# Terms of Reference and Specifications for the Procurement of Temperature Measuring Devices

Thermocouple, Thermo- hygrometer, and Thermometer (Laboratory Grade)

## Delivery Terms:

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1 to 60 calendar days from receipt of P.O.

#### Payment Terms:

1-30 days upon full delivery, inspection and acceptance

#### Description/s:

#### 2 UNIT LOT 1

Thermometer/ alarm / timer similar traceable products 4147 or equivalent

#### Specifications:

Thermometer/ alarm / timer, displays current temperature and alarm setting, switchable between deg F/deg C, with heat resistant cable (at least 42 inches or longer) and stainless-steel probe for use inside refrigerators and oven, working temperature range from at least 0°C until at least 200°C, temperature resolution of at least 1°C or better, battery operated (with at least 2 sets of spare batteries each unit), with multi-point calibration certificates for each unit issued by a calibration laboratory compliant to ISO/IEC 17025:2017 and with traceability of measurements to NIST, similar traceable products 4147 or equivalent.

#### 1 LOT LOT 2

Monitoring Traceable Hygrometer similar traceable Thermohygrometer with NIST Certificate for Laboratory Use *Specifications:* 

#### 1. 2 units of Digital Thermo-hygrometer per LOT

Temperature range is 32.0 to 122.0°F and 0.0 to 50.0°C. Resolution is 0.1° and accuracy is ±1°C. Relative humidity range is 20 to 90%. Resolution is 1% RH and accuracy is ±5%

RH mid-range, otherwise ±8%. Permits monitoring conditions overnight, on weekends, or any time period.

## 1 LOT LOT 3

Thermometer, Digital (Laboratory Grade) *Specifications:* 

## 1. 3 units of Digital Thermometer per LOT

Water resistant with stainless steel stem probe; Temperature range: -40°C to 200°C preferably with data hold; Resolution: 0.1°C; Accuracy: ±0.5°C; Preferably with visual and audible alarm; includes 2 sets of extra/spare batteries; Includes Multipoint Calibration Certificate and/or metrological traceability; Compliant with ISO/IEC: 17025:2017

Purpose:

The procurement of temperature measuring devices for a microbiology laboratory is critical for maintaining regulatory compliance with standards such as GLP and GMP. These devices ensure that the lab can accurately control the environmental conditions necessary for conducting reliable microbial tests. Proper monitoring of temperature and relative humidity is vital to preserve the integrity of samples, reagents, and culture media, which are sensitive to fluctuations in these conditions. Additionally, these devices help prevent contamination by ensuring that environmental parameters remain within optimal ranges, thereby supporting the accuracy and safety of experimental outcomes.