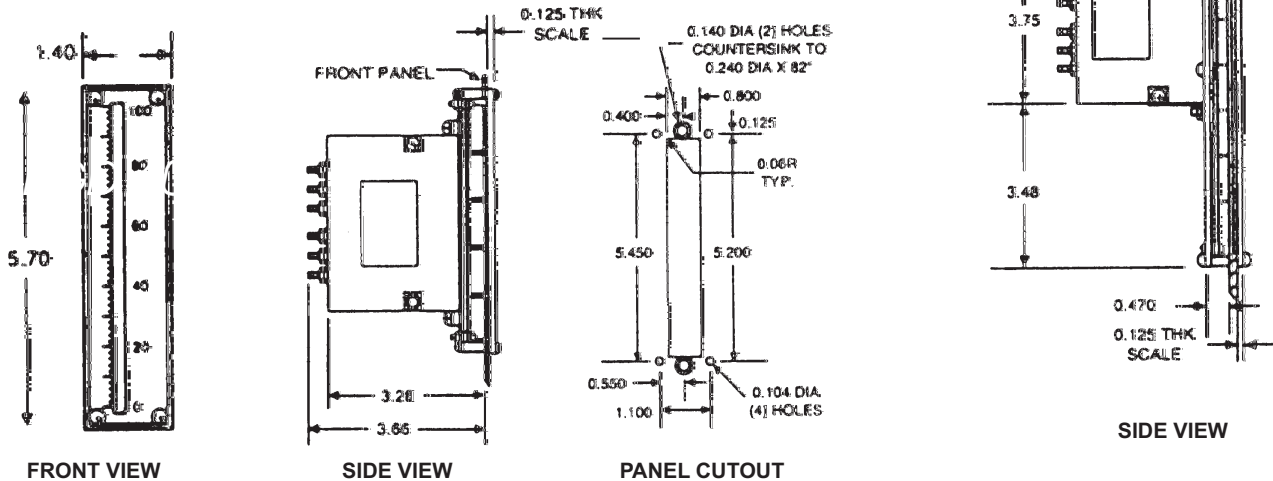


## APM 500



FRONT VIEW      PANEL CUTOUT

## APM 600



SIDE VIEW

2/22/07

Options and features vary by model. Contact factory for details and latest specifications.

**WESCHLER INSTRUMENTS**  
DIVISION OF HUGHES CORPORATION

16900 FOLTZ PARKWAY - CLEVELAND, OH 44149  
Phone: (440) 238-2550 - Fax: (440) 238-0660  
www.weschler.com e-mail: sales@weschler.com