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BAR Series Bar Graph Process Display

Compact 1/8 DIN case, optional setpoint / alarm outputs



Standard Features

- 30-segment, 1/8 DIN size bar graph display
- Moving dot or accumulating bar format.
- Accepts 4-20 mA, 0-20 mA, 0-10 mA, 1-5 V, 0-10 V, or -5 to +5V
- 85-264 Vac universal AC power.
- 15V, 30 mA transducer excitation output.
- Detachable screw terminals.
- High noise immunity.
- EM certified (CE Mark).

Options:

- Low voltage power, 11-30 Vdc.
- Red or green LEDs.
- Horizontal or vertical format.
- Dual 5A, 250 Vac relays for alarm or control.

Description

Compact, economical & versatile. Laurel's BAR Series Bargraph Process Displays utilize a 1/8 DIN case like most digital panel meters and fit in the same 1/8 DIN size panel cutout. The bargraph is made of 30 LED elements, which can be red or green. The display can be set up with a moving dot, for example for position monitoring, or in the traditional accumulating bar format, for example to indicate tank level. Please contact Laurel Electronics for special scales for horizontally mounted displays.



The display can be vertical or horizontal, depending on how the case is oriented.

For process signals. The BAR Series Displays accept all popular process signals, such as 4-20 mA, 0-20 mA, 0-10 mA, 1-5 V, 0-10 V, and -5 to +5 V (to be requested at time of ordering). A bargraph process meter can be combined with a digital process meter to provide both graphical and numerical representations of the same signal.

Transducer excitation standard. A 15 Vdc, 30 mA transducer excitation output is standard and can eliminate the need for an external power supply.

Optional Alarms. Two 5A, 250 Vac relay outputs are optional for alarm or setpoint control. The alarms have a failsafe (de-energize on trip) changeover output and an LED to show relay status. The alarms are supplied in HI-LO format, but can easily be altered to HI-HI or LO-LO. There's also a "pump-control" mode, where the low alarm will latch, and will only reset when the input exceeds the high alarm limit.

Designed for industrial environments. These bargraph displays are highly immune to electromagnetic interference. The front panel is environmentally sealed to IP54 (NEMA-12). Laurel's [Model IPC splashproof cover](#) can extend protection to IP65 (NEMA-4). Signal connections are via detachable screw terminal connectors.

Specifications

Signal	
Input ranges	4-20 mA, 0-20 mA, 0-10 mA, 1-5V, 0-10V, -5 to +5V Specified at the time or order
Accuracy	
Accuracy at 25°C	0.5% of range \pm 1 segment
Resolution	1 part in 30
Temperature coefficient	100 ppm / °C
Warm-up time	1 minute
CMRR	70 dB, DC to 450 Hz
NMRR	55 dB, 50 or 60 Hz
Display	
Format	30 LED segments with power-on indicator
Color	Red or green
Scale length	75 mm (3.0")
Alarm Outputs (optional)	
Format	HI-LO (default), HI-HI, LO-LO, or pump control
Annunciation	Red LED illuminates when relay de-energizes
Output	Changeover, Form C, rated 5 A, 250 Vac, resistive
Hysteresis	\pm 1% of range
Power Supply	
Voltage options	110 Vac, 230 Vac, 24 Vac, 48 Vac, 5 Vdc, 11-30 Vdc

Power consumption	3 W typ.
Excitation Output	
Voltage	15 Vdc
Current	30 mA (current limited)
Accuracy	±20%
Mechanical	
Bezel dimensions	48 x 96 mm (1.89" x 3.78"), H x W
Panel cutout	45 x 92 mm (1.77" x 3.62"), H x
Depth behind panel	125 mm (4.92"), including connectors
Width behind panel	110 mm (4.33")
Weight	300 g (11 oz)
Environmental	
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	0-85% RH, non-condensing
Case material	94V-1, UL rated Noryl
Protection	NEMA-12 (IP54) when panel mounted NEMA-4 (IP65) with optional IPC Splashproof cover

Ordering Guide

BAR Series Bargraph Process Displays

Select the buttons to build a model number in this format: **BAR1000P, IPC**

		Quantity
		1
Display Type	<input checked="" type="radio"/> BAR Series Bargraph Display.	\$325
Display Color	<input checked="" type="radio"/> 1 Green LEDs. <input checked="" type="radio"/> 2 Red LEDs.	15 NC
Power	<input checked="" type="radio"/> 0 95 to 264 Vac. <input checked="" type="radio"/> 1 11 to 30 Vdc.	NC \$45
Relay Output	<input checked="" type="radio"/> 0 None. <input checked="" type="radio"/> 1 Two 5A Contact Relays.	NC \$45
Format	<input checked="" type="radio"/> 0 Vertical Format. <input checked="" type="radio"/> 1 Horizontal Format.	NC NC
Signal Input	Process Signals (e.g., 4-20 mA, 0-5 V, etc.) <input checked="" type="radio"/> P Field Scalable. Default scaling is 4-20 mA = 0-100%. <input checked="" type="radio"/> P1 Specify min input, min reading; max input, max reading. 15 Vdc excitation.	NC \$15
Add-on Options	<input type="checkbox"/> IPC Clear front panel cover sealed to NEMA 4X / IP65 <input type="checkbox"/> BOX1 NEMA-4X wall-mount enclosure with 1/8 DIN cutout <input type="checkbox"/> BOX2 BOX1 plus IPC	\$40 \$140 \$180



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