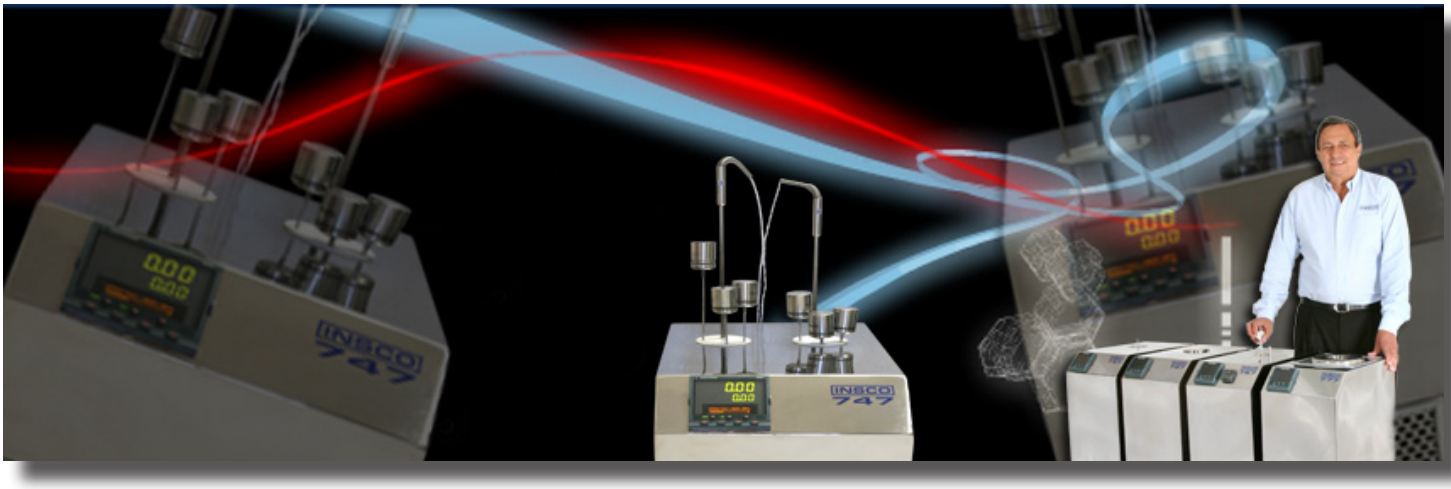
# INSCO

# Temperature Calibration System

## Catalog 2012-2013

01-01-2012 / 12-31-2013

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## SERIES 700 FEATURES

- Compact design 5 in. x 9 in. x 8 in. ( 127 mm x 228mm x 203 mm)
- Low power ( less than 200 watts)
- Four wells block.
- Available in Aluminum or Bronze block
- Ideally suited for filed calibration (easy to carry, only 3.6 kg)
- All 304 polished stainless steel cabinet construction
- Designed for instrumentation department and field work requirements.

## SERIES 700 SPECIFICATIONS

- Temperature range: 35°C to 400°C (aluminum block) 35°C to 600°C (bronze block)
- Stability: 0.003°C at 400°C
- Radial Uniformity: ± 0.006 °C at 400°C)
- Wells: (2) wells ¼ in. dia. (6.35 mm ); (2) 5/16 in. (7.93 mm) dia
- Fixed Block Size: 1.2 in. dia. (30.38 mm) x 6 in. (152.4 mm) height
- Immersion Depth: 4 in. (101.6 mm)
- Display Resolution: 0.01°C
- Dimensions: 5 in. x 9 in. x 8 in. (127mm x 228.6mm x 203.2mm)
- Weight: 3.6kg

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## Ordering Information

| Model 700 | |
|---|---|
| Code: A-B-C-D | |
| (a)- 01 | Dry Block 35°C to 400°C |
| 02 | Dry Block 35°C to 600°C |
| (b)- 00 | Wells Options Standard |
| nn | Number of Wells (4 maximum) |
| (c)- 01 | Brushed 304 SS |
| 02 | Polished 304 SS |
| (d)- 01 | 120 VAC 60 Hz |
| 02-xxx | Check for other voltages availability |


## SERIES 707 FEATURES

SERIES 707 FEATURES:

- Designed for medium to high temperature requirements
- High purity aluminum block for medium temperature calibrations ( up to 400° C)
- Twelve wells block or custom wells available
- Designed for metrology laboratories and instrumentation department requiring high temperature calibration of RTDs, thermocouples and other monitoring equipment
- Ideally suited for pharmaceutical industries and validation departments (verifications of up to 36 small gage thermocouples)
- All 304 polished stainless steel

## SERIES 707 SPECIFICATIONS

Temperature range 50°C to 400°C (aluminum block)
Stability 0.02°C at 200°C
Stabilization time 20 minutes
Block Wells (12) wells 0.347 dia. (8.8 mm ) or custom wells available
Fixed Block Size 1.2 in. dia. (30.38 mm) x 6 in. (152.4 mm) height
Immersion Depth 6 in. (152.4 mm)
Display Resolution 0.01°C
Dimensions 8 in. x 12 in. x 14 in. (203 mm x 304 mm x 355 mm)
Weight 11kg
Heater Power 450 Watts
Consumption 5 amp at 120 VAC 60 Hz
Power Line Voltage 120 VAC 60Hz ±10% (other options available)
Dry Block Material High Purity Aluminum
Cabinet Construction Brushed or Polished 304 SS

## Ordering Information

**Model 707**

**Code: A-B-C-D**

| | |
|---|---|
| (a)- 01 | Dry Block 50°C to 400°C |
| (b)- 00 nn | Wells Options Standard<br>Number of Wells (12 maximum) |
| (c)- 01 | Brushed 304 SS |
| 02 | Polished 304 SS |
| (d)- 01 | 120 VAC 60 Hz |
| 02-xxx | Check for other voltages availability |


## SERIES 717 FEATURES

SERIES 717 FEATURES:

- Compact design 7 in. x 9 in. x 10 in. ( 177 mm x 228mm x 254 mm)
- Low power ( less than 200 watts)
- Four wells block.
- Available in Aluminum or Bronze block
- Ideally suited for filed calibration (easy to carry, only 5.6 kg)
- All 304 polished stainless steel cabinet construction
- Designed for instrumentation department and field work requirements.

## SERIES 717 SPECIFICATIONS

Temperature range 40°C to 400°C (aluminum block) 40°C to 600°C (bronze block)
Stability 0.005°C at 200°C
Radial Uniformity ± 0.010 °C at 200°C)
Wells (2) wells ¼ in. dia. (6.35 mm ); (2) 5/16 in. (7.93 mm) dia.
Fixed Block Size 1.5 in. dia. (38.10 mm) x 8 in. (203.2 mm) height
Immersion Depth 6 in. (152.4 mm); 4 in. (101.6 mm)
Display Resolution 0.01°C
Dimensions 7 in. x 9 in. x 10 in. (177.8 mm x 228.6mm x 253 mm)
Weight 5.6kg
Heater Power 200 Watts
Consumption 2 amp at 120 VAC 60 Hz
Power Line Voltage 120 VAC 60Hz ±10% (other options available)
Dry Block Material High Purity Aluminum/ Bronze
Cabinet Construction Brushed or Polished 304 SS

## Ordering Information

Model 717

Code: A-B-C-D

(a)- 01 Dry Block 40°C to 400°C
02 Dry Block 40°C to 600°C
(b)- 00 Wells Options Standard
nn-4 Number of Wells (4 maximum) 4 in. depth
nn-6 Number of Wells (4 maximum) 6 in. depth
(c)- 01 Brushed 304 SS
02 Polished 304 SS
(d)- 01 120 VAC 60 Hz
02-xxx Check for other voltages availability


## SERIES 727 FEATURES

SERIES 727 FEATURES:

- Specially designed for ITS-90 fixed freezing points of zinc, indium, tin and aluminum. Low temperature model for indium and tin (Aluminum Block) and high temperature model for zinc, aluminum and silver (Inconel® Block)
- No water cooling required for high temperature block (Inconel)
- Thermal block for precision calibration at high temperature with 1/8 in. to 1/2 in. pre-drilled wells or optional drill size.
- Ideally suited for metrology laboratories
- All 304 polished stainless steel cabinet construction.

## SERIES 727 SPECIFICATIONS

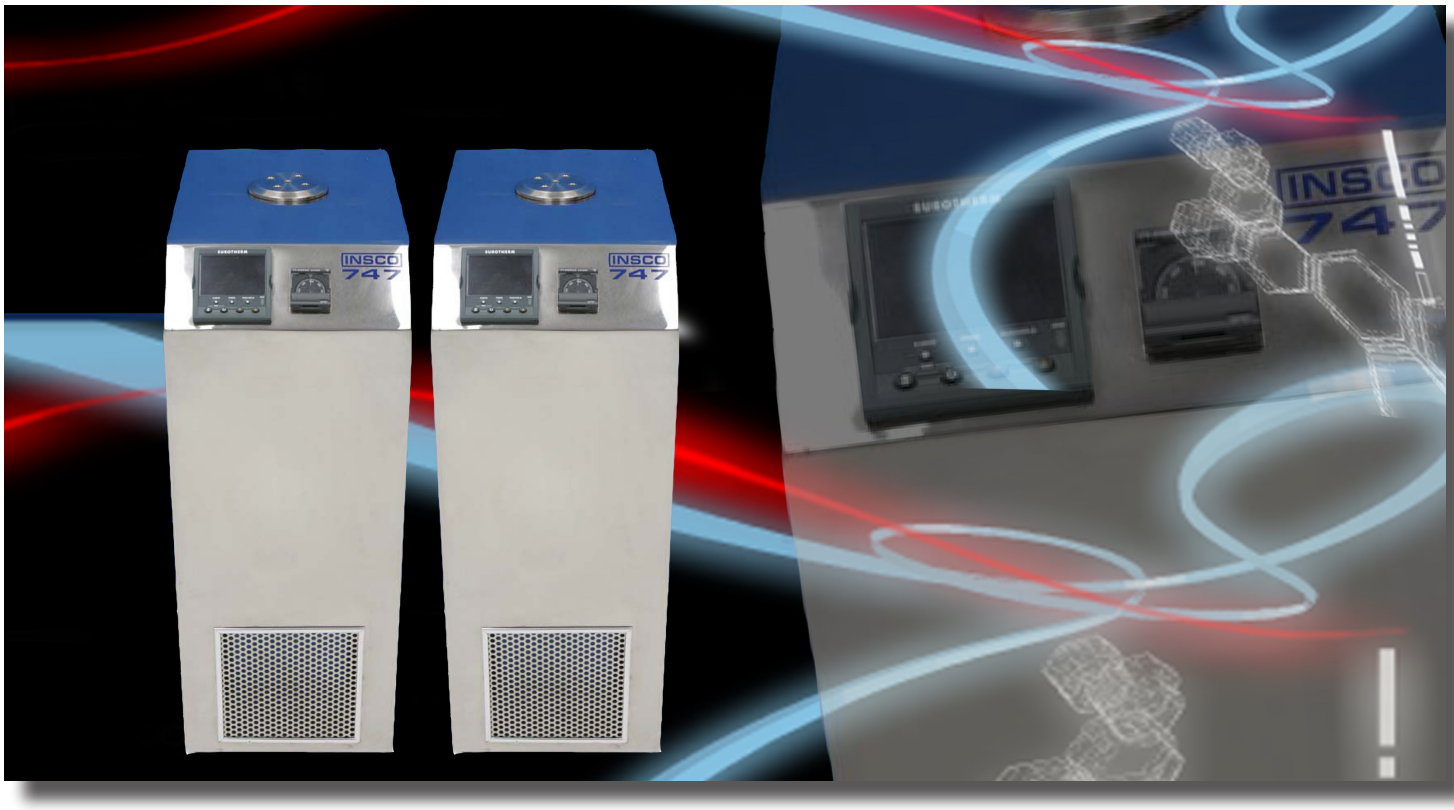
Temperature range 50°C to 400°C (aluminum block) 400°C to 1000°C (Inconel block)
Stability ± 0.02°C at 200°C, ± 0.03°C at 600°C
Wells Four wells ¼ in. dia. (6.35 mm ); blank block or Custom drilled
Immersion Depth 10.75 in. (273 mm)
Inside Diameter 1.416 in. (36 mm)
Stabilization Time 20 minutes
Display Resolution 0.01°C
Weight 11 kg
Heater Power Low range 450 Watts; High range 1000 Watts
Consumption 4 amp at 120 VAC 60 Hz/ 10 amp at 120 VAC
Power Line Voltage 120 VAC 60Hz
Dry Block Material High Purity Aluminum/ Inconel ®
Cabinet Construction Brushed or Polished 304 SS

## Ordering Information

**Model 727**

**Code: A-B-C-D**

| | |
|---|---|
| (a)- 01 | Dry Block 50°C to 400°C |
| 02 | Dry Block 400°C to 1000°C |
| (b)- 00 | Wells Options Standard |
| 01 | Blank block |
| nn | Number of Wells (4 maximum) |
| (c)- 01 | Brushed 304 SS |
| 02 | Polished 304 SS |
| (d)- 01 | 120 VAC 60 Hz |




## SERIES 747 FEATURES

SERIES 747 FEATURES:

- Dual high accuracy low and high temperature dry well capable of laboratory as well as field calibration.
- Two independently controlled metrology wells
- Polished stainless steel cabinet construction
- Small footprint for field use.
- Fast cooling time from ambient to –55°C in less than 40 minutes.
- Temperature metrology wells permit calibration of RTD, thermocouple and any other temperature sensors at two different controlled temperatures.
- Advance block design provides excellent temperature stability in both low and high range

## SERIES 747 SPECIFICATIONS

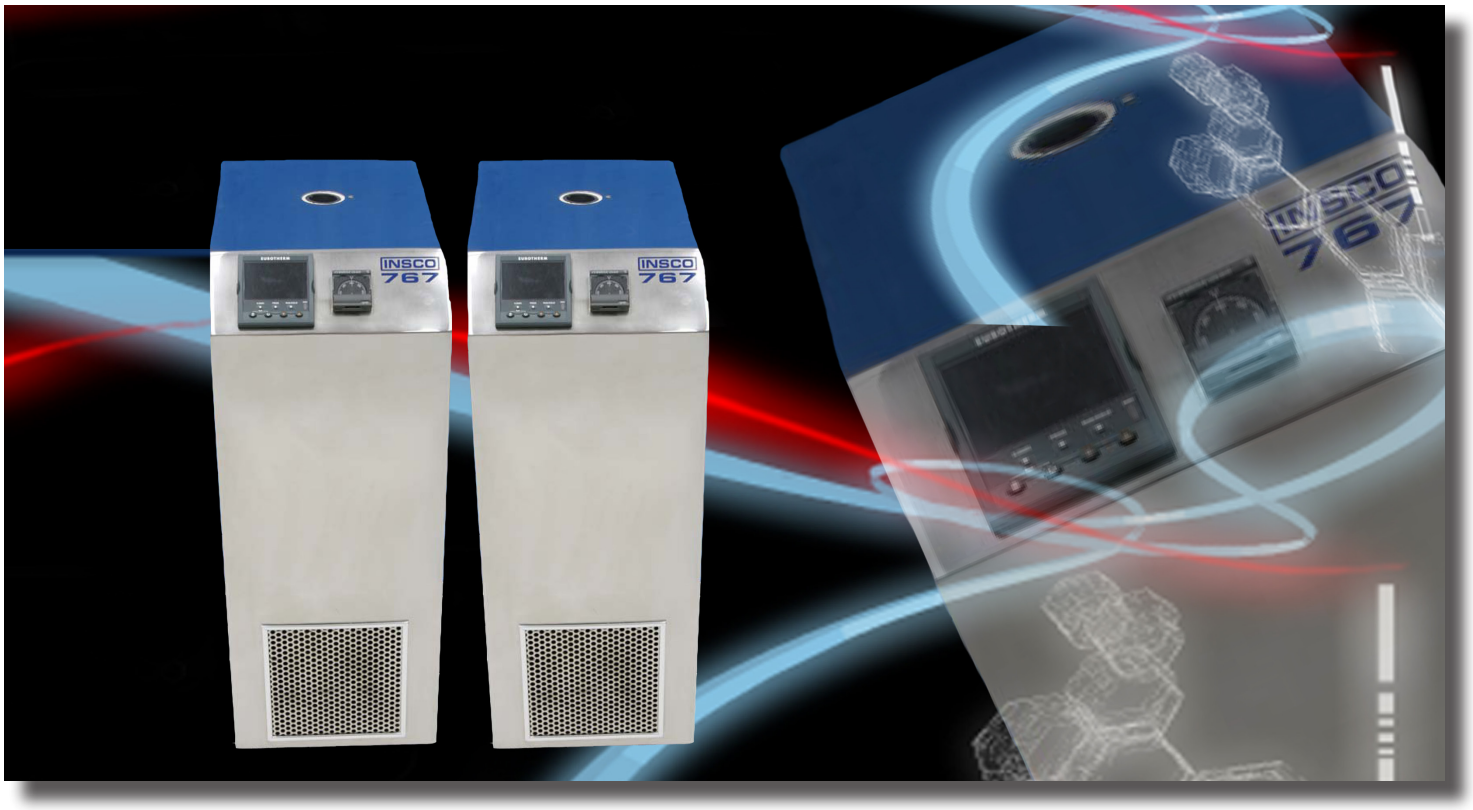
Temperature range Low temperature Block -50°C to 150°C
High temperature Block 40°C to 400°C
Stability 0.002°C at -50°C to 150°C; 0.003°C at 40°C to 400°C
Cooling Time 40 minutes (from 25°C to –50°C)
Wells 12 wells / 8 mm dia. (other options available)
Immersion Depth 150 mm
Display Resolution 0.01°C
Dimensions 20" x 12" x 18" (508mm x 660.4mm x 457.2mm)
Weight 30 kg
Heater Power 400 Watts
Consumption 10 amp at 120 VAC 60 Hz
Power Line Voltage 120 VAC 60Hz ±10%
Dry Block Material High Purity Aluminum
Cabinet Construction Brushed or Polished 304 SS

## Ordering Information

**Model 747**

**Code: A-B-C-D**

(a)- 01 Dry Block –50°C to 400°C
02 Dry Block –50°C to 600°C
(b)- 00 Wells Options Standard
nn Number of Wells
(c)- 01 Brushed 304 SS
02 Polished 304 SS
(d)- 01 120 VAC 60 Hz




## SERIES 767 FEATURES

SERIES 767 FEATURES:

- Specially designed for ITS-90 fixed freezing points of zinc, indium, tin, silver and aluminum
- Inconel® Heating Block
- No water cooling required at high temperature
- Three heating zones design
- Thermal block for precision calibration at high temperature calibrations
- Six wells- (3) 1/4 in. and (3) 5/16 in. Optional drill size from 1/8 in. to 1/2 in.
- Ideally suited for metrology laboratories
- All 304 polished stainless steel cabinet construction

## SERIES 767 SPECIFICATIONS

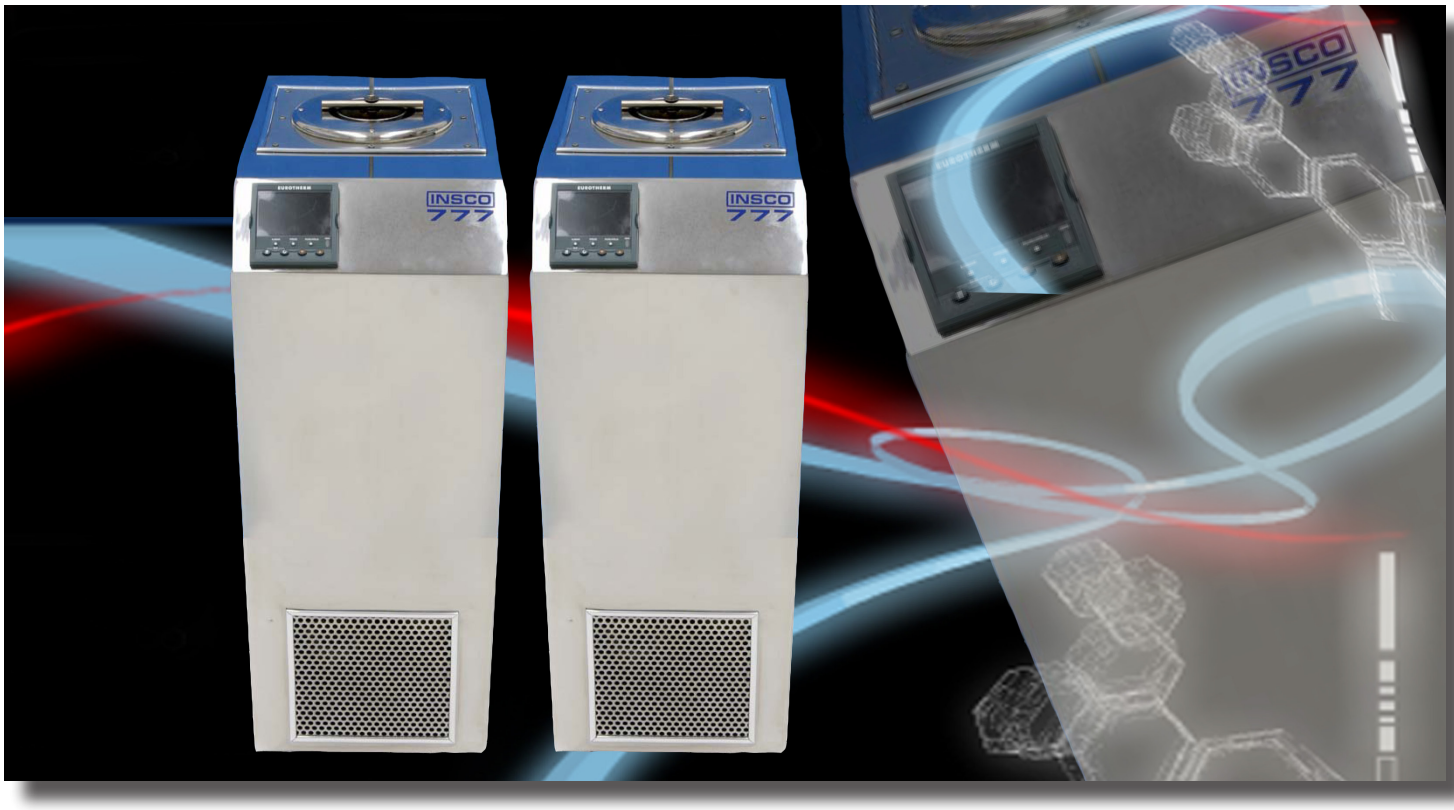
Temperature range 50°C to 600°C; 800°C to 1000°C
Stability ± 0.02°C at 200°C, ± 0.03°C at 800°C
Calibration Block Six- (3) 1/4 in. (3) 5/16 in.
Immersion Depth 6 in. (152.4 mm) / 8 in. (203.2 mm)
Inside Diameter 1.416 in. (36 mm)
Display Resolution 0.01°C
Weight 25 kg
Heater Power 1200 Watts
Consumption 12 amp at 120 VAC 60 Hz
Power Line Voltage 120 VAC 60Hz
Dry Block Material Inconel ®
Size 12 in. x 20 in x 30 in (305 mm x 508 mm x 762 mm)
Cabinet Construction Brushed or Polished 304 SS

## Ordering Information

Model 767

Code: A-B-C-D

(a)- 01 Dry Block 50°C to 600°C
02 Dry Block 800°C to 1000°C
(b)- 00 Wells Options Standard
01 Blank block
nn Number of Wells (6 maximum)
(c)- 01 Brushed 304 SS
02 Polished 304 SS
(d)- 01 120 VAC 60 Hz




## SERIES 777 FEATURES

SERIES 777 FEATURES:

- Low volume design -only 4 liters of fluid required
- Dual concentric chambers design provides the best temperature gradient uniformity in 300 mm immersion depth calibration bath
- Patent pending internal fluid agitator– internally liquid immersed rotor eliminating any leaks possibilities.
- All 304 Stainless Steel construction - Internal chambers and enclosure
- No external cooling required for high temperature operation
- Small Exposed area of chamber fluid
- Externally heated fluid chamber assembly

## SERIES 777 SPECIFICATIONS

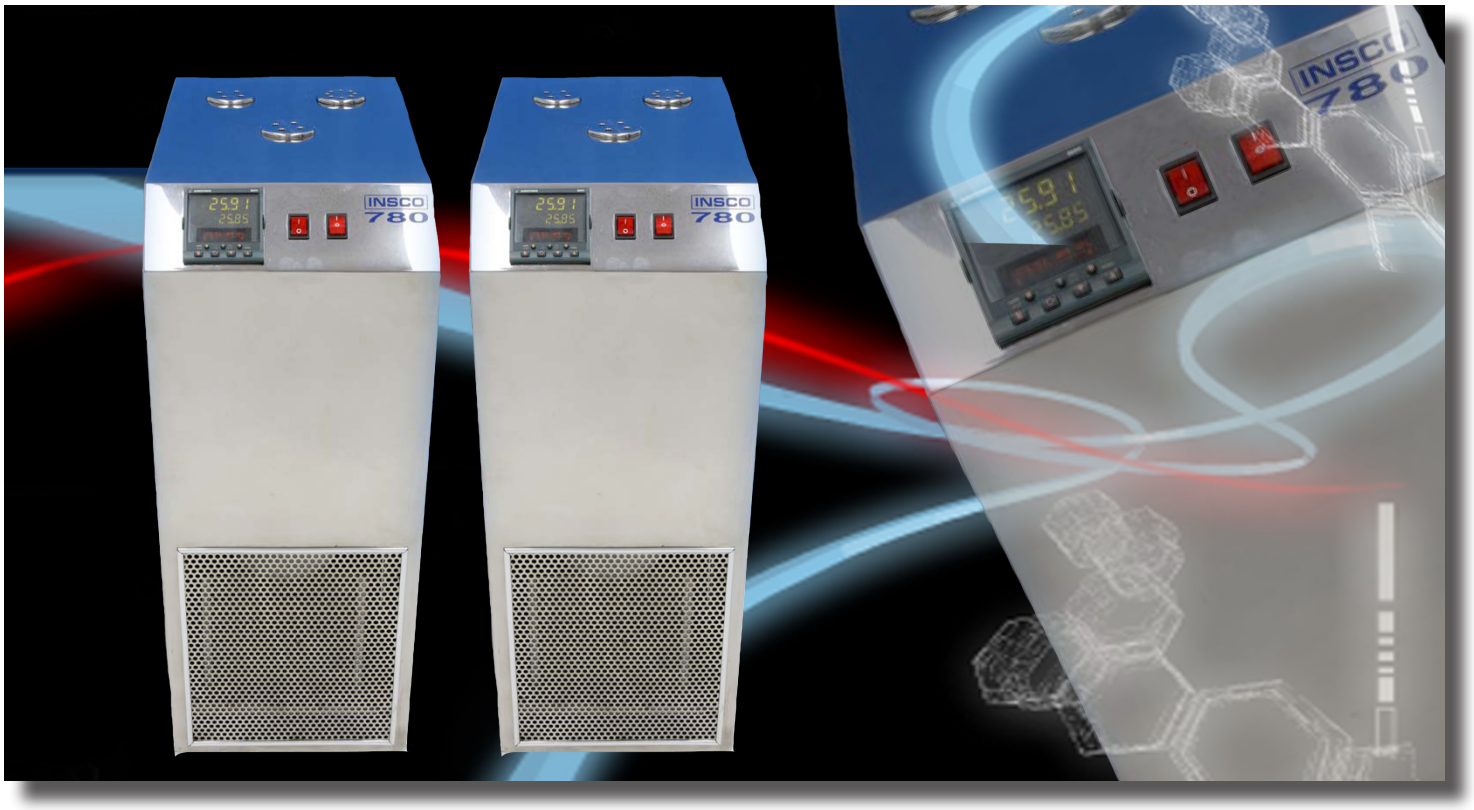
Temperature range -80°C to 100°C; -40°C to 120°C; 40°C to 300°C
Stability ± 0.025°C at 100 °C
± 0.03°C at 250 °C
Uniformity 0.003°C using silicon oil
Heating Time 30 minutes (from 25°C to 100°C)
Cooling Time Less than 60 minutes (from 100°C to 25°C)
Stabilization Less than 45 minutes
Immersion Depth 406 mm
Display Resolution 0.01°C
Liquid Volume 4 liters
Dimensions 12 in x 20 in. x 32 ½ in. (304 mm x 508 mm x 825 mm)
Weight 30 kg
Heater Power 600 Watts
Consumption 6.5 amps at 120 VAC 60 Hz / 12 amps at 120VAC (low temperature)
Power Line Voltage 120 VAC 60Hz ±10%
Welded Parts Construction 316 Stainless Steel

## Ordering Information

Model 777

Code: A-B-C-D

(a)- 01 Low Temperature bath –80°C to100°C
02 Medium Temperature bath –40°C to120
03 High Temperature bath 40°C to300°C
(b)- 00 Options Standard
01 Sensors Holding Block
02 Glass Thermometer Support
03 Sensors Holding Block and Glass Thermometer Support
(c)- 01 Brushed 304 SS
02 Polished 304 SS
(d)- 01 120 VAC 60 Hz




## SERIES 780 FEATURES

SERIES 780 FEATURES:

• Triple high accuracy wells; low, medium and high temperature ( -90° C to 400° C ), No liquid required.

• Dual compressors for very low temperature control

• As many as three independently controlled metrology wells in each cabinet.

• Cooling from ambient to -90° C in less than 40 minutes.

• Lowest temperature in dry well blocks in the market (-90° C ) which are three time faster than liquid bath and better stability in the low range

• Three independent wells with ranges

Low range -90° C to –30° C

Medium range -40° C to 60° C

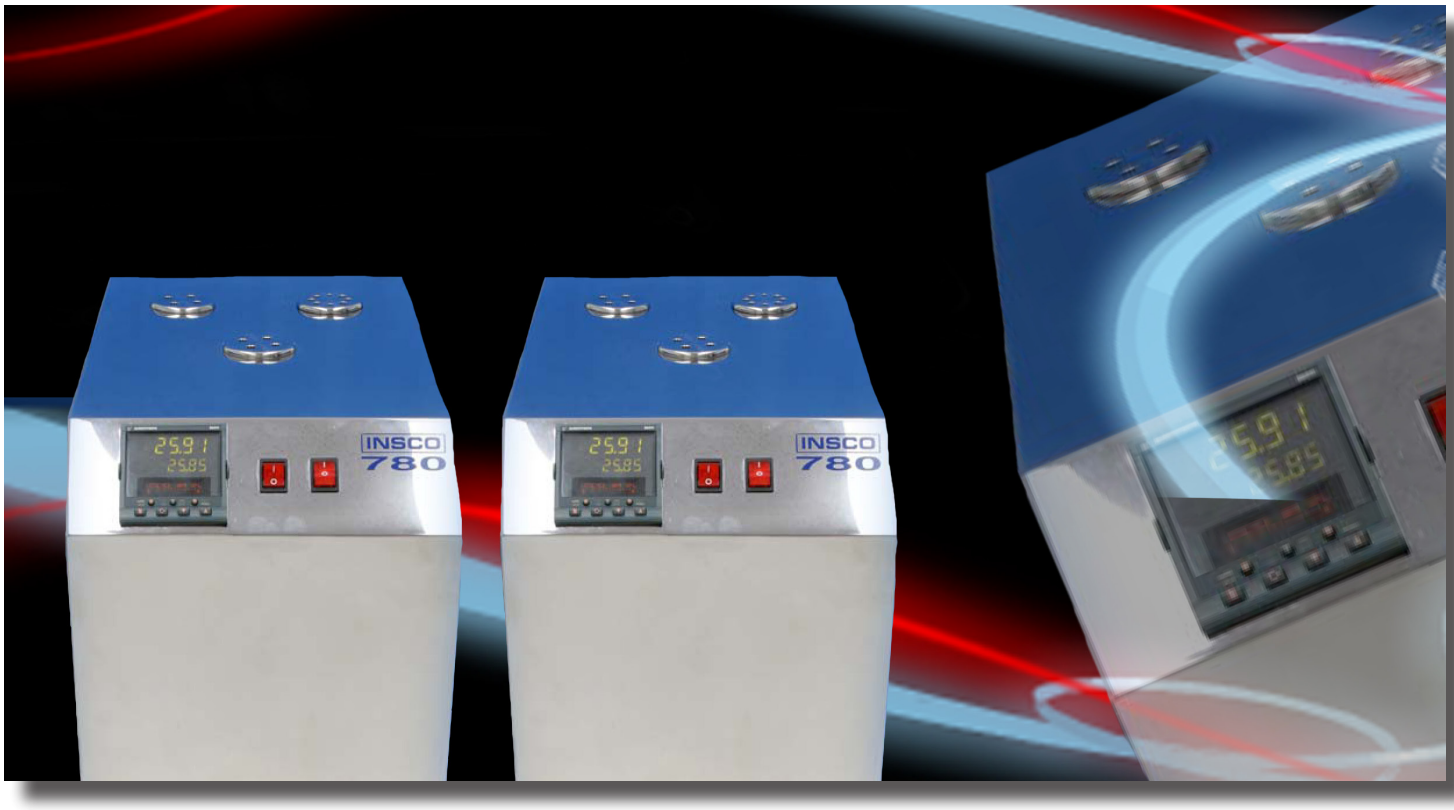
High range 40° C to –400° C

• Temperature metrology wells permit calibration of RTDs, thermocouples and any other temperature sensors at three different controlled temperature

• Ideally suited for metrology laboratories and instrumentation departments. Reduce the cost instruments and sensors calibration and increase your productivity.

• Most productive unit in the market (calibration of various instruments simultaneously)

• All stainless steel cabinet construction, rugged compressors assembly, easy maintenance design

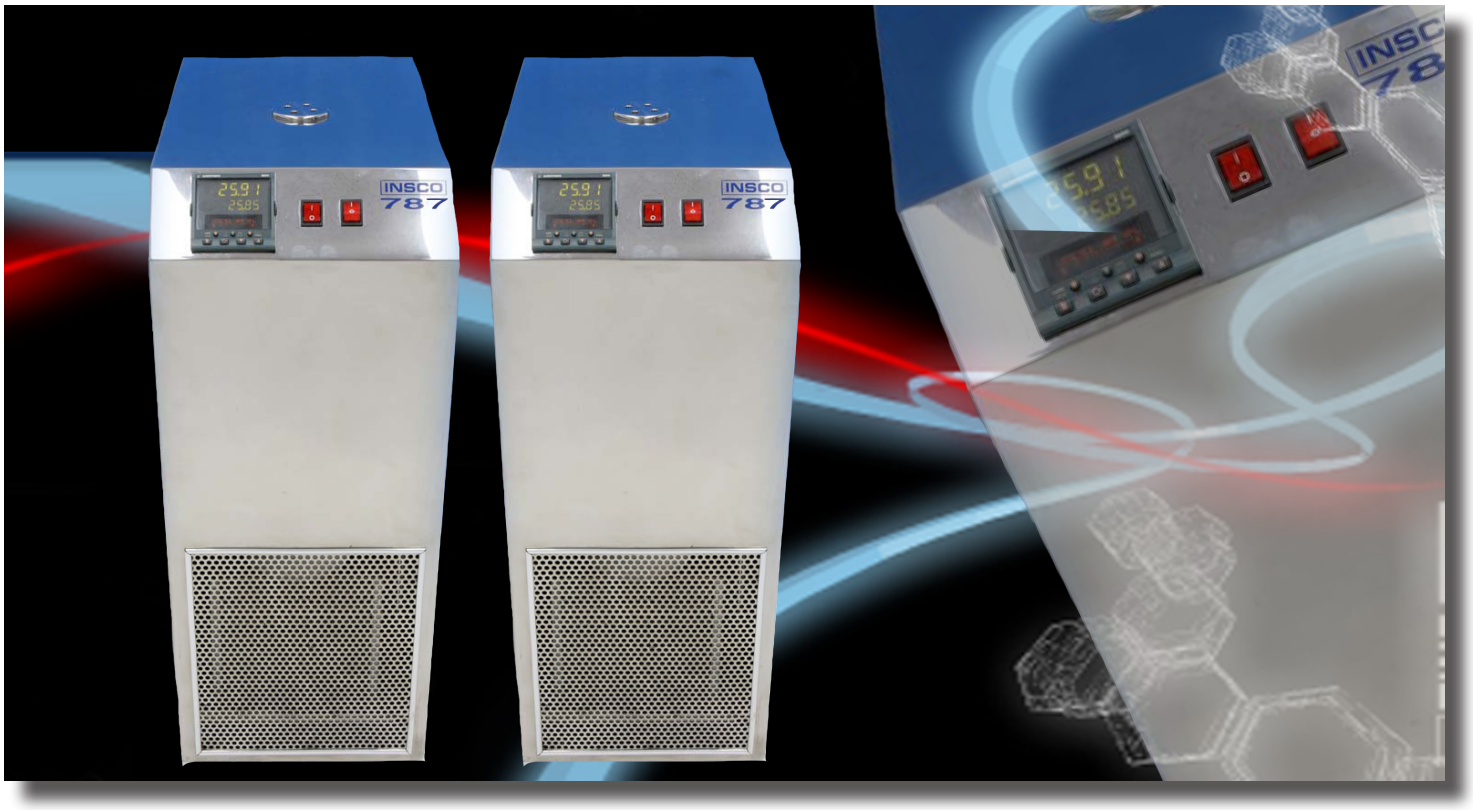



## SERIES 780 SPECIFICATIONS

Temperature range -90°C to –30°C; -40°C to 60°C; 40°C to 400°C
Stability Low Temperature Well 0.010°C at –50 °C
Medium Temperature Well 0.010°C at –20 °C
High Temperature Well 0.020°C at 200°C
Cooling Time 40 minutes (from 25°C to –80°C)
Dry block Construction High purity Aluminum
Calibration Block (6) 1/4 in or (4) 5/16 in. in each block
Immersion Depth 150 mm
Display Resolution 0.01°C
Dimensions 14 in x 26 in. x 34 in. (356 mm x 660 mm x 864 mm)
Weight 60 kg
Heater Power 1000 Watts
Consumption 20 amps at 120 VAC 60 Hz (maximum)
Power Line Voltage 120 VAC 60Hz ±10%
Cabinet Construction Brushed or Polished 304 SS

## Ordering Information

| Model 780 | |
|---|---|
| Code: A-B-C-D | |
| (a)- 01 | Low Temperature bath –90°C to 400°C |
| (b)- 00 | Options Standard |
| 01 | Wells Options Standard (4 wells per block) 5/16 in. |
| 02 | Number of Wells (6 maximum) per block of 1/4 in. |
| 03 | Other configuration. Consult factory |
| (c)- 01 | Brushed 304 SS |
| 02 | Polished 304 SS |
| (d)- 01 | 120 VAC 60 Hz |




## SERIES 787 FEATURES

SERIES 787 FEATURES:

- High accuracy low and high temperature dry well capable of laboratory as well as field calibration..
- Polished stainless steel cabinet construction
- Only one block covers the whole range.
- Small footprint for field use.
- Fast cooling time from 100°C to -95°C in 55 minutes.
- Temperature metrology wells permit calibration of RTD, thermocouple and any other temperature sensors at one controlled temperature.
- Advance block design provides excellent temperature stability in both low and high range.
- Designed for metrology laboratories and instrumentation department requirements.

## SERIES 787 SPECIFICATIONS

Temperature range -95°C to 150°C
Stability 0.009°C
Cooling Time 40 minutes (from 25°C to -80°C)
Wells 12 wells / 8 mm dia. (other options available)
Immersion Depth 150 mm
Display Resolution 0.01°C
Dimensions 20" x 12" x 18" (508mm x 660.4mm x 457.2mm)
Weight 45kg
Heater Power 400 Watts
Consumption 15 amp at 120 VAC 60 Hz
Power Line Voltage 120 VAC 60Hz ±10% (other options available)
Dry Block Material High Purity Aluminum
Cabinet Construction Brushed or Polished 304 SS

## Ordering Information

| Model 787 |
|---|
| Code: A-B-C-D |

((a)- 01 Dry Block -95°C to 25°C
02 Dry Block -95°C to 150°C
(b)- 00 Wells Options Standard
nn Number of Wells
(c)- 01 Brushed 304 SS
02 Polished 304 SS
(d)- 01 120 VAC 60 Hz
02-xxx Check for other voltages availability