

# Surface Sensors Temperature Calibrator TA-500PS

- Specially designed for surface sensors calibration such as: RTD, thermocouples with maximum metrological reliability.
- ✓ Its flat aluminum surface ensures high thermal conductivity and perfect physical contact between the sensor and the measuring area.
- √ 80 mm diameter circular surface area.
- ✓ It has strategically placed heaters under the measurement area to ensure the best temperature stability and uniformity.
- ✓ Includes entrance to accommodate a reference probe. (RTD sensor with CVD parameters)
- ✓ Advanced Documenting capability Communication with computer and ISOPLAN® Software.

The TA-500PS Calibrator generates temperature from ambient up to 500 ° C in a large surface and high accuracy area for calibration of surface sensors. The circular 80 mm diameter area distributes uniformly the temperature which allows the calibration of more than one sensor simultaneously. The calibrator has also input for various types of thermocouples and resistance thermometers

The surface has a lateral hole, where one high accuracy sensor can be used as standard for calibration. It also has all the common features of the Presys calibrators family: automatic calibration, auxiliary calibrator, communication with the computer and ISOPLAN® etc.





# **Technical Specifications**

### **TA-500PS**

| <b>Operating Range</b> ambient temperature: 23 °C | ambient from 500 °C                           |  |  |  |  |  |
|---|---|--|--|--|--|--|
| Display Accuracy:                                 | $\pm (0.4^{\circ}\text{C}+0.1\%$ of reading)  |  |  |  |  |  |
| Resolution:                                       | 0.01 °C                                       |  |  |  |  |  |
| Stability:  | ± 0.2 °C                                      |  |  |  |  |  |
| Target Size:                                      | 80 mm   |  |  |  |  |  |
| Healing Time:                                     | 30 min (50 °C to 500 °C)                      |  |  |  |  |  |
| Cooling Time:                                     | 30 min (500 °C to 200 °C)                     |  |  |  |  |  |
| Weight:   | 6.0 kg  |  |  |  |  |  |
| Electric Power                                    | 800 W   |  |  |  |  |  |
| Units / Temperature Scales:                       | °C or °F / IPTS-68 or ITS-90, user selectable |  |  |  |  |  |
| Display:  | 5.7" Touch Screen Color Display               |  |  |  |  |  |
| Dimension (HxWxD):                                | 350 x 210 x 320 mm                            |  |  |  |  |  |
| Warranty:   | 1 year  |  |  |  |  |  |

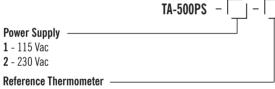
# **Electrical Input Specifications**

| Inputs Ranges |                      | Resolution | Accuracy     | TC-K | -270 to -150 °C | 0.1 °C | ± 0.5 °C     |
|---------------|----------------------|------------|--------------|------|-----------------|--------|--------------|
| milivolt      | -150 to 150 mV       | 0.001 mV   | ± 0.01 % FS* |      | -150 to 1370 °C | 0.1 °C | ± 0.2 °C     |
|               | 150 to 2450 mV       | 0.01 mV    | ± 0.02 % FS  | TC-T | -260 to -200 °C | 0.1 °C | ± 0.6 °C     |
| mA            | -1 to 24.5 mA        | 0.0001 mA  | ± 0.01 % FS  |      | -200 to -75 °C  | 0.1 °C | $\pm$ 0.4 °C |
| resistance    | 0 to 400 $\Omega$    | 0.01 Ω     | ± 0.01 % FS  |      | -75 to 400 °C   | 0.1 °C | ± 0.2 °C     |
|               | 400 to 2500 $\Omega$ | 0.01 Ω     | ± 0.03 % FS  | TC-E | -270 to -150 °C | 0.1 °C | ± 0.3 °C     |
| Pt-100        | -200 to 850 °C       | 0.1 °C     | $\pm$ 0.1 °C |      | -150 to 1000 °C | 0.1 °C | ± 0.1 °C     |
| Pt-1000       | -200 to 400 °C       | 0.1 °C     | ± 0.1 °C     | TC-N | -260 to-200 °C  | 0.1 °C | ± 1.0 °C     |
| Cu-10         | -200 a 260 °C        | 0.1 °C     | ± 2.0 °C     |      | -200 to -20 °C  | 0.1 °C | $\pm$ 0.4 °C |
| Ni-100        | -60 to 250 °C        | 0.1 °C     | ± 0.2 °C     |      | -20 to 1300 °C  | 0.1 °C | ± 0.2 °C     |
| TC-J          | -210 to 1200 °C      | 0.1 °C     | ± 0.2 °C     | TC-L | -200 to 900 °C  | 0.1 °C | ± 0.2 °C     |

<sup>(\*)</sup> FS = Full Scale.

Accuracy values are valid within one year and temperature range from 20 to 26 °C. Outside these limits add  $0.001 \,\%$  FS / °C, taking 23 °C as the reference temperature. For thermocouples with internal cold junction compensation, add a cold junction compensation error of  $\pm$  0.2 °C or  $\pm$  0.4 °F.

## **Order Code**



0 - No Reference Thermometer

1 - Secondary Pt-100 Sensor

Included Items: carrying case, strap, test leads, Ethernet cable, Wi-Fi Adapter, manual and power cord.

