Portable Zone 2 Data Logger

BM-EZ1021E

Computerised Data Loggers

Adding to our extensive range of workshop and offshore computers is our latest industrial workshop computer. Specifically designed for harsh workshop environments, the brush finished stainless steel unit incorporates a high brightness 7” LED TFT display

- Zone 2 TallyBook – BM-EZ1021E
- Portable Pressure Logger Computer System
- Zone II Certified Harsh Environment Computer
- Records Pressure and Temperature
- High accuracy and resolution
- Real Time Recording software
- Enclosed Batteries for up to 40hr operation
- 4 Analogue Channel Inputs
- 7” High Brightness TFT IP65 Display (LED Backlight)
- Computer and data acquisition electronics
- all housed in one enclosure
- USB port for standard memory stick data download
- Safe Area Battery Charger unit
- Simple operation

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This system is supplied in 5 parts;

- BM-EZ1021E (Zone II Harsh Environment Computer) –Includes data acquisition electronics and batteries
- Transducers - Suitable for Zone II hazardous area
- Battery Charger – quick recharge unit for use in safe area
- Real-time Software –provides real-time logging of pressure test displayed as digital PSI value and pressure/time graph. Temperature is also displayed as Deg C and on the graph.
- Review/setup software – Allows for pressure test data to be scaled, input of relevant test data, upload and download and print out of results. This is for use on standard PC in safe area.

Hardware

The logger is an industrial computer combined with the data acquisition electronics and batteries housed in a sealed IP65 diecast enclosure. This harsh environment computer benefits from a 'state of the art' high brightness 7" LED display providing a screen resolution of 800 x 480. The screen provides a clear display of digital pressure readings and pressure against time graph.
6 touch button switches along the bottom of the screen provide the user with simple software setup adjustments; i.e scale adjustment & graph scrolling.
1 touch button switch toggles the power of the unit ON & OFF. An integrated LED flashes when in power save mode to indicate the unit is on and in logging mode.
The power save mode automatically switches the display backlight off when the display is not required during logging. This is necessary to achieve long test results from the limited battery power. The user presses the ON/Off switch to bring the display back on.
Connectors are provided for attaching the sensors, charger and memory stick.
After pressure test recording the unit can download onto a standard USB memory stick. This is carried out in a safe area. Software installed on the desktop/laptop allows for test details to be entered, graph review, scale adjustments and printout of test reports.

Hardware Specification

BM-EZ1021E
Display Size 7" LED TFT
Screen Resolution 800 x 480
Brightness 280 cd/m2
Viewing Angle 60°
Backlight type LED

Computer Hardware

CPU 520 MHz
RAM 64 Mb
SDCARD 2 Gb
Ports 1 x USB Device
Operating System
Windows CE 5.0

Data Acquisition Electronic Interface

Input Channels 4 x 4-20mA
Sample rate 1 – 60 seconds
Resolution 16 bit Sigma/Delta

Enclosure

Type Diecast aluminium
Seal Rating IP 65
Operating Temperature 0 to 50 ·C

Harsh Environment Pressure Transducer

- Rating Zone II Hazardous Area
- Pressure range: 20,000 PSI
- Pressure Resolution : 0.5PSI
- Pressure Accuracy: +/- 0.15% FS
- Pressure Connection: 9/16” Female UNF High Pressure

Harsh Environment Temperature Transducer

- Rating Zone II Hazardous Area
- Temperature range: -50 to +75 ºC
- Temperature Resolution: 0.005 ºC

Software

The software package installed on the BM-EZ1021E runs on a Windows CE platform.

Pressure and temperature is displayed as real-time digital values and curves are displayed on an x/y real-time graph.

The scrolling graph view allows the user to view over a time period defined within the setup.

Push button switches allow the user to adjust pressure PSI and temperature DegC scales on the graph. They also allow the user to scroll back and forth through recorded graph pages.

The recorded data is saved under a filename that combines the test start date and time.

Data can be extracted onto a memory stick within a safe area.

Full software version on standard PC

With the uploaded data the user can playback recorded tests and add the following test data; Technician, Company Location, Well No., Assembly No., Job No. & Serial No.

All data will then be displayed within the report and printed if required.
An option allows for all recorded test data to be compressed onto a single graph. This displays the complete duration of the test from beginning to end.