



Portable dry block and micro-bath

TE-25NL

-25... +155 °C

TE-35NL

-35... +155 °C

TE-45NL

-45... +155 °C

- Multifonction 4 in 1 (dry block, micro-bath, black body and surface)
- Inputs for measuring Device Under Test
- Portable and optimized for onsite calibration
- Best value for money



- Resolution of 0.01 °C
- Stability ± 0.02 °C
- Input for RTD, thermocouples and thermostats, etc...
- Internal regulated 24 Vdc power supply and 4-20mA input for 2-wire transmitters
- Complete automatic calibration with or without the use of the a computer (auto-cycling)
- Documenting capabilities: connection with computer and ISOPLAN® calibration software
- Remote Control via Bluetooth and Android application



Performance without compromise

The TE-25NL / TE-35NL / TE-45NL temperature calibrators give you the best in portable metrology with an optimal value for money. Indeed, these dry blocks/microbath temperature calibrators have cK (centikelvin) characteristics associated with functionalities only available on top range models of competition.

4 in 1 multifunction

The TE-xxNL incorporates all the functions of a standard dry block, but also those of a silicone oil bath with magnetic stirrer, a black body for the calibration of infrared pyrometers as well as those of a surface sensor calibrator. In addition, it has a measurement input used to read and record measurements from RTD such as PT100 or PT1000 probes, thermocouples, electrical signals 4-20mA, mV etc ... The user will be able to carry out temperature cycles automatically without need of signal reader, without a PC and without having to make manual readings at each temperature step.

Economical and flexible

The TE-xxNL, although true multifunction calibrators, remain modular. Indeed, the user can opt for the dry block alone and benefit from a large 35mm diameter/160mm deep well. Subsequently, the metrologist can gradually add the insert for liquid bath calibrations or the black body for calibrating non-contact thermometers (pyrometer type) or well again a flat insert for the calibration of the surface temperature sensor.

Robust and designed for the field

Robust and light, the calibrators of the TE-NL series are equipped with multi-stage Peltier modules which, in addition to the possibility of reaching negative temperatures, allow fast and stable regulation. Compact in size, they will be the allies of metrology technicians in laboratories, as well as in the field, even in the most harsh industrial environments.

Presys High-Performance Controller / Calibrator

Internal Reference Probe

Set Point

Simultaneous Display of DUT Input and Temperature Reference Probe.

IN = -10.09 °C
PROB = -10.00 °C

Selection of Various Display Options.

-10.09
IN = RTD-PT100 (°C)

-10.00
SET = -10.00 °C

Embedded Complete Calibrator with Documented Capabilities

TAG EXEC VERIF
ADDRESS TAGMAN

TAG TOL STR SP
STB RP RGO

Define your Calibration Cycle and Parameters.

Choose your DUT Input.

mV OHM TC
RTD mA SW NO

Different Types of RTDs.

PT100 CU10
NI100 PT1000

Selection of Thermocouples.

J K T E N L

Current Input

Thermocouple Input

Transmitter Power Supply 24 Vdc

RTD Input 2, 3, 4 wires

Common Features of our TE Economic Series

► Liquid Cristal Display - LCD.

Electric Power Supply: 115 or 230 Vac, 50/60 Hz.

► Unit/Temperature Scales: °C, °F, IPTS-68 or ITS-90, user selectable.

Serial Communication: Modbus® RTU Protocol (RS-232/RS-485) and Bluetooth.

► Input Thermocouple: J, K, T, N, L: $\pm 0.2\text{ }^{\circ}\text{C}$ @ $660\text{ }^{\circ}\text{C}$ / E: $\pm 0.1\text{ }^{\circ}\text{C}$ @ $660\text{ }^{\circ}\text{C}$.

CJC Accuracy: $\pm 0.2\text{ }^{\circ}\text{C}$.

► Input RTD: 2, 3, 4 Wires / Pt-100, Pt-1000, Cu-10, Ni-100 / $\pm 0.1\text{ }^{\circ}\text{C}$.

Input Current: -1 to 24.5 mA, $\pm 0.02\%$ FS.

► Transmitter Power Supply: 24 Vdc regulated.



Models

TE-25NL

TE-35NL

TE-45NL

Operating Range

ambient temperature: $23\text{ }^{\circ}\text{C}$

$-25\text{ }^{\circ}\text{C}$ to $+155\text{ }^{\circ}\text{C}$

$-35\text{ }^{\circ}\text{C}$ to $+155\text{ }^{\circ}\text{C}$

$-45\text{ }^{\circ}\text{C}$ to $+155\text{ }^{\circ}\text{C}$

Accuracy with internal Reference:

$\pm 0.1\text{ }^{\circ}\text{C}$

$\pm 0.1\text{ }^{\circ}\text{C}$

$\pm 0.10\text{ }^{\circ}\text{C}$

Resolution:

$0.01\text{ }^{\circ}\text{C}$

$0.01\text{ }^{\circ}\text{C}$

$0.01\text{ }^{\circ}\text{C}$

Stability:

$\pm 0.02\text{ }^{\circ}\text{C}$

$\pm 0.02\text{ }^{\circ}\text{C}$

$\pm 0.025\text{ }^{\circ}\text{C}$

Axial Uniformity (40 mm) Dry Block:

$\pm 0.06\text{ }^{\circ}\text{C}$

$\pm 0.08\text{ }^{\circ}\text{C}$

$\pm 0.08\text{ }^{\circ}\text{C}$

Radial Uniformity Dry Block:

$\pm 0.02\text{ }^{\circ}\text{C}$

$\pm 0.025\text{ }^{\circ}\text{C}$

$\pm 0.025\text{ }^{\circ}\text{C}$

Axial Uniformity (40 mm) Stirred Liquid:

$\pm 0.025\text{ }^{\circ}\text{C}$

$\pm 0.025\text{ }^{\circ}\text{C}$

$\pm 0.025\text{ }^{\circ}\text{C}$

Radial Uniformity Stirred Liquid:

$\pm 0.02\text{ }^{\circ}\text{C}$

$\pm 0.02\text{ }^{\circ}\text{C}$

$\pm 0.02\text{ }^{\circ}\text{C}$

Heating Time:

25 min ($25\text{ }^{\circ}\text{C}$ to $140\text{ }^{\circ}\text{C}$)

20 min ($25\text{ }^{\circ}\text{C}$ to $140\text{ }^{\circ}\text{C}$)

20 min ($25\text{ }^{\circ}\text{C}$ to $140\text{ }^{\circ}\text{C}$)

Cooling Time:

20 min ($25\text{ }^{\circ}\text{C}$ to $-25\text{ }^{\circ}\text{C}$)

40 min ($25\text{ }^{\circ}\text{C}$ to $-35\text{ }^{\circ}\text{C}$)

40 min ($25\text{ }^{\circ}\text{C}$ to $-45\text{ }^{\circ}\text{C}$)

Peltier module multi-stage:

4 x 2

4 x 2

6 x 2

Electric Power:

300 W

450 W

450 W

Power Supply:

115 - 230 Vac, 50/60 Hz

115 - 230 Vac, 50/60 Hz

115 - 230 Vac, 50/60 Hz

Well Diameter x Depth:

$\varnothing 35\text{ mm}$ x 160 mm

$\varnothing 35\text{ mm}$ x 160 mm

$\varnothing 35\text{ mm}$ x 160 mm

Weight:

12.0 kg

12.5 kg

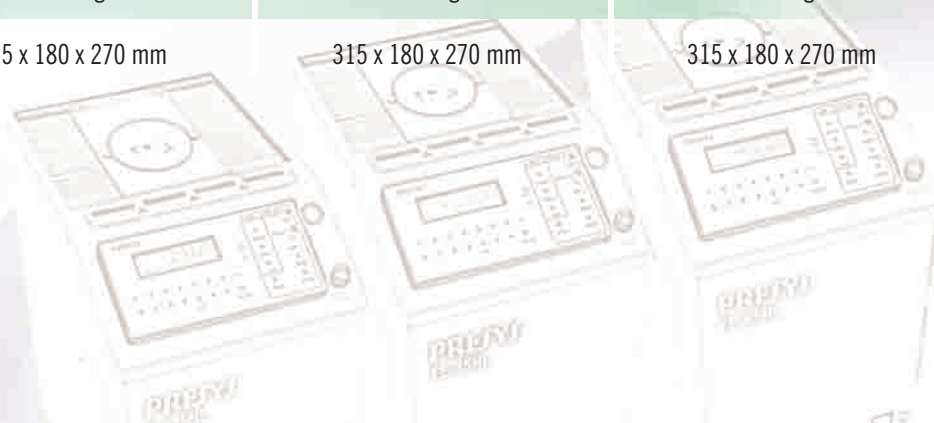
12.5 kg

Dimension (HxWxD):

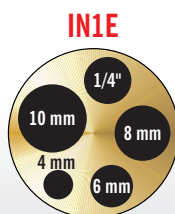
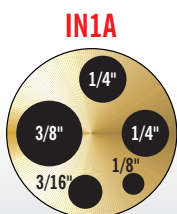
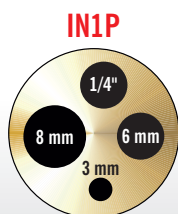
315 x 180 x 270 mm

315 x 180 x 270 mm

315 x 180 x 270 mm



Inserts



- One standard insert included (default is IN1P).
- Consult our website or factory for all insert dimensions and types available.
- Presys can provide custom inserts with minimum 3mm separation between holes, consult Presys with your specific requirements

Inserts

| Models | Holes | Order Code |
|--------|---|---------------|
| IN01 | 1x 3/4" | 06.04.0041-00 |
| IN02 | 1x 1/2" | 06.04.0042-00 |
| IN03 | 1x 6.0 mm et 3x 1/4" | 06.04.0043-00 |
| IN04 | 3x 6.0 mm et 1x 1/4" | 06.04.0044-00 |
| IN05 | 4x 6.0 mm | 06.04.0045-00 |
| IN06 | 2x 6.0 mm et 2x 1/4" | 06.04.0046-00 |
| IN07 | 1x 6.0 mm 1x 8.0 mm et 1x 3/8" | 06.04.0047-00 |
| IN08 | 1x 6.0 mm 1x 3.0 mm et 2x 1/4" | 06.04.0048-00 |
| IN09 | Without hole, to be drilled by the client | 06.04.0049-00 |
| IN10 | Others, under ordering | 06.04.0050-00 |
| IN1P | 1 x 3mm, 1 x 6mm, 1 x 8mm, 1 x 1/4" | 06.04.0125-00 |
| IN1A | 1 x 1/8", 1 x 3/16", 2 x 1/4", 1 x 3/8" | 06.04.0126-00 |
| IN1E | 1 x 4mm, 1 x 6mm, 1 x 1/4", 1 x 8mm, 1 x 10mm | 06.04.0127-00 |

Order Code

Power Supply **TE-25NL / TE-35NL / TE-45NL** - ☐ **IN** - ☐ ☐ - ☐ ☐

1 - 115 Vac 2 - 230 Vac

Included Insert ☐

Choose from those listed above.

Optional ☐

AG - Stirred Liquid Kit
BB - Black Body Insert
SS - Insert for supercice

Included Items:

- Insert (selectable), insert extractor tool, test leads, power cord, manual, calibration certificate and Bluetooth interface.

Optional Accessories: - Soft Carrying Case - Order Code: 06.01.0006-00
- Communication Interface - Order Code: 06.02.0002-00



PRESYS approved Assistance and after-sales service partners.

PRESYS distribution network is made up of metrology and instrumentation specialists who will know answer to your questions and guide you in choosing the most suitable generators and calibrators for your applications. On the other hand, PRESYS has selected after-sales service partners for the repair and calibration of your equipment. under warranty or not..

Your Distributor:

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Due to our program of continual development and improvement, we reserve the right to amend or alter characteristics and design without prior notice.

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