

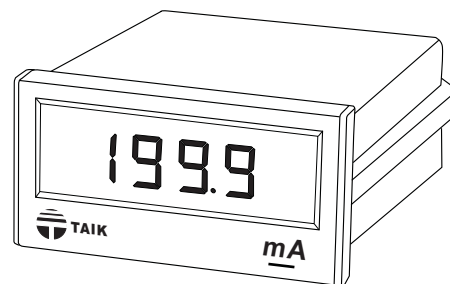


# 3 1/2 DIGITAL METER

**MODEL  
S2-312**

## FEATURES

- 3 1/2 display: 1999
- Accuracy:  $\pm 0.1\%$  to  $\pm 0.25\%$
- Easy-to-wire. screw-type terminals
- Outside dimension is DIN standard (96x48mm)
- Low unit cost



## SPECIFICATION

### • Direct Input

| Variable to be Measured | Measuring Range | Input Impedance | Resolution  |
|-------------------------|-----------------|-----------------|-------------|
| DC                      | 199.9 $\mu$ A   | 1K $\Omega$     | 0.1 $\mu$ A |
|                         | 1.999mA         | 100 $\Omega$    | 0.001mA     |
|                         | 19.99mA         | 10 $\Omega$     | 0.01mA      |
|                         | 199.9mA         | 1 $\Omega$      | 0.1mA       |
|                         | 1.999A          | 0.1 $\Omega$    | 0.001A      |
| AC                      | 15.00A          | 0.1 $\Omega$    | 0.01A       |
|                         | 199.9mV         | $\geq 5M\Omega$ | 0.1mV       |
| TRMS                    | 1.999V          | $\geq 1M\Omega$ | 0.001V      |
|                         | 19.99V          | $\geq 1M\Omega$ | 0.01V       |
|                         | 199.9V          | $\geq 1M\Omega$ | 0.1V        |
|                         | 750V            | $\geq 3M\Omega$ | 1V          |

### • Ratio Input (Secondary of CT, PT)

| Variable to be Measured | Input Range | Input Impedance | Display Range                        |
|-------------------------|-------------|-----------------|--------------------------------------|
| AC                      | 0~1A        | 0.1 $\Omega$    | appointed as primary value of CT, PT |
|                         | 0~5A        | 0.1 $\Omega$    |                                      |
| TRMS                    | 0~110V      | $\geq 1M\Omega$ |                                      |
|                         | 0~220V      | $\geq 1M\Omega$ |                                      |

### • Receiving Meter

| Variable to be Measured | Input Range | Input Impedance | Display Range |
|-------------------------|-------------|-----------------|---------------|
| DC                      | 0~50mV      | $\geq 5M\Omega$ | appointed     |
|                         | 0~60mV      | $\geq 5M\Omega$ |               |
| AC                      | 0~5V        | $\geq 1M\Omega$ |               |
|                         | 1~5V        | $\geq 1M\Omega$ |               |
|                         | 0~10V       | $\geq 1M\Omega$ |               |
| TRMS                    | 0~1mA       | 100 $\Omega$    |               |
|                         | 4~20mA      | 10 $\Omega$     |               |

- Display ..... 14.2mm (0.56") H, red LED
- Max. input over capability ..... Amp. 3 x rated continuous  
10 x rated 30 seconds  
50 x rated 1 second  
Volt. 750V continuous
- Accuracy ..... DC range  $\pm 0.1\%$  F.S.  $\pm 1$  digit  
AC range  $\pm 0.25\%$  F.S.  $\pm 1$  digit  
(Option: Depending on actual measuring)
- Measuring mode ..... Dual Slope
- Sampling time ..... Abt. 0.8 sec. typically
- Frequency range ..... 45~400Hz for AC range
- Over input indication ..... "1"
- Polarity ..... Only "-" display
- Aux. power source ..... AC 110V/220V  $\pm 15\%$ , 50/60Hz  
DC 24V, 48V, 110V  $\pm 10\%$
- Power consumption .....  $\leq$  AC 3VA,  $\leq$  DC 3W
- Operating temperature range ..... 0~60°C
- Sensor power supply ..... DC 12V or 24V, 30mA  
(Option function)
- Storage temperature range ..... -10~70°C
- Temperature coefficient .....  $\leq 100$ PPM/°C  
 $\leq 60$ PPM/°C, 25°C+10°C
- Max. relative humidity ..... 95%
- Dielectric strength (IEC 60688) ..... AC 2KV/1 minute  
Input to power terminals  
AC 3KV/1 minute  
All terminals to case
- Connection diagram ..... See page 23, figure A.
- Dimensions ..... See page 23, figure 01.
- Electromagnetic compatibility
- Withstanding impulse voltage ..... IEC 61000-4-5

## ORDERING INFORMATION

S2-312-



| Input Signal | Measuring Range   |            | Aux. Power Source |
|--------------|-------------------|------------|-------------------|
| D: DC        | A1: 199.9 $\mu$ A | A7: 0~1A   | 1: AC 110V/220V   |
| A: AC        | A2: 1.999mA       | A8: 0~5A   | 2: DC 110V        |
| T: TRMS      | A3: 19.99mA       | V6: 0~110V | 3: DC 48V         |
| 0: Option    | A4: 199.9mA       | V7: 0~220V | 4: DC 24V         |
|              | A5: 1.999A        | P1: 0~50mV | 0: Option         |
|              | A6: 15.00A        | P2: 0~60mV |                   |
|              | V1: 199.9mV       | P3: 0~5V   |                   |
|              | V2: 1.999V        | P4: 1~5V   |                   |
|              | V3: 19.99V        | P5: 0~10V  |                   |
|              | V4: 199.9V        | P6: 0~1mA  |                   |
|              | V5: 750V          | P7: 4~20mA |                   |
|              | 00: Option        |            |                   |

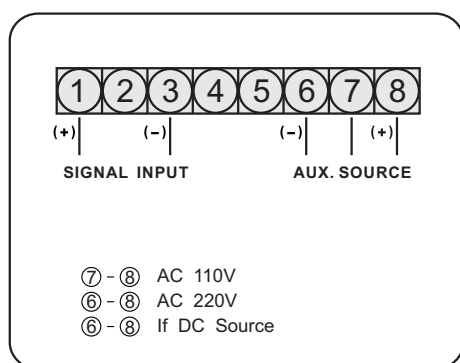
### • EXAMPLE

- Measured range : AC 750V
- Aux. power source : AC 110V/220V
- Ordering model : S2-312-AV51
- Measured range : DC 4~20mA
- Display : 0~100.0%
- Aux. power source : AC 110V/220V
- Ordering model : S2-312-DP71  
(appointed display range : 0~100.0%)

## CONNECTION DIAGRAMS

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Figure A.



## OUTSIDE DIMENSION (UNIT:mm)

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Figure 01.

• PANEL CUT-OUT

