

7561 & 7562 Digital Multimeters



7561 (6-1/2 digits)
213 × 88 × 330 mm 3 kg
(8-3/8 × 3-1/2 × 13" 6.6 lbs)



7562 (6-1/2 digits)
213 × 88 × 330 mm 3 kg
(8-3/8 × 3-1/2 × 13" 6.6 lbs)

The 7560 (6-1/2 digit display) Series is a high-accuracy, high-speed sampling bench-top digital multimeter lineup using a YOKOGAWA-original A/D converter (Feedback Pulse Width Modulation method), which features excellent stability, high noise immunity and linearity. In addition to the basic features, an optional IC memory card capable of storing 8000 data, GP-IB interface and versatile measurement functions allow these multimeters to be used in diverse fields of applications, from bench to system uses.

FEATURES

- **High Accuracy, and Excellent Stability and Linearity**
 - 7560 Series
 - DC voltage accuracy : $\pm 0.003\%$ of rdg ± 15 digits
(90 days, $23 \pm 5^\circ\text{C}$)
 - OHM accuracy : $\pm 0.009\%$ of rdg ± 30 digits
(90 days, $23 \pm 5^\circ\text{C}$)
- **A Large Memory Capacity of 8000 data by Using IC Memory Card**

The 7560 Series can store 1000 measured data by using internal memory (or 8000 data by using an optional IC memory card). This allows high-speed sampling without being affected by transmission capacity via a communication bus. Data can then be transferred to a controller after completing measurements. These storage functions allow DMM's to be used as high-speed data logger.
- **High-Speed Sampling**
 - 7560 Series: 333 times/s

The feedback PWM A/D converter, which includes a new counting system, allows a high-speed response without changing any excellent features. The sampling rate of 40 times/s can be obtained even with a 5-1/2 digit display. The 7560 Series offer high system throughput with a large memory capacity, high-speed auto-ranging, programmable sampling interval, and integrating time.
- **GP-IB Interface (Standard)**

The following functions are available with communication interface.

- Functions executed by panel key operation
- Measured data output
- Panel-set data output
- Stored data output
- Status byte output

● An Input-Site Change between Front and Rear Panels

7560 Series has the input terminal for the voltage and resistance between front and rear panels.

FUNCTIONS

■ MEASURING RANGE

● Auto Range Mode

When the display data increases more than 20000/200000, the range is automatically changed (increased), whereas when the display data goes down to less than 1800/18000, the range is automatically changed (decreased).

● Manual Range Mode

If the measuring range exceeds upper-limit setpoint, -oL- (overload) is displayed.

■ SAMPLING FUNCTIONS

● Auto Mode (AUTO)

Data is sampled at a preset integral time and measuring intervals.

● Single Mode (SINGLE)

One datum is sampled at the preset integral time every time a trigger signal is generated.

● N Reading Mode (N RDGS)

Data are sampled in the cycles set by the integral time and measuring intervals.

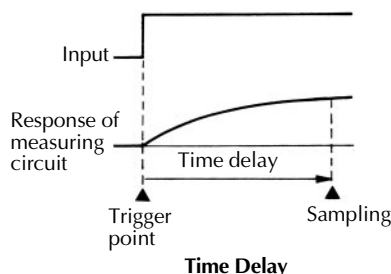
■ TRIGGER FUNCTIONS

The following three ways are available for generating trigger signals.

- Press the TRIG key on the front panel.
- Input a contact signal or TTL logic signal to the I/O signal connector (pin No. 1).
- Send the "E" or GET command through GP-IB.
 - In STORE mode, triggering performs three types of operations according to measurement modes as follows:
 - In AUTO mode, data are written leaving NS-1 data before generating trigger signals and the STORE mode is automatically turned OFF when memory capacity is full. Amounts of data that are written depend on the built-in memory or IC card memory. (PRE-TRIGGER FUNCTION)
 - In SINGLE mode, sampled data is stored every time a trigger signal is generated. If NS data that are preset are stored, STORE mode is automatically turned OFF. (PRESET COUNTER FUNCTION)
 - In N RDGS mode, each NS data is stored every time a trigger signal is generated. STORE mode is in halt status until the next trigger signal is generated. The STORE mode is automatically turned OFF when memory capacity is full.
 - In RECALL mode, data are recalled whenever a trigger signal is generated according to measurement mode. In AUTO mode, data are automatically recalled at measurement intervals which have been set at the time of recall.

TIME DELAY FUNCTIONS (TD)

The time interval between a trigger signal generation and the sampling can be set from 0 to 60 minutes. This allows accurate measurements when a signal source has dead-time or the measurement circuit shows a first-order lag response.



NULL FUNCTIONS (NULL)

$$Y = X - X_0$$

where; X_0 : initially set value (NULL value)
 Y : computed value
 X : measured value

Reset an initially set value (data being displayed) to zero as a NULL value.

Thereafter a value subtracted by a NULL value is displayed as a measured value. This null function is used to eliminate leadwire resistance or cancel initial values.

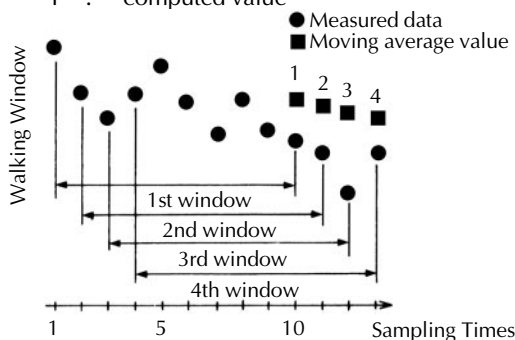
AVERAGING FUNCTION (AVG)

The AVG function is used to average the measured data. This comes into effect when noise components or variation of measured data at high-speed sampling must be eliminated from the measured value.

The calculation expression is given by:

$$Y = (X_{AT} + X_{AT-1} + \dots + X_1) / AT$$

where; AT : 2 to 100 (number of average data)
 X : measured value
 Y : computed value



Averaging Function (Number of averaging = 10)

MATHEMATICAL FUNCTION (MATH)

Scaling

The scaling function serves not only to indicate a multiple with preset multiplying factors but also to determine deviation from a preset reference value.

$$Y = (X - A) / B$$

where; Y : computed value,
 X : measured value,
 A and B : constants,
 where :
 $-1999999E9 \leq A \leq 1999999E9$
 $-1999999E9 \leq B \leq 1999999E9, B \neq 0$

Decibel

The decibel function serves to perform logarithmic operations (common logarithms) for measured values (or null or averaging values).

$$Y = C \times \log_{10} (X/D)$$

where; Y : computed value,
 X : measured value,
 C and D : constants,
 where :
 $-1999999E9 \leq C \leq 1999999E9$
 $-1999999E9 \leq D \leq 1999999E9, D \neq 0$

Comparator

The comparator function compares a measured value (or null or averaging values) with the reference value to determine which value is larger or smaller if the measured value is within the limits.

$X \geq H \dots$ High

$H > X > L \dots$ Pass

$L \geq X \dots$ Low

X : measured value,

H and L : constants,

where :

$$-1999999E9 \leq H \leq 1999999E9$$

$$-1999999E9 \leq L \leq 1999999E9$$

If H and L are set to the same value, whichever value is larger or smaller is indicated. And the computed result is displayed and output to outer computer pin.

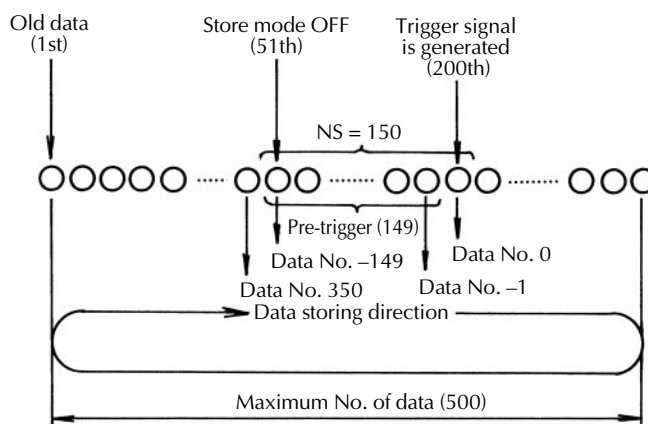
STORING FUNCTION (STORE)

Store the measured data in built-in memory or IC card memory. When an IC memory card is installed, the measured data is stored in the IC card memory.

The STORE function has three operations depending on measurement modes as follows:

In AUTO Mode

In AUTO mode, press the STORE key to store data in memory. If the memory overflows, the oldest data are automatically erased and replaced by the newest data. If the STORE mode is OFF, data is no longer stored. In AUTO mode, if a trigger signal is generated, data can be written to the memory, leaving NS-1 data before generating a trigger signal. (PRE-TRIGGER FUNCTION)



Memory capacity

- Built-in memory: 1000 data
- 8K bytes IC card memory: 500 data
- 16K bytes IC card memory: 1500 data
- 64K bytes IC card memory: 8000 data

Pre-trigger Function

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● In SINGLE Mode

In SINGLE mode, data measured in each sampling cycle are stored every time a trigger signal is generated. If NS data that was preset are stored, STORE mode is automatically turned OFF. (PRESET COUNTER FUNCTION)

● In N RDGS Mode

NS data are stored every time a trigger signal is generated. The STORE mode is in halt status until the next trigger signal is generated. If the memory overflows, the STORE mode is automatically turned OFF. (POST TRIGGER FUNCTION)

■ RECALL FUNCTION (RECALL)

Recalls the stored data from the memory. The recall functions are as follows:

● In AUTO Mode

Data are output at the preset measurement intervals. When the final data are output, the recall mode is automatically turned OFF.

● In SINGLE Mode

Data are recalled every time a trigger signal is generated. When the final data are output, the recall mode is automatically turned OFF.

● In N RDGS Mode

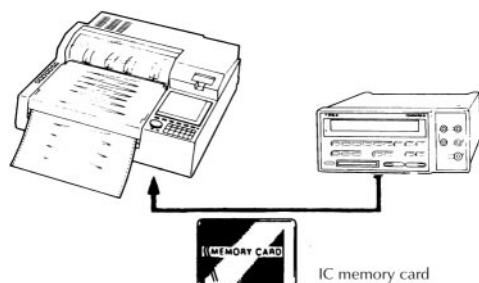
NS data are output at the preset measurement intervals whenever a trigger signal is generated. Then the mode is in the halt state. If the trigger key is pressed again, recalling of data is started. If the final data are output, the recall mode is automatically turned OFF.

■ IC MEMORY CARD

The 7560 Series are the first DMM with IC memory card (optional). IC memory card allows you to:

- Save up to 8000 measured data.
 - Functions, ranges, and mathematical functions ON/OFF, sample speed and so on, are saved.
 - Setting programs using the front panel keys and measured data can be stored.
 - Automatic loading of setting program at power ON.
- 7560 Series get the more applications by the above IC memory card functions.

The data format of IC memory card is compatible with that of YOKOGAWA LR Series Recorders, so the measured data can be recorded in analog form on strip chart.



Connection Diagram for LR Series Recorder

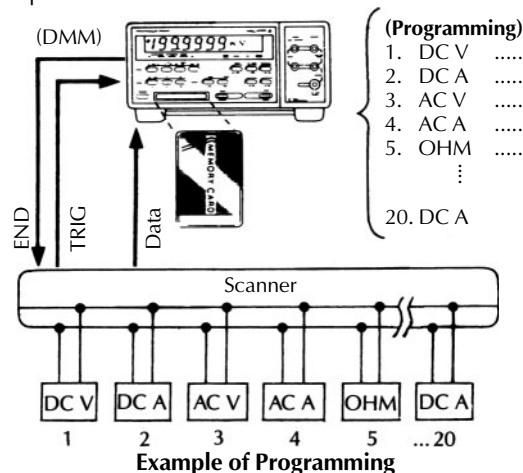
● Automatic Loading

IC memory cards allow measurement parameters and conditions to be set without using the panel keys. If a memory card containing set data is inserted and then the power is turned ON, the memory contents are automatically read and programmings are set.

This is very useful for measurements that are repeated under the same conditions, and this can be a powerful support tool such as in the production line.

● Programming Function

If an IC memory card is installed, up to 20 steps can be programmed either by front panel key operations or via communication interfaces. The required functions, ranges, and mathematical functions can be set ON or OFF, and multichannel measurements can be performed in a combination with scanners.



■ AUTO ZERO FUNCTION

AUTO ZERO (AZ) compensates for zero drift which will be generated in the internal circuit every time sampling is executed. In high-speed sampling mode, measurement time is decreased by eliminating AUTO ZERO function.

■ CALIBRATION FUNCTION

The multimeters can be calibrated either by front panel key operations or via communication interfaces. The multi-meters are calibrated without opening the case and any special calibration skills.

SELECTION GUIDE

< Selection Symbols >

| | | |
|---|--|---|
| DC V DC Voltage | DC A DC Current | OHM-2W OHM 2-wire |
| OHM-4W OHM 4-wire | AC Vrms AC Voltage rms | AC Arms AC Current rms |
| SAMPLE 333 Sampling rate (333 times/s) | MATH Mathematical function | MEMO 1000 Internal memory (1,000 data) |
| IC Card IC memory card (8,000 data) | F/R Input-site change between front and rear panels | GP-IB GP-IB Interface |

| 7561 | | | 7562 | | |
|------------|------|-----------|------------|---------|-----------|
| DC V | DC A | OHM-2W | DC V | DC A | OHM-2W |
| OHM-4W | | | OHM-4W | AC Vrms | AC Arms |
| SAMPLE 333 | MATH | MEMO 1000 | SAMPLE 333 | MATH | MEMO 1000 |
| IC Card | F/R | GP-IB | IC Card | F/R | GP-IB |

<7560 Series >

- 6-1/2 digits
- 1999999
- DC V accuracy: $\pm 0.003\%$

DIGITAL MULTIMETERS



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SPECIFICATIONS

■ GENERAL SPECIFICATIONS

Operating Principle: Feedback pulse width modulation method.

Sample Mode: Auto/Single/N reading.

Sampling Interval: 3 ms to 60 min (7561 and 7562), (1 ms min., 1s at 3s or more)

Maximum Reading: 1999999

Overrange Information: — oL— sign display.

Data Memory: 1000 data, measured data can be stored and recalled: (STORE/RECALL).

Ranging: AUTO, MANUAL, (remote control and programming possible).

Operating Temperature Range: 5 to 40°C (41 to 104°F).

Humidity Range: 20 to 80% relative humidity.

Warmup Time: Approx. 60 minutes to rated accuracy.

Power Requirements: 100 or 115, 200 or 230 V AC (must be specified), 50 or 60 Hz.

Power Consumption: 20 VA max.

Dimensions (Approx.): 213(W) × 88(H) × 330(D) mm, (8-3/8 × 3-1/2 × 13").

Weight (Approx.): 3 kg (6.6 lbs).

7560 Series (Common to 7561 and 7562)

■ DC VOLTAGE (DC V)

● Ranges:

*16.7 ms shows 16.66

| Range | Integrating Time (500/200 ms) | | Integrating Time (100/20/16.7 ms)* | | Integrating Time (2.5/1.2 ms) | | Input Resistance | Max. Input |
|---------|-------------------------------|------------|------------------------------------|------------|-------------------------------|------------|------------------|--|
| | Max. Reading | Resolution | Max. Reading | Resolution | Max. Reading | Resolution | | |
| 200 mV | 199.9999 | 0.1 μV | 199.999 | 1 μV | 199.99 | 10 μV | >1 GΩ | ±1000 V pk (10s) ±600 V pk continuously between Hi and Lo |
| 2000 mV | 1999.999 | 1 μV | 1999.99 | 10 μV | 1999.9 | 100 μV | | |
| 20 V | 19.99999 | 10 μV | 19.9999 | 100 μV | 19.999 | 1 mV | | |
| 200 V | 199.9999 | 100 μV | 199.999 | 1 mV | 199.99 | 10 mV | 10 MΩ ±1% | ±1000 V pk continuously |
| 1000 V | 1100.000 | 1 mV | 1100.00 | 10 mV | 1100.0 | 100 mV | | |

● Accuracy (Integrating Time 500 ms): ±(% of reading + digits)

| Range | 24 hours, 23±1°C | 90 days, 23±5°C | 1 year, 23±5°C | Temperature Coefficient (5 to 18, 28 to 40°C) |
|---------|--------------------|--------------------|--------------------|---|
| 200 mV | 0.004 + 30(6) {4} | 0.006 + 40(8) {4} | 0.01 + 40(8) {4} | 0.0007 + 5(.6) {2} |
| 2000 mV | 0.0025 + 10(3) {3} | 0.0045 + 15(3) {3} | 0.0075 + 15(3) {3} | 0.00055 + 1(.2) {1} |
| 20 V | 0.003 + 10(3) {3} | 0.005 + 15(3) {3} | 0.009 + 15(3) {3} | 0.00065 + 1(.2) {1} |
| 200 V | 0.0045 + 10(3) {3} | 0.009 + 15(3) {3} | 0.016 + 15(3) {3} | 0.00075 + 1(.2) {1} |
| 1000 V | 0.005 + 10(3) {3} | 0.01 + 20(3) {3} | 0.017 + 20(3) {3} | 0.0008 + 1(.2) {1} |

● Accuracy at 24 hours, 23±1°C is the value for the calibration standard.

● Auto Zero ON, Null.

● **Integrating Time:** At 200 ms, 2 is added to the value (digits) in integrating time 500 ms.

● () indicates the value (digits) in integrating time 100 ms. For integrating time 20/16.7 ms, 2 is added to the value (digits) enclosed in the parentheses.

● { } indicates the value (digits) in integrating time 2.5 ms. For integrating time 1.2 ms, 2 is added to the value (digits) enclosed in the brackets.

● At Auto Zero OFF, temperature coefficient of ±(0.0015% of range + 25 μV)/°C is added (at 5 to 40°C).

● **Common Mode Rejection:** 120 dB or more.
Integrating time 500/200/100/20/16.7 ms, RS = 1 kΩ, 50/60 Hz ±0.1%

● **Normal Mode Rejection:** 60 dB or more.
Integrating time 500/200/100/20/16.7 ms, 50/60 Hz ±0.1%

● **Maximum Allowable Voltage:** ±500 V peak between Lo and case.

■ DC CURRENT (DC A)

● Ranges:

| Range | Integrating Time (500/200/100/20/16.7 ms) | | Integrating Time (2.5/1.2 ms) | | Input Resistance |
|---------|---|------------|-------------------------------|------------|------------------|
| | Max. Reading | Resolution | Max. Reading | Resolution | |
| 2 mA | 1.99999 | 10 nA | 1.9999 | 100 nA | < 110 Ω |
| 20 mA | 19.9999 | 100 nA | 19.999 | 1 μA | < 11 Ω |
| 200 mA | 199.999 | 1 μA | 199.99 | 10 μA | < 1.2 Ω |
| 2000 mA | 1999.99 | 10 μA | 1999.9 | 100 μA | < 0.3 Ω |

● Auto Zero ON.

● **Integrating Time:** At 200/100/20/16.7 ms, 20 is added to the value (digits) in integrating time 500 ms.

● Accuracy (Integrating Time 500 ms): ±(% of reading + digits)

| Range | 1 year, 23±5°C |
|---------|----------------|
| 2 mA | 0.05 + 100 |
| 20 mA | 0.05 + 20 |
| 200 mA | 0.05 + 20 |
| 2000 mA | 0.1 + 40 |

● **Temperature Coefficient:** ±(1/10 of measurement accuracy)/°C.

● **Allowable Current:** 2 A (2 A fuse installed).

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■ RESISTANCE (OHM)

● Ranges:

| Range | Integrating Time (500/200 ms) | | Integrating Time (100/20/16.7 ms) | | Integrating Time (2.5/1.2 ms) | | Current through Unknown |
|---------|-------------------------------|------------|-----------------------------------|------------|-------------------------------|------------|-------------------------|
| | Max. Reading | Resolution | Max. Reading | Resolution | Max. Reading | Resolution | |
| 200 Ω | 199.9999 | 100 μΩ | 199.999 | 1 mΩ | 199.99 | 10 mΩ | 1 mA |
| 2000 Ω | 1999.999 | 1 mΩ | 1999.99 | 10 mΩ | 1999.9 | 100 mΩ | 1 mA |
| 20 kΩ | 19.99999 | 10 mΩ | 19.9999 | 100 mΩ | 19.999 | 1 Ω | 100 μA |
| 200 kΩ | 199.9999 | 100 mΩ | 199.999 | 1 Ω | 199.99 | 10 Ω | 10 μA |
| 2000 kΩ | 1999.999 | 1 Ω | 1999.99 | 10 Ω | 1999.9 | 100 Ω | 1 μA |
| 20 MΩ | 19.9999 | 100 Ω | 19.9999 | 100 Ω | 19.999 | 1 kΩ | 100 nA |
| 200 MΩ | 199.999 | 1 kΩ | 199.999 | 1 kΩ | 199.99 | 10 kΩ | 50 nA |

● Accuracy (4-wire System, Integrating Time 500 ms): ±(% of reading + digits)

| Range | 24 hours, 23±1°C | 90 days, 23±5°C | 1 year, 23±5°C | Temperature Coefficient (5 to 18, 28 to 40°C) |
|---------|---------------------|---------------------|---------------------|---|
| 200 Ω | 0.007 + 40(6) {4} | 0.012 + 50(7) {4} | 0.016 + 50 (7) {4} | 0.0012 + 10(2) {1.5} |
| 2000 Ω | 0.005 + 25(4) {3} | 0.01 + 35(6) {3} | 0.014 + 35(6) {3} | 0.001 + 2(5) {1.1} |
| 20 kΩ | 0.005 + 20(3) {3} | 0.01 + 30(5) {3} | 0.014 + 30(5) {3} | 0.001 + 2(5) {1.1} |
| 200 kΩ | 0.007 + 20(3) {3} | 0.011 + 30(5) {3} | 0.015 + 30(5) {3} | 0.001 + 2(5) {1.1} |
| 2000 kΩ | 0.02 + 135(15) {20} | 0.03 + 150(20) {30} | 0.05 + 150(20) {30} | 0.004 + 2(5) {1.1} |
| 20 MΩ | 0.2 + 30(30) | 0.2 + 30(30) | 0.2 + 30(30) | 0.02 + 1(1) |
| 200 MΩ | 2 + 200(200) | 2 + 200(200) | 2 + 200(200) | 0.05 + 2(2) |

■ AC VOLTAGE (AC V) (7562 only)

● Ranges:

| Range | Integrating Time (500/200/100/20/16.7 ms) | | Integrating Time (2.5/1.2 ms) | | Input Resistance | Max. Input |
|---------|---|------------|-------------------------------|------------|-------------------------|---|
| | Max. Reading | Resolution | Max. Reading | Resolution | | |
| 200 mV | 199.999 | 1 μV | 199.99 | 10 μV | 1 MΩ ±2% approx. 150 pF | 700 V rms or ±1000 V pk between Hi and Lo |
| 2000 mV | 1999.99 | 10 μV | 1999.9 | 100 μV | | |
| 20 V | 19.9999 | 100 μV | 19.999 | 1 mV | | |
| 200 V | 199.999 | 1 mV | 199.99 | 10 mV | | |
| 700 V | 700.00 | 10 mV | 700.0 | 100 mV | | |

● Accuracy (Integrating Time 500 ms): ±(% of reading + digits), 1 year, 23±5°C

| Range | 20 to 30 Hz | 30 to 45 Hz | 45 Hz to 10 kHz | 10 to 20 kHz | 20 to 50 kHz | 50 to 100 kHz |
|---------|-------------|-------------|-----------------|--------------|--------------|---------------|
| 200 mV | 0.9 + 200 | 0.5 + 200 | 0.3 + 200 | 0.3 + 300 | 0.7 + 500 | 2 + 500 |
| 2000 mV | 0.8 + 100 | 0.4 + 100 | 0.15 + 100 | 0.3 + 200 | 0.5 + 500 | 2 + 500 |
| 20 V | 0.8 + 100 | 0.4 + 100 | 0.15 + 100 | 0.3 + 200 | 0.5 + 500 | 2 + 500 |
| 200 V | 1 + 100 | 0.4 + 100 | 0.3 + 100 | 0.3 + 200 | 0.7 + 500 | 3 + 500 |
| 700 V | 1 + 100 | 0.4 + 100 | 0.3 + 100 | 0.3 + 300 | — | — |

■ AC CURRENT (AC A) (7562 only)

● Ranges:

| Range | Integrating Time (500/200/100/20/16.7 ms) | | Integrating Time (2.5/1.2 ms) | | Input Resistance (50 Hz) |
|---------|---|------------|-------------------------------|------------|--------------------------|
| | Max. Reading | Resolution | Max. Reading | Resolution | |
| 2 mA | 1.99999 | 10 nA | 1.9999 | 100 nA | < 110 Ω |
| 20 mA | 19.9999 | 100 nA | 19.999 | 1 μA | < 11 Ω |
| 200 mA | 199.999 | 1 μA | 199.99 | 10 μA | < 1.2 Ω |
| 2000 mA | 1999.99 | 10 μA | 1999.9 | 100 μA | < 0.3 Ω |

● Accuracy (Integrating Time 500 ms): ±(% of reading + digits), 1 year, 23±5°C

| Range | 20 to 30 Hz | 30 to 45 Hz | 45 Hz to 2 kHz | 2 to 5 kHz |
|---------|-------------|-------------|----------------|------------|
| 2 mA | 1.4 + 350 | 0.8 + 250 | 0.5 + 250 | 0.8 + 300 |
| 20 mA | 1.2 + 300 | 0.8 + 200 | 0.5 + 200 | 0.8 + 200 |
| 200 mA | 1.2 + 300 | 0.8 + 200 | 0.5 + 200 | 0.8 + 200 |
| 2000 mA | 1.5 + 300 | 1.5 + 200 | 1.0 + 200 | 1.5 + 200 |

● Accuracy at 24 hours, 23±1°C is the value for the calibration standard.

● Auto Zero ON, Null.

● **Integrating Time:** At 200 ms, 2 is added to the value (digits) in integrating time 500 ms.

● () indicates the value (digits) in integrating time 100 ms. For integrating time 20/16.7 ms, 2 is added to the value (digits) enclosed in the parentheses.

● { } indicates the value (digits) in integrating time 2.5 ms. For integrating time 1.2 ms, 2 is added to the value (digits) enclosed in the brackets.

● For 20 and 200 MΩ at sampling interval 400 ms or more. Accuracy is not prescribed in integrating time 1.2/2.5 ms.

● At Auto Zero OFF, temperature coefficient on 200 Ω ranges is ±(0.013% of range)/°C, on other ranges ±(0.003% of range)/°C is added (at 5 to 40°C).

● For 2-wire system, 2 mΩ/°C is added.

● Excluding the influence of leadwires.

● **Open Circuit Voltage:** Max 10 V (12.5 V max. on 200 MΩ range).

● **Maximum Input Voltage:** ±300V peak or 300 V rms (between Hi and Lo).

● **Response Time:** 0.4 s or less on 2000 kΩ/20 MΩ ranges, 5 s or less on 200 MΩ range.

● Auto Zero ON.

● **Integrating Time:** At 200/100/20/16.7 ms, 20 is added to the value (digits) in integrating time 500 ms.

● **AC Coupling:** True rms value.

● Input Voltage: 5 to 100% of range (sine wave).

● **Response Time:** 400 ms or less (to reading within ±0.2% of final value).

● **Crest Factor:** Up to 3 (at full scale, up to 2 at full scale on 700 V range).

● **Temperature Coefficient:** ±(1/10 of measurement accuracy)/°C.

● Auto Zero ON.

● **Integrating Time:** At 200/100/20/16.7 ms, 20 is added to the value (digits) in integrating time 500 ms.

● **AC Coupling:** True rms value.

● Input Current: 5 to 100% of range (sine wave).

● **Response Time:** 400 ms or less (to reading within ±0.2% of final value).

● **Crest Factor:** Up to 3.

● **Temperature Coefficient:** ±(1/10 of measurement accuracy)/°C.

● **Allowable Current:** 2 A (2 A fuse installed).

DIGITAL MULTIMETERS



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SAMPLING INTERVAL

| Integrating Time | Measurement Intervals (in Auto Zero OFF) | Measurement Intervals (In Auto Zero ON) |
|------------------|---|--|
| * 1.2 ms | 3 ms (333/s) | 7 ms (143/s) |
| 2.5 ms | 8 ms (125/s) | 15 ms (66.7/s) |
| 16.7 ms | 25 ms (40/s) | 45 ms (22.2/s) |
| 20 ms | 30 ms (33.3/s) | 55 ms (18.2/s) |
| 100 ms | 110 ms (9.1/s) | 215 ms (4.7/s) |
| * 200 ms | 210 ms (4.8/s) | 415 ms (2.4/s) |
| * 500 ms | 510 ms (2/s) | 1015 ms (1/s) |

- *Sampling mode is AUTO, NULL: off, AVG: off, MATH: off, function: DC V in a fixed range, without communication function, using buffer memory.
- Data of sampling interval shows min. value (fastest sample rate). Measurement intervals can be settable more than the value of left table.

INTERFACE

GP-IB Interface

Electrical & Mechanical Specifications: Conforms to IEEE Std 488-1978.

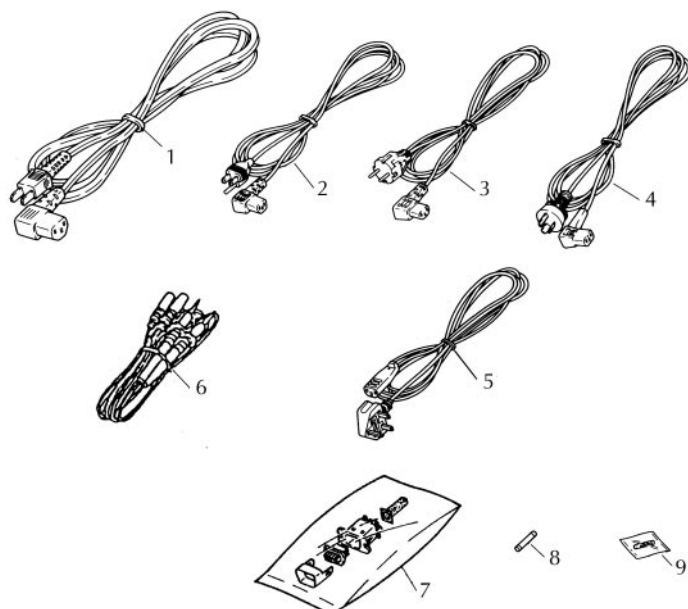
Interface Function & Identification: SH1, AH1, T5, L4, SR1, RL1, PP0, DC1, DT1, C0.

Address Mode, address and header ON/OFF can be settable.

STANDARD ACCESSORIES

| No. | Name | Part No. | Description | Q'ty |
|-----|--------------------|----------|-----------------------------|------|
| 1 | Power supply cord* | A1007WD | 100 V series (JIS standard) | 1 |
| 2 | | A1006WD | 115 V series (UL standard) | 1 |
| 3 | | A1009WD | 200 V series (VDE standard) | 1 |
| 4 | | A1013WD | 230 V series (AS standard) | 1 |
| 5 | | A1023WD | BS standard | 1 |
| 6 | Measurement lead | B9280TZ | — | 1 |
| 7 | Remote connector | A1003JD | — | 1 |
| 8 | Fuse* | A1105EF | 0.2 A 100 V | 1 |
| | | A1103EF | 0.1 A 200 V | 1 |
| 9 | Fuse | A1092EF | 2A | 1 |
| — | Instruction manual | — | — | 1 |

* Specified one.



AVAILABLE MODELS

| Model | Suffix Codes | Description |
|--------------------|--------------|-------------------------------------|
| 756101 | 6.5 digits | DC V, DC A, OHM, (GP-IB) |
| 756201 | | DC V, DC A, OHM, AC V, AC A (GP-IB) |
| Version | -C | Always C |
| Power Requirements | -1 | 100 V AC (50 or 60 Hz) |
| | -3 | 115 V AC (50 or 60 Hz) |
| | -5 | 200 V AC (50 or 60 Hz) |
| | -7 | 230 V AC (50 or 60 Hz) |
| Power Cord | /B | JIS standard |
| | /D | UL standard |
| | /F | VDE standard |
| | /G | AS standard |
| Optional Feature | /H | GB standard |
| | /DA | D/A converter output |

OPTIONAL ACCESSORIES

| No. | Name | Code | Description | Order Q'ty |
|-----|----------------------------------|---------|-------------------------------|-------------------------|
| 10 | Memory card (8 k bytes) | 378901 | Setting & measured data | 1 unit (1 pc./unit) |
| | Memory card (16 k bytes) | 378902 | Setting & measured data | |
| | Memory card (128 k bytes) | 378903 | Setting & measured data | |
| — | Dummy card | B9586NG | Dust cap for memory card slot | 2 units (1 pc./unit) |
| — | Rack mounting kit | 751501 | EIA (single mounting) | 1 unit (1 pc./unit) |
| | | 751502 | EIA (double mounting) | |
| | | 751503 | JIS (single mounting) | |
| | | 751504 | JIS (double mounting) | |
| 11 | 4-wire resistance measuring lead | 751510 | 0.6 m | 1 unit (1 pc./unit) |
| 12 | Input terminal adapter | 751512 | — | |

DIGITAL MULTIMETERS



7561 & 7562



10



12



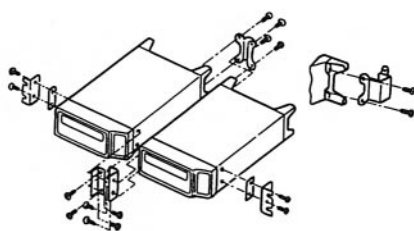
11

10 IC memory card (378901, 378902 and 378903)

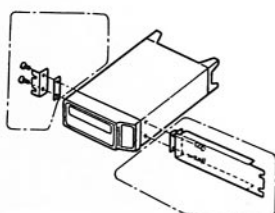
11 4-wire resistance measuring lead (751510)

12 Input terminal adapter (751512)

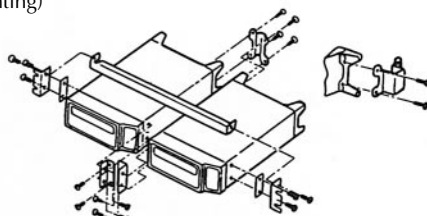
< Rack Mounting >



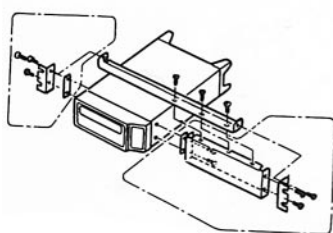
EIA (Double mounting)



EIA (Single mounting)



JIS (Double mounting)

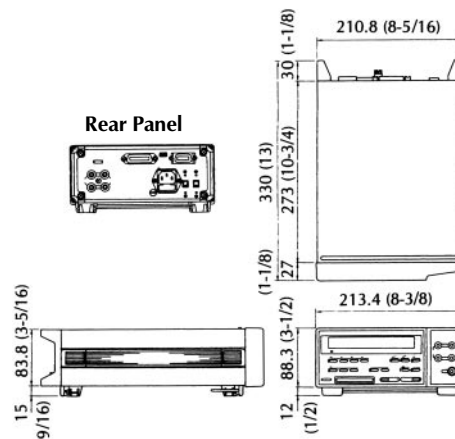


JIS (Single mounting)

DIMENSIONS

Unit: mm (inch)

● 7561



● 7562

