

**LOW
COST!**

BE101 LED Bargraph

A METEK Dixon bargraphs are solid-state instruments combining the instantaneous trend recognition of an analog meter with the precision of a three-digit LED display. 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. The set point/relay module option provides on/off and differential gap control and annunciation using three set points.

The bargraph segments, setpoint annunciators, and optional digital display are bright red LEDs. Green or amber displays are optional. Flashing first/last segments indicate under/overrange conditions. Optional 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 BE101 has a 4-inch scale with 101 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 optional digital display is an entirely separate instrument housed within the bargraph enclosure. It is normally configured to read the same variable indicated on the bargraph, and may be calibrated to display an absolute value in engineering units with up to 0.1 percent accuracy.

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 BE101 comes standard with two different mounting techniques. A rubber bushing mount allows true front-panel installation. Rotating the front screws expands the rubber bushings and secures the bargraph. The 4-40 screw mount comes with studs which extend through the mounting panel to accept retaining hardware on the rear.

Features

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

Options

- Digital display
- Green or amber LEDs
- Three set points with open collector output
- Three Form C relays for on/off control

BE101 Specifications

PHYSICAL CHARACTERISTICS		BAR	DIGITAL	INPUT PARAMETERS	
Number of segments or digits		101	3	Input configuration	Single-ended
Bar scale length		4.01 inches		Input impedance, VDC ranges	> 100 k ohms
Enclosure material		Non-glare black Noryl or ABS case that complies with UL94 V-0 or V-1		Frequency response (AC)	0.25 db, 30 Hz to 15 kHz
ENVIRONMENTAL PERFORMANCE				Overload tolerance	±200% FS (250 V max.)
Operating temperature ranges:				Over/underrange indication	Flashing segment
MIL-E-16400G, Class 4		0 to 60° C	same	SET POINT OPTION	
MIL-E-16400G, Class 3		optional	same	Stability	0.4%
MIL-E-16400G, Class 2		optional	same	Hysteresis	0.8%
Storage temperature range		-40 to +85° C	same	Output driver load current	0.25 ADC
ELECTRICAL PERFORMANCE				Output driver V _{ceo}	36 VDC
Resolution		1%	0.1%	Relay contact ratings (three Form C:)	2 A at 250 VAC 3 A at 30 VDC
Response time		75 ms	75 ms	SENSITIVITY RANGES	
Accuracy		1%	0.1%	DC voltage	50 mV to 250 V
Linearity		0.5%	0.02%	DC current	50 μA to 5 A
Zero stability		0.01% per °C	0.02% per °C	AC voltage	250 mV to 250 V
Gain stability		0.02% per °C	0.03% per °C	AC current	1 mA to 5 A
POWER REQUIREMENTS				<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		400 mA			

BE101 Dimensions

