



PRESYS Dry Block Calibrators New Advanced TA Series

- Extended Ranges from $-50\text{ }^{\circ}\text{C}$ to $1200\text{ }^{\circ}\text{C}$, liquid bath insert available.
- Outstanding performance, stability and uniformity. Benefits of our 20 years of experience in temperature calibrator manufacturing.
- Direct printing of calibration report (pass/fail) on connected USB printer or generation of PDF document, no need of extra computer.
- Direct adjust and calibration of Sensor with HART transmitter.
- User security, data-logging, graphs, automated tasks and cycling.
- Built-in Web Server, Ethernet/ Wi-Fi connection.
- Temperature measurement and dynamic control by external probe to cancel the set-point error and loading effect, maximum temperature sensor protection.
- Conform to EURAMET/cg-13/V03, EA Guidelines
- Easy-to-use, intuitive operation, on-line help and video tutorials for visualization of working procedures.
- Protection of calibration data for 21 CFR Part 11 Compliance.

Starting
a new
age of
temperature
calibrators

HART
COMMUNICATION PROTOCOL

PRESYS Instruments Inc.
www.presyscorp.com

PRESYS® The Complete Dry Block TA Series



Full color touch screen display provides easy-to-read data.

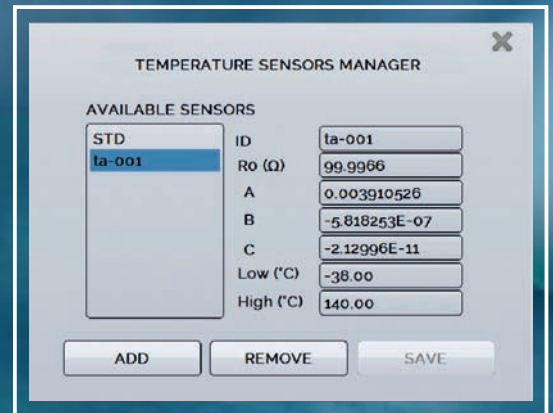
Intuitive menu navigation helps to identify the calibrator information for any operational mode.

Hart Calibration shortcut for an easy and direct adjustment of the upper and lower range of the sensor-transmitter loop.

Choice of the internal reference or an external reference probe with input of the CVD parameters of the PRT for increased accuracy.

Our probe input is a real 4 wire PRT input especially developed for our TA calibrators and not an adapted industrial temperature controller!

Our TA calibrators communicate as well with our ST-501 Super Thermometer to perform automatic verification and recalibration of the internal reference probe without the need to send your dry block to a laboratory.



POINT	EXPECTED	OBTAINED	ABS. ERR.	RELATIVE	F.SCALE ERR.	SPAN ERR.
AS FOUND PERFORMED BY: Bill J						
50.00 °C	8.0000 mA	8.0035 mA	0.0035 mA	0.044%	0.017%	0.029%
100.00 °C	12.0000 m	12.0073 m	0.0073 mA	0.061%	0.037%	0.061%
150.00 °C	16.0000 m	16.0111 m	0.0111 mA	0.069%	0.056%	0.093%
200.00 °C	20.0000 m	20.0232 m	0.0232 mA	0.106%	0.106%	0.177%
AS LEFT PERFORMED BY: Bill J						
50.00 °C	8.0000 mA	7.9995 mA	-0.0005 m	-0.006%	-0.003%	-0.004%
100.00 °C	12.0000 m	11.9993 m	-0.0007 m	-0.006%	-0.003%	-0.006%
150.00 °C	16.0000 m	15.9991 m	-0.0009 m	-0.006%	-0.005%	-0.008%
200.00 °C	20.0000 m	19.9989 m	-0.0011 m	-0.006%	-0.006%	-0.009%
200.00 °C	20.0000 m	19.9988 m	-0.0012 m	-0.006%	-0.006%	-0.010%
150.00 °C	16.0000 m	15.9992 m	-0.0008 m	-0.005%	-0.004%	-0.007%
100.00 °C	12.0000 m	11.9990 m	-0.0010 m	-0.008%	-0.005%	-0.008%
50.00 °C	8.0000 mA	7.9984 mA	-0.0016 m	-0.020%	-0.008%	-0.013%

Automatic cycling and generation of the calibration report on a direct connected USB printer or generation of a PDF file. You don't need an extra computer and software to generate the report or to do the cycling!

An integrated Webserver allows you to control and follow up your calibrations at distance!

SCPI serial protocol allows you to control the TA calibrators from old legacy applications.

Calibration report for tag TE001

TASK DETAILS
 CREATED IN: 09/16/2015
 INSTRUMENT DETAILS:
 TAG: TE001
 SERIAL NUMBER: 458054
 MODEL: PL-100
 MANUFACTURER: Presys
 INPUT RANGE: -20 TO 140 °C (RTD)
 OUTPUT RANGE: -20 TO 140 °C (RTD)
 MAX ERROR = 0.5% FS (FS = 150 °C)
 LEAD TIME: 5 MINUTES

As-left performed by: John

POINT	EXPECTED	OBTAINED	ERROR	F.SCALE ERR.	PASS/FAIL
140.00 °C	140.00 °C	140.02 °C	0.02 °C	0.013%	Pass
100.00 °C	100.00 °C	100.14 °C	0.14 °C	0.093%	Pass
50.00 °C	50.00 °C	50.13 °C	0.13 °C	0.087%	Pass
0.00 °C	0.00 °C	0.02 °C	0.02 °C	0.013%	Pass
-10.00 °C	-10.00 °C	-10.00 °C	0.00 °C	0.000%	Pass
-20.00 °C	-20.00 °C	-19.98 °C	0.02 °C	0.013%	Pass

Standard serial number: 123.09.15
 Standard last calibration: 09/09/2015
 Operator signature: _____

Common features of our TA Advanced Series

- ▶ 5.7" Touch Screen Color Display. Dual Core 1 GHz processor and Flash memory of 16 GB
- ▶ Electric Power Supply: 110 V or 220 Vac, 50/60 Hz
- ▶ Unit/Temperature Scales: °C, °F and K, IPTS-68 or ITS-90, user selectable
- ▶ Ethernet, Wi-Fi via USB/Ethernet router adapter, Serial USB with SCPI protocol
- ▶ Host/Device USB port.
- ▶ Optional HART Communication
- ▶ Input Thermocouple: J, K, T, N, L: $\pm 0.2\text{ }^{\circ}\text{C}$ @ 660 $^{\circ}\text{C}$ / E: $\pm 0.1\text{ }^{\circ}\text{C}$ @ 660 $^{\circ}\text{C}$ / R, S, C: $\pm 0.7\text{ }^{\circ}\text{C}$ @ 660 $^{\circ}\text{C}$
- ▶ CJC Accuracy: $\pm 0.2\text{ }^{\circ}\text{C}$
- ▶ Input RTD: 2, 3, 4 Wires / Pt-100, Pt-1000 / $\pm 0.1\text{ }^{\circ}\text{C}$
- ▶ Thermostats automatic test: yes
- ▶ Input Current: -1 to 24.5 mA, $\pm 0.02\%$ FS
- ▶ Transmitter Power Supply: 24 Vdc regulated



-50 to 140 °C

Models

Technical Specifications

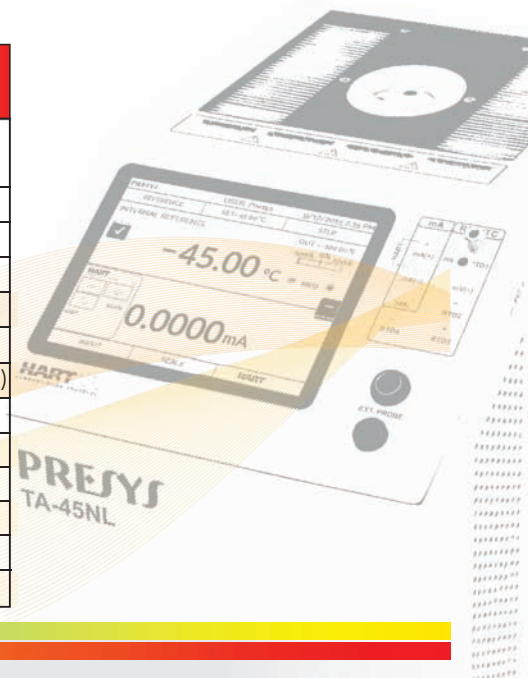
	Multi-functional				
	TA-25N	TA-35N	TA-50N	TA-25NL	TA-45NL
Operating Range ambient temperature: 23 °C	-25 °C to +140 °C	-35 °C to +140 °C	-50 °C to +140 °C	-25 °C to +140 °C	-45 °C to +140 °C
Accuracy: internal reference with external probe with external thermometer	$\pm 0.1\text{ }^{\circ}\text{C}$				
	$\pm 0.07\text{ }^{\circ}\text{C}$				
	$\pm 0.05\text{ }^{\circ}\text{C}$				
Resolution:	0.01 °C				
Stability:	$\pm 0.02\text{ }^{\circ}\text{C}$				
Heating Time:	5 min (25 °C to 125 °C)	5 min (20 °C to 100 °C)	5 min (20 °C to 100 °C)	23 min (25 °C to 140 °C)	14 min (25 °C to 140 °C)
Cooling Time:	10 min (125 °C to 0 °C)	9 min (100 °C to 0 °C)	9 min (100 °C to 0 °C)	20 min (25 °C to -25 °C)	35 min (25 °C to -45 °C)
Temperature Uniformity:	$\pm 0.05\text{ }^{\circ}\text{C}$				
Weight:	9.5 kg	10.5 kg	10.5 kg	12.0 kg	
Electric Power:	200 W	400 W	400 W	300 W	450 W
Well Diameter x Depth:	Ø 25.4 mm (1") x 124 mm			Ø 35 x 160 mm	
Dimension (HxWxD):	260 x 200 x 305 mm		315 x 200 x 305 mm	315 x 200 x 305 mm	



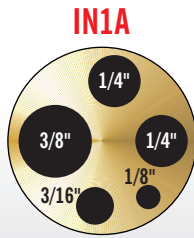
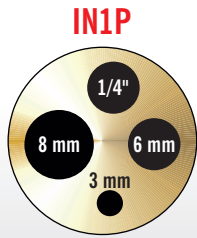
up to 1200 °C

Models

	TA-350P	TA-650P	TA-1200P
Operating Range ambient temperature: 23 °C	from ambient temperature to 350 °C	from ambient temperature to 650 °C	50 °C to +1200 °C
Accuracy: internal reference with external probe with external thermometer	$\pm (0.1\text{ }^{\circ}\text{C} + 0.1\%$ of reading)	$\pm (0.1\text{ }^{\circ}\text{C} + 0.1\%$ of reading)	$\pm 2.2\text{ }^{\circ}\text{C}$
	$\pm 0.07\text{ }^{\circ}\text{C}$	$\pm 0.10\text{ }^{\circ}\text{C}$	-----
	$\pm 0.05\text{ }^{\circ}\text{C}$	$\pm 0.05\text{ }^{\circ}\text{C}$	$\pm 0.75\text{ }^{\circ}\text{C}$
Resolution:	0.01 °C	0.01 °C	0.1 °C
Stability:	$\pm 0.05\text{ }^{\circ}\text{C}$	$\pm 0.05\text{ }^{\circ}\text{C}$	$\pm 0.1\text{ }^{\circ}\text{C}$
Heating Time:	10 min (50 °C to 350 °C)	15 min (50 °C to 650 °C)	45 min (100 °C to 1200 °C)
Cooling Time:	12 min (350 °C to 100 °C)	22 min (650 °C to 200 °C)	5h (1200 °C to 200 °C)
Temperature Uniformity:	$\pm 0.05\text{ }^{\circ}\text{C}$		$\pm 0.2\text{ }^{\circ}\text{C}$
Weight:	7.5 kg	8.5 kg	9.0 kg
Electric Power:	500 W	1000 W	2300 W
Well Diameter x Depth:	Ø 32 mm x 124 mm		Ø 34 mm x 130 mm
Dimension (HxWxD):	260 x 200 x 305 mm		315 x 200 x 305 mm



Insert Models



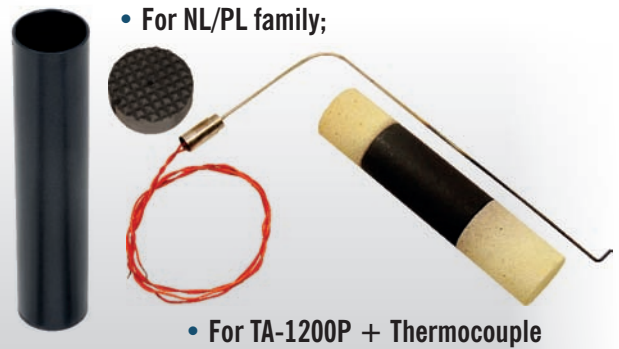
- One standard insert included (default is IN1P).
- Consult our website or factory for all insert dimensions and types available.
- Presys can provide custom inserts with minimum 3mm separation between holes, consult Presys with your specific requirements

Stirred Liquid Kit - "NL" family



- Ideal for calibration of glass thermometers.
- Includes magnetic stirrer, sensor guide, steel container with sealing lid.

Blackbody Target Inserts



- For NL/PL family;

- For TA-1200P + Thermocouple

Validation Inserts

- Insert for thermal validation applications that allows the calibration of multiple sensors.



ITS-90 Fixed Point Maintainer

- Maintenance furnace and bath for fixed-point cells.

Inserts for sanitary sensors



- Specific designed Insert for calibration of sanitary and short temperature sensors with build-in reference sensor.

Included Items: Soft Carrying case, insert (selectable), insert Extractor tool, test leads, power cord, manual and calibration certificate.

