PTC Series

Professional Temperature Calibrator

PTC-125 Cooler

Product Description

The **JOFRA PTC-125** professional dry-block temperature calibrator is a versatile temperature calibrator available with a temperature range that makes it especially ideal for use in the healthcare, medical, pharmaceutical, biotechnology, and food industries.

The PTC-125 is the newest member of the well-known JOFRA PTC family. The PTC family can meet any type of industrial temperature calibration need within the -90 to 660°C (-130 to 1220°F) temperature range.

Advantages & Models

The PTC-125 offers many advantages:

- **Relevant for Many Applications**
  With its wide temperature range, the PTC-125 can be used in many applications where either high heat or low cooling is needed.

- **User Friendly**
  Intuitive to use and easy to run, the PTC-125 is equipped with a large informative, easy-to-read color display which makes reading error a thing of the past.

- **Ergonomically Correct**
  Easy to carry, the PTC-125 is easy to move from job to job.

- **Mechanically Stable**
  With its high-tech design, the PTC-125 ensures durability and lasting quality.

- **The PTC Calibrator Comes in Three Different Models—A, B, and C.**
  - PTC-A reference temperature calibrator.
  - PTC-B reference temperature calibrator with input for reference sensor, and sensors-under-test.
  - PTC-C reference temperature calibrator with input for reference sensor.

Key Features

▶ **High Accuracy**
  Down to ± 0.07°C (± 0.013°F) using the external reference sensor. 4-wire True-Ohm Measurement technology is used.

▶ **Excellent Stability: ± 0.03°C (± 0.054°F)**

▶ **Wide Temperature Range**
  From -90 to 125°C (-130 to 257°F).

▶ **Fastest Calibration Possible**
  The efficient, free piston stirling cooler (FPSC) technology is used to secure fast cooling and heating temperature changes.

▶ **Intelligent Reference Sensors**
  JOFRA reference sensors are supplied with intelligent plugs, holding the calibration data (coefficients) of the reference sensor. This is a true plug and play calibration system.

▶ **Easy to Carry**
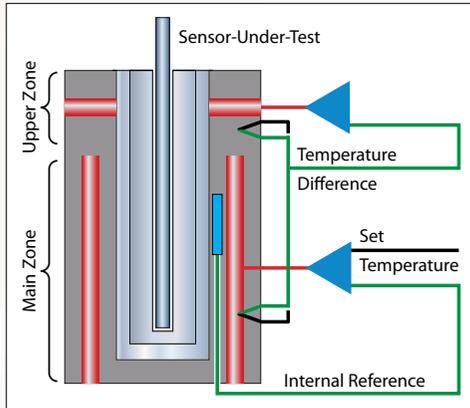 Weighing only 15.2 kg (33.5 lb) the PTC-125 is by far the lightest and most portable cooler on the market.

▶ **USB Communication**
  All PTC calibrators communicate via an easy-to-use USB port.

▶ **EURAMET**
  Best performing dry-block with regard to the EURAMET/cg-13v.01 guideline for the testing of dry-blocks.

Great Temperature Homogeneity

The PTC series of calibrators provide precision temperature calibration of sensors, whatever the type or format. This is accomplished through an innovative active dual-zone heating technology.

With JOFRA's active dual-zone heating technology, each heating zone is independently controlled for precision temperature calibration. The homogeneity in the lower part is close to that of a laboratory liquid bath. The lower zone ensures optimum heat dissipation throughout the entire calibration zone. The upper zone compensates for heat loss from the sensor-under-test, and from the open top. This design also eliminates the need for extra insulation of sensors-under-test and makes it possible to calibrate liquid-filled and other mechanical sensors.

Wide Temperature Range

The PTC Series can perform calibration over a very wide temperature range from -90°C to 125°C (-130 to 257°F). This makes it possible to perform calibrations in applications from ultra-coolers to sterilization sensors (SIPs) with only one calibrator.

Fast Temperature Calibration

Time is money! This is why all the PTC calibrators have an increased heating and cooling speed compared to all other calibrators. Heating and cooling speeds have been increased by up to 20%. The implication is savings in both production downtime and general calibration costs.

Efficient Cooling Technology

The PTC-125 features the Free Piston Stirling Cooler (FPSC) as the cooling source. It is much more efficient than thermo-electric (Peltier) coolers.

USB and LAN/Ethernet Connection

A USB connection facilitates easy communication with JofraCal. The USB connection also supports easy download of future firmware upgrades. The USB connection provides fast and easy access to all laptops without the need of RS-232 to USB converters.

Future-proof through e.g. a flash capability for easy firmware upgrades as well as already integrated LAN communication, SD-card slot, and USB host connectors for future use.

Intelligent Reference Sensors

The JOFRA STS-150 intelligent reference sensor contains all individual calibration data regarding the sensor. Firstly, this means that the time-consuming coefficient downloading sequence with risk of errors is no longer necessary. Secondly, the user can change the reference sensor and be up and running immediately.

With the intelligent sensors, AMETEK has eliminated a source of error, and the system is now a failsafe plug'n'play calibration system.

Unique Reference Sensors

The STS-150 reference sensor is specially designed with an angled 90° rod, and customized to fit the calibrator so that it is only slightly higher than the top of the PTC calibrator. The unique design makes it possible to calibrate threaded sensors and sensors with connection heads without any problems. The STS-150 reference sensor also alerts you when your calibration has expired.

Multi-Hole Insert Kits

Two special multi-hole insert kits have been developed to comply with the calibration of almost any sensor diameter without having to buy numerous inserts.

The first kit is a metric insert kit consisting of just four inserts covering all diameters from 3 to 13mm. The other is an imperial insert kit consisting of just three inserts covering six different sizes from ⅛'' to ⁷⁄₁₆''.

All inserts have holes for both STS reference sensors. With this insert kit in the carrying case, the user is now able to calibrate all commonly known sensor sizes. These insert kits are part of the JOFRA lightweight strategy.

Special Designed Carrying Case

AMETEK has designed an all-in-one-handle carrying case that makes it possible to store the STS reference sensor in the carrying case with optimum physical protection. There is room for inserts and insulation plugs to cover all dimensions, and compartments for the wires, manuals, certificates, plugs, insert tools etc.

All compartments are specially designed to hold the above mentioned items. This makes it very easy to keep track of any accessories. For optimum protection of the calibrator and the accessories, the compartments are designed to hold the accessories fixed during transportation.

Easy to Carry Only 33.5 lbs/15.2 kg

A calibrator is carried from one job to another. Therefore, it is essential that the weight of the calibrator is as low as possible. AMETEK has designed the PTC calibrators to be lightweight and easy to carry, without compromising its quality, durability, and functionality.

The PTC-125 weighs only 15.2 kg, making it one of the lightest ultra coolers on the market.

Easy to Read Color Display and User-Friendly Navigation

The 5.7'' full color VGA display is very easy to read. The main temperatures, like SET, READ, TRUE and SUT (Sensor under test), are always displayed at all stages of the programming or calibration procedure.

The navigation is menu-driven and very logical to use, and the display shows any important information needed for the current function in use. The communication windows pop up and are followed by discrete sound messages. The display is very bright, and the main information can easily be read from a distance. The advanced simplicity PTC user interface is available in English, German, Chinese, and Japanese.

The large display contains more detailed information at a glance, such as:

- Stability status.
- Real time clock.
- Serial number of reference sensor.
- Sensor-under-test status.

Integrated Support Rod

The integrated support rod is part of the reduced weight philosophy. It is lightweight and very easy to mount on the PTC. Two fixing holes are integrated in the calibrator where the support rods can be mounted.

SET-Follows-TRUE (models B & C only)

Available on B and C models only, the "SET-Follows-TRUE" makes the instrument tune in until the temperature reading of the external reference "TRUE" meets the desired "SET" temperature. This feature is important when it is critical that the temperature of the calibration zone matches the desired temperature when measured with accurate external reference sensors.

Reading of Sensor-Under-Test (model B only)
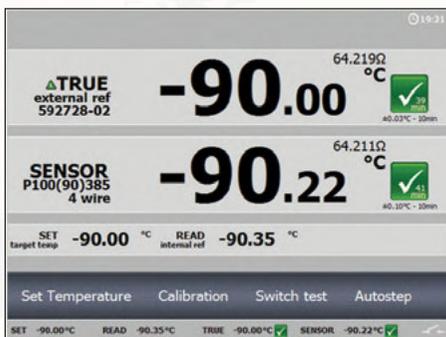
Model B of the PTC is equipped with a built-in accurate measuring circuit for sensor-under-test (input), which enables measurement of virtually any type of temperature sensors including: Resistance thermometers (RTD), thermocouples (TC), transmitters, milliamps (mA), and thermostats.

The PTC calibrators can be user-programmed from the keyboard for fully automatic sensor calibrations. Once the unit is programmed, the instrument is self-operating and performs the configured calibration routine. All calibration data is stored and can be read on the display.

Switch Test (model B only)

Users may perform a thermoswitch test and find "Open", "Closed", and the hysteresis (deadband) automatically. The instrument retains the last twenty test results.

Auto-Stepping

Up to 20 different temperature steps may be programmed including the hold time for each step. Upon completion of an auto-step routine, the user can easily read the results for the sensor-under-test on the PTC display. Results from twenty auto-step calibrations are stored.

The "Set temperature" feature allows the user to set the exact desired temperature with a resolution of 0.001°.

Enhanced Stability

A stability indicator shows when the PTC calibrator has reached the desired temperature and is stable. The user may change the stability criteria for the external reference and the sensor-under-test quickly and simply. The stability criterion is the user's security of a correct calibration. A countdown timer is displayed next to the temperature read-out.

Instrument Setups

The PTC series allows the user to store up to ten (10) complete instrument setups. You may store all sorts of information including temperature units, stability criteria, use of external reference sensors, resolutions, sensors-under-test (SUT), conversions to temperature, display contrasts, etc. The setup may be recalled at any time.

Maximum and Minimum Temperature

From the setup menu, the user can select the maximum and minimum temperature limit for the calibrator. This function prevents damage to the sensor-under-test caused by excessive temperatures, and it helps reducing sensor drift from exposures of too high temperatures. This feature can be locked with an access code.

IRI— Intelligent Recalibration Information

In order to comply with ISO, SOPs, and FDA, it is imperative that the calibration equipment never exceeds the expiry date of the calibration certificate. When switched on, the PTC calibrator constantly checks calibration dates on the calibrator, as well connected STS sensors. If the calibration period has expired, a warning will appear on the display. This feature prevents costly consequence evaluation.

As Found/As Left (model B only)

When running a calibration initiated from a work order, the user can select the calibration as an As Found or an As Left calibration.

Calibration of Indication Devices (model B only)

When calibrating an indicating device in the work order mode, users may key in the results during or after the test. Using the "Calibration info" function, the user may view the complete calibration task, including the "Scenario" before the calibration takes place.

Optional PTC Firmware Package (model B only)

The PTC calibrator can be supplied with additional functionality. Upon buying the User Interface functionality (U1), the following capabilities are enabled:

- Engineering units in display.
- Work order functionality.
- Additional sensor-under-test input types*.

  * Pt10(90)385, Pt50(90)385, Pt200(90)385, Pt500(90)385, Pt50(90)391, M50(90)428, M100(90)428, Pt100 Mill, and YSI-400.

Documenting Temperature Calibrator
(model B only)

The PTC calibrator can store calibration procedures and may be taken out to the process site without having to bring a personal computer. This allows the PTC calibrator to:

- Operate as a stand-alone instrument, using advanced calibration routines without the assistance of a personal computer on site. This is the work order functionality.
- Prevent unauthorized changes to a calibration routine. Personnel who are not authorized to alter a calibration routine cannot do so.

Once all calibrations are completed, the data may be uploaded to JofraCal for printing of certificates. The data collected may be stored on the personal computer for later recall or analysis.

JofraCal Calibration Software
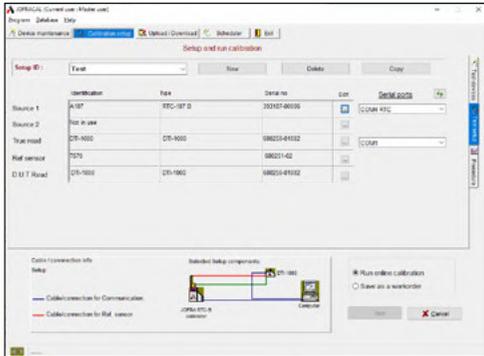
JofraCal is a highly versatile calibration software that is supplied together with the PTC calibrators. The software ensures easy calibration of all kinds of temperature sensors, such as RTD´s, thermocouples, transmitters, and thermoswithes. Furthermore, it can be used for pressure calibration i.e. pressure gauges and pressure switches. JofraCal integrates with Jofra calibration instruments. As for temperature calibrators, it is the whole range of temperature calibrators. Regarding pressure calibrators, it integrates with the Crystal XP2i and nVision. JofraCal also has full integration with the series of signal calibrators.

JofraCal may also be used for manual calibrations, as it can be set up to accept manual entry of calibration data together with other liquid baths, ice points, or dry-block heat sources.

The calibration data collected can be stored on a PC for later recall or analysis. The PTC calibrator stores the calibration procedure and may be taken out to the process site without bringing a personal computer.

This allows the PTC calibrator to:

- Operate as a stand-alone instrument, using advanced calibration routines without the assistance of a personal computer on site. The work order functionality

- Prevent unauthorized changes to a calibration routine. Personnel who are not authorized to alter a calibration routine cannot do so

Once all calibrations are completed, the data may be uploaded to JOFRACAL for the printing of certificates. The data collected may be stored on the personal computer for later recall or analysis.

JOFRACAL offers extended output formats of the captured calibration data such as PDF file format and ASCII/ semicolon separated text format for further processing and calculation of data in spreadsheets and word processors.

JofraCal Hardware Requirements

- INTEL™ 486 processor.
- (PENTIUM™ 800 MHz recommended).
- 32 MB RAM (64 MB recommended).
- 80 MB free disk space on hard disk prior to installation.
- Standard VGA (800 x 600, 16 colors) compatible screen.
- (1024 x 786, 256 colors recommended).

Calibration of Up To 24 Sensors with the JOFRA ASM Scanner

Using the JOFRA PTC series together with the ASM, Advanced Signal Multi-scanner, offers a great time-saving automatic solution to calibrate multiple temperature sensors at the same time. The ASM series is an eight channel scanner controlled by the JofraCal software on a PC. Up to three ASM units can be stacked to calibrate up to 24 sensors at a time. It can handle signals from 2-, 3- and 4- wire RTD's, thermocouples, transmitters, temperature switches, and voltage.

Specifications

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Functional Specifications

Temperature Range

@ ambient temp. 0℃ /32°F	**-90 to 125°C/-130 to 257°F**
@ ambient temp. 23℃ /73°F	**-90 to 125°C/-130 to 257°F**
@ ambient temp. 40℃ /104°F	**-73 to 125°C/-99 to 257°F**

Patented heating technology: Patent No. EP2074374/US8342742

Accuracy with External STS Ref. Sensor
(models B and C)

± 0.07°C /± 0.13°F

12-month period. Relative to reference standard. Specifications by use of the external JOFRA STS-150 reference sensor

Accuracy with Internal Ref. Sensor
± 0.30°C /± 0.54°F

Stability
± 0.03°C /± 0.054°F

Measured after the stability indicator has been on for 15 minutes. Measuring time is 30 minutes.

Radial Homogeneity
(difference between holes)
0.01°C /0.02°F

Resolution (user selectable)

All Temperatures   **1° or 0.1° or 0.01°**

Temperature Unit in Display

User Selectable   **°C, °F, or K**

Heating Time

-90 to 23℃ /-130 to 73°F	**15 minutes**
23 to 125℃ /73 to 257°F	**13 minutes**

Cooling Time

125 to 23℃ /257 to 73°F	**40 minutes**
23 to -80℃ /73 to -112°F	**75 minutes**
-80 to -90℃ /-112 to -130°F	**30 minutes**
23 to -90℃ /73 to -130°F	**105 minutes**
125 to -90℃ /257 to -130°F	**145 minutes**

Time to Stability (approx.)

10 minutes

Immersion Depth

190mm /6.3 in

Input Specifications

All input specifications apply to the dry-block of the calibrator running at the respective temperature (stable plus an additional 20 minute period).

Input specifications are **not** applicable to the PTC-125A model.

RTD Reference Input (models B and C)

Type	**4-wire RTD with true ohm measurements** [1]
F.S. (Full Scale)	**400 ohm**
Accuracy (12 months)	**±(0.003% rdg. + 0.0007% F.S.)**

RTD Type	Temperature		12 Months	
	°C	°F	°C	°F
Pt100 Reference	-90	-130	± 0.02	± 0.03
	0	32	± 0.02	± 0.03
	125	257	± 0.02	± 0.04

(1) True ohm measurement is an effective method to eliminate errors from induced thermoelectrical voltage.

RTD Sensor Under Test Input (model B)

F.S. (range)	**400 ohm**
Accuracy (12 months)	**±(0.006% Rdg.+0.002% F.S)**
F.S. (range)	**4000 ohm**
Accuracy (12 months)	**±(0.006% Rdg. + 0.005% F.S.)**
2-wire.	**add 50 mOhm**

RTD Type	Temperature		12 Months	
	°C	°F	°C	°F
Pt1000	-90	-130	± 0.06	± 0.11
	0	32	± 0.07	± 0.12
	125	257	± 0.08	± 0.14
Pt500	-90	-130	± 0.11	± 0.20
	0	32	± 0.13	± 0.22
	125	257	± 0.13	± 0.24
Pt100	-90	-130	± 0.03	± 0.06
	0	32	± 0.04	± 0.06
	125	257	± 0.05	± 0.08

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Specifications

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Thermocouple Input

Range **± 78 mV**

F.S. (Full Scale) **78 mV**

Accuracy (12 months) **±(0.02% Rdg. + 0.01% F.S.)**

TC Type	Temperature		12 Months*	
	°C	°F	°C	°F
E	-90	-130	± 0.19	± 0.34
	0	32	± 0.13	± 0.24
	125	257	± 0.14	± 0.24
J	-90	-130	± 0.21	± 0.37
	0	32	± 0.15	± 0.28
	125	257	± 0.17	± 0.30
K	-90	-130	± 0.27	± 0.49
	0	32	± 0.20	± 0.35
	125	257	± 0.22	± 0.39
T	-90	-130	± 0.29	± 0.52
	0	32	± 0.20	± 0.36
	125	257	± 0.18	± 0.33
R	-50	-58	± 2.06	± 3.72
	0	32	± 1.44	± 2.60
	125	257	± 1.01	± 1.82
S	-50	-58	± 1.87	± 3.36
	0	32	± 1.42	± 2.55
	125	257	± 1.03	± 1.86
N	-90	-130	± 0.38	± 0.69
	0	32	± 0.30	± 0.54
	125	257	± 0.28	± 0.50
U	-90	-130	± 0.27	± 0.49
	0	32	± 0.20	± 0.35
	125	257	± 0.19	± 0.34

* Excludes CJC accuracy ± 0.3° C /± 0.54° F.

Transmitter Supply

Output Voltage **24VDC ±10%**

Output Current **Maximum 28 mA**

Transmitter Input mA (model B)

Range **0 to 24 mA**

Accuracy (12 months) **±(0.02% Rdg. +0.01% F.S.)**

Switch Input (model B)

Switch Dry Contacts

Test Voltage **Maximum 5 VDC**

Test Current **Maximum 2.5 mA**

Mains Specifications

Voltage **115V (90-127) / 230V (180-254)**

Frequency, non US Deliveries **50/60 Hz (47-63 Hz)**

Frequency, US Deliveries **60 Hz (57-63 Hz)**

Power Consumption (max.) **450 VA**

Communications Interface

Serial Data Interface **USB 2.0 Device Port**

Serial Data Interface **USB 2.0 host Double Port***

LAN **Ethernet MAC 10/100 Base-T***

SD **SD slot***

* For future expansion.

Miscellaneous

Operating Temperature **0 to 40°C /32 to 104°F**

Storage Temperature **-10 to 50°C /14 to 122°F**

Humidity **0 to 90% RH**

Protection Class **IP-10**

Physical Specifications

Weight and Instrument Size

Weight. . . . . **15.2 kg /33.5 lb**

(LxWxH) **531 x 169 x 432 mm /20.9 x 6.65 x 17.0 in**

Shipping (with carrying case)

Weight. . . . . **38.0 kg /83.8 lb**

(LxWxH) **800 x 500 x 800 mm /31.5 x 19.7 x 31.5 in**

Shipped on half-pallet, bound.

Inserts

Insert Dimensions

Outer Diameter **29.7 mm /1.17 in**

Inner Diameter **25.6 mm /1.01 in**

Length **150 mm /5.91 in**

Weight of Non-Drilled Insert

290 g /10.2 oz

Use of other inserts may reduce the performance of the calibrator. To get the best results out of the calibrator, the insert dimensions, tolerance, and material is critical. We highly advise using JOFRA inserts, as they guarantee trouble free operation.

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Specifications

Predrilled Inserts

All predrilled inserts have holes for: 4 mm reference sensor • ¼" reference sensor • 3 mm hole for a sensor. All inserts are supplied with an insulation plug drilled with the necessary holes.

Sensor Diameter	Instrument	
	Insert Code*	PTC-125 (A/B/C)
3 mm	003	128477
4 mm	004	128478
5 mm	005	128479
6 mm	006	128480
7 mm	007	128481
8 mm	008	128482
9 mm	009	128483
10 mm	010	128484
11 mm	011	128485
12 mm	012	128486
13 mm	013	128487
14 mm	014	128488
15 mm	015	128489
16 mm	016	128490
Package of Above Inserts	SMM	128492
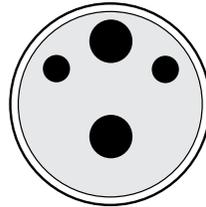
Sensor Diameter	Instrument	
	Insert Code*	PTC-125 (A/B/C)
1/8 in	125	128468
3/16 in	187	128469
1/4 in	250	128470
5/16 in	312	128471
3/8 in	375	128472
7/16 in	437	128473
1/2 in	500	128474
9/16 in	562	128475
5/8 in	625	128476
Package of Above Inserts	SIM	128491

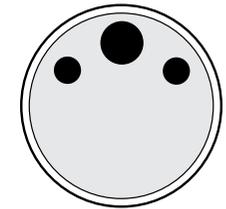* Use the insert code, when ordering a JOFRA standard insert together with the PTC calibrator.

Undrilled Inserts

All undrilled inserts include insulation plugs.

Inserts	Instrument	
	Insert Code*	PTC-125 (A/B/C)
5-pack, undrilled inserts with no holes	UN1	128453
5-pack, undrilled inserts with 2 holes for STS reference sensors (4mm & ¼")	UN3	128455
Undrilled insulation plug	—	126040
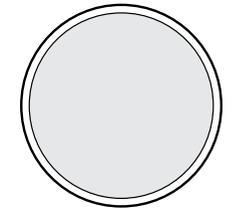
* Use the insert code, when ordering a JOFRA standard undrilled insert together with the PTC calibrator.
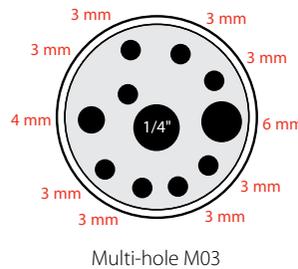
UN1

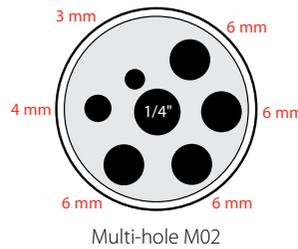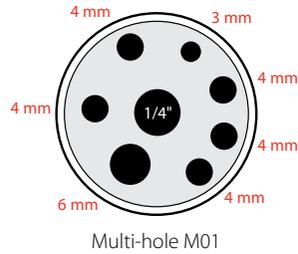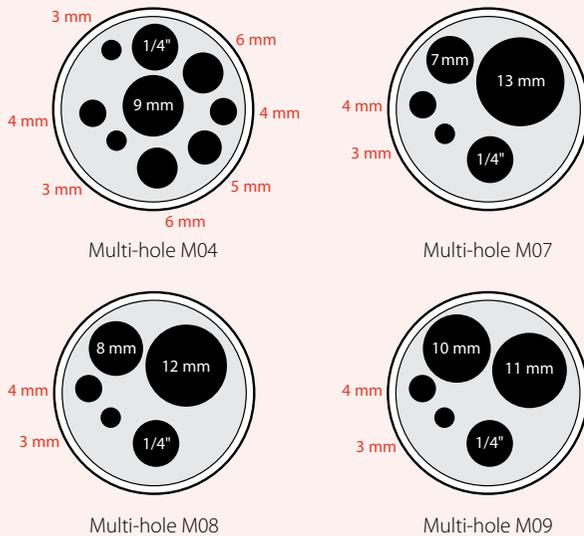UN3

Specifications

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JOFRA calibration AMETEK

Multi-Hole Inserts—Metric (mm)

All inserts are supplied with an insulation plug drilled with the necessary holes.

Insert Type	Instrument	
	Insert Code*	PTC-125 (A/B/C)
Multi-hole Type 1	M01	128456
Multi-hole Type 2	M02	128457
Multi-hole Type 3	M03	128458
Multi-hole Type 4	M04	128459
Multi-hole Type 7	M07	128462
Multi-hole Type 8	M08	128463
Multi-hole Type 9	M09	128464
Set of 4 Metric Multi Inserts, 3 to 13 mm. (Includes 128459, 128462, 128463, and 128464)	SMX	128466

* Use the insert code, when ordering a JOFRA standard multi-hole insert together with the PTC calibrator.

Multi-hole M01

Multi-hole M02

Multi-hole M03

Insert Code SMX


Multi-hole M04

Multi-hole M07

Multi-hole M08

Multi-hole M09

## Multi-Hole Inserts—Imperial (in)

All inserts are supplied with an insulation plug drilled with the necessary holes.

Insert Type	Instrument	
	Insert Code*	PTC-125 (A/B/C)
Multi-hole Type 5	M05	128460
Multi-hole Type 6	M06	128461
Multi-hole Type 10	M10	128465
Set of 3 Imperial Inserts, 1/8 to 7/16 in. (Includes 128460, 128461, and 128465)	SIX	128467

* Use the insert code, when ordering a JOFRA standard multi-hole insert together with the PTC calibrator.

Insert Code SIX

Multi-hole M05

Multi-hole M06

Multi-hole M10

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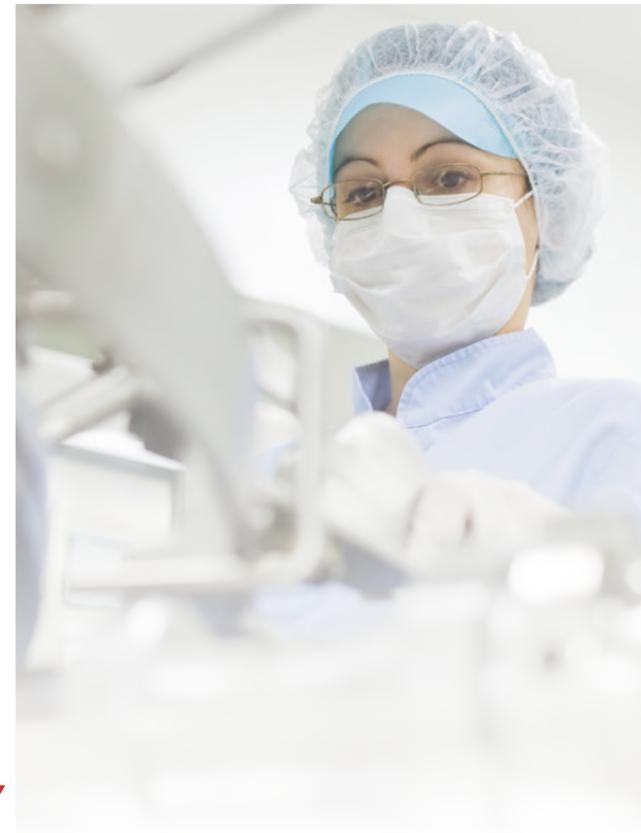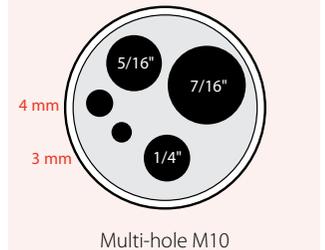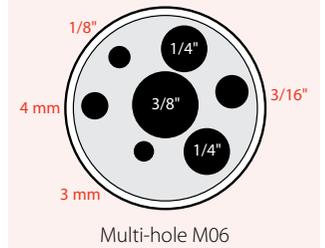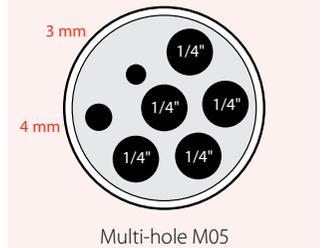
Options & Accessories

Standard Delivery

Models A, B, and C Include:

- PTC dry-block calibrator (user specified).
- Mains power cable (user specified).
- Traceable certificate - temperature performance.
- Tool for insertion tubes.
- USB cable.
- Set of rubber cones for insulation plugs.
- Carrying Case.
- USB key containing JofraCal software package and reference manual.

Model B Instruments Also Include:

- Test cables (2 x red, 2 x black).
- Traceable certificate - input performance for reference sensor.
- Traceable certificate - input performance for sensor-under-test inputs.

Model C Instruments Also Include:

- Traceable certificate - input performance for reference sensor.

Accessories

Extra fixture for sensor grip	**125066**
Extra sensor grip	**125067**
Mini-Jack connector for stable relay output	**122771**
Thermocouple Male Plug — Type J — Black	**120516**
Thermocouple Male Plug — Type K — Yellow	**120517**
Thermocouple Male Plug — Type N — Orange	**120514**
Thermocouple Male Plug — Type T — Blue	**120515**
Thermocouple Male Plug — Type R / S — Green	**120518**
Thermocouple Male Plug — Type Cu-Cu — White	**120519**

Optional STS-150 Sensor

Temperature Range

-90 to 125°C/-130 to 257°F

Accuracy

Hysteresis [1] @ 0°C/32°F	**0.01°C / 0.02°F**
Long Term Stability [2] @ 0°C/32°F	**typ. 0.016°C / 0.029°F**
Repeatability [1]	**0.004°C / 0.007°F**

(1) When used in the range -90 to125°C/-130 to 257°

(2) When exposed to 125°C/257°F for 100 hours. Stability will depend on actual use of the sensor.

Sensing Element

PT100

Compatible JOFRA Instruments

DTI-050

Functional Comparison

Input	Model A	Model B	Model C
	None	ref and SUT	ref
Dual-zone heating/cooling block	■	■	■
MVI — Mains Variance Immunity (or similar)	■	■	■
Stability indicator	■	■	■
Automatic step function	■	■	■
USB communication	■	■	■
Display resolution 0.01°C/F/K	■	■	■
Programmable max. temperature	■	■	■
External precision reference sensor input		■	■
"SET" follows "TRUE"		■	■
Input for RTD, TC, mA		■	
4-20 mA transmitter input incl. 24 VDC supply		■	
All inputs scalable to temperature		■	
Automatic switch test (open, close, and hysteresis)		■	

Dimensions

Diameter	**4 mm / 0.16 in**
Length	**192 mm / 7.56 in**
Max Height on Calibrator Top	**22 mm / 0.87 in**

Standard Delivery

STS-150 A Sensor, Plastic Protection Case, Accredited Certificate, Cable, and manual.

Model A

Model B

Model C

Ordering Information

dTSCal — JOFRA calibration — AMETEK

Sample Order Number

PTC125B230ASMXU1R16EAGTR

JOFRA PTC-125 B with 230VAC, EU power cord, set of metric inserts, UI functionality package, 4 mm diameter STS-150 reference sensor, full EA temperature calibration certificate, and carrying case with trolley plus support rod set.

Base Model Number

PTC125	PTC-125 series, -90 to 125° C (-130 to 257° F)

Model Version

A	Basic model, without input
B	Full model, incl. Reference sensor input, Sensor-under-test input
C	Middle model, incl. Reference sensor input

Power Supply (US deliveries 60 Hz only)

115	115 VAC
230	230 VAC

Mains Power Cable

A	European, 230 V
B	USA/Canada, 115 V
C	UK, 240 V
D	South Africa, 220 V
E	Italy, 220 V
F	Australia, 240 V
G	Denmark, 230 V
H	Switzerland, 220 V
I	Israel, 230 V

Insert Type and Size

NON	No insert selected (standard)
UNX	1 x Undrilled Insert (Please see Insert selection for code)
XXX	1 x Single hole insert (Please see Insert selection for code)
MXX	1 x Multi hole insert (Please see Insert selection for code)
SIX	Set of 3 Imperial multi hole inserts. Covering holes from 1/8" to 7/16"
SMX	Set of 4 Metric multi hole inserts. Covering holes from 3 mm to 13 mm
SIM	Set of 9 Imperial inserts. Covering holes from 1/8" to 5/8"
SMM	Set of 14 Metric inserts. Covering holes from 3 mm to 16 mm

User Interface Functionality (B model only—optional)

U1	Complete functionality package: Workorders, Full Sensor-Under-Test types, and Engineering Units

External Reference Sensor (B and C models only—optional)

R16	STS-150 Ref. sensor. Dia. 4 mm. Length 210 mm (STS150A912EH)

STS-150 Reference Sensor

210 mm

Calibration Certificate

F	Traceable Certificate to International standards
H	Accredited Certificate — ISO17025
EA	Full EURAMET Accredited Certificate — ISO17025
HS	System Calibration — Accredited Certificate — ISO17025 (B & C model only)
EAS	System Calibration — Full EURAMET Accredited Certificate — ISO17025 (B & C model only)

Accessories

CT	Solid Protective Carrying case with trolley (Included in standard delivery)
TR	Solid Protective Carrying case with trolley & Support rod set

PTC125 B 230 A SMX U1 R16 EA TR

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ametekcalibration.com

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