

# DT-338

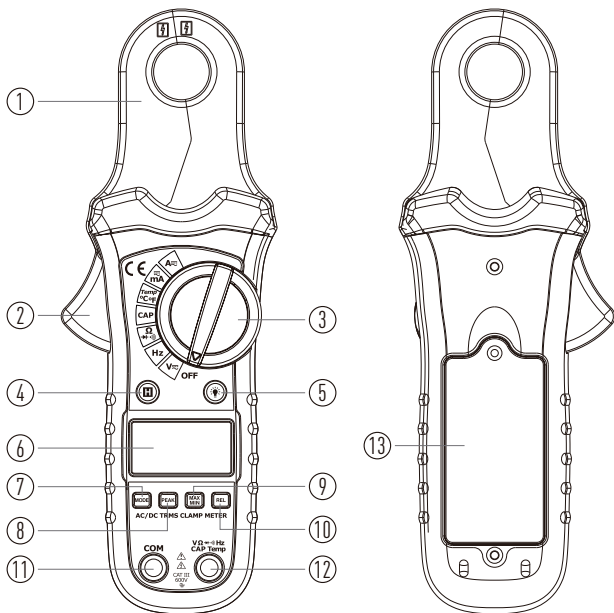
## DATASHEET



# 1.Description

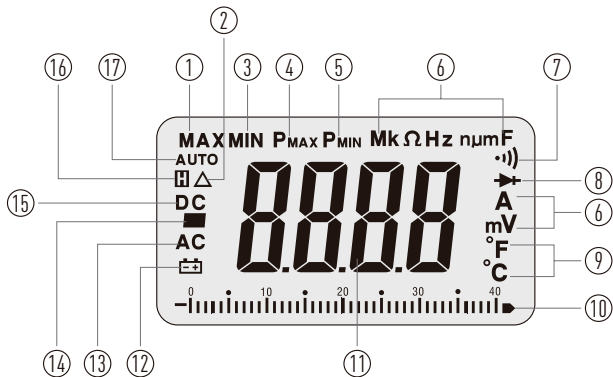
## 1-1.Meter Description

- |                          |                        |
|--------------------------|------------------------|
| 1-Current Clamp          | 8-PEAK Button          |
| 2-Clamp Trigger          | 9-MAX/MIN Button       |
| 3-Rotary Function Switch | 10-Relative Button     |
| 4-HOLD Button            | 11-COM Input Jack      |
| 5-Backlight Button       | 12-Positive Input Jack |
| 6-LCD Display            | 13-Battery Cover       |
| 7-MODE Select Button     |                        |



## 1-2.Display Icons Description

- |                                 |                                               |
|---------------------------------|-----------------------------------------------|
| 1-Maximum                       | 10-Analog Bargraph                            |
| 2-Relative Mode                 | 11-5000 Count (0 to 4999) Measurement Reading |
| 3-Minimum                       | 12-Low Battery                                |
| 4-Pmax Hold Mode                | 13-Alternating Current                        |
| 5-Pmin Hold Mode                | 14-Minus Sign                                 |
| 6-Units of Measure List         | 15-Direct Current                             |
| 7-Audible Continuity            | 16-Data Hold Mode                             |
| 8-Diode Test Mode               | 17-Auto Range Mode                            |
| 9-Degrees Centigrade/Fahrenheit |                                               |



## 2.Button Descriptions

### MODE Button

To select DC/ACV,OHM/ Diode/Continuity, °C/ °F.

### REL Button

For DCA and Capacitance Zero & Offset adjustment.

### Data Hold Button

- To freeze the LCD meter reading, press the **Data Hold** Button.
- The **Data Hold** Button is located on the left side of the meter (top button).
- While data hold is active, the **H** display icon appears on the LCD.
- Press the **Data Hold** Button again to return to normal operation.

### MAX/MIN Button

- The meter displays the maximum or minimum value of the input in MAX/MIN mode.
- When **MAX/MIN** Button is pressed for the first time, the meter displays the maximum value, when **MAX/MIN** Button is pressed again, the meter displays the minimum value, when **MAX/MIN** Button is pressed for the third time, MAX/MIN blinks and the meter displays the current input value.
- To return to normal operation, press and hold **MAX/MIN** Button.

### PEAK HOLD Button

- The Peak Hold function captures the peak AC voltage or current, the meter can capture negative or positive peaks as fast as 1 millisecond in duration.
- Turn the function switch to the **A** or **V** Position.
- Use the **MODE** Button to select **AC**, allow time for the display to stabilize.
- Press the **PEAK HOLD** Button, **Pmax** will display, the display will now update and indicate the highest positive peak.
- Press the **PEAK HOLD** Button again, **Pmin** will display, the display will now update and indicate the lowest negative peak.
- Press the **PEAK HOLD** Button again, a blinking "**MAX MIN**" will appear, the meter will display the present reading, but will continue to update and store the max and min reading.
- Press and hold **PEAK HOLD** Button to return to normal operation.

### 3.Specifications

#### 3-1.Specifications

| Function   | Range & Resolution | Accuracy $\pm$ (% of reading+digits) |
|------------|--------------------|--------------------------------------|
| DC Current | 5000mA             | $\pm$ (2.8% + 20 digits)             |
|            | 80.0A              | $\pm$ (3% + 8 digits)                |

DC Current ranges specified from 5% to 100% of range.

|                         |        |                         |
|-------------------------|--------|-------------------------|
| AC Current<br>(50/60Hz) | 5000mA | $\pm$ (3.0% + 20digits) |
|                         | 80.0A  | $\pm$ (3.0% + 8 digits) |

AC Current ranges specified from 5% to 100% of range.

Below 10% of range, add 12 counts.

|            |         |                         |
|------------|---------|-------------------------|
| DC Voltage | 500.0mV | $\pm$ (0.8% + 6 digits) |
|            | 5.000V  |                         |
|            | 50.00V  | $\pm$ (1.5% + 2digits)  |
|            | 500.0V  |                         |
|            | 600V    | $\pm$ (2 % + 2 digits)  |

|                         |         |                         |
|-------------------------|---------|-------------------------|
| AC Voltage<br>(50/60Hz) | 500.0mV |                         |
|                         | 5.000V  | $\pm$ (1.5% + 10digits) |
|                         | 50.00V  |                         |
|                         | 500.0V  |                         |
|                         | 600V    | $\pm$ (2.0% + 5 digits) |

AC Voltage ranges specified from 5% to 100% of range.

Below 10% of range, add 12 counts.

|            |                 |                         |
|------------|-----------------|-------------------------|
| Resistance | 500.0 $\Omega$  | $\pm$ (1.0% + 4 digits) |
|            | 5.000k $\Omega$ |                         |
|            | 50.00k $\Omega$ | $\pm$ (1.5% + 2 digits) |
|            | 500.0k $\Omega$ |                         |
|            | 5.000M $\Omega$ | $\pm$ (2.5% + 3 digits) |
|            | 50.00M $\Omega$ | $\pm$ (3.5% + 5 digits) |

|           |             |                                 |
|-----------|-------------|---------------------------------|
| Frequency | 10Hz-100kHz | $\pm$ (1.5% reading + 2 digits) |
|-----------|-------------|---------------------------------|

Sensitivity: 100V (<50Hz); 50V (50 to 400Hz); 15V (401Hz to 100kHz).

| Function                     | Range & Resolution | Accuracy $\pm$ (% of reading+digits) |
|------------------------------|--------------------|--------------------------------------|
| Capacitance                  | 50.00nF            | $\pm$ (5.0% reading + 20 digits)     |
|                              | 500.0nF            |                                      |
|                              | 5.000 $\mu$ F      | $\pm$ (3% reading + 5 digits)        |
|                              | 50.00 $\mu$ F      |                                      |
|                              | 500.0 $\mu$ F      | $\pm$ (4.0% reading + 10 digits)     |
|                              | 5mF                | $\pm$ (5.0% reading + 10 digits)     |
|                              |                    |                                      |
| Temp (Type-K)                | -20 to 760°C       | $\pm$ (3%rdg + 5°C)                  |
|                              | -4 to 1400°F       | $\pm$ (3%rdg + 9°F)                  |
| Probe accuracy not included. |                    |                                      |

**Note:** Accuracy is stated at 18 to 28°C (65 to 83°F) and less than 75%RH.

### 3-2.General Specifications

|                        |                                                                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Clamp Size             | Opening 0.75" (19mm) approx                                                                                                                                 |
| Diode Test             | Test current of 0.3mA typical; Open circuit voltage <3.3V DC typical.                                                                                       |
| Continuity Check       | Threshold <50 $\Omega$ ; Test current < 0.6mA                                                                                                               |
| Low Battery Indication | "  " is displayed                                                          |
| Overrange Indication   | "OL" is displayed                                                                                                                                           |
| Measurements Rate      | 2 per second, nominal                                                                                                                                       |
| Input Impedance        | 10M $\Omega$ (VDC and VAC)                                                                                                                                  |
| Display                | 5000 counts LCD                                                                                                                                             |
| AC Current             | 50-60Hz (TRMS AAC)                                                                                                                                          |
| AC Voltage Bandwidth   | 50-60Hz (TRMS VAC)                                                                                                                                          |
| Operating Temperature  | 5 to 40°C (41 to 104°F)                                                                                                                                     |
| Storage Temperature    | -20 to 60°C (-4 to 140°F)                                                                                                                                   |
| Operating Humidity     | Max 80%                                                                                                                                                     |
| Storage Humidity       | <80%                                                                                                                                                        |
| Operating Altitude     | 7000ft. (2000meters) maximum.                                                                                                                               |
| Over Voltage           | Category III 600V                                                                                                                                           |
| Battery                | One 9V Battery                                                                                                                                              |
| Auto OFF               | Approx. 30 minutes                                                                                                                                          |
| Safety                 | For indoor use and in accordance with EN-61010-1 2 <sup>nd</sup> edition. It has been evaluated and complies with overvoltage CAT III. Pollution degrees 2. |