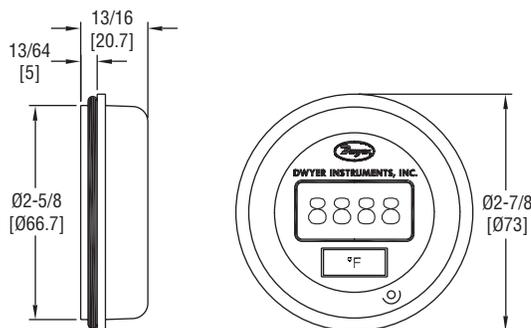




Series BPI/TC Battery Powered Digital Thermometer

Specifications - Installation and Operating Instructions



The **Series BPI** is a range of battery powered temperature indicators. The Series BPI-XX2 accepts a thermocouple sensor. The sensor type, temperature units and other flexible configuration settings are selectable via a simple to use menu system, which is navigated by the use of three push-button keys located on the rear of the display. The entire assembly is sealed into a cap that fits directly onto the connecting heads.

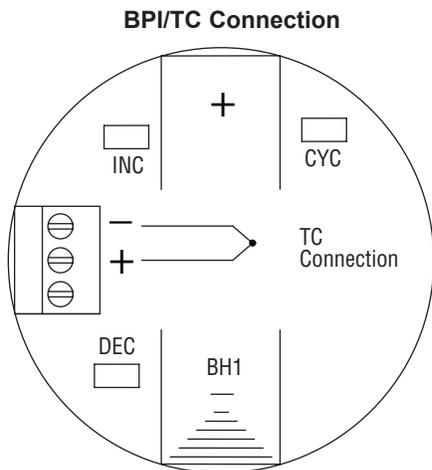
Please inspect the packaging and instrument thoroughly for any signs of transit damage. If the instrument has been damaged, please notify your shipper immediately.

INSTALLATION

Configuration - Fit the battery as described in Battery section, then follow the simple configuration menus printed on the reverse side of this sheet. This procedure can be performed with or without the sensor connected. Fit the correct units legend to the front panel face.

Enclosure - The case offers various options for sensor entry. Please refer to the data sheet for further details. The sensor may be fixed directly to the housing, or remotely connected using cable and gland. Cable length must be no greater than 20 meters to comply with CE certification. All external cabling/sensor entries must maintain IP67 rating.

Wiring



SPECIFICATION @ 68°F (20°C)

Inputs: Thermocouple or RTD depending on model.

Accuracy: Thermocouple input: $\pm 0.1\%$ FS, $\pm 0.5^\circ\text{C}$ (plus sensor); RTD: $\pm 0.2^\circ\text{C} \pm 0.1\%$ of reading (plus sensor error).

Power Requirements: 3.6 V Lithium battery.

Battery Life: >2 years.

Display: 4-digit LCD.

Resolution: 0.1°C .

Ambient Operating Temperature: 14 to 158°F (-10 to 70°C).

Storage Temperature: -4 to 185°F (-20 to 85°C).

Weight: 6.0 oz (170 g).

Front Panel Protection: NEMA 4X (IP65).

Agency Approval: CE.

Sensor	Range °F (°C)
K	-328 to 2498°F (-200 to 1370°C)
J	-148 to 2192°F (-100 to 1200°C)
T	-346 to 752°F (-210 to 400°C)
N	-292 to 2372°F (-180 to 1300°C)
R	14 to 3200°F (-10 to 1760°C)
S	14 to 3200°F (-10 to 1760°C)
E	-328 to 1832°F (-200 to 1000°C)
F	-148 to 1112°F (-100 to 600°C)

Note: For type R, S and B sensors accuracy only applies between 1472 and 3200°F (800 and 1760°C).

Battery

WARNING Fire, Explosion and severe burn hazard, DO NOT Recharge, Crush, Disassemble, Heat above 100°C (212°F), Incinerate or expose contents to water. NEVER short circuit the battery. Disposal, the battery may be regulated by national and local regulations. Please follow the instructions of the proper regulator.

To install battery, first gain access to the battery by unscrewing the cap retaining nut and removing cap from base. To remove old battery, ease out the positive end of the battery from the holder, using a screw driver blade. To fit battery, insert battery negative into the spring contact end of the battery holder, then press battery into place.

The units monitor their batteries. When the battery approaches the end of its lifetime (over 2 years under normal conditions), the display will toggle the message "LO BAT".

MAINTENANCE

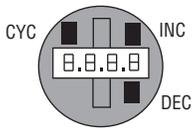
Apart from battery replacement this equipment requires no user maintenance. If re-calibration is required please contact your supplier for further information. Under certain circumstances, it may be possible to re-calibrate the device while it is still out in an application.

Please observe the battery warning. Ensure the instrument is installed with adequate protection against the environment. IP67 rating must be maintained. Try to avoid installing the equipment close to sources of extreme temperature and electrical or electromagnetic interference. Any cleaning of the instrument should be carried out using a mild detergent and a soft cloth. No solvents or abrasive cleaner should be used.

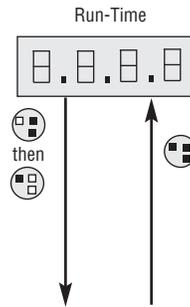
The Series BPI/TC Battery Powered Temperature Indicator is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.

SERIES BPI/TC CONFIGURATION MENU GUIDE

There are three buttons, which the operator must press in various combinations in order to configure the device. These buttons are located on the underside of the indicator's circuit board. Viewed from the front, the three buttons (**CYCLE**, **INC**, **DEC**) are shown in the diagram to the left. Pressing 2 buttons simultaneously causes **ENTER** or **ESCAPE** actions.



INCrement and **DEC**rement are shown in the diagram to the left. Pressing 2 buttons simultaneously causes **ENTER** or **ESCAPE** actions.

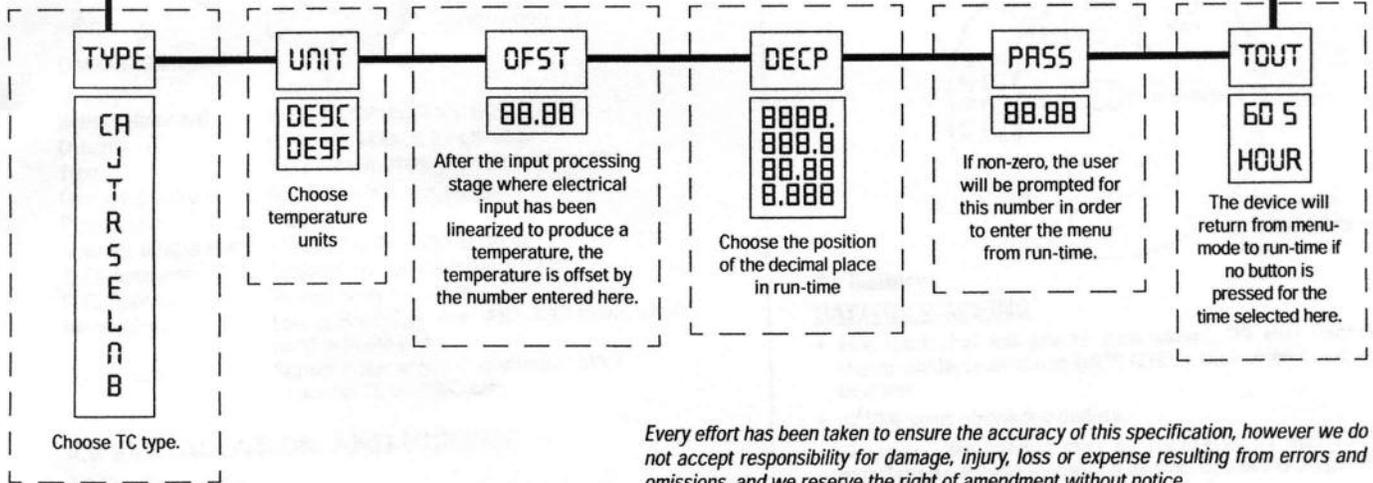


If no buttons are pressed for a minute or more, the device assumes run-time mode. The display shows the PV (if the input is in range) or shows **----** or **----** to indicate over/under range. In order to access menu configuration mode, the user must press **ENTER** followed immediately by **CYCLE**. In order to exit the menu and return to run-time, a user must press **ESCAPE**.

When cycling around menu, the title (e.g. TYPE, UNIT, etc.) is displayed for a second, then the menu entry is displayed ready for editing. Then use INC/DEC to move through entries in a list, or to edit a real number.

CYCLE around menu

- INC**rement menu entry
- DEC**rement menu entry
- ENTER** to confirm entry, or:
- CYCLE** to next menu entry
- ESCAPE**



Every effort has been taken to ensure the accuracy of this specification, however we do not accept responsibility for damage, injury, loss or expense resulting from errors and omissions, and we reserve the right of amendment without notice.