



(Green LEDs optional)

## BE051 LED Bargraph

**A** METEK Dixon bargraphs are solid-state instruments featuring bright, easy-to-read LED display technology for instantaneous trend recognition. These instruments may be used as HI-LO, on/off, or differential gap controllers and/or annunciators in process or other control applications.

### Application

AMETEK Dixon bargraphs are appropriate in any application where moving pointer meters have been used in the past, and in applications where greater accuracy, readability, and reliability are desirable. For the specialized process control industry, the controller features standardized input sensitivities for voltage and current, and can provide two position differential gap control functions. An optional set point relay module provides on/off and differential gap control and annunciation using three set points.

The bargraph segments and set point annunciators are bright red LEDs. Green, amber, or red, green and amber combination displays are optional. Flashing first and last segments indicate under/overrange conditions. LO, HI and ALARM set points can activate external devices using open-collector output drivers or an optional Form C relay board (P/N 592-38050). The separate alarm set point may be used for fail-safe shutdown in the event of a problem.

Model BE051 has a 5-inch scale with 51 segments. The bargraph display is available with end-scale or center-scale zero. Sensitivity ranges include both AC and DC currents and voltages for virtually any application.

The bargraph is packaged in a black Noryl or ABS case that complies with UL94V-0 or -1 requirements. The printed circuit board extends beyond the rear for easy engagement with the included edge connector (or optional terminal block, P/N 224-32195).

The BE051 comes standard with two different mounting techniques. A rubber bushing mount offers the ability of true front-panel installation. Rotating the front screws causes the rubber bushings to expand and secure the bargraph. The 4-40 screw mount comes with studs which extend through the panel to accept retaining hardware on the backside of the panel.

### Features

- High resolution and accuracy
- Brilliant red LED display for excellent visibility
- Rugged—high resistance to vibration and shock
- Vertical or horizontal orientation available
- Microprocessor-based design
- Rapid response
- +5 VDC operation
- Front or rear panel installation

### Options

- Green, amber, or multi-color LEDs
- Three set points with open collector output
- Three alarm set points
- Three Form C relays for on/off control

## BE051 Specifications

<b>PHYSICAL CHARACTERISTICS</b>		<b>INPUT PARAMETERS</b>	
Number of segments	51	Input configuration	Single-ended
Bar scale length	5.1 inches	Input impedance, VDC ranges	> 100 k ohms
Enclosure material	Non-glare black Noryl or ABS case complying with UL94 V-0 or V-1	Frequency response (AC)	0.25 dB, 30 Hz to 15 kHz
		Overload tolerance	±200% FS (250 V max.)
		Over/underrange indication	Flashing segment
<b>ENVIRONMENTAL PERFORMANCE</b>		<b>SET POINT OPTION</b>	
Operating temperature ranges:		Stability	0.4%
MIL-E-16400G, Class 4	0 to 60° C	Hysteresis	0.8%
MIL-E-16400G, Class 3	optional	Output driver load current	0.25 ADC
MIL-E-16400G, Class 2	optional	Output driver V <sub>ceo</sub>	36 VDC
Storage temperature range	-40 to +85° C	Optional relay contact ratings (three Form C):	2 A at 250 VAC 3 A at 30 VDC
<b>ELECTRICAL PERFORMANCE</b>		<b>SENSITIVITY RANGES</b>	
Resolution	2%	DC voltage	50 mV to 250 V
Response time	55 ms	DC current	50 μA to 5 A
Accuracy	1%	AC voltage	250 mV to 250V
Linearity	0.5%	AC current	1 mA to 5 A
Zero stability	0.01% per °C		
Gain stability	0.02% per °C		
<b>POWER REQUIREMENTS</b>		<i>Note- All bargraphs ordered for 4 to 20 mADC are shipped with an external 250-ohm compliance resistor. When mounted on the edge connector across the signal input, this allows removal of the bargraph without interrupting the signal loop.</i>	
Supply voltage	+5 VDC ±5%		
Current drain	600 mA		

## BE051 Dimensions

