

# DC Ohm Meter 3585



Realization of the fastest response speed: Approx. 20 ms.

## Measurement range 30 mΩ to 300 kΩ

## Finest Resolution 1 μΩ

Model 3585 is the highest speed response digital Ohm meter with 8 ranges of measurement mode from 30.000 mΩ to 300.00 kΩ. High accuracy and stable resistance measurement are achieved with DC 4 terminals method.

The application of 3585 is very wide from measuring winding contact resistance of switches to relays etc. The interface of RS-232C and utility software are available for easy test operation and data collection from the 3585. OLED enables brighter and clearer display.

### Application:

**Motor winding, Transformers, Contact resistance of Relays, Switches etc.**

### Specification:

- / Sampling cycle : 90 times/sec (FAST), 20 times/sec (MEDIUM), 5 times/sec (SLOW)
- / Resistance range : 30 mΩ to 300 kΩ / Resolution 1 μΩ to 10 Ω
- / Temperature range : -19.9 to 199.9 °C
- / Interface : RS-232C (Standard equipment), BCD, Analog
- / Size and Weight : 205 (W) x 64 (H) x 169 (D) mm Approx. 1 kg (main body)

## ■ Model

3585 -□  
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## ① Data output

Code	Specification
X	RS-232C output (standard)
03	BCD (TTL level) output + RS-232C output
04P	BCD(PNP) output + RS-232C output
04N	BCD (NPN) output + RS-232C output
07	Analog voltage output + RS-232C output

## ■ Measuring range (Resistance)

Sampling type at SLOW or MEDIUM mode (max. 4 dgt.)

Measurement range	30mΩ	300mΩ	3Ω	30Ω	300Ω	3kΩ	30kΩ	300kΩ
Resolution	1μΩ	10μΩ	100μΩ	1mΩ	10mΩ	100mΩ	1Ω	10Ω
Measuring current	DC300mA	DC100mA	DC10mA	DC1mA	DC10μA			
Max. applied voltage	9mV	30mV	300mV	3V	300mV	3V		
Accuracy	Note 1	± (0.08% of rdg. + 3dgt.)						
Temperature coefficient	Note 2	± (0.01% of rdg. + 0.5dgt.)/°C						
Open terminal voltage	DC6V Max.							

Note1: ±(0.2% of rdg. + 10 dgt.)

Note2: ±(0.02% of rdg. + 1dgt.)/°C

Accuracy: Specified at 23°C±5°C 45 to 75%RH

For accuracy in medium modesampling, extra 3 dgt. is added.

## ■ Main specification, Standard function, Interfaces

### • Specification

- Measurement method** : DC 4 terminal method
- Maximum allowable applied voltage** : All range 100 V DC
- Open terminal voltage** : DC 6 V max.
- Display** : OLED Zero suppress function
- Resistance measuring range** : 8 ranges, 30 mΩ to 300 kΩ
- Temperature range** : -19.9 to 199.9 °C
- Sampling cycle** : 5 times, 20 times, 90 times/sec
- Response speed** : Approx. 20 ms (FAST, Fixed range)  
Time till judgment outputs, measured during HOLD and connected to specimen.
- Insulation resistance** : Power/Case More than DC 500 V 100 MΩ
- Withstand voltage** : Power/Case More than AC 1500 V 1 min
- Power supply** : AC 100 to 240 V 50/60 Hz
- Power Tolerance range** : AC 90 to 250 V
- Power consumption** : 28 VA max.
- Operation Temperature** : 0 to 40 °C
- Weight** : Approx. 1 kg
- Dimension** : 205 (W) x 64 (H) x 169 (D) mm
- Accessories** : Utility software, Power cord, Control input connector, Operation Manual

### • Standard function

- **Program memory**  
15 patterns of measuring modes, resistance ranges, High and Low set values can be memorized.
- **Temperature correction**  
Resistance value is corrected based on the correction temperature.
- **Ratio display**  
Deviation against the standard resistance is displayed in percentile.
- **Comparison function**  
Good or NG judgment can be done, comparing displayed value and high and low set value.
- **Averaging function**  
Display is done averaging max. 100 measured data so that display fluctuation can be minimized.
- **Zero adjustment function**  
The subtracted zero set value from measured data can be displayed.
- **Current cut function**  
Measured current can be cut during HOLD.

### • Interface

- Outer control terminals** : Judgment output, Control input are equipped
- RS-232C** : Standard equipment
- BCD** : TTL / PNP / NPN (option)
- Analog** : DC 3V output for displayed of 30000.

## ■ Examples of measurement

Wire winding resistance value like in Motors, transformers etc.



Contact resistance like in switches, relays etc.



Note) Select appropriate measuring method and the resistance tester, depending on the compliant when measuring small signals like contact resistance of relays, connectors etc.

- \* 1 : Measuring terminals are located on both front and rear panels. Easy wiring when installing in the system.
- \* 2 : Data can be obtained by using utility software and foot switch (option).