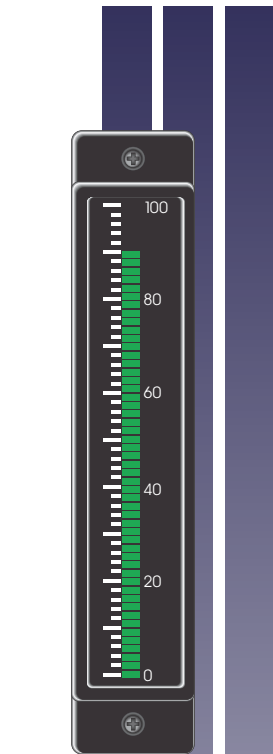


# Bowmar Series Single Edgewise BarGraphs™

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. A rear panel low/high brightness selection terminal changes the 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.

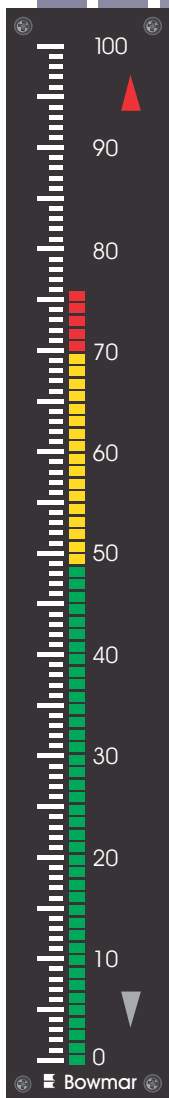
The Bowmar BarGraph instruments accept DC process inputs, either voltage or current. Other BarGraph models can be configured for a wide variety of input signals. Retrofit sizes are available for most panel and switchboard meters in use today. These instruments satisfy the high quality standards set forth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



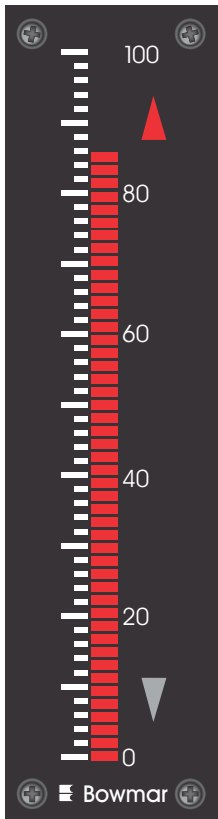
APM-500



APM-100



APM-800  
with MX option



APM-600

## FEATURES

51 or 101 segment LED bar array

Red, green, yellow, blue, white or mixed color bar

Selectable LED brightness

DC inputs to 10A and 100V

Differential input

Harsh environment enclosures



**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

# SPECIFICATIONS

## Bar Display

APM500, APM600, BG500, BG600  
51 segment LED plus underrange and overrange  
5" display

APM100, BG100  
101 segment LED plus underrange and overrange  
3" display

APM800, BG800  
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

## Connections

APM: Terminal studs  
BG: Card edge (mating connector included)

# OPTIONS MATRIX GUIDE

Option Code	100	150		500	600	800	DESCRIPTION
A	●					●	Differential Input, DC volts
F	●	●		●	●	●	Increased Damping
G	●	●		●	●	●	Custom Input Range
Z	●	●					Black Metal Bezel
X				●	●		Drip Proof Bezel
P					●	●	Red Filter
Gr	●	●		●	●	●	Green Display
YL	●	●		●	●	●	Yellow Display
MX	●	●		●	●	●	Mixed Display (Red, Green, Yellow)
BL	●	●					Blue Display
WH	●	●					White Display
UN	●	●					Sunlight Readable
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  
 50 = Center Zero (APM only)

### 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
S3P	S1P	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* on previous page or consult factory.

### ACCESSORIES:

ACC-001 Card Edge Connectors (BG/BGD)  
 ACC-002 Screw Type Barrier Strip (BG/BGD)

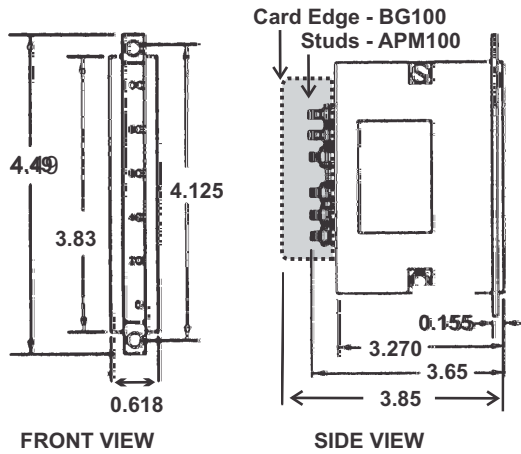
EXAMPLE: 

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

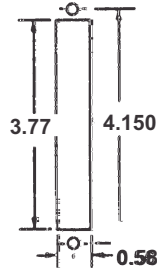
(APM1) 3" LED BarGraph, (00) DC input, (VV) Volts input sensitivity, (010) 0-10 input level, (S1) 0-100 horizontal scale.

# DIMENSIONS

## APM 100

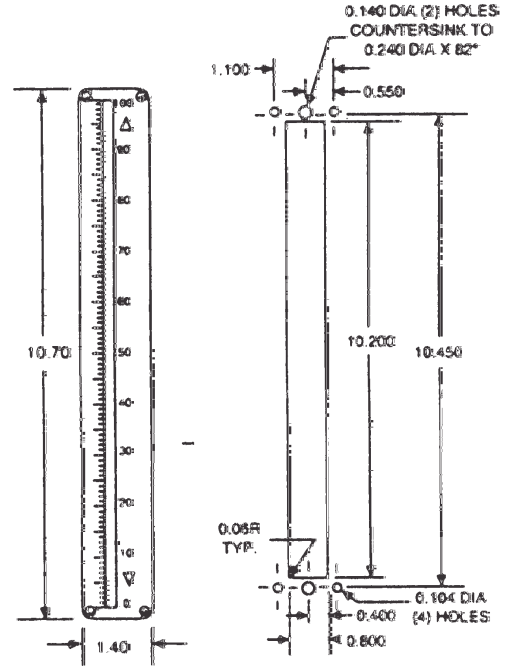


0.140 dia  
2 holes  
for 4-40 screws



PANEL CUTOUT

## APM 800

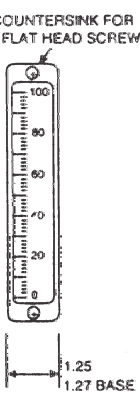


FRONT VIEW

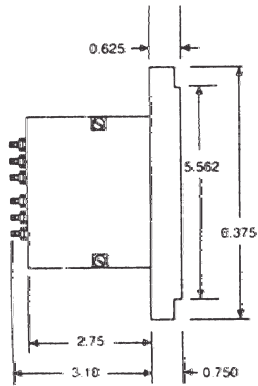
PANEL CUTOUT

## APM 500

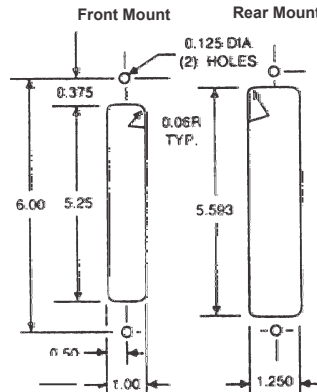
COUNTERSINK FOR  
#4 FLAT HEAD SCREW



FRONT VIEW



SIDE VIEW

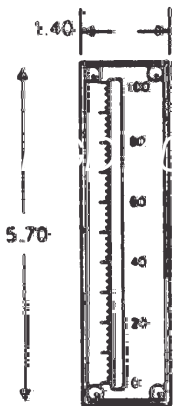


PANEL CUTOUT

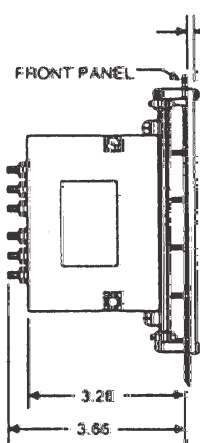
FRONT VIEW

PANEL CUTOUT

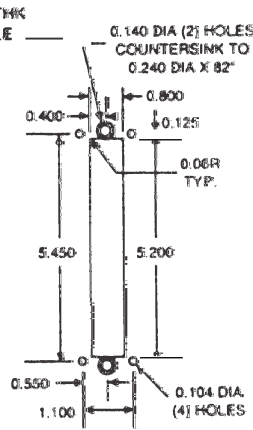
## APM 600



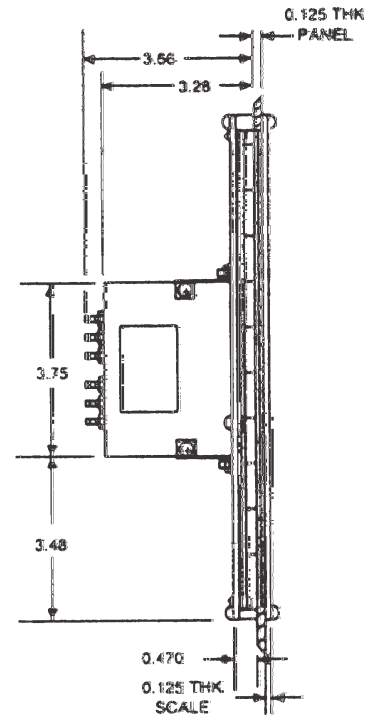
FRONT VIEW



SIDE VIEW



PANEL CUTOUT



SIDE VIEW

2/22/18

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



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