



REPLACEMENT FOR

- Sigma 9270 1/2-DIN Lumigraph™
- Sigma 9264

BS101P/BS202P Programmable Bargraphs

A METEK Dixon “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 (AS101P/AS202P and SS101P/SS202P respectively).

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. Signal sensitivities span ANSI C39.1 ranges, all conventional current loops, and voltage control signals. The instruments are suitable for local or remote, primary or redundant system indication.

These bargraphs are direct replacements for the Sigma 9270 1/2-DIN Lumigraph™ and Sigma 9264 mechanical models. This simplifies retrofit into existing systems without panel modifications.

For control applications, the optional setpoint/relay module provides on/off and differential gap control and annunciation

using two Form-C relays and three set points. One of the set points can be configured as either a LO-LO or as a HI-HI. The other two set points function as a LO and a HI.

The optional temperature measurement module makes the instrument a direct-reading indicator for E, J, K, and T thermocouples, or 100-ohm RTD.

An optional digital display reads to 10 percent over- and underrange.

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.

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 front panel switches or a PC serial link
- Available with or without program switches on front
- Input signal ranges switch-selectable
- Auto-calibration algorithm
- Linearization of input signals
- Min/max signal memory (peak/valley hold)
- Front panel mounting

- Underrange/overrange indication
- Modular design for flexibility and options

Options

- Digital display with true minus-sign indication
- Green or amber LEDs
- On/off control using two set point relays
- Direct temperature measurement

BS101P/BS202P 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 OPTION

(True minus sign) -9999 to 9999

Number of digits in each digital display 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

Either 115/230 VAC at 50, 60, 400 Hz

Line regulation ±10%
Power consumption (typical, depends upon options) 7.0/14.0 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

OPTIONAL FULL SCALE INPUTS FROM ZERO

DC currents - factory configured 50 µA to 250 mA
DC voltages 50 to <1000 mV
Thermocouple - Type E -100 to +1000° C
Thermocouple - Type J -18 to +760° C

Thermocouple - Type K -18 to +1370° C
Thermocouple - Type T -160 to +400° C
RTD (100-ohm platinum) -200 to +850° C

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

SET POINT OPTION (internal module)

Standard set points (three) LO; HI; LO LO or HI HI
Setability 0.1%
Hysteresis 1.0%
Relay response time (typical):
For DC inputs 350 ms
For AC inputs 650 ms
Relay contact ratings (two Form C): 3.0 A at 120 VAC
0.6 A at 125 VDC

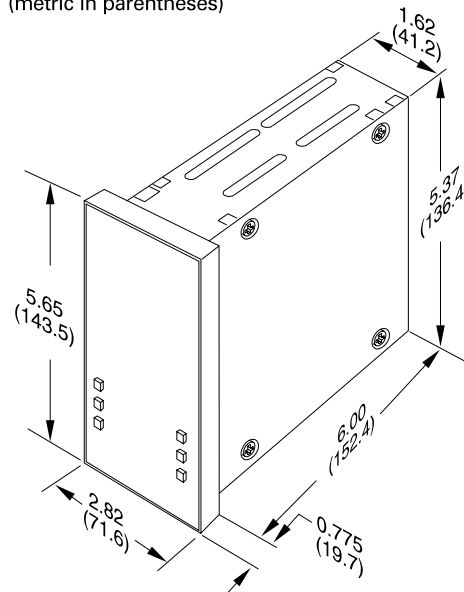
LINEARIZATION

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

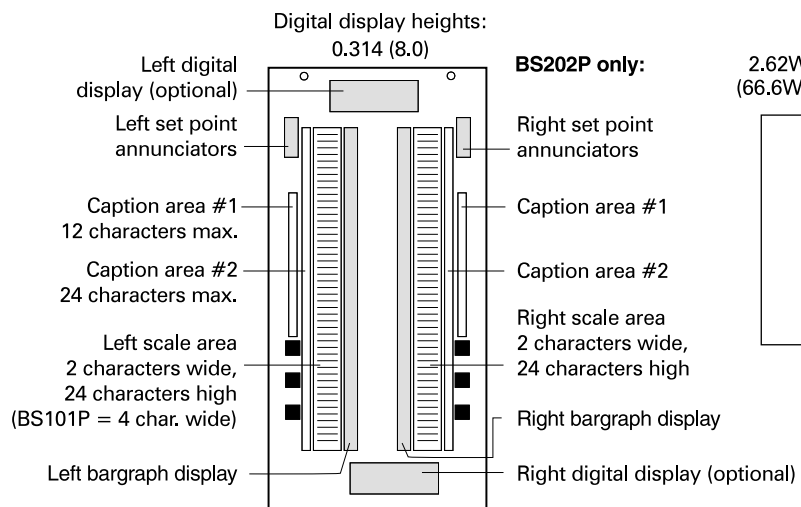
* 1 count is defined as a ± unit value change of the right-most digit.

BS101P/BS202P Dimensions

Dimensions given in inches
(metric in parentheses)



Artwork Guidelines



Panel Cutout Dimensions

BS202P only: 2.62W X 5.37H
(66.6W X 136.4H)

