

# DP-700



DP-700

JB-16-6C

## General Description

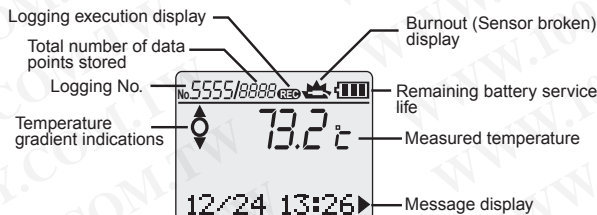
The DP-700 is a high accuracy thermometer with powerful functions, such as data logging, USB connection, peak high and low temperature, burnout (Sensor broken) display, remaining battery service display and automatic power off. The variety of functions supports you to manage temperature data efficiently.

## Features

- ☆ Handheld Use
- ☆ Data Logging (Recording)
- ☆ Peak High and Low Temperature
- ☆ Various Display Information
- ☆ Easy to Reading and Manage Data with PC

## Various Display Information

LCD indicates measured temperature, remaining battery service life, total number of data points stored.



- Message display indicates measured date/time, user name, tag name and each message
- Measured temperature display indicates also peak high and low temperature and function.

## Handheld Use

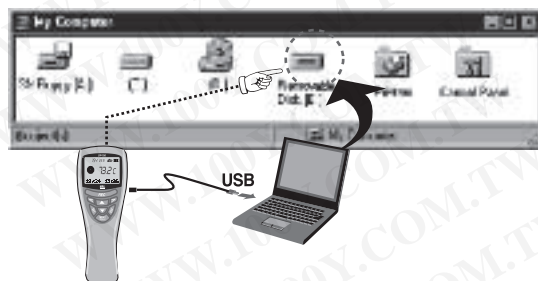
- Fits in one hand for easy use
- Superior Display visibility and viewing angle



## Easy to reading and manage data with PC

By connecting DP-700B to USB port, a PC recognizes DP-700B as outside media. Like a floppy disk, a PC read data of DP-700B. Measured data can be stored in the file in the CSV format.

\* OS : Windows Me/2000/XP



## Data Logging (Recording)

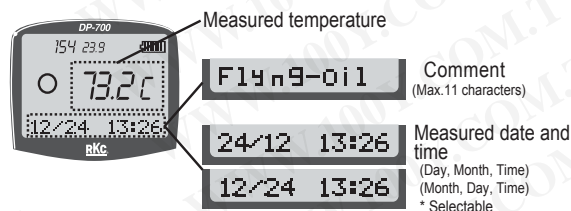
Measured temperature, date, time, and user name can be manually or automatically stored in memory.

DP-700A : Max 99 logs  
 DP-700B : Max 9999 logs

- When DP-700B is used, measured data can be stored in the file in the CSV format using the USB port of each personal computer.

## Peak high and low temperature

The maximum and minimum measured-temperature can always be stored.



## Specifications

### Input and Measuring Range

Universal input	-200 to +1372°C (Resolution: 1°C) -328 to +2501°F (Resolution: 1°F)
Thermocouple K	-199.9 to +999.9°C (Resolution: 0.1°C) -199.9 to +999.9°F (Resolution: 0.1°F)
Thermocouple J	-200 to +1200°C (Resolution: 1°C) -328 to +2192°F (Resolution: 1°F)
RTD Pt100	-199.9 to +999.9°C (Resolution: 0.1°C) -199.9 to +999.9°F (Resolution: 0.1°F)

### Sampling Time

Approx. 0.5 sec

### Performance

#### Measurement Accuracy

±(0.1% of Reading + 1digit) or ±0.3°C(±0.6°F) (Whichever is larger)  
 Cold junction temperature error  
 ±0.5°C(±0.9°F) [Between 5 and 40°C (41 and 104°F)]  
 ±1.0°C(±1.8°F) [Between -20 and 5°C (-4 and 41°F),  
 40 and 50°C (104 and 122°F)]

#### Ambient temperature influence

±0.01% of span / °C [Between 5 and 40°C (41 and 104°F)]  
 ±0.02% of span / °C [Between 5 and 40°C (41 and 104°F)]

### Display

#### Reflective FSTN LCD

Measuring value (PV) : 4-digit, Logging (Recording) No : 4-digit,  
 Total number of logging data : 4-digit, Message : 68 x 8 dots  
 Logging execution : Lit during execution  
 Burnout (Sensor broken) : Lit when the sensor is broken.  
 Remaining battery service life : The remaining battery service life  
 is indicated in three steps.  
 Temperature unit : 12 x 8 dots (°C/°F)

### Data Logging (Recording)

Recording method: Manual log mode : Can be manually recorded  
 in the memory.  
 Interval log mode : Can be automatically  
 recorded (in a set interval)  
 Interval time: 0 (Manual log mode), 1 to 3600 sec  
 Recording items: Measured temperature, Date, Time, Tag name,  
 User No.  
 Recording capacity: DP-700A: Max. 99 logs  
 DP-700B: Max.9999 logs  
 Memory backup: DP-700A: Backed up by SRAM  
 The recorded data may be lost if battery service  
 life has expired or the battery is replaced.  
 DP-700B: Backed up by EEPROM  
 Number of writing : Approx. 100,000 times  
 Data retaining period: Approx. 10 years

### Temperature Gradient Indication

The evaluation points of high and low temperature are set.  
 When within the evaluation points, "O" is displayed while when out  
 of the evaluation point, "X" is displayed.

### Tag Number Function

Number of maximum registration:DP-700A: 5 tags  
 DP-700B: 99 tags  
 Registration items: Tag name, evaluation points of high and low  
 temperature  
 Tag name: 11 characters (Numeral, Alphabets, Symbols)  
 Memory backup: Same as Memory backup of data logging

### User Name Function

Any user name can be registered for each user number.  
 Logging data can store into register name.  
 Number of maximum registration : 99 names,  
 Number of character : 11 characters (Numeral, Alphabets, Symbols)  
 Memory backup: Same as Memory backup of data logging

### USB Function (Only for DP-700B)

Interface: USB (Universal Serial Bus) Ver2.0  
 Communication speed: Full Speed compliant  
 Connector type: USB series Mini-B  
 Power supply: Bus power (The power is supplied from the USB port  
 on the PC side.  
 Device class: Mass Storage Class (Bulk-Only Transport)

### Waterproof /Dustproof

DP-700A : IP67, DP-700B : IP54

### Other Functions

Peak high and low temperature  
 PV bias: -99.9 to +99.9°C (°F)  
 PV digital filter: 0 to 100 sec (0 : OFF)  
 Calendar timer (year, month, date, hour, minute)  
 Operation lock, Self-diagnostic

### Power

Type LR6 (based on IEC and JIS) alkaline battery, One battery  
 Battery life: Approx. 400 hours (Continuous operating time, Around  
 the ambient temperature 23°C)

### Operating Environments

-20 to +50°C  
 5 to 95%RH (Absolute humidity: Max. W.C 29g/m<sup>3</sup> dry air at 101.3kPa.)

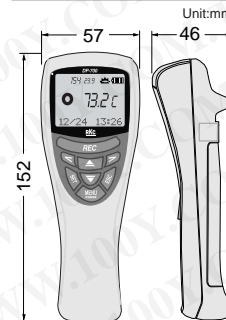
### Net Weight

Approx.450g (Including LR6 Alkaline battery)

### Accessories

LR6 (IEC and JIS) Alkaline battery, Strap, USB cable 1m (Only for DP-700B)

## External Dimensions Model Code

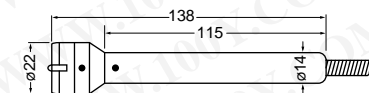


Model Code	Specifications
DP-700A/E	No USB, Data logging : 99 logs, Waterproof/Dustproof : IP67 Data backup : Backed up by SRAM
DP-700B/E	With USB, Data logging : 9999 logs, Waterproof/Dustproof:IP54 Data backup : Backed up by EEPROM

DP-700A allows for temporary immersion in water.  
 DP-700B is water resistant to splashing. It is not  
 suitable to be immersed in water.

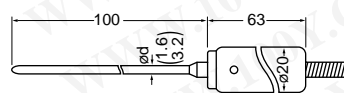
## Temperature Sensors (Type K Thermocouple)

### ST-23



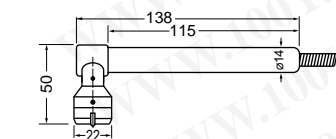
For static surface  
 Temperature range  
 : 0 to 300°C (Non-condensing)  
 Model Code : ST-23-6C

### JB-16



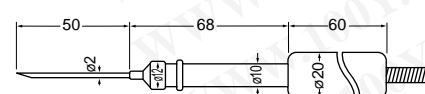
For semi-solid, viscous material  
 and liquid  
 Temperature range  
 : 0 to 650°C (ø1.6) (Non-condensing)  
 0 to 750°C (ø3.2) (Non-condensing)  
 Model Code : JB-16-6C  
 (Specify ød)

### ST-23L



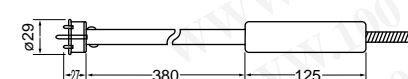
For static surface  
 Temperature range  
 : 0 to 300°C (Non-condensing)  
 Model Code : ST-23-6C

### JB-15



For semi-solid, viscous material  
 and liquid  
 Temperature range  
 : 0 to 400°C (Non-condensing)  
 Model Code : JB-15-6C

### ST-29



For static surface  
 Temperature range  
 : 0 to 800°C (Non-condensing)  
 Model Code : ST-29-6C

\* Consult factory for other probe types that are available.

Released soon

