temperature

Advanced Temperature Calibrators

ATC-125 ultra cooler

The coolest dry-block in the world!

The ATC-125 ultra cooler is the first dry-block calibrator on the market offering the widest temperature range ever for cooling dry-blocks from 125°C down to -90°C!

The unique technology sets new standards for optimum temperature calibrations in frozen and deep frozen applicatons.

Wide temperature range

ATC-125 ultra cooler:
-90°C to 125°C / -130°F to 257°F

Portable calibration at low temperature

State of the art cooling technology ensures energy efficiency, environmental friendliness and portable calibration

High accuracy

Using the internal reference or the external reference probe. 4-wire True-Ohm-Measurement technology is used

Improved temperature homogeneity

Unique dual-zone block ensures good temperature homogeneity in the critical calibration zone

Cost effective calibration system

Stand-alone operation eliminates the need for secondary equipment and PC. Universal inputs handle multiple type temperature sensors

Timesaving features

Up- and download complete calibration tasks. Auto-stepping, switch testing and many more features make the daily use smooth and fast

Documentation made easy

RS232 communication and JOFRACAL calibration software are included in the standard delivery

ISO 9001 Manufacturer

PRODUCT DESCRIPTION

The ATC-125 ultra cooler features a unique technology for optimum performance and superior temperature homogeneity throughout the block at very low temperatures. The ATC-125 has a performance equivalent to a liquid temperature bath and features the widest temperature range for any cooling dry-block on the market today.

The ATC-125 ultra cooler calibrator may be used to perform fully automatic calibration routines without using an external computer. It is also possible to use the computer for full upload and download capabilities. The ATC-125 may also be supplied with inputs for external reference sensors and for sensors-under-test. All ATC calibrators feature RS232 serial communication and the standard delivery also includes the JOFRACAL calibration PC software.

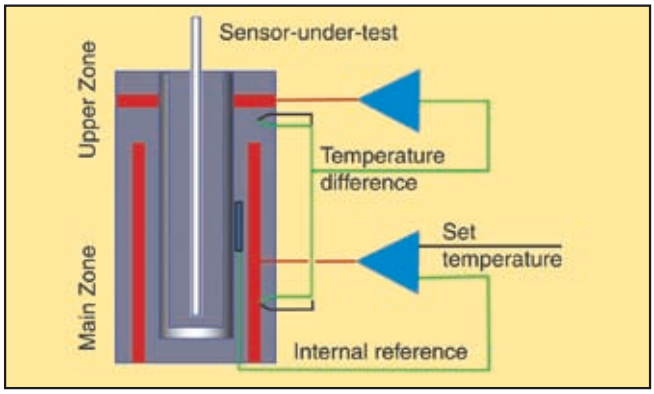
The ATC-125 ultra cooler is part of a serie of calibrators, that includes the ATC-140 (-20 to 140°C) and the ATC-250 (28 to 250°C) available as liquid bath or large diameter dry-block calibrators, and the ATC-156, ATC-157, ATC-320 and ATC-650 dry-block calibarators covering temperature ranges between -45°C and 650°C.

See more about the other ATC-series calibrators at page 5 or at www.jofra.com

Unique temperature performance

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

The ATC-125 features dual-zone technology. Each zone is 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 temperature distribution throughout the entire calibration zone. The upper zone compensates for heat loss from the sensor-under-test.



Efficient cooling techniques

The ATC-125 with both heating and cooling capabilities features the FPSC (Free piston stirling cooler) as cooling source.

The FPSC is a Stirling heat pump that uses a small amount helium gas as a heat transport medium, instead of standard refrigerants. The FPSC has an advantage, over traditional cooling systems, both in energy efficiency and environmental friendliness. These advantages are accomplished using state of the art technology and by virtue of being Freon, CFC and HFC free.

The FPSC has two major moving parts (piston and displacer) that oscillate in a linear motion along the same axis within a single cylinder which is installed in a stainless steel casing. The piston repeatedly compresses and expands the helium gas to cool the tip (cold head) of the extended part of the casing. The FPSC can be used to cool an object down to a temperature between -50°C and -100°C at an ambient temperature condition of 23°C.

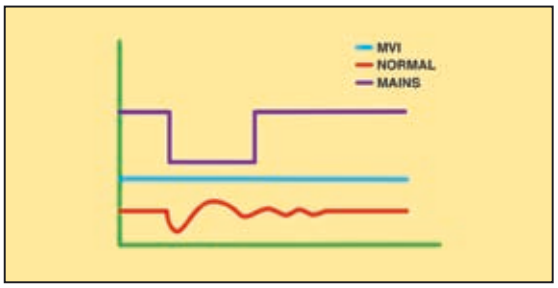
The FPSC has a high efficiency. It can be as much as 6 times higher than thermoelectric (Peltier) coolers.

MVI - Improved temperature stability

MVI stands for ''Mains power Variance Immunity''.

Unstable mains power supplies are a major contributor to on-site calibration inaccuracies. Traditional temperature calibrators often become unstable in production environments where large electrical motors, heating elements, and other devices are periodically cycled on or off. The cycling of supply power can cause the temperature regulator to perform inconsistently leading to both inaccurate readings and unstable temperatures.

The JOFRA ATC-125 calibrator employ the MVI by running on stabilized DC voltage, thus avoiding any stability problems (MVI).



Highest accuracy (model B only)

ATC series calibrators may be supplied with a built-in reference thermometer for use with an external probe. This feature allows one instrument to provide the freedom and flexibility to perform calibrations at the process site while maintaining a high accuracy.

A special 90° angled external reference sensor has been designed to accommodate sensors with a transmitter head, top connector or similar arrangement.

The user can decide whether to read the built-in reference sensor or the more accurate external reference sensor from the calibrator's large, easy-to-read LCD display. The external sensor and the internal sensor are independent of one another. Downloading of reference sensor linearization is done via a personal computer.

SET-Follows-TRUE (model B only)

Available on B models only, the “SET-Follows TRUE” causes the instrument to tune-in so that the temperature of the external reference “TRUE” is related to the desired “SET” temperature. This is used when it is critical that the temperature in the calibration zone matches the desired temperature as measured with an accurate external reference sensor.

This function is ideal for calibrating gas correctors or other custody transfer applications. It is extremely beneficial in the calculation process.

Reading of sensor-under-test (model B only)

The ATC series model B is equipped with built-in converters (inputs) that measure virtually any type of temperature sensor including:

- thermostats
- resistance thermometers (RTD)
- thermocouples (TC)
- transmitters
- milliamps (mA)
- voltage (V)

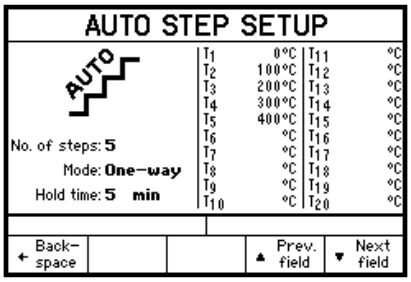
ATC series calibrators can be user-programmed for completely automated temperature calibrations. Once the unit is set up, the instrument operates itself by performing the configured calibration routine. All calibration data is stored and available for uploading and generating exact calibration certificates or reports.

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 five tests. This information cannot be uploaded to a personal computer.

Auto-stepping

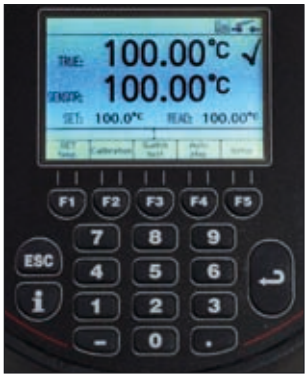
Up to 20 different temperature steps may be programmed including the hold time for each step. Upon completion of an auto step routine, the user can easily read the results for the sensor-under-test. Up to five (5) auto step results are retained.



Easy-to-use, intuitive operation

All instrument controls may be performed from the front panel. The heat source is positioned away from the panel which helps protect the operator.

The ATC keyboard is equipped with five, positive feedback function keys. They correspond to the text in the display and change functionality based on instrument operations. There are also dedicated function keys with permanent functions.



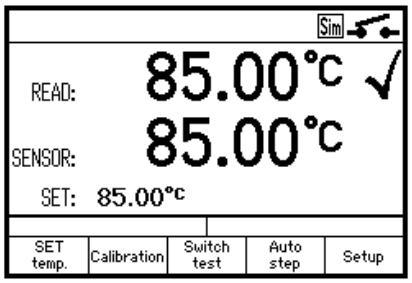
The easy-to-read, backlit display is large with a high contrast that is readible even in high ambient light conditions. The display is easily read from all angles and from a distance without parallax problems. The display also features icons which help identifying instrument conditions and operational steps.

Set temperature

The “Set temperature” feature allows the user to set the exact desired temperature with a resolution of 0.01°.

Enhanced stability

A stability indicator shows when the ATC calibrator has reached the desired temperature and is stable. The user may change the stability criteria, external reference and the sensor-under-test quickly and simply. The stability criteria are the user’s security for a correct calibration. A count-down timer is displayed next to the temperature read-out.



Instrument setups

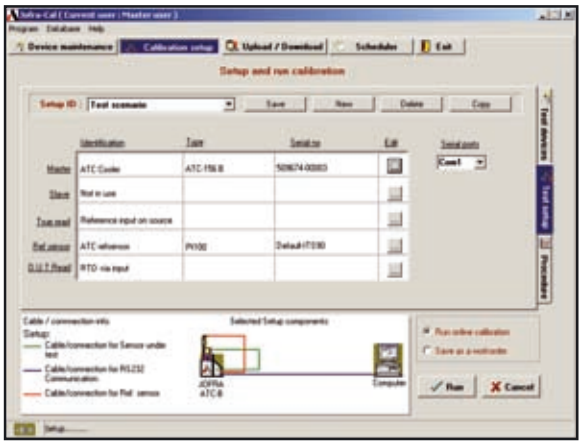
The ATC series allows the user to store up to nine (9) complete instrument setups. You may store all sorts of information including temperature units, stability criteria, use of external reference sensor, resolution, sensor-under-test (SUT), conversion to temperature, display contrast, etc. The setup may be recalled at any time.

Maximum temperature

From the setup menu, the user can select the maximum temperature limit for the calibrator. This function prevents damage to the sensor-under-test caused by the application of excessive temperatures. The feature also aids in reducing drift resulting from extended periods of exposures to high temperatures. This feature can be locked with an access code.

Simplified calibration documentation - JOFRACAL

All ATC series calibrators are provided with the JOFRACAL calibration software. This software allows the user to customize his or her calibration routines. The software is easy-to-use so you do not have to be a programmer to configure your own calibration procedures. The software features prompts, menus, and help functions that guide you through the configuration process.



The JOFRACAL calibration software supports automatic calibration for all JOFRA dry-block calibrators equipped with an RS232 serial data interface

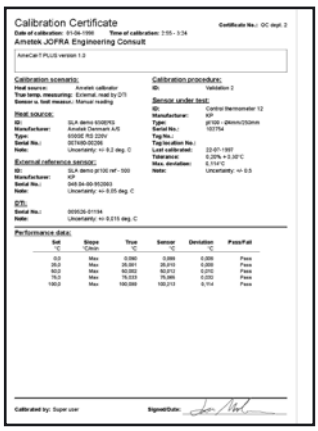
For semi-automatic calibrations, the software also supports liquid baths, ice points, or other dry-block heating and cooling sources. Using the software's ''SCENARIO'' function allows for combining instruments in virtually any configuration.

The calibration data collected may be stored on a PC for later recall or analysis.

The ATC calibrator stores the calibration procedure and may be taken out to the process site without using a personal computer. This allows your ATC calibrator to:

- Operate as a stand-alone instrument, using advanced cali bration routines without the assistance of a personal com puter on site;
- 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 the JOFRACAL calibration software for post-processing and printing of certificates. The calibration data collected may be stored on the personal computer for later recall or analysis.


Calibration Certificate

Ametek JOFRA Engineering Consult

As found/as left (model B only)

The ATC series calibrator automatically handles "As Found/As Left" calibrations. The calibrator stores both results. The first performed calibration is "As found" and the last performed calibration is the "As left", regardless of the number of calibrations/adjustments that may have been made in between.

SYNC output

An output is located directly on the front of the ATC calibrator. This output signals when the instrument is stable and may be used with ancillary devices such as video recorders, digital cameras or as an input to a data logging device. The SYNC output may be useful for automating and documenting your calibrations when calibrating external reading devices.

Calibration (model B only)

Users may perform or read the results of the calibration tasks directly on the instrument. When calibrating an indicating device, 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.

JOFRACAL software

Minimum hardware requirements for JOFRACAL calibration software.

- 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)
- CD-ROM drive for installation of the program
- 1 free RS232 serial port

FUNCTIONAL COMPARISON

ATC series		ATC-125 A	ATC-125 B	ATC-140 A	ATC-140 B	ATC-156 A	ATC-156 B	ATC-157 A	ATC-157 B	ATC-250 A	ATC-250 B	ATC-320 A	ATC-320 B	ATC-650 A	ATC-650 B
Temperature range @ ambient 23°C / 73°F															
-90 to 125°C	-130 to 257°F	X	X												
-20 to 140°C	-4 to 284°F			X	X										
-24 to 155°C	-11 to 311°F					X	X								
-45 to 155°C	-49 to 311°F							X	X						
28 to 250°C	82 to 482°F									X	X				
33 to 320°C	91 to 608°F											X	X		
33 to 650°C	91 to 1202°F													X	X
Temperature stability															
±0.01°C	±0.018°F					S	S	S	S			S	S		
±0.02°C	±0.036°F			X	X					X	X			S	S
±0.03°C	±0.054°F	X	X												
Accuracy incl. external STS reference sensor															
±0.04°C	±0.07°F				X [1]		X [1]		X [1]						
±0.06°C	±0.11°F	X	X												
±0.07°C	±0.13°F										X [1]		X [1]		
±0.11°C	±0.2°F														X [1]
Accuracy with internal reference sensor															
±0.10°C	±0.18°F					S	S								
±0.13°C	±0.23°F							S	S						
±0.18°C	±0.32°F			S	S										
±0.20°C	±0.36°F											S	S		
±0.28°C	±0.50°F									S	S				
±0.30°C	±0.54°F	X	X												
±0.35°C	±0.63°F													S	S
Immersion depth															
185 mm	7.3 in	X	X												
180 mm	7.1 in			X [2]	X [2]										
160 mm	6.3 in					X	X	X	X						
150 mm	5.9 in			X [3]	X [3]					X [4]	X	X	X	X	X
Insertion tube diameter															
63.5 mm	2.5 in			X	X					X	X				
30 mm	1.2 in	X	X			X	X					X	X	X	X
20 mm	0.8 in							X	X						

X = Delivered as standard
S = Improved specifications (from October 01, 2006)

1 Using an external STS reference sensor connected to the reference probe input
2 Immersion depth for ATC-140 as dry-block
3 Immersion depth for ATC-140 as liquid bath
4 Immersion depth for ATC-250 as dry-block and as liquid bath

	Model A	Model B
Dual-zone heating/cooling block	•	•
MVI - Mains Variance Immunity (or similar)	•	•
Stability indicator	•	•
Automatic step function	•	•
JOFRACAL Calibration software included as standard	•	•
SYNC output (for external recording device)	•	•
Display resolution 0.01°	•	•
Graphical LCD display	•	•
Programmable max. temperature	•	•
Input for RTD, TC, V, mA		•
4-20 mA transmitter input incl. 24 VDC supply		•
All inputs scalable to temperature		•
Automatic switch test (open, close and hysteresis)		•
External precision reference probe input		•
Download of calibration work orders from PC		•
Upload of calibration results (as found & as left)		•
"SET" follows "TRUE"		•

140 and ATC-250

For a wider product description of the ATC-140 and ATC-250 please see specification sheet SS-CP-2284, which is to be found at www.jofra.com

ATC-156/157/320/650

For a wider product description of the ATC-156, ATC-157, ATC-320 and ATC-650 please see specification sheet SS-CP-2285, which is to be found at www.jofra.com

FUNCTIONAL SPECIFICATIONS

Mains specifications

ATC-125 ..... 115V(90-127) / 230V(180-254)
Frequency, non US deliveries ..... 50 Hz ±5, 60 Hz ±5
Frequency, US deliveries ..... 60 Hz ±5
Power consumption (max.) ATC-125 ..... 300 VA

Temperature range

ATC-125 Maximum ..... 125°C / 257°F
Minimum @ ambient temp. 0°C / 32°F .....-90°C / -130°F
Minimum @ ambient temp. 23°C / 73°F .....-90°C / -130°F
Minimum @ ambient temp. 40°C / 104°F .....-73°C / -99°F

Stability

ATC-125 ..... ±0.03°C / ±0.054°F

Measured after the stability indicator has been on for 10 minutes. Measuring time is 30 minutes.

Accuracy (model B) with external STS reference sensor

ATC-125 B ..... ±0.06°C / ±0.11°F

12 month period. Relative to reference standard. Specifications by use of the external JOFRA STS-100 reference sensor (see specification sheet SS-CP-2290, which can be found at www.jofra.com)

Accuracy (model A+B) with internal reference sensor

ATC-125 A+B..... ±0.3°C / ±0.54°F

Resolution (user-selectable)

All temperatures ..... 1° or 0.1° or 0.01°

Radial homogeneity (difference between holes)

ATC-125..... 0.01°C / 0.02°F

Immersion depth

ATC-125..... . 185 mm / 7.3 in

Heating time

-90 to 125°C / -130 to 257°F..... 40 minutes
23 to 125°C / 73 to -257°F..... 20 minutes

Cooling time

125 to 23°C / 212 to 73°F ..... 25 minutes
23 to -80°C / 73 to -112°F..... 70 minutes
-80 to -90°C / -112 to -130°F..... 30 minutes

SYNC output (dry contact)

Switching voltage ..... Maximum 30 VDC
Switching current ..... Maximum 100 mA

INPUT SPEC'S (B MODELS ONLY)

All input specifications apply to the calibrator's dry-block running at the respective temperature (stable plus an additional 20 minutes period). Where the input measuring range is out of the calibrator's range, the SET temperature is either MIN. or MAX.

Transmitter supply

Output voltage..... 24VDC +10%
Output current ..... Maximum 25 mA

Transmitter input mA

Range..... 0 to 24 mA
Accuracy (12 months) .....±(0.01% Rdg. ±0.015% F.S.)

Voltage input VDC

Range:..... 0 to 12 VDC
Accuracy (12 months) ..... ±(0.005% Rdg. ±0.015% F.S.)

Switch input

Switch dry contacts
Test voltage ..... Maximum 5 VDC
Test current ..... Maximum 2.5 mA

RTD reference input (B models only)

Type ..... 4-wire RTD with true ohm measurements[1)]
F.S. (Full Scale) ..... 350 ohm
Accuracy (12 months) ..... ±(0.001% rdg. + 0.002% F.S.)

RTD Type	Temperature		12 months	
	°C	°F	°C	°F
Pt100 reference	-50	-58	±0.020	±0.036
	0	32	±0.021	±0.038
	155	311	±0.023	±0.041
	320	608	±0.026	±0.047
	650	1202	±0.032	±0.058
	700	1292	±0.034	±0.061

Note 1: True ohm measurements are an effective method to eliminate errors from induced thermoelectrical voltages

RTD input

Type of RTD 2-wire
F.S. (range) ..... 350 ohm or 2900 ohm
Accuracy (12 months) ±(0.005% rdg. + 0.005% F.S. + 50 mΩ)
Type of RTD ..... 3- or 4-wire
F.S. (range) ..... 350 ohm or 2900 ohm
Accuracy (12 months) ..... ±(0.005% rdg. + 0.005% F.S.)

RTD Type	Temperature		12 months	
	°C	°F	°C	°F
Pt1000	-50	-58	±0.046	±0.083
	0	32	±0.050	±0.090
	155	311	±0.061	±0.110
	320	608	±0.071	±0.127
	500	932	±0.087	±0.125
Pt500	-50	-58	±0.083	±0.149
	0	32	±0.087	±0.157
	155	311	±0.100	±0.180
	320	608	±0.111	±0.200
	500	932	±0.130	±0.235
Pt100	-50	-58	±0.054	±0.097
	0	32	±0.058	±0.104
	155	311	±0.069	±0.124
	320	608	±0.079	±0.142
	650	1202	±0.106	±0.191
	700	1292	±0.112	±0.202
Pt50 (only in Russian versions)	-50	-58	±0.098	±0.176
	0	32	±0.103	±0.185
	155	311	±0.116	±0.209
	320	608	±0.128	±0.230
	650	1202	±0.161	±0.290
	700	1292	±0.169	±0.303
Pt10	-50	-58	±0.453	±0.815
	0	32	±0.462	±0.831
	155	311	±0.495	±0.891
	320	608	±0.524	±0.943
	650	1202	±0.610	±1.098
	700	1292	±0.620	±1.116
Cu100	-50	-58	±0.050	±0.090
	0	32	±0.052	±0.094
	150	302	±0.060	±0.108
Cu50	-50	-58	±0.090	±0.162
	0	32	±0.093	±0.167
	150	302	±0.100	±0.180

If automatic cold junction compensation is used, the specification for CJ is ±0.40°C (±0.72°F).

Thermocouple input

Range ..... 78 mV
F.S. (Full Scale) ..... 78 mV
Accuracy (12 months) ..... ±(0.01% rdg. + 0.005% F.S.)

TC Type	Temperature		12 months	
	°C	°F	°C	°F
E	-50	-58	±0.08	±0.14
	0	32	±0.07	±0.12
	155	311	±0.07	±0.12
	320	608	±0.08	±0.14
	650	1202	±0.11	±0.20
	1000	1832	±0.15	±0.28
J	-50	-58	±0.10	±0.17
	0	32	±0.08	±0.14
	155	311	±0.08	±0.15
	320	608	±0.10	±0.18
	650	1202	±0.12	±0.22
	1200	2192	±0.19	±0.34
K	-50	-58	±0.11	±0.20
	0	32	±0.10	±0.18
	155	311	±0.11	±0.20
	320	608	±0.12	±0.22
	650	1202	±0.16	±0.28
	1372	2502	±0.28	±0.50
T	-50	-58	±0.12	±0.22
	0	32	±0.10	±0.18
	155	311	±0.09	±0.16
	320	608	±0.09	±0.17
	400	752	±0.10	±0.17
R	-50	-58	±1.31	±2.35
	0	32	±0.78	±1.40
	155	311	±0.50	±0.90
	320	608	±0.42	±0.75
	650	1202	±0.41	±0.74
	1760	3200	±0.50	±0.90
S	-50	-58	±0.98	±1.77
	0	32	±0.78	±1.40
	155	311	±0.50	±0.90
	320	608	±0.46	±0.83
	650	1202	±0.45	±0.81
	1768	3214	±0.52	±0.94
B	250	482	±1.57	±2.83
	320	608	±0.99	±1.78
	650	1202	±0.69	±1.23
	1820	3308	±0.48	±0.86
N	-50	-58	±0.16	±0.29
	0	32	±0.15	±0.27
	155	311	±0.14	±0.24
	320	608	±0.14	±0.25
	650	1202	±0.16	±0.28
	800	1472	±0.17	±0.31
XK (only in Russian versions)	-50	-58	±0.07	±0.13
	0	32	±0.06	±0.11
	155	311	±0.06	±0.12
	320	608	±0.07	±0.13
	650	1202	±0.11	±0.19
	800	1472	±0.12	±0.22
U	-50	-58	±0.12	±0.21
	0	32	±0.10	±0.18
	155	311	±0.09	±0.17
	320	608	±0.09	±0.17
	600	1112	±0.10	±0.19

PHYSICAL SPECIFICATIONS

Instrument dimensions (L x W x H)

ATC-125 ..... 506 x 200 x 448 mm / 15.7 x 7.9 x 15.7 in

Instrument weight

ATC-125 ..... 20 kg / 44.1 lb

Insert dimensions (D x L)

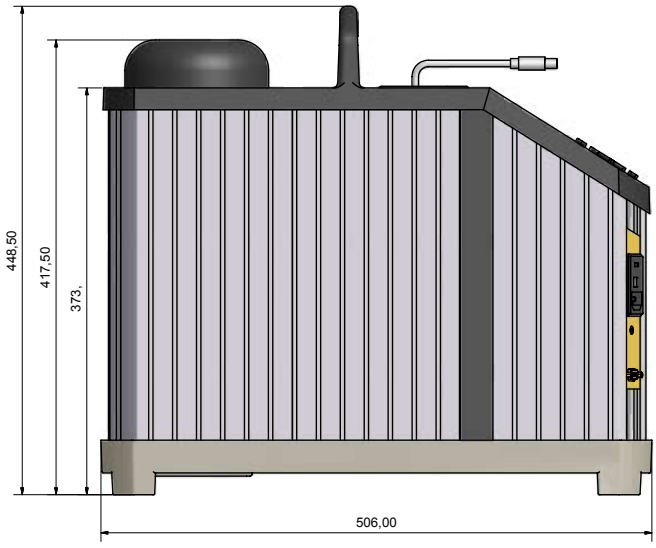
ATC-125 ..... 30 x 150 mm / 1.18 x 5.91 in

Weight of non-drilled insert (approximate)

ATC-125 ..... 290 g / 10.2 oz

Miscellaneous

Serial data interface ..... RS232 (9-pin male)
Operating temperature ..... 0 to 40°C / 32 to 104°F
Storage temperature ..... -20 to 50°C / -4 to 122°F
Humidity ..... 0 to 90% RH
Protection class IP-10



STANDARD DELIVERY

- ATC dry-block calibrator (user specified)
- Mains power cable (user specified)
- Traceable certificate - temperature performance
- Insert (user specified)
- Set of matching insulation plugs
- Tool for insertion tubes
- RS232 cable
- JOFRACAL calibration software
- AMETRIM-ATC software to adjust the ATC series
- User manual
- Reference manual (English)

Model B instruments contain the following extra items:

- Test cables (2 x red, 2 x black)
- Traceable certificate - input performance

ACCESSORIES

122832	Cleaning brush, 4 mm (3/pkg)
60F174	Cleaning brush, 6 mm (3/pkg)
122822	Cleaning brush, 8 mm (3/pkg)
60D711+712	Connector, Lemo (male) for reference input cable (4.3 to 5.1 mm diameter)
122771	Connector, Mini Jack, for “stable” relay output
122823	Ref. input cable, Lemo to Banana
122801	Ref. probe cable, Lemo to Lemo (0.5 m)
120519	Thermocouple, type Cu-Cu, male plug
120517	Thermocouple, type K, male plug
120514	Thermocouple, type N, male plug
120515	Thermocouple, type T, male plug
125066	Extra fixture for sensor grib
125067	Extra sensor grib

Carrying case (Optional)

The optional protective carrying case ensures safe transportation and storage of the instrument and all associated equipment.

Support rod set for sensors (Optional) - 125068

It is possible to order a support rod for sensors, which can be mounted on the side of all JOFRA dry-block calibrators and holds the sensors under test in their position, while calibrating them.

The support rod set includes 2 pieces of sensors grips and 2 pieces of fixtures for sensor gribs.

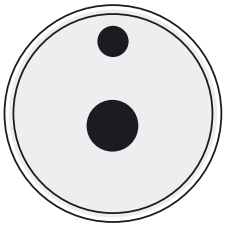
PREDRILLED INSERTS FOR ATC-125 - 4 MM REFERENCE HOLE

dry-block insert compatibility and materials:
ATC-125 = ATC-155 = ATC-156 (made of aluminum)
All specifications on hole sizes are referring to the outer diameter (OD) of the sensor-under-test.
The correct clearance size is applied in all predrilled inserts.

Spare part no. for predrilled inserts with 4 mm reference hole			
Probe diameter	**Insert code [1]**	**Insert**	**Insulation plug**
3 mm	003	105623	xxxxxx
4 mm	004	105625	xxxxxx
5 mm	005	105627	xxxxxx
6 mm	006	105629	xxxxxx
7 mm	007	105631	xxxxxx
8 mm	008	105633	xxxxxx
9 mm	009	105635	xxxxxx
10 mm	010	105637	xxxxxx
11 mm	011	105639	xxxxxx
12 mm	012	105641	xxxxxx
13 mm	013	105643	xxxxxx
14 mm	014	105645	xxxxxx
15 mm	015	105647	xxxxxx
16 mm	016	105649	xxxxxx
Package of the above inserts		124697	xxxxxx

4 mm

Reference probe hole



(ATC-125)

Spare part no. for predrilled inserts with 4 mm reference hole			
Probe diameter	**Insert code [1]**	**Inserts**	**Insulation plug**
1/8 in	125	105677	xxxxxx
3/16 in	187	105679	xxxxxx
1/4 in	250	105681	xxxxxx
5/16 in	312	105683	xxxxxx
3/8 in	375	105685	xxxxxx
7/16 in	437	105687	xxxxxx
1/2 in	500	105689	xxxxxx
9/16 in	562	105691	xxxxxx
5/8 in	625	105693	xxxxxx
Package of the above inserts		124698	xxxxxx

Note: All inserts (metric and inches) are supplied with a hole for the 4 mm OD reference probe.

Note: Remember to use matching insulation plugs.

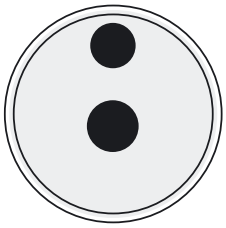
Note 1: Use the insert code, when ordered as the standard insert together with a new calibrator.

PREDRILLED INSERTS FOR ATC-125 - 1/4 IN REFERENCE HOLE

Spare part no. for predrilled inserts with 1/4 in (6.35 mm) reference hole			
Probe diameter	**Insert code [1]**	**Insert**	**Insulation plug**
3 mm	803	125260	xxxxxx
4 mm	804	125262	xxxxxx
5 mm	805	125264	xxxxxx
6 mm	806	125266	xxxxxx
7 mm	807	125268	xxxxxx
8 mm	808	125270	xxxxxx
9 mm	809	125272	xxxxxx
10 mm	810	125274	xxxxxx
11 mm	811	125278	xxxxxx
12 mm	812	125280	xxxxxx
13 mm	813	125282	xxxxxx
14 mm	814	125284	xxxxxx
15 mm	815	125286	xxxxxx
Package of the above inserts		125389	xxxxxx
Set of insulation plugs for 1/4 in (6.35 mm) ref. hole		125511	xxxxxx

1/4 in

Reference probe hole



(ATC-125 A/B)

Spare part no. for predrilled inserts with 1/4 in (6.35 mm) reference hole			
Probe diameter	**Insert code [1]**	**Insert**	
1/8 in	901	125297	xxxxxx
3/16 in	902	125299	xxxxxx
1/4 in	903	125301	xxxxxx
5/16 in	904	125304	xxxxxx
3/8 in	905	125306	xxxxxx
7/16 in	906	125308	xxxxxx
1/2 in	907	125310	xxxxxx
9/16 in	908	125312	xxxxxx
Package of the above inserts		125392	xxxxxx
Set of insulation plugs for 1/4 in (6.35 mm) ref. hole		125511	xxxxxx

Note: All inserts (metric and inches) are supplied with a hole for the 1/4 mm OD reference probe.

Note: Remember to use matching insulation plugs.

Note 1: Use the insert code, when ordered as the standard insert together with a new calibrator.

UNDRILLED INSERTS FOR ATC SERIES

Inserts, undrilled	
	Instruments
Inserts	**ATC-125 A/B**
5-pack, undrilled inserts	122720
5-pack, undrilled inserts with a 4 mm hole for the reference probe	122722
5-pack, undrilled inserts with a 1/4 in hole for the reference probe	125288

4 mm Reference probe hole

1/4 in Reference probe hole

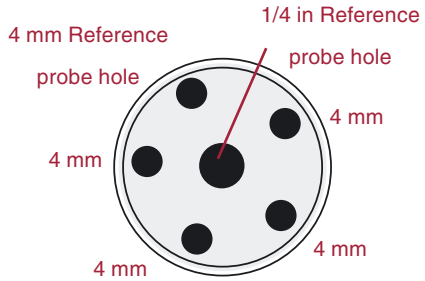
MULTI-HOLE INSERTS FOR ATC-125 - METRIC (MM)

Spare part no. for multi-hole inserts - metric (mm)	
	Instruments
Insert code [1]	ATC-125 A/B
M01	xxxxxx
M02	xxxxxx
M03	xxxxxx
M04	xxxxxx

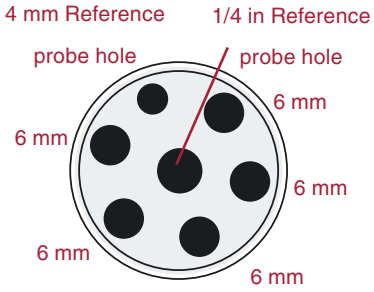
Note: All multi-hole inserts (metric and inches) for ATC-125 are supplied with a matching insulation plug.

Note: Remember to use matching insulation plugs.

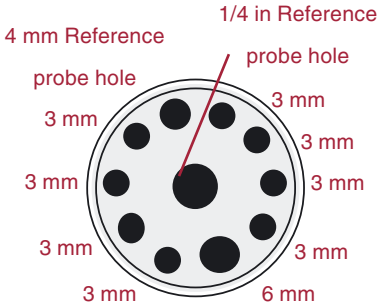
Note 1: Use the insert code, when ordered as the standard insert together with a new calibrator.



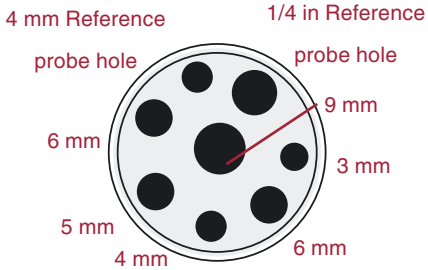
Multi-hole M01
(ATC-125 A/B)



Multi-hole M02
(ATC-125 A/B)



Multi-hole M03
(ATC-125 A/B)



Multi-hole M04
(ATC-125 A/B)

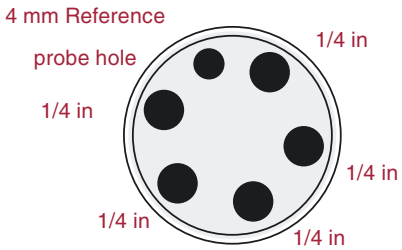
MULTI-HOLE INSERTS FOR ATC-125 - IMPERIAL (INCH)

Spare part no. for multi-hole inserts - imperial (inch)	
	Instruments
Insert code [1]	ATC-125 A/B
M05	xxxxxx
M06	xxxxxx

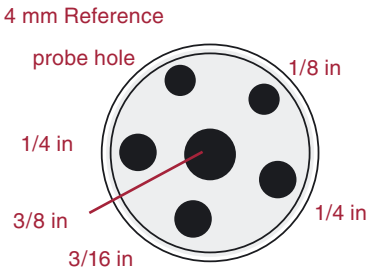
Note: All multi-hole inserts (metric and inches) for ATC-125 are supplied with a matching insulation plug.

Note: Remember to use matching insulation plugs.

Note 1: Use the insert code, when ordered as the standard insert together with a new calibrator.



Multi-hole M05
(ATC-125 A/B)



Multi-hole M06
(ATC-125 A/B)

ORDERING INFORMATION

Model ATC-125

Order number	Description
	Base model number
ATC125	ATC-125 series, -90 to 125°C (-130 to 257°F)
	Model version
A	Basic model (no sensor-under-test or reference probe input)
B	Including sensor-under-test and reference probe input
	Power supply (US deliveries 60 Hz only)
115	115VAC
230	230VAC
	Mains power cable type
A	European, 230V,
B	USA/CANADA, 115V
C	UK, 240V
D	South Africa, 220V
E	Italy, 220V
F	Australia, 240V
G	Denmark, 230V
H	Switzerland, 220V
I	Israel, 230V
	Insert type and size
XXX	1 x Insert is included in the standard delivery (please see the previous insert pages for the right insert codes)
	Calibration certificate
F	NPL Traceable temperature certificate (standard for Europe, Asia, Australia and Africa)
G	NIST traceable temperature certificate (standard for Americas)
H	Accredited certificate (optional)
	Options
C	Carrying case
R	90° angled reference probe with accredited certificate (STS100A901AH)
X	No option used
ATC125B230AM01FX	**Sample order number** ATC-125 B with standard accessories, 230VAC, European power cord, multihole insert type M01, and NPL traceable temperature certificate.