

BAR Series Bargraph Process Displays

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



Features

- Low cost.
- 1/8 DIN size standard.
- 30-segment bargraph display.
- Moving dot or accumulating bar format.
- Choice of red or green LEDs.
- Accepts 4-20 mA, 0-20 mA, 0-10 mA, 1-5 V, 0-10 V, or -5 to +5V.
- 15 V, 30 mA transducer excitation output (standard).
- Dual 5 A, 250 Vac relays for alarm or setpoint control (optional).
- Detachable screw terminals.
- High noise immunity.
- Safety certified (CE Mark).

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 constituted 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 expensive external power supply.

Optional Alarms. Two 5 A, 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 ± 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 Annunciation Output Hysteresis	HI-LO (default), HI-HI, LO-LO, or pump control. Red LED illuminates when relay de-energizes. Changeover, Form C, rated 5 A, 250 Vac, resistive. ±1% of range
Power Supply	
Voltage options Power consumption	110 Vac, 230 Vac, 24 Vac, 48 Vac, 5 Vdc, 11-30 Vdc 3 W typ.
Excitation Output	
Voltage Current Accuracy	15 Vdc 30 mA (current limited) ±20%
Mechanical	
Bezel dimensions Panel cutout Depth behind panel Width behind panel Weight	48 x 96 mm (1.89" x 3.78"), H x W. 45 x 92 mm (1.77" x 3.62"), H x W 125 mm (4.92"), including connectors 110 mm (4.33") 300 g (11 oz)
Environmental	
Operating Temperature Storage Temperature Relative Humidity Case material Protection	0°C to 50°C (32°F to 122°F) -40°C to 85°C (-40°F to 185°F) 0-85% RH, non-condensing 94V-1, UL rated Noryl NEMA-12 (IP54) when panel mounted NEMA-4 (IP65) with optional IPC Splashproof cover.

Ordering Guide

BAR Series Bargraph Process Displays

Create a model number in this format: **BAR2020P, BOX1**. This example calls out a BAR Series Bargraph Process Display with red LEDs, 110 Vac power, two 5A relays for setpoint control or alarm, vertical format, process input with default scaling of 4-20 mA = 0-100%, and optional wall mounting polycarbonate enclosure sealed to NEMA-4X. Includes plug-in screw terminal connectors.

Display Type	 BAR Series Bargraph Display.	\$285
Display Color	 1 Green LEDs.	NC
	 2 Red LEDs.	NC
Power	 0 95 to 265 Vac.	NC
	 1 11 to 30 Vdc.	\$20
Setpoint Output	 0 None.	NC
	 1 Two 5A Contact Relays.	\$40
Format	 0 Vertical Format.	NC

Signal Input	<input type="checkbox"/> 1 Horizontal Format.		NC
	Process Signals (e.g., 4-20 mA, 0-5 V, etc.)		
	<input type="checkbox"/> P Default Scaling. 4-20 mA = 0-100%.		NC
	<input type="checkbox"/> P1 Custom Scaling. In the write-in field of your invoice, specify min input, min reading; max input, max reading. 15 Vdc excitation.		\$10
Add-on Options	<input type="checkbox"/> BOX1 Wall-mount enclosure.	<input type="checkbox"/> Unselected.	\$150
	<input type="checkbox"/> BOX2 Wall-mount enclosure plus IPC cover.	<input type="checkbox"/> Unselected.	\$190
	<input type="checkbox"/> IPC Splash-proof cover.	<input type="checkbox"/> Unselected.	\$40