

DROP-IN REPLACEMENT  
FOR:

- Bailey RY



ISO 9001 CERTIFIED

TWO-YEAR WARRANTY

## BG101P/BG202P Programmable Bargraphs

(Class III-Commercial/Industrial Grade)

AMETEK Dixson "PRO" (PROgrammable) Series bargraphs are the preferred choice for new applications, or for replacement of switchboard meters, other common size indicators, and set point controllers. The "PRO" Series is feature-enhanced, and options are available to solve most common application problems. These models are easily configurable for maximum flexibility. Class II (seismic only) and Class I (1E) versions are also available (BH101P/BH202P and SH101P/SH202P respectively).

### Features

- Brilliant red LED display for excellent visibility
- Minimum 88,000-hour MTBF
- Rugged—high resistance to vibration and shock
- Microprocessor-based design
- Programmable configuration using a PC serial link
- Input signal ranges switch-selectable
- Auto-calibration algorithm
- Linearization of input signals
- Underrange/overrange indication
- Digital display reads to 10% over- and underrange. Not applicable when display reads -999 or 9999. When negative values are displayed, the MSD contains the negative sign
- Optional green or amber LEDs

### Application

AMETEK Dixson 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. Signal sensitivities span ANSI C39.1 ranges, all conventional current loops and voltage control signals. Configuration programming is accomplished using a PC serial link. The instruments are suitable for local or remote, primary or redundant system indication.

Model BG101P (single bargraph) and BG202P (dual bargraph) enclosures are form-factor compatible with the Bailey RY edgewise switchboard instrument. This simplifies retrofit into existing systems without panel modifications.

User-programmability provides maximum versatility and minimizes the need for spares. A solid-state design with no moving parts yields a highly reliable product, especially under conditions of shock, vibration, dust and moisture. Features such as linearization and min/max readings make the "PRO" Series the ideal choice for your application.

# BG101P/BG202P Specifications

Note: for ISA S67.04 and RP67.04 Part II, consult factory for models and assistance.

## PHYSICAL CHARACTERISTICS

Number of segments in each bargraph channel 101  
Resolution 1.0%

## ENCLOSURE MATERIAL

Metal

## DIGITAL DISPLAY

(-)999 to 9999  
Number of digits in each digital display 3 to 4  
Resolution 0.01% ± 1 count\*

## ENVIRONMENTAL CHARACTERISTICS

Operating temperature range (MIL-E16400G, Class 4) 0 to +60° C  
Storage temperature range -40 to +85° C

## POWER REQUIREMENTS

115/230 VAC at 50, 60, 400 Hz

Line regulation ±10%

Power consumption (typical, depends upon options) 3.5 VA

## SENSITIVITY RANGES (Reference ANSI C39.1 Std. Sensitivities)

### STANDARD FULL SCALE INPUTS FROM ZERO

(DIP-switch selectable):

DC currents 500 µA to 50 mA  
DC voltages 1 to 250 V

## DC INPUT PARAMETERS

Linearity 0.02% of span ± 1 count\*  
Accuracy 0.04% of span ± 1 count\*  
Zero stability <0.01% per °C  
Gain stability <0.02% per °C

### Input impedance:

For voltage inputs >200 k ohms  
For 4 to 20 mA DC current inputs 100-ohm compliance resistor  
For 10 to 50 mA DC current inputs 40-ohm compliance resistor  
For all other current inputs Consult factory  
Response time (typical) 175 ms  
Overload (signal) 200% or 250 VDC maximum

## AC INPUT PARAMETERS (true RMS-reading)

Linearity 0.4% of span \*\*  
Accuracy 0.5% of span \*\*  
Zero stability <0.04% per °C  
Gain stability <0.04% per °C  
Input impedance for voltage inputs >200 k ohms  
Response time (typical) 325 ms  
Overload (signal) 200% or 250 VAC maximum

## LINEARIZATION

8<sup>th</sup>-order polynomial (nine terms). Refer to "PRO" Series Interface Kit.

\* 1 count is defined as a ± unit value change of the right-most digit.

# BG101P/BG202P Dimensions

