

# Digital Thermometer

## User Manual



**Part Number: MP780428**

## 1. Introduction

MP780428 is an IP65 rated thermometer with FDA certified stainless steel probe. It is equipped with a protective shell to prevent accidental skin puncture and burning. With its portable pen-like design, clear backlight display, and auto power off functions, MP780428 is a great temperature measurement tool for many applications.

## 2. Safety Instructions

### Electrical Hazards Alert

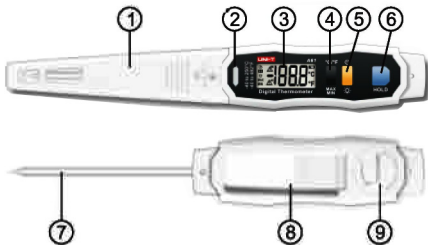
Never measure near live electrical components!

### Announcements

- Please use this unit according to proper technical requirements and applications.
- When battery is low, the backlight will turn down or off for energy saving, please replace battery in time to ensure the accuracy.
- Please dispose used batteries into designated spots.
- Avoid exposing to flammable, explosive liquid, gas or dust environment that fire or explosion can catch.
- Do not place together with poisonous and harmful solvent (such as acetone).
- Cover the protective shell on the probe after use.
- Keep probe out of the reach of children.
- Avoid touching the probe tip to prevent injury.
- This unit is not designed for medical diagnosis, do not put the probe into any organs such as mouth, ear or nostril.

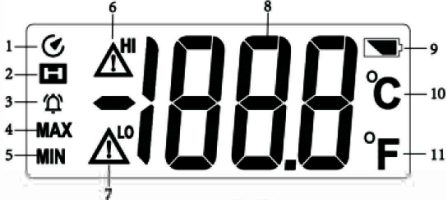
## 3. Description

### 1) Structural Description



1	Probe shell
2	LED alarm light
3	LCD screen
4	°C/°F MAX/MIN button
5	Power_backlight button
6	HOLD button
7	Temperature probe
8	Back clip
9	Cell cover

**2) Display Description**



1	Auto power-off icon
2	Temperature hold icon
3	Temperature alarm icon
4	Maximum temperature
5	Minimum temperature
6	High temperature alarm
7	Low temperature alarm
8	Temperature data
9	Low battery icon
10	Centigrade unit °C
11	Fahrenheit unit °F

**4. Product Features**

- Backlit LCD screen offers an easy viewing experience in dark conditions
- Maximum/minimum/real-time data measurement
- Data hold function allows to lock the temp reading Portable pen-like design with easy operation
- LED alarm function for quick notice
- Equipped with food grade SUS304 stainless steel probe which has FDA and GRAS certifications
- IP65 rated water and dust proof allows direct water cleaning available
- Durable with 1 m drop proof

**5. Specifications**

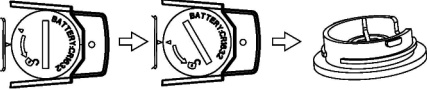
Functions	Specifications
Measurement Range	-40°C ~ 250°C (-40°F ~ 482°F)
Accuracy	±2°C (-40° ≤ T < -20°C)
	±1°C (-20°C ≤ T ≤ 100°C)
	±2°C (100°C < T ≤ 250°C)
	±4°F (-40°F ≤ T < -4°F)
	±2°F (-4°F ≤ T ≤ 212°F)
	±4°F (212°F < T ≤ 482°F)
Minimum Measuring Depth	12mm
Sensor	NTC

Functions	Specifications
Stabilization Time	20S
Display Resolution	0.1°C (0.1°F)
Battery Type	1*3V button cell (CR1632)
Battery Duration	12 hours
Product Size	190mm × 29.5mm × 15.5mm
Net Weight	50.8g
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)
Operating Humidity	< Rh80% (No condensable)
Protective Level	Ip65 rated according to IEC60529
Drop Test	1m
Certification	CE
Reference Standard	JJG226-2001

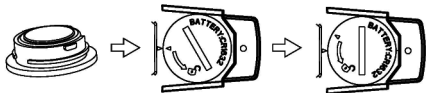
## 6. Operation Guide

### 1) Battery Installation

As suggested direction, unscrew the cell cover by coin or other tools, put the cell inside the cover, place the cover back as arrow shows, then clockwise re-tighten it.



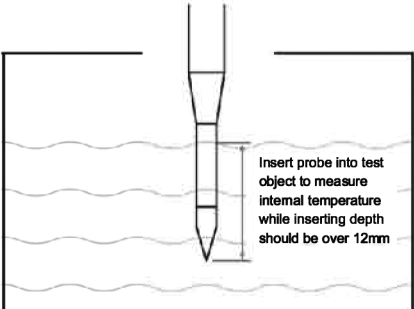
How to take the cell cover out



How to place the cell cover back

### 2) Measurement Procedures

1. Press Power\_ backlight button to turn the unit on
2. Insert probe into test object while inserting depth should be over 12mm
3. Take readings after it is stabilized



### 3) Buttons Operations Guide

#### Power\_ backlight button

Short press to turn on/off the backlight, long press to turn on/off unit;

#### °C/°F MAX MIN button

Short press to switch MAX/MIN/normal measuring data, long press to switch °C/°F units;

#### HOLD button

Short press to hold or release data, long press to adjust high/low temperature alarm settings;

### 4) Auto Power-off (APO) Setup Guide

The auto power off is default on. If this function is on, the instrument will power off automatically if there's no action within 10 minutes, otherwise, it will keep working till the battery ran out.

#### Setup Guide:

With the units off, hold the °C/°F MAX MIN button, then long press Power\_ backlight button till full screen display is shown, release buttons to access auto power off function setup (will display -°C), short press °C/°F \_MAX MIN button can turn this function on/off, APO icon will be displayed if it is on. Short press power\_backlight button to return to normal test mode and the unit will save the selected setting.

### 5) High/low temperature Alarm Setup Guide

The high/low temperature alarm is default on.

#### Setup guide:

Long press HOLD button to switch between high/low temperature alarm limit setup and normal measurement.

The high temperature alarm limit is 100°C by default (maximum 250°C) while the low temperature alarm limit is 0°C by default (minimum -40°C).

#### In temperature alarm limit setup interfaces:

1. short press °C/°F MAX MIN button to plus 1; short press power\_backlight button to minus 1;
2. long press °C/°F MAX MIN button to rapid increase; long press power\_backlight button to rapid reduce;
3. short press HOLD button to turn/off the alarm function, bell icon showing means the alarm function is on.

## 7. Maintenance

### 1) Cleaning

Use soft cloth to clean the surface of thermometer with soapy water. IP65 waterproof rated meaning it can be washed under running water, but do not submerge the unit in water.

### 2) Sterilization

Sterilizing the unit by wiping it with damp cloth of medical alcohol immersion, and the probe can be submersed into medical alcohol directly.

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