

DP-700



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

Handheld Use

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



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

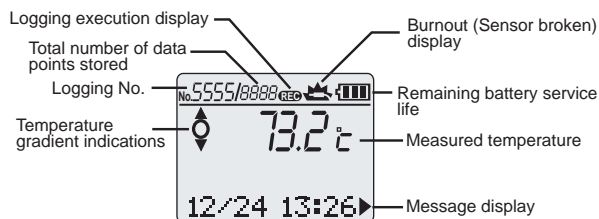
- When DP-700B is used, measured data can be stored in the file in the CSV format using the USB port of each personal computer.

Peak high and low temperature

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

Various Display Information

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

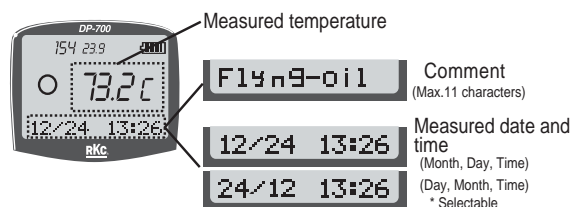
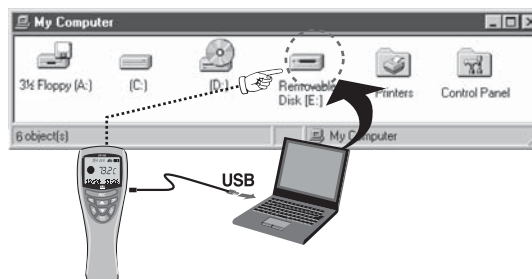


- Message display indicates measured date/time, user name, tag name and each message
- Measured temperature display indicates also peak high and low temperature and function.

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



Specifications

Input and Measuring Range

Universal input	
Thermocouple K	-200 to +1372°C (Resolution: 1°C) -328 to +2501°F (Resolution: 1°F) -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) -199.9 to +999.9°C (Resolution: 0.1°C) -199.9 to +999.9°F (Resolution: 0.1°F)
RTD Pt100	-200 to +850°C (Resolution: 1°C) -328 to +1562°F (Resolution: 1°F) -199.9 to +850.0°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 + 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)
 Calender 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/m³ dry air at 101.3kPa.)

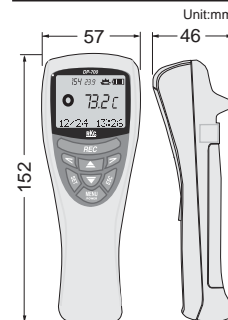
Net Weight

Approx.450g (Including LR6 Alkaline battery)

Accessories

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

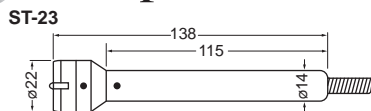
External Dimensions Model Code



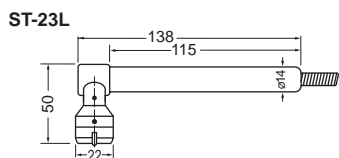
Model Code	Specifications
DP-700A/E	No USB, Data logging : 99 logs, Waterproof/Dustproof : IP67 Data backup : Backed up by SRAM
DP-700B/E	With USB, Data logging : 9999 logs, Waterproof/Dusproof:IP54 Data backup : Backed up by EEPROM

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

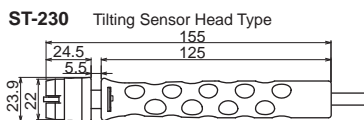
Temperature Sensors (Type K Thermocouple)



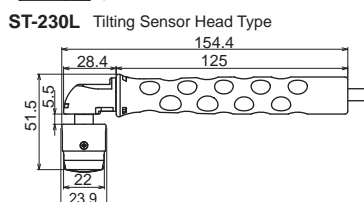
For static surface
 Temperature range
 : 0 to 300°C (Non-condensing)
 Model Code : ST-23-K-1000-6C/A



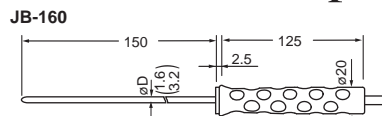
For static surface
 Temperature range
 : 0 to 300°C (Non-condensing)
 Model Code : ST-23L-K-1000-6C/A



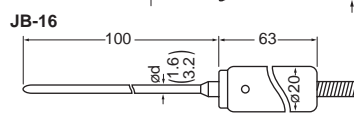
For static surface
 Temperature range
 : -40 to 300°C (Non-condensing)
 Model Code : ST-230-K-1000-6C/F



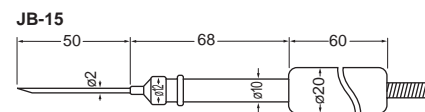
For static surface
 Temperature range
 : -40 to 300°C (Non-condensing)
 Model Code : ST-230L-K-1000-6C/F



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-160
 ø1.6 : JB-160-K-1.6-150-1000-6C/F
 ø3.2 : JB-160-K-3.2-150-1000-6C/F
 JB-16
 ø1.6 : JB-16-K-1.6-100-1000-6C/A
 ø3.2 : JB-16-K-3.2-100-1000-6C/A



For semi-solid, viscous material
 and liquid
 Temperature range
 : 0 to 400°C (Non-condensing)
 Model Code : JB-15-K-1000-6C/A

