

*Calibration Technology Starts Here*

## *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.

### General Features

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

For more information:  
- Call us toll free at 800-821-0023  
or 603-434-1433  
- Fax us at 603-434-1653  
- Email us at [sales@martelcorp.com](mailto:sales@martelcorp.com)  
and ask for a BetaProbe TI Data Sheet  
- Or go to our website,  
[www.martelcalibrators.com](http://www.martelcalibrators.com)  
and click on BetaProbe TI  
- **Online product comparison**



### Specifications (18°C to 28°C unless noted)

#### Range

-50 to 160°C (-58 to 320°F)

#### Accuracy (1 year)

±0.06°C (0.1°F)

#### Resolution

0.1, 0.01, 0.001 (user selectable)

#### Sample Rate

0.5/sec, 1/sec, 2/sec (user selectable)

#### Environmental

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"

#### Power

Battery three (3), size AAA alkaline batteries  
 Use only approved batteries to maintain  
 intrinsic safety rating  
 Battery Life 250+ hours continuous without  
 backlight use

#### 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)

#### Accessories

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



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

### BetaLOG TI Data Logging Software

The optional BetaLOG TI software turns the BetaProbe TI into a high performance, easy to use temperature data logger. With the convenience of its integral probe and the small and lightweight nature of the readout head, it fits a wide range of applications.

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.

