

TEMPERATURE

High Precision Digital Thermometer

The BetaProbe™ TI

A single BetaProbe TI high precision digital thermometer can replace many liquid-in-glass (l-i-g) thermometers. It can also serve as a reference standard for other types of digital or analog temperature indicators. Plus, intrinsically safe certification means it can be used virtually anywhere.

The integral 3/16" (5 mm) diameter probe houses a quick response thin film sensor for quickly acquiring highly accurate readings using minimal insertion depth. The integral probe also rotates through 90° for any angle reading of the display.

Speaking of displays, a unique feature of the BetaProbe TI is the user-configurable trend indicator. With this feature, the user knows at a glance if the reading is stable or trending higher or lower. The display also incorporates a high intensity blue backlight for easy reading in any lighting condition from full sun to pitch dark.

With the use of optional BetaLOG™ TI software, the BetaProbe TI becomes a high performance, easy to use temperature data logger. It allows the user to create a full suite of logging options, download them to the BetaProbe TI, then retrieve, format, display and save the data using Microsoft® Excel spreadsheet files.

The BetaProbe's RS-232 serial port can also be used for configuration and recalibration support via Windows™ HyperTerminal. The BetaProbe TI includes many other features including Min/Max storage and recall; selectable sample rate; battery saving auto shutoff and damping. Battery life of 250+ hours of continuous use means the three AAA alkaline batteries will seldom need changing.



Ex ib IIB T4 Gb (-10°C ≤ Ta ≤ +50°C)
ITS10ATEX27114X
Ex ib IIB T4 Gb
IECEx ITS10.0049X

General Features

- Low total cost of ownership (TCO) compared to L-I-G thermometers
- High accuracy ($\pm 0.06^{\circ}\text{C}$)
- High resolution (0.001°C)
- Hazardous area use rating
- Fast response
- Data logging with optional BetaLOG™ TI software
- Temperature trend indicator
- Rugged and reliable
- EMI/RFI standard compliant
- Long battery life
- User configurable features
- Compact and lightweight

Specifications

(18°C to 28°C unless noted)

- Range : -50 to 160°C (-58 to 320°F)
- Accuracy : (1 year) $\pm 0.06^{\circ}\text{C}$ (0.1°F)
- Resolution : 0.1, 0.01, 0.001 (user selectable)
- Sample Rate : 0.5/sec, 1/sec, 2/sec (user selectable)
- Operating Temperature : -10 to 50°C
- Operating humidity : 0 to 95% RH non-condensing
- Storage Temperature : -20 to 60°C
- Enclosure : IP50
- Environmental Effect : ± 10 ppm/°C from -10 to 18°C and 28 to 50°C
- EMC Compliance : EN 61326:2006 Annex C, CISPR II, Edition 5.0-2009 Class "B"
- Battery : three (3), size AAA alkaline batteries. Use only approved batteries to maintain intrinsic safety rating
- Auto Shutoff : User configurable 1 to 30 minutes or disabled
- Size (readout only) : 4" x 2" x 1" (10 cm x 5 cm x 3 cm)
- Probe : 3/16" diameter x 12" length (5 mm x 300 mm)
Other sizes upon request
- Weight : 6.9 oz (75 g)

BetaProbe TI Includes: manual, NIST traceable calibration certificate, batteries, protective carrying case.

BetaLOG TI Data Logging Software

The optional BetaLOG TI software turns the BetaProbe TI into a high performance, easy to use temperature data logger. When the data logging feature is turned on, the BetaProbe can store up to 10,752 readings.

Configuration options include:

- Interval selections from 1 second to 1 minute
- Runs can range from a few seconds to several days
- Data capture mode types
 - Average/Minimum/Maximum/Interval end
 - Interval end only
- Data storage options :
ASCII text file (.TXT) • Comma delimited (.CSV) • Microsoft® Excel (.XLS) • Microsoft® Excel with template formats

BetaLOG TI runs quickly on most modern Window™ PCs.

Minimum requirements are :

- Pentium CPU, 1.0 GHz • 512 MB RAM • 5 MB disk storage plus storage for data • Windows XP Professional, Vista, Windows 7 • Optional Microsoft Excel

BetaLOG TI is provided with :

- The software on CD-ROM media • RS-232 cable • USB/Serial adapter and complete user guide.

