



## 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  $\pm 0.02$  °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 = -10.00°C  
PRBi = -10.00°C

-10.00<sup>RTD</sup> °C

-10.00<sup>PRi</sup> °C

Selection of Various Display Options.

Runs Automatically the Calibration  
Cycle and Stores the Values.



Embedded Complete Calibrator  
with Documented Capabilities

►TAG EXEC VERIF  
ADDRESS TAGMAN

►TAG TOL STR SP  
STB RP RGO RGI

Current Input  
Thermocouple Input  
Transmitter Power  
Supply 24 Vdc  
RTD Input  
2, 3, 4 wires

Choose your DUT Input.

mV OHM TC  
►RTD mA SW NO

►PT100 CU10  
NI100 PT1000

Selection of Thermocouples.

►J K T E N L

Define your Calibration Cycle and Parameters.

►↑ ↓ ↑↓ ↓↑  
↑↓↑ ↓↑↓

# 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:  $\pm 0.2$  °C @ 660 °C / E:  $\pm 0.1$  °C @ 660 °C.
- ▶ CJC Accuracy:  $\pm 0.2$  °C.
- ▶ Input RTD: 2, 3, 4 Wires / Pt-100, Pt-1000, Cu-10, Ni-100 /  $\pm 0.1$  °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

<b>Operating Range</b> ambient temperature: 23 °C	-25 °C to +155 °C	-35 °C to +155 °C	-45 °C to +155 °C
<b>Accuracy with internal Reference:</b>	$\pm 0.1$ °C	$\pm 0.1$ °C	$\pm 0.10$ °C
<b>Resolution:</b>	0.01 °C	0.01 °C	0.01 °C
<b>Stability:</b>	$\pm 0.02$ °C	$\pm 0.02$ °C	$\pm 0.025$ °C
<b>Axial Uniformity (40 mm) Dry Block:</b>	$\pm 0.06$ °C	$\pm 0.08$ °C	$\pm 0.08$ °C
<b>Radial Uniformity Dry Block:</b>	$\pm 0.02$ °C	$\pm 0.025$ °C	$\pm 0.025$ °C
<b>Axial Uniformity (40 mm) Stirred Liquid:</b>	$\pm 0.025$ °C	$\pm 0.025$ °C	$\pm 0.025$ °C
<b>Radial Uniformity Stirred Liquid:</b>	$\pm 0.02$ °C	$\pm 0.02$ °C	$\pm 0.02$ °C
<b>Heating Time:</b>	25 min (25 °C to 140 °C)	20 min (25 °C to 140 °C)	20 min (25 °C to 140 °C)
<b>Cooling Time:</b>	20 min (25 °C to -25 °C)	40 min (25 °C to -35 °C)	40 min (25 °C to -45 °C)
<b>Peltier module multi-stage:</b>	4 x 2	4 x 2	6 x 2
<b>Electric Power:</b>	300 W	450 W	450 W
<b>Power Supply:</b>	115 - 230 Vac, 50/60 Hz	115 - 230 Vac, 50/60 Hz	115 - 230 Vac, 50/60 Hz
<b>Well Diameter x Depth:</b>	Ø 35 mm x 160 mm	Ø 35 mm x 160 mm	Ø 35 mm x 160 mm
<b>Weight:</b>	12.0 kg	12.5 kg	12.5 kg
<b>Dimension (HxWxD):</b>	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

TE-25NL / TE-35NL / TE-45NL -  IN -   -

Power Supply

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 superface

### 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..

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