

# 6332A/7342A

Isothermal Calibration Bath

## Product Specifications



# Summary Specifications

## Temperature Specifications

	6332A	7342A
Range <sup>[1]</sup> (at 23 °C ambient temperature)	50 °C to 300 °C	-40 °C to +150 °C
Maximum Display Error <sup>[2]</sup>	1.0 °C	1.0 °C
Temperature Stability <sup>[3]</sup>	0.01 °C	0.01 °C
Temperature Uniformity – Working Area <sup>[4,5]</sup>	50 °C to 200 °C: 0.015 °C 201 °C to 300 °C: 0.02 °C	0.01 °C
Temperature Uniformity – Working Volume <sup>[4,6]</sup>	50 °C to 200 °C: 0.02 °C 201 °C to 300 °C: 0.025 °C	0.015 °C
Heating Time <sup>[7]</sup>	25 °C to 300 °C: 165 minutes (silicone oil, 710)	-40 °C to +25 °C: 35 minutes (ethanol) 25 °C to 150 °C: 75 minutes (silicone oil, 200.50)
Cooling Time <sup>[7]</sup>	300 °C to 80 °C: 825 minutes (silicone oil, 710)	150 °C to 25 °C: 110 minutes (silicone oil, 200.50) +25 °C to -40 °C: 135 minutes (ethanol)
Stabilization Time <sup>[8]</sup>	20 minutes	20 minutes
Factory Calibration	Limited range calibration traceable to the SI through a national metrology institute.	
<p>Notes</p> <ol style="list-style-type: none"> <li>The Range varies depending on ambient temperature and whether the tank is covered. Operating time at negative temperatures (Celsius) may be limited by water condensation or ice build-up, especially if the tank is open.</li> <li>The Maximum Display Error describes the Absolute Instrumental Uncertainty of the Product at 99 % level of confidence (coverage factor k = 2.58) within one year from calibration.</li> <li>Temperature Stability is evaluated as two times the statistical standard deviation of the fluid temperature during a 15-minute period after settling.</li> <li>Temperature Uniformity is defined as half the difference between the maximum and minimum temperatures within the working volume or area. The Temperature Uniformity specification is stated at 99 % level of confidence (coverage factor k = 2.58).</li> <li>The working area is defined as a 75 mm diameter area, where the reference thermometer and device under test are immersed to the same depth, beginning 100 mm from the fluid surface, to a maximum immersion depth of 360 mm from the fluid surface, when the fluid surface is at or above the minimum fill line.</li> <li>The working volume is defined as a 75 mm x 280 mm cylindrical volume, beginning 100 mm below the fluid surface, when the fluid surface is at or above the minimum fill line.</li> <li>Cooling or heating time is measured from the time the setpoint is changed to when the fluid temperature reaches the setpoint within the Temperature Maximum display error specification. Cooling and heating times vary depending on environment temperature, ac supply voltage, loading, and whether the tank is covered. At low ac supply voltages, heating time may be much longer.</li> <li>Stabilization time is measured from the end of the cooling or heating time to the time at which the fluid reaches its ultimate mean temperature within a tolerance equal to the Temperature Stability specification.</li> </ol>		

## General Specifications

### Size

(does not include optional accessories)

Height..... 1080 mm

Width..... 445 mm

Depth ..... 495 mm

### Weight

6332A ..... Gross 49 kg

Net 26 kg

7342A ..... Gross 74 kg

Net 50 kg

Fluid Volume ..... 12 liters

Inner Tank Diameter ..... 145 mm diameter

Maximum Fluid Depth ..... 450 mm

## Full Specifications

Rated Operating Conditions.....	18 °C to 28 °C 5 %RH to 90 %RH (non-condensing)
Limiting Operating Conditions.....	0 °C to 40 °C 5 %RH to 90 %RH (non-condensing)
Maximum Operating Altitude.....	2000 m (6600 ft)
Storage Conditions .....	-40 °C to +70 °C 5 %RH to 95 %RH (non-condensing)
6332A Supply Voltage .....	115 V nominal ( $\pm 10$ %), 60 Hz 230 V nominal ( $\pm 10$ %), 50 Hz 1600 VA
7342A Supply Voltage .....	115 V nominal ( $\pm 10$ %), 60 Hz 230 V nominal ( $\pm 10$ %), 50 Hz 1300 VA
Display Resolution .....	0.01

### Size

(does not include optional accessories)

Height.....	1080 mm
Width.....	445 mm
Depth .....	495 mm

### Weight

6332A .....	Gross 49 kg Net 26 kg
7342A .....	Gross 74 kg Net 50 kg

Fluid Volume .....	12 liters
Inner Tank Diameter .....	145 mm diameter
Maximum Fluid Depth.....	450 mm
Remote Interface .....	RS-232 port, 9600 to 23040 baud – SCPI compliant command set
Safety.....	IEC 61010-1, Overvoltage Category II, Pollution Degree 2, Indoor use only, IEC 61010-2-010, IEC 61010-2-011

### Electromagnetic Compatibility (EMC)

International .....	IEC 61326-1: Basic Electromagnetic Environment CISPR 11: Group 1, Class A <i>Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.</i> <i>Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.</i> <i>Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.</i>
Korea (KCC) .....	Class A Equipment (Industrial Broadcasting & Communication Equipment) <i>Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.</i>
USA (FCC).....	47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.

**Temperature Specifications**

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