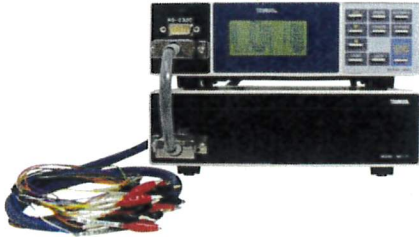


# AC mΩ Meter



## Model: 356M / 5811-71

The model 356M is a compact sized AC mΩ with multi scanner for measurement of resistance and voltage of the specimen. It enables to scan specified CHs automatically. By connecting expansion unit 5811-71, 356M can measure up to 40 CHs. Measured data of 356M can be transferred to PC by using utility software.



- AC mΩ meter with max. 40CH extension.
- Resistance range: 30mΩ / 300mΩ / 3Ω
- Open terminal voltage: 20mV peak or less
- Enables to measure cell voltage and resistance of rechargeable battery and fuel cell.
- 2 outputs of upper comparison judgment

### ■ Model Designation

Main unit		Scanner expansion unit	
Model	No. of CH	Model	No. of extended CH
356M-05	5CH	5811-71-05	5CH
356M-10	10CH	5811-71-10	10CH
356M-15	15CH	5811-71-15	15CH
356M-20	20CH	5811-71-20	20CH

### ■ Measurement range

#### ● Resistance measurement

Range <sup>※1</sup>	30.000 mΩ	300.00 mΩ	3.0000 Ω
Resolution	1 μΩ	10 μΩ	100 μΩ
Measured Current	7.4 mA	1 mA	100 μA
Accuracy <sup>※2</sup>	±(0.5% of rdg. +8digit)		
Open terminal voltage	20 mV Peak or less (with ON/OFF function)		

※1 The same range for all, ※2 Specified at 23 °C ± 5 °C, 45 to 75 %RH

#### ● Voltage measurement

Range <sup>※1</sup>	± 5.0000 V	± 50.000 V
Resolution	100 μV	1 mV
Accuracy <sup>※2</sup>	± (0.05 % of rdg. + 5 digit)	

※1 The same range for all, ※2 Specified at 23 °C ± 5 °C, 45 to 75 %RH

### ■ Resistance measurement

#### ● Measurement mode

Automatic ( AUTO )

Resistance and voltage of CH1 to the specified CH.

Manual ( MANU )

Resistance and voltage of specified CHs

#### ● Scanning time

1 point/1 s or 2 s ( Automatic)

Measurement time for 1 s = approx. 900 ms,

Measurement time for 2 s = approx. 1900 ms

#### ● Comparison judgment

Upper value(H1, H2) 2 points set

Output condition :

Resistance of more than 1 CH > H1···H1 relay is ON

Resistance of more than 1 CH > H2···H2 relay is ON

Contact capacity: AC250V, 1A (Resistance load)

1a (N.O.) relay contacts

### ■ Data output

Interface : RS-232C Start-stop synchronous full-duplex method  
(During shipment) 9600bps 8bit, No parity, No control of Xon,Xoff

### ■ General Specifications

Measurement method : AC Four-Terminal method ( for resistance )

A/D operation method : Δ-Σ method

Measuring frequency : AC 1 kHz ± 20 Hz ( for resistance )

Resistance of lead wire : Less than 0.1 Ω ( SOURCE Hi - SOURCE Lo )

Display : LCD display with zero-suppress function  
35000/resistance measurement  
± 50000/voltage measurement  
"OVER" is displayed, when the value is over the value.

Unit : mΩ, Ω, V

Sampling cycle : 10 times/s ( resistanc and voltage measurement )

Response speed : Approx. 670ms

Parameter retention : Retained by EEPROM

Power supply : AC 100 V to 240 V 50/60 Hz

Power consumption : AC 200 V Approx. 10 VA ( 356M ) ,  
AC 200 V Approx. 7 VA ( 5811-71 )

Operating ambient temp. : 0 to 50°C

Storage temperature : - 20 to 70°C

Weight : Approx. 1.2 kg both 356M and 5811-71

Accessories 356M : Power cord, Fuse, Utility software, RS-232C cable,  
Operation manual

5811-71 : Power cord, Fuse, Connecting cable of expansion unit

### ■ Utility software ( Install in PC )

Function : Setting of measurement condition like range,  
comparison value, interval time  
: Start/Stop, Data saving and protection, display of saved file  
: Data transmission

# 356M / 5811-71

# AC mΩ Meter

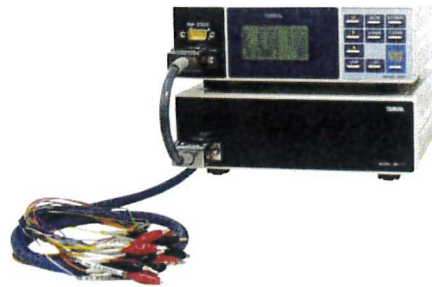
### 【 356M Main body 】

Measurement CH : 1 to 20 CH



### 【 356M Main body + 5811-71 Extension unit 】

Measurement CH : 1 to 40 CH



### 【 Measurement cable 】

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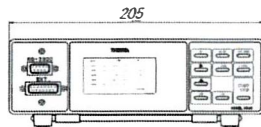


## ■ Setting range of functions and Initial setting

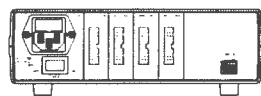
Item	Setting range / Content	Initial value
Measurement range	Resistance measurement range: 30 mΩ, 300 mΩ, 3 Ω Voltage measurement range: ± 5 V, ± 50 V	3 Ω, 50 V
Measurement mode	Automatic mode (AUTO) · Measuring from CH1 to the specified CH. The output of the measured data can be obtained by the command from PC Automatic mode (FULL) · The output of each measured data of each CH can be obtained Manual mode (MANU) Specified CH is measured	Automatic mode (FULL)
Keylock	Prevention of mis-operation ON/OFF	OFF
Max. CH number (automatic)	Max. 40 CH, when 5811-71 is connected.	20
CH number (manual)		01
Comparator	2 points of upper limit. Relay, Buzzer and H1/H2 are output, when displayed in reversed color.	H1 : 3.0000 Ω, H2 : 3.0000 Ω
Buzzer	Output according to comparator. Volume setting: 0 to 10	OFF, Volume 5
Scanning time (automatic)	Select : 1 s/CH or 2 s/CH	1 s
Setting of voltage limit	Restriction function, when SOURCE terminal open voltage is less than 20 mV ON/OFF	OFF
Setting of current output mode	Fixed mode Output from CH1 constantly. (From CH21, when 5811-71 is connected.) Individual current mode Output from the measured CH.	Fixed mode
Communication setting	Transmission method: Start-stop synchronous full-duplex method Transmission speed: 9600, 4800, 2400 bps Data length: 7 bits, 8 bits Parity: None, Even, Odd Stop bit: 1 bit Xon, Xoff · No control	9600, 8, None, 1

## ■ External dimensions

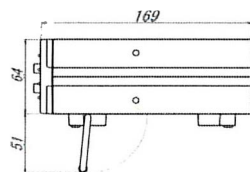
### ● 356M main unit



Front view



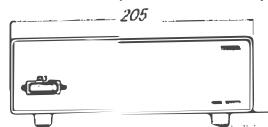
Rear view



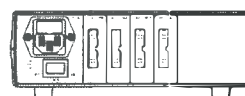
Side view

Unit: mm

### ● 5811-71 (Extension unit)

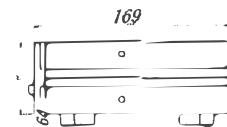


Front view



Rear view

Unit: mm



Side view