



High performance calibration
systems for professionals

Calibration Solutions

In-House Calibration at Your Facility

Stay confident in your measurements with regular sensor and probe calibrations. With the right setup, Ellab solutions make calibration simple, precise, and efficient.

For temperature, ValSuite® Pro integrates with Dry Blocks, LiquiCal baths, and the Ellab Temperature Standard for a fully automated process. Covering -100 °C to +425 °C (optionally to +700 °C) with accuracy down to ± 0.005 °C, the system auto-ramps, checks stability, and even adjusts sensors when required.

For pressure, the nVision calibrator with ValSuite enables accurate manual calibration of TrackSense® Pro and E-Val™ Pro sensors — up to $\pm 0.025\%$ of readings.

For conductivity, a dedicated verification kit with ValSuite ensures reliable manual calibration of TrackSense® Pro sensors.

DANAK Accredited Factory Calibration at Ellab

Ellab validation equipment is factory calibrated in our advanced metrology labs, with optional DANAK-accredited services for temperature, pressure, and humidity.

Built to EN17025 standards, our facilities deliver precise, traceable, and reproducible calibrations — ensuring full confidence in every result. Ongoing accreditation by DANAK confirms our technical competence, while ISO 9001 quality management secures consistent, valid outcomes. Certificates include complete uncertainty budgets for full transparency.

All calibration certificates are uploaded to the Cloud for easy access. To bring services closer to you, Ellab has also established calibration labs at select distributors and subsidiaries worldwide.



Software Platform

For trouble free operation, the ValSuite software is available offering safe, intuitive and easy execution of the pre-defined operation procedures - all of which are FDA 21 CFR Part 11 compliant.

ValSuite® Software

Ellab's advanced ValSuite® software combines validation and calibration in one platform, offering manual, semi-automatic, and fully automated calibration of probes and sensors.

With guided workflows, templates, and pre-set criteria, operators gain complete procedural control and consistent documentation — ensuring repeatable, compliant results. Factory calibration certificates can be downloaded directly, while offset values are stored automatically for smart handling.

ValSuite® reduces workload through reusable templates and intuitive menus, saving significant time. Pre- and post-calibrations can be bundled with validation studies in a single session, delivering full traceability from start to finish.



ValSuite® Software

LiquiCal™ Solutions

Consistent, Efficient, Documented ValSuite® supports manual, semi-automatic, and fully automated pre- and post-calibrations. Data is processed automatically, with offset values stored in the probe or database — ensuring repeatable accuracy and full traceability.

Simplify Calibration Routines

Combined with the Ellab Temperature Standard (ETS), LiquiCal baths, or Dry Blocks, ValSuite® automates setup, minimizes errors, and saves time. Point-to-point calibration with interpolation handles multiple points precisely.

Semi-automatic: ETS connected to the PC

Full-automatic: ETS plus LiquiCal bath or Dry Block follow pre-programmed profiles.

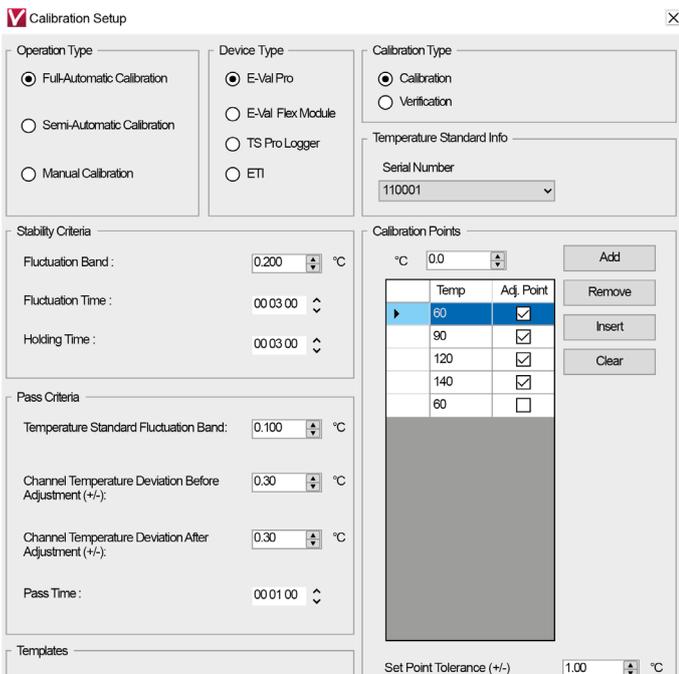
Set Performance Criteria with Confidence

Define and store your own acceptance criteria — including bath stability, holding time, ETS fluctuations, and sensor deviations. Templates ensure consistent, inspection-ready reports with actual values and deviations displayed clearly.

Smart Equipment Management

ValSuite® offers two dedicated tools:

Temperature Standard Manager (TSM): Tracks calibration equipment (type, serial, manufacturer, dates, expiry, certificates).
 Sensor Adjustment Manager (SAM): Stores adjustment data for TrackSense® Pro and E-Val™ Pro sensors. Calibration reports are generated automatically, linking offset values to sensor IDs for reliable results every time.



Operator:	Validation Manager	Vessel:	LiquiCal HM
Process:	Calibration	Product:	Pharma
Session Start:	02-02-2017 08:29:49	Time Zone:	UTC offset 01:00:00
Session Stop:	02-02-2017 10:03:13		
Session Name:	Post calibration of sensors.d7x		
Session Text:	Post calibration of sensors		

Calibration	
Name:	Calibration Report
Description:	
Total Calibration Result:	Passed

Temperature Standard	
Manufacturer:	Ellab A/S
	ETS20
Serial Number:	110001
Certificate Number:	18255
Calibration Date:	01-10-2016
Calibration Expiry Date:	01-10-2017

Stability Criteria	
Fluctuation Band:	0.15°C
Fluctuation Time:	00:03:00
Holding Time:	00:03:00

Pass Criteria		
Temperature Standard Fluctuation Band:	0.10°C	
Sensor Temperature Deviation +/-:	0.25°C	
Pass Time:	00:01:00	
Status for Temperature Standard:	40.00°C	Passed
	60.00°C	Passed
	90.00°C	Passed
	120.00°C	Passed
	140.00°C	Passed

Ellab Reference and Verification Instruments

Temperature Reference Instrument (ETS)

The Ellab Temperature Standard (ETS) is a robust, traceable reference instrument for highly accurate calibrations. With integrated electronics for precise A/D conversions, it delivers reliable resistance-to-temperature measurements.

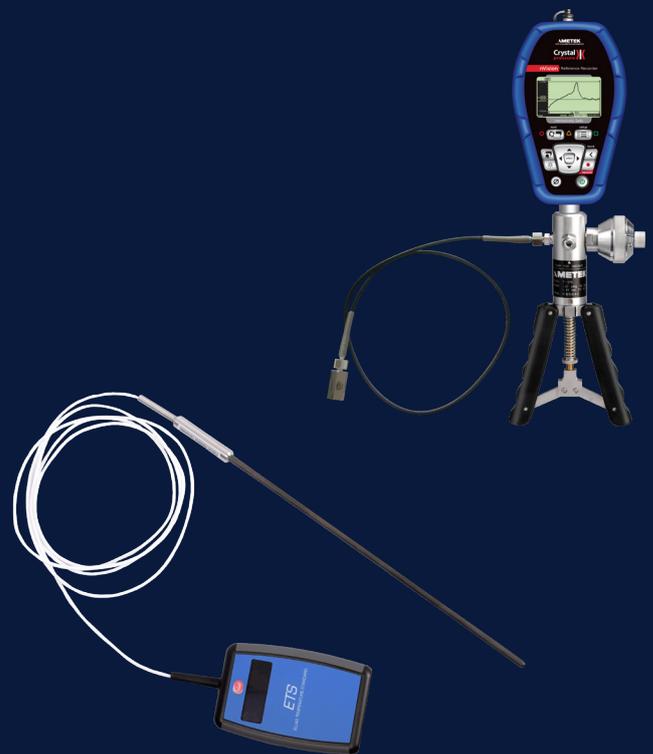
Connected to ValSuite®, the ETS and bath/dry block provide an automatic setup that saves time and ensures convenient calibrations. Available in three versions, the ETS comes with an accredited calibration certificate, with an optional display unit for stand-alone use.

Conductivity Verification Instrument

Conductivity sensors can be manually verified using standard solutions with defined concentrations. Following pharmacopeia or certified standards, sensors are rinsed in CO₂-free distilled water before testing. While this method provides accurate results, regular factory calibration is strongly recommended.

Pressure Reference Instrument

The nVision Pressure Calibrator is an intrinsically safe, handheld device for calibrations up to 8 bar. With ±0.025% accuracy across -20 to +50 °C, it requires no additional offsets. Supplied with calibration certificate, pump, fittings, adapters, and protective case, it offers precise, portable pressure calibration anywhere.

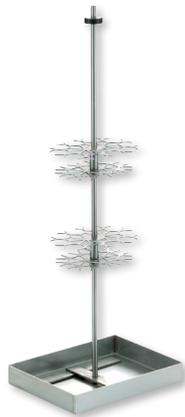
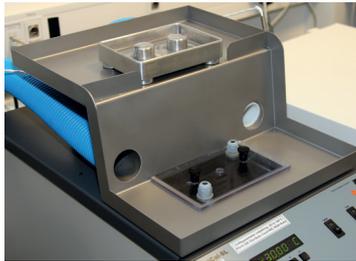


	ETS10	ETS20	ETS25	ETS25-A182	ETS25 - A213
Temperature range °C:	-80 °C to +250 °C	-50 °C to +150 °C	-196 °C to +420 °C	-45 °C to +150 °C	-95 °C to +150 °C
Accuracy -50°C to +150°C:	±0.015 °C	±0.020 °C	±0.025 °C	-	-
Accuracy other temperatures:	±0.025 °C	-	±0.025 °C	±0.025 °C	±0.025 °C
Type of sensor:	PT100				
Dimension of Sensor:		∅ 6.35 x 300 mm		∅ 6.35 x 160 / 182.3 mm	∅ 6.35 x 190.5 / 213.4 mm

ValSuite® Software

LiquiCal™ Solutions

LiquiCal™ liquid baths deliver high-precision temperature calibrations with excellent stability, large immersion depth, fast temperature changes, and quiet operation. Baths can be controlled via ValSuite® for automated calibration and ramping, or used as stand-alone units.



Liquids

For optimal stability and homogeneity, low-viscosity liquids (<25 CST) are recommended. Ellab supplies a safe range of calibration liquids in 3.8 l (1 gallon) containers, covering -100 to +300 °C.

Type	Temperature Range
SYLTHERM XLT	- 100 °C to +5 °C
Halocarbon Oil Low	- 90 °C to +90 °C
Low Temperature Liquid	- 80 °C to +5 °C
Standard Oil	- 30 °C to +160 °C
High Temperature Oil	+80 °C to +300 °C

LiquiCal™ LL

LiquiCal™ SL

LiquiCal™ HL

LiquiCal™ SM

LiquiCal™ HM



Type	Liquid bath				
Range	-80 °C to +110 °C	-45 °C to +150 °C	+35 °C to +300 °C	-20 °C to +140 °C	+35 °C to +200 °C
Environmental	+5 °C to +45 °C / 0-90% RH				
Stability	±0.005 °C	±0.005 °C	±0.007 °C	±0.04 °C	±0.02 °C
Display Resolution	0.01 °C				
Access Opening	119 x 172 mm	119 x 172 mm	119 x 172 mm	ø48 mm	ø48 mm
Tank capacity	15.9 L	15.9 L	15.9 L	1.0 L	0.75 L
Heating power	700 W	700 W	700 W/900 W*	130 W	225 W
Cooling time (25 °C to min.)	Max. 3.5 hours	Max. 2 hours	-	45 minutes	-
Communication	RS232				
Power	115 V / 60 Hz or 230 V / 50 Hz				

Dry Block Solutions

Portable Precision

Ellab Dry Blocks deliver accurate calibrations at both low and high temperatures in a compact, transportable system.



Uniform Results, Every Time

Dual-zone heating technology ensures perfect homogeneity across the calibration zone, while custom inserts are designed to fit Ellab probes and sensors seamlessly.

Easy Operation

With an intuitive menu, color display, and quiet performance, Dry Blocks combine speed, stability, and convenience.

Key Features:

- Temperature range: -100 to +425 °C (optional to +700 °C)
- Active dual-zone block for uniform temperatures
- Fast heating and cooling times
- USB communication
- Quiet operation
- Bath option (RTC-158A)

PTC-155A



PTC-425A



RTC-156A



RTC-159A



RTC-158A



	PTC-155A	PTC-425A	RTC-156A	RTC-159A	RTC-158A
Range	-25 to +155 °C	+33 to +425 °C	-30 to +155 °C	-100 to +155 °C	-22 to -155 °C
Environmental	0 to +40 °C / 0-90% RH				
Stability	±0.01 °C	±0.02 °C	±0.005 °C	±0.03 °C	±0.01 °C
Display Resolution	1°C / 0.1°C / 0.01 °C		1°C / 0.1°C / 0.01°C / 0.001 °C		
Insert Dimension	25.8 x 150 mm	25.8 x 155 mm	29.7 x 150 mm		63.5 x 160 mm
Insert Capacity	18-24 sensors + ETS				48 sensors + ETS
Insert Material	Aluminum	Brass	Aluminum		
Heating time (min to max)	16 min	10 min	19 min	26 min	60 min
Cooling time (max to min)	25 min	41 min	37 min	175 min*	69 min
Communication	USB 2.0				
Power	115 - 230 V / 50 - 60 Hz				



Your Life Science
Compliance Partner



About Us

Ellab is your partner in life science compliance, offering comprehensive support in validation, monitoring, and calibration. With global expertise and local reach, we help you minimize downtime, accelerate time-to-market, and optimize resources, lightening the compliance burden.

From projects through daily operations, we stand shoulder to shoulder, delivering tailored solutions that grow with your needs, ensuring confidence and consistency every step of the way.

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Intertek



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