

Data-logger *mini-log b*

Collects measured values with 2 input channels for storing analog and digital values



Application Areas

- Independent data storage for temperature, humidity, pressure, flow, level, and analysis values
- Temperature monitoring:
Store temperatures and transport temperature measurement
- Event and operation time recording
- Access monitoring
- Piece part and quantity recording
- Measured values can be automatically recorded and stored independently from main power supply

Advantages

- Variable sensor connections using 0/4 to 20 mA, 0 to 1 V or Pt 100, as well as relay contact for event or impulse counting
- Instantaneous value or min/max/average value recording
- Measured value storage always includes time and date
- Stores up to 16,000 measured values
- Presetable storage cycle from 1 minute to 24 hours
- Battery powered unit, no power supply required
- Small, economical, maintenance free
- User friendly data analysis using the ReadWin software package

Endress + Hauser

Nothing beats know-how



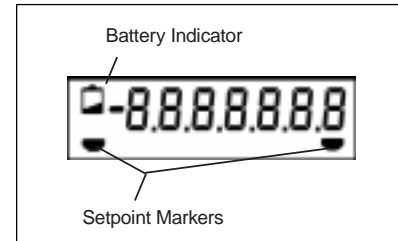
Function

The battery powered Mini-Log B data-logger records analog and digital measured values. The analog input signals can be 0/4 to 20 mA, 0 to 1 Volt and Pt 100 resistive thermometers. In addition to the analog input, a digital input is available. A potential free relay contact can be connected to this input.

The digital input records count impulse with a maximum frequency of 25 Hz. Alternatively, this input can be used to calculate the running time of a particular piece of equipment or machine. The internal memory capacity is 4,000 measured values (optional 16,000 measured values). This allows up to 24 hours of recording using a storage cycle of 1 minute.

Set Points

In addition to recording the data, the data-logger also monitors two set points. These set points can be set up using the ReadWin software package. Any infringement of these values is indicated on the display.



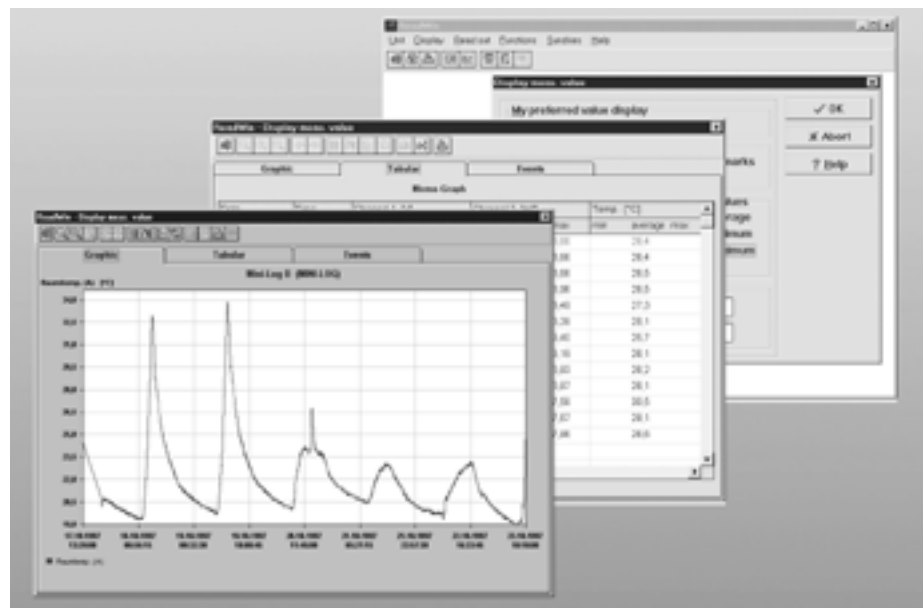
Interface / ReadWin PC Software

The Mini-Log B data-logger can easily be set up using the RS 232 interface. Simple setup is made possible by using the on-line help text. The ReadWin software package and the interface cable can be purchased as accessories.

Viewing Data

The recorded data can be viewed, transmitted and displayed using the ReadWin software. ReadWin provides:

- Single PC operating system using Windows 3.11 / 95 / NT
- Saving the settings in a data bank
- Instantaneous value display
- Min. / Max. / Average value display
- Read out of the values stored in memory
- Measured value display in the form of traces, columns and tables
- Data export onto spread sheets (e.g. Excel, Lotus, etc.)
- Printout of graphics, tables and unit parameters



Technical Data

Application	Measured value collector for recording and storing analog and digital values
Equipment	Mini-Log B
Manufacturer	Endress+Hauser

Operation

Principle Operation	Measured value recording using analog/digital conversion Recorded data are stored in an internal memory which can store 4,000 measured values (optional 16,000 values) Data can be transferred to a PC using ReadWin software package for further signal processing
Measurement System	Analog: Data-logger and separate 0/4 to 20 mA, 0 to 1 V or Pt 100 transmitter Digital (discrete): Data-logger with potential free relay contact
Interface	RS 232, maximum cable length 26 feet (8 m). Optional RS 232 cable, 5 foot (1.5 m) and ReadWin software available

Inputs / Accuracy

Input	Input transmitter must have a single 0/4 to 20 mA, 0 to 1 V or Pt 100 output Discrete digital input, signal relay contact NOTE: Mini-Log B does not have loop power supply
Analog Input	0 to 1 V, $R_i > = 1 M\Omega$, $\pm 0.25\%$ FSD accuracy 0/4 to 20 mA, via shunt, $R_i = 50\Omega$ Cable open circuit monitor < 2mA (on 4 to 20 mA), $\pm 0.25\%$ FSD accuracy Pt 100, -148° to + 752°F (-100° to + 400°C), shielded cable, $\pm 0.9^\circ\text{F}$ (0.5°C) accuracy
Digital (discrete)	Single input using two terminals, $f_{max} = 25$ Hz, for relay contact
Temperature Drift	$\pm 0.25\%$ / 10K
Time Drift	± 50 ppm (< = 30 min/year)

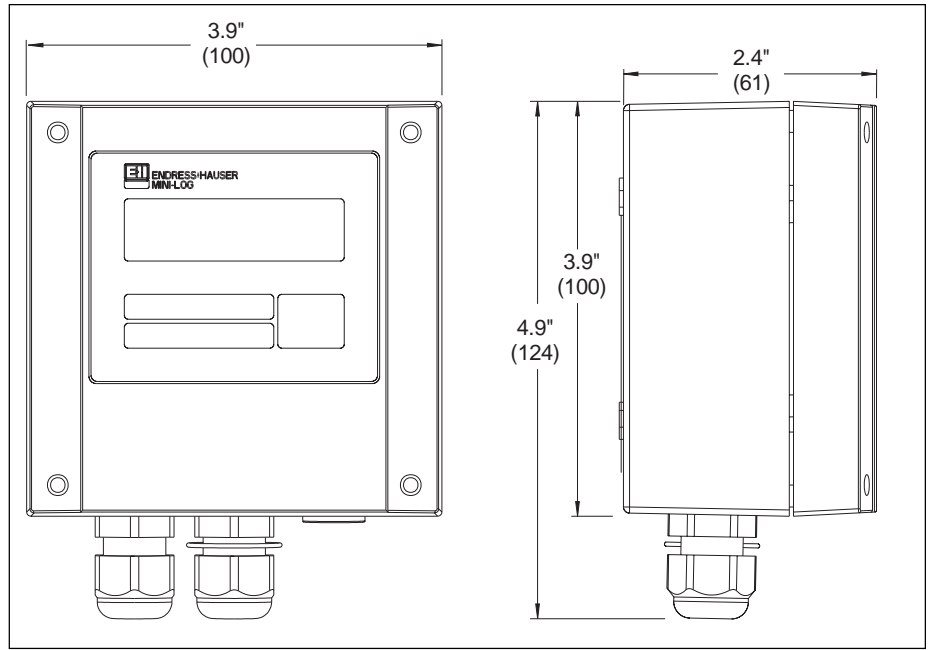
Environmental Conditions

Ambient Temperature	-13° to + 131°F (-25° to + 55°C)
Storage Temperature	-13° to + 140°F (-25° to + 60°C)
Climate Class	IEC 654 Part 1 Class C1
Ingress Protection	IP 65 with closed cover, IP 20 with open cover
Vibration Security	IEC 654-3, $v < 3\text{mm/s}$, $1 < f < 150\text{Hz}$
RF Protection	To EN 55011 Group 1, Class B
Interference Safety	ESD, to EN 61000-4-2, Level 3, 6/8 kV Electromagnetic fields, to EN 61000-4-3, Level 2, 3 V/m Burst (signal circuit), to EN 61000-4-4, Level 3, 1kV Surge HF discharge, to EN 61000-4-6, 10 V Normal noise rejection, 26 dB at input range/10, $f = 50/60$ Hz, not on resistance measurement

Housing / System

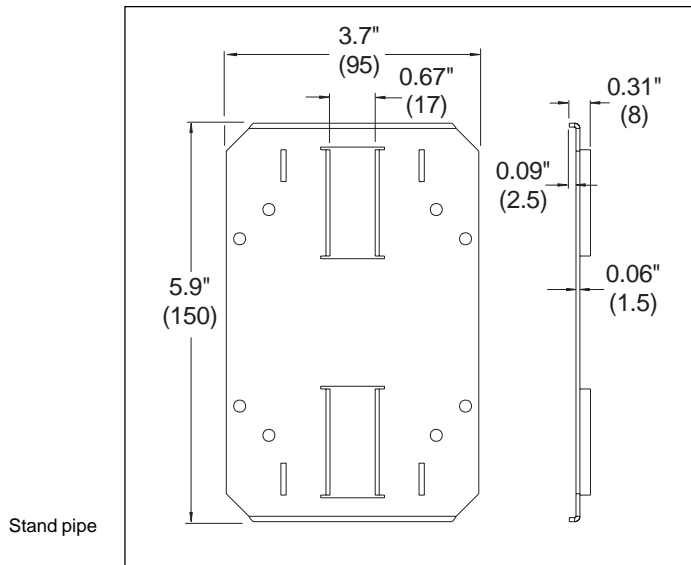
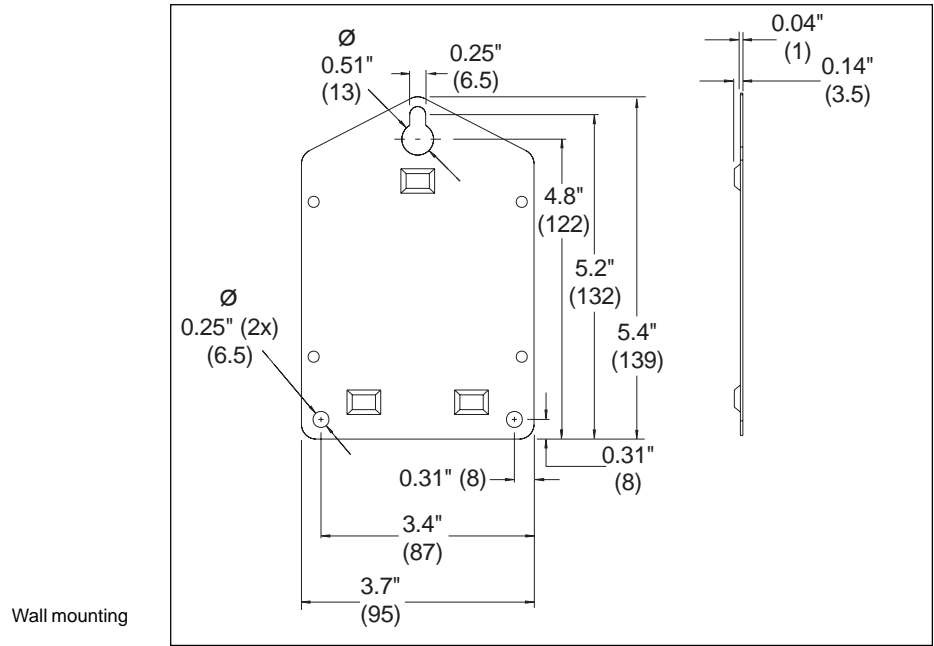
Construction	Aluminum die cast, surface galvanized with clear Lexan viewing cover Wall / pipe stand mounting adapter, 304 SS 3.94" x 3.94" x 2.36" (100 x 100 x 60 mm) nominal size
Weight	1.1 lb (0.52 kg)
Electrical Connection	2-wire connection (3-wire with Pt 100) through two (2) PG 9 cable glands
Power Supply	Lithium battery, 3.6 V, Type AA. Life cycle, approximately two years using an average storage cycle of 1 hour
Display	7-segment LCD, decimal point, limit symbols and battery status symbol
Operating Level	ReadWin software package for setup, transmission, and display of measured data. Software runs under Windows 3.11/ 95 / NT
Certificates	CE 89/336/EWG guide lines

Dimensions

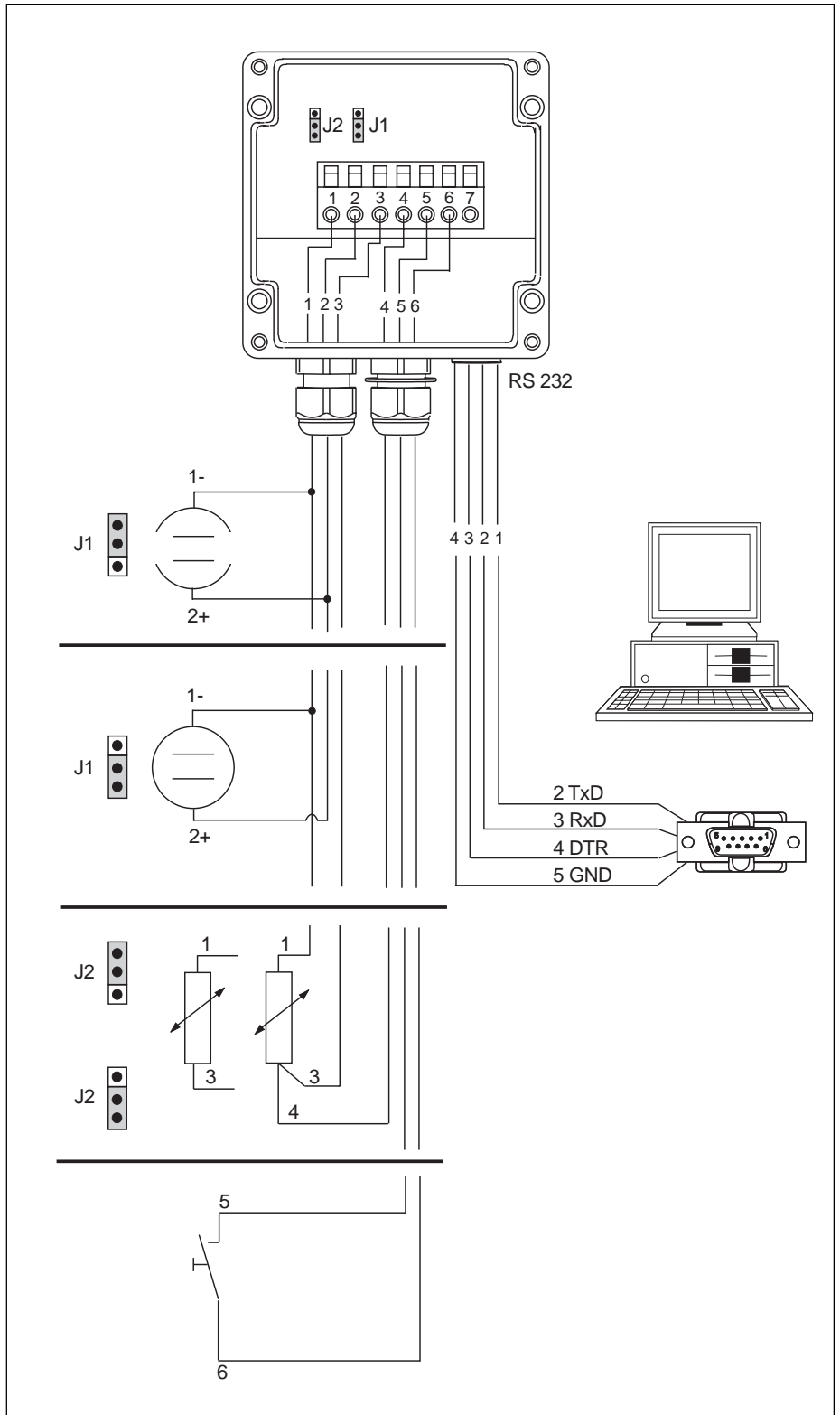


NOTE: The unit should be mounted vertically. A wall or pipe mounting kit is available, refer to installation diagrams below.

Installation



Electrical Connections



Analog Input:
0 to 20 mA
NOTE: Connect
4 to 20 mA jumper J1
to the top two pins

OR

Analog Input:
0 to 1 V
NOTE: Connect
jumper J1 to the
bottom two pins

OR

Pt 100:
2-wire connection,
connect jumper J2
to the top two pins

3-wire connection,
connect jumper J2
to the bottom two pins

Digital (discrete) Input:
relay contact

Ordering Information

RDL 10 - 1 2 3 4 5 6

- 1 Certificates
 - R Version for non-hazardous areas
- 2 Measured Signal Input
 - 1 0/4 to 20 mA, 0 to 1 V, Pt 100 range -148° to + 752°F (-100° to + 400°C)
- 3 Internal Memory
 - A 8 K internal memory for maximum 4,000 measured values
 - B 32 K internal memory for maximum 16,000 measured values
- 4 Temperature Sensor
 - 1 Unit without temperature sensor
 - 2 Unit with Pt100 temperature sensor fitted in cable gland with measurement range of - 13° to + 131°F (- 25° to + 55°C)
- 5 Model
 - A Unit without security lead seal
 - B Unit with security lead seal
- 6 Accessories
 - 1 No accessories required
 - 2 Wall mounting adapter
 - 3 Stand pipe adapter
 - 4 Interface cable with ReadWin software
 - 5 Wall mounting adapter and interface cable with ReadWin software
 - 6 Stand pipe adapter and interface cable with ReadWin software
 - 9 Other

Each unit includes a built-in lithium battery, 1 operating manual, and PG 9 cable entry glands.

<u>Accessories</u>	<u>Part Number</u>
RS 232 interface cable with ReadWin software	RDL10A-VK
Wall mounting adapter	50086642
Stand pipe adapter	RDL10A-MA
Security lead seal kit	RDL10XPA
Spare Lithium battery, 3.6 V, Type AA	50085928

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