

Space-saving Two-wire Signal Conditioners B3-UNIT Series



Four-wire
Signal Conditioners

Two-wire
Signal Conditioners

Power Transducers

Indicators

Limit Alarms

Gateway,
Remote I/O

Paperless Recording
System

PC Recorder

Electronic Actuators
& Position Sensors

Lightning Surge
Protectors

Two-wire
Product Selection Guide

27-UNIT Series

26-UNIT Series

B6-UNIT Series

B3-UNIT Series

B5-UNIT Series

6-UNIT Series

T-UNIT Series

B-UNIT Series

Two-wire Signal Conditioners

DIN rail mounted, input configurable two-wire transmitters.

- Input type and range selectable with the internal DIP switches and fine calibration using the front potentiometers
- Wide supply voltage range 12–45V DC
- Eliminates noise and prevents ground loops with 2000V AC isolation
- B3HU / B3PU 1500V AC isolation between input and output



SPECIFICATIONS

GENERAL SPECIFICATIONS

Construction	Front terminal access
Connection	Removable terminal block
Housing material	Flame-resistant resin (grey)
Isolation	Input to output

INSTALLATION

Supply voltage	12 – 45V DC
Operating temperature	-40 to +85°C (-40 to +185°F) Max. 55°C (131°F) for UL approval
Operating humidity	0 to 95% RH (non-condensing)
Mounting	DIN rail
Dielectric strength	2000V AC @1 minute (input to output to ground)

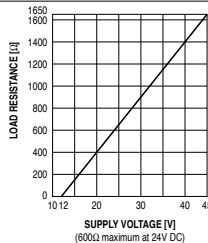
OUTPUT

Output	4 – 20mA DC
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Load resistance vs. supply voltage:

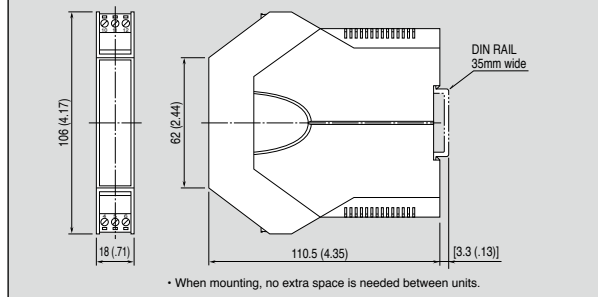
$$\text{Load Resistance } (\Omega) = \frac{\text{Supply Voltage (V)} - 12 \text{ (V)}}{0.02 \text{ (A)}}$$

(including leadwire resistance)



EXTERNAL DIMENSIONS

mm (inch)



Model	Function	Page
B3HU	2-wire Universal Temperature Transmitter (HART communication, intrinsically safe)	P.87
B3PU	2-wire Universal Temperature Transmitter (PROFIBUS-PA)	P.88
B3FV	Signal Transmitter (field-configurable)	P.88
B3VS/1	Signal Transmitter (single-channel output loop powered isolator)	P.88
B3VS/2	Signal Transmitter (dual-channel output loop powered isolator)	P.88
B3FT	Thermocouple Transmitter (field-configurable)	P.89
B3FR	RTD Transmitter (field-configurable)	P.89
B3FP	Frequency Transmitter (field-configurable)	P.89

Accessories, Related Products

Model	Function	Page
COP-H	Bell202 Modem (RS-232C interface)	***
COP-HU	Bell202 Modem (USB interface)	***
M2DYH	Current Loop Supply (applicable to HART signal)	P.19
A3DYH	Current Loop Supply (applicable to HART signal)	***

To find a product in the list with “***”, visit M-System Data Library.
If you cannot find a product here, please contact: info@m-system.co.jp