

XT11S

Electronic Digital Thermometer with maximum / minimum temperature log

1. GENERAL WARNING

⚠ PLEASE READ BEFORE USING THIS MANUAL

- This manual is part of the product and shall be kept near the device for easy and quick reference.
- Check the application limits before proceeding.
- Dixell Srl reserves the right to change the composition of its products, even without notice, ensuring the same and unchanged functionality.

⚠ SAFETY PRECAUTIONS

- WARNING:** this equipment should be installed, adjusted and serviced by qualified electrical maintenance personnel familiar with the construction and operation of the equipment and the hazards involved. Failure to observe this precaution could result in bodily injuries.
- Dixell is not responsible for any impairment or damage caused by the product if used in a not specified manner.**
- Always ensure that the probe is connected to the instrument before the power supply is connected and turned ON.
- Check the supply voltage is correct before connecting the instrument.
- The probe is under NO extra low safety voltage for models with 230V or 110V power supply.**
- For the model at 230V or 110V a double insulation probe has to be used, NOT SUPPLIED.
- Use insulated quick connector terminals for voltage and probe.
- The instrument is designed for panel mounting and electrical connections must be positioned inside a properly protected board/panel.
- Do not expose to water or moisture: use the instrument only within the operating limits avoiding sudden temperature changes with high atmospheric humidity to prevent condense formation.
- Warning: disconnect all electrical connections before any kind of maintenance.
- The instrument shall never be opened.
- In case of failure or faulty operation send the instrument back to the retailer or to "Dixell S.r.l." (see address) with a detailed description of the fault.
- Assure that the wires for probes and for power supply are separated and far enough from each other, without crossings and spirals.
- To see the max and minimum recorded temperatures, use a S1 Class II approved push button, normally open, connected as indicated in par. 5.

2. GENERAL DESCRIPTION

The XT11S is a new electronic digital thermometer which displays the current temperature and also logs the maximum and minimum temperatures experienced. These max. / min. temperatures can be displayed at the touch of a button and reset if required.

3. INSTALLATION - 230V OR 115V VERSION (FIG.1)

The instrument is equipped with fast-on type spade terminals with probe connections separated from the power supply connections. To install the instrument proceed as follow:

- Use insulated quick connector terminals for voltage and probe.

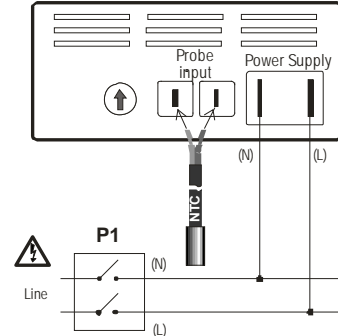


Fig.1

- Make a 59x25,5 mm (1.01x2.32 inch) hole in a panel with a thickness between 0.8mm and 2.7mm.
- Take the instrument from the box and place it in the hole until the side flaps click, which means they are locked.
- ⚠ **Disconnect the power supply from the board by means of a panel switch, not supplied, (P1 in Fig.1).**
- ⚠ **A Class II and certified according to IEC 60947-1 and 60947-3 approved panel switch has to be used.**
- ⚠ **Fit the panel switch near the XT11S, in a place easy to reach, to make the power supply disconnection easy.**
- Place the probe where it has to measure the temperature.
- Connect the probe terminals to the 2.8mm. fast-on as indicated.
- For supply use double insulation cables, with at least 0.75 mm² as diameter (AWG minus or equal to 20.)
- To protect the instrument against over current a 63mA external fuse has to be used.**
- Connect the power supply cables to the 6.3mm. fast-on.
- If possible, the manufacturer suggests connecting the phase (L) to the fast-on on the right and neutral (N) to the fast-on on the left as indicated.
- At this stage the board can be connected to the power supply once more.

4. DISPLAY OFFSET ADJUSTMENT

- It's possible to adjust the display visualisation in the range -10÷10°C, in case of wrong read-out of the probe.
- To do it, use a 3mm screwdriver to rotate the potentiometer till the thermometer display the right temperature.

5. DISCONNECTION AND PROBE SUBSTITUTION (FIG.1)

- ⚠ **Disconnect the power supply on the board where the instrument is positioned, by means of the panel switch (P1 in Fig.1)**
- Remove the power supply fast-ons.
- Disconnect the instrument and the probe.

6. EXTERNAL PUSH-BUTTON CONNECTION (FIG.2)

In order to display the maximum and minimum values on the instrument, use the S1 Class II approved type push button, normally open. Button has to be rated for the maximum main supply voltage. (NOT SUPPLIED).

- ⚠ **Disconnect the power supply on the board where the instrument is positioned, by means of the panel switch (P1 in Fig.1)**
- Connect the push button in parallel with the probe as shown in Fig.2.

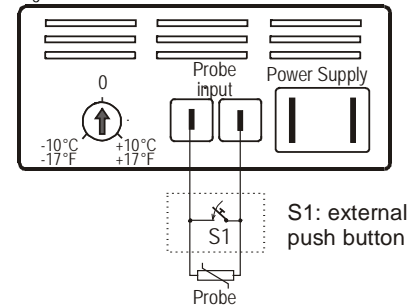


Fig.2

- Place the probe where it has to measure the temperature.
- Connect the probe terminals to the 2.8mm. fast-on as indicated.
- For supply use double insulation cables, with at least 0.75 mm² as diameter (AWG minus or equal to 20).**
- Connect the power supply cables to the 6.3mm. fast-ons.
- If possible, the manufacturer suggests connecting the phase (L) to the fast-on on the right and neutral (N) to the fast-on on the left as indicated.
- At this stage the board can be connected to the power supply once more.

7. DISPLAY OF MIN. AND MAX. TEMPERATURES LOGGED

Once the button for min & max temperatures has been connected, proceed as follows:

Maximum temperature display:

- Press and hold the push button (S1) till the display reads "HI".
- Release S1 and the highest temperature recorded since the last reset will be displayed for 3 seconds.

Minimum temperature display:

- Press and hold the push button (S1) till the display reads "LO".
- Release S1 and the lowest temperature recorded since the last reset will be displayed for 3 seconds.

Probe offset value display:

- Press and hold the push button (S1) till the display reads "PO".
- Release S1 and the probe offset value will be displayed for 3 seconds.

Maximum /minimum temperature reset:

- Press and hold the push button (S1) till the display reads "rE".
- Release S1 and the display will flash "rE" for 5 seconds.
- While the display is flashing press the push button and the max&min temperature will be erased.

Power on and power failure warning:

When the power supply is turned on and after any power failure, when the max. and min. set values are visualised, the display flashes. This is to warn the user that there has been an interruption to the power supply.

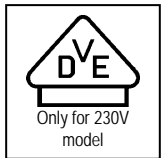
To restore normal operation, follow the same procedure that is used for re-setting the maximum/minimum memory. (see Maximum /minimum temperature reset).

8. MAINTENANCE AND CLEANING

Instruments do not require particular maintenance. To clean frontal, just use a soft moist cloth and avoid using any strong detergent or solvent.

9. TECHNICAL DATA

- Case: 64x31mm, depth: 19.5mm; self extinguishing polycarbonate.
- Mounting: only for panel mounting; 25,5x59mm panel cut out (1.01x2.32inc.).
- Frontal protection: IP20.
- Electrical connections: fast-on type spade terminals with probe connections (2.8mm) separated from power supply connections (6.3mm).
- Power supply: 230Vac ±10% 50/60Hz VDE approved or 110Vac ±10% 50/60Hz, or 12Vac/dc, or 24Vac/dc.
- Absorbed current: 40mA.
- Probe: NTC with double isolation for 230Vac or 110Vac version.
- Display and measurement units:
 - 50.0÷99.9 °C => 100 to 110°C; -40÷230 °F
 - NTC standard probe: -30÷105°C (-22÷220°F).
- Display update delay times (optional) when the temperature increases: fixed at 1 or 3 minutes depending on model specified at time of order.
- Operating temperature: T60°C/32±140°F.
- Storage temperature: -30÷75°C/-22±167°F.
- Relative humidity: 20÷85% (no condensing).
- Maximum working height: 2000m a. s. l.
- Installation category III; Transitory over-voltage: 4000V.
- Pollution degree: 2 according to IEC 664.
- Accuracy: ±10°C (±17°F).
- Accuracy: from -30 to -10°C (-22÷14°F): 1°C (2 °F) ±1 digit.
- from -10 to 110°C (14÷230°F): 0,5°C (1 °F) ±1 digit.



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