Technical Infrared Thermometer PCE-780

Digital infrared thermometer scanner for the display of temperature, humidity and
dew point temperature / Optical alarm / Backlight / Automatic shutdown

The PCE-780 consists of an infrared thermometer and an integrated humidity meter. With the two
sensors, it can record values to determine the dew point. If this dew point is reached or undershot,
there is a risk of moisture settling and mold growing. The dew point, which is calculated by the PCE-
780, is displayed on the high-contrast LCD display. The control buttons can be used to set alarm
values. If the surface temperatures are exceeded or undercut, the PCE-780 emits a warning tone and
displays either a LOW or a HIGH alarm.

The PCE-780 also has a relative value measuring function. Thus, in the structural analysis, a
temperature can be stored as a reference in the instrument by a measuring point. If further
measurements are subsequently carried out, a good / bad evaluation by the PCE-780 is carried out via
a colored bar graph. Furthermore, the PCE-780 offers the possibility to determine the maximum,
minimum and average value of the infrared temperature.

- Infrared temperature measurement
- Air temperature and humidity measurement
- Calculation of dew point
- High contrast LCD display
- Adjustable high and low alarm
- Max, Min, Average measurement
- External temperature sensor can be connected
- Adjustable degree of emission

Technical specifications:

Measuring range

Infrared: -76... 932°F / -60 ... 500°C

Type K thermocouple: -83... 2552°F / -64... 1400° C

Air temperature: -4... 149°F / -20... 65°C

Wet bulb temperature: -4... 149°F / -20... 65°C
Dew point: -58... 122°F / -50... 50°C

Humidity: 1... 99% rh

Infrared

59... 95°F / 15... 35 °C: ± 33°F / 1.0°C

-22... 932°F / -33... 500°C: ± 2% of Mw. or ± 35°F / 2°C

Thermocouple type K

± 1% of Mw. or ± 33°F / 1°C

Air temperature: ± 36.5°F / 2.5°C

Wet bulb temperature: ± 36.5°F / 2.5°C

Dew point

20... 30% RH: ± 36.5°F / 2.5°C

31... 40% RH: ± 35°F / 2°C

41... 95% RH: 34.7°F / 1.5°C

Air humidity:

20... 80%: ± 3%

Balance: ± 5%

Resolution

32.2°F / 0.1 °C

33°F / 1 °C

Emissivity

0.1 ... 1

Response time

1 second

Optical resolution

12: 1

Power supply

2 x 1.5V AA battery

Battery life

Approx. 180 minutes

(without laser & display lighting)  
Approx. 140 minutes (continuous operation)

Weight

< 1 lb / 240 g

Dimensions

1.8 x 5.6 x 7.3 in / 46 x 143 x 184.8 mm

Delivery contents:

1 x PCE-780 digital infrared thermometer
1 x Type K thermocouple
2 x 1.5 V AAA batteries
1 x User manual