

# Handy Data Logger

Play an Active Role in Field Measurement.



# SME-30A/100A

- ◆ Measurement data is saved in SD card.
- ◆ Bridge circuit is built in, enabling direct connection of strain gage.
- ◆ Measuring range is  $\pm 300000 \mu\text{m/m}$ .
- ◆ Network Terminal Box enables multi-channel measurement with the SME-100A.

# Specifications

## Handy Data Logger SME-30A

**Number of Measuring Channels:** 1

**Sampling Frequency**

Approx. 2 Hz with strain input in a range of 0 to  $\pm 30000 \mu\text{m/m}$   
Approx. 1 Hz with strain input exceeding  $\pm 30000 \mu\text{m/m}$   
Approx. 1 Hz with civil engineering transducer with temperature measuring function

**Measuring Mode:** Relative mode (each value is obtained by deducting the initial unbalance)

**Calculation Function:** Enables multiplication of each measurement by coefficient.

**Applicable Sensors:** Strain gages, strain-gage transducers and civil engineering transducers with temperature measuring function

**Applicable Gage Resistance:**

120, 240 and 350  $\Omega$  for quarter bridge  
120 to 1000  $\Omega$  for half or full bridge

**Bridge Excitation**

Constant voltage: 2 VDC  
Constant current: 5.6 mA (bridge resistance 350  $\Omega$ )

**Measuring Range**

Strain: 0 to  $\pm 300000 \mu\text{m/m}$  with constant-voltage bridge excitation  
0 to  $\pm 20000 \mu\text{m/m}$  with constant-current bridge excitation  
Temp.:  $-30^\circ$  to  $70^\circ\text{C}$  with civil engineering transducer with temperature measuring function

**Resolution**

Strain: 1  $\mu\text{m/m}$  in a range of 0 to  $\pm 30000 \mu\text{m/m}$   
10  $\mu\text{m/m}$  in a range of 0 to  $\pm 300000 \mu\text{m/m}$   
Temp.: 0.1 $^\circ\text{C}$

**Accuracy** (when connected with one-touch NDIS connector)

Strain:  $\pm(0.05\% \text{ rdg.} + 2)$  in a range of 0 to  $\pm 30000 \mu\text{m/m}$   
 $\pm(0.1\% \text{ rdg.} + 20)$  in a range of 0 to  $\pm 300000 \mu\text{m/m}$   
Temp.:  $\pm 0.5^\circ\text{C}$

**Check Function**

Insulation resistance measurement: 2 M $\Omega$  to 100 M $\Omega$   
Resistance measurement: 0 to 20 k $\Omega$

**Interval Measurement**

Selectable interval: 1 minute to 99 hours 59 minutes in 1-minute steps  
Starting date/time: Year/month/day, hour:minute

**Storage:** SD card

**Applicable Card:** 256 MB, 512 MB, 1 GB, 2 GB (FAT 16) (SDHC is not applicable)

**TEDS Compatibility:** Enables reading electronic data from TEDS-installed transducer.

**Display:** Monochrome LCD, 128 x 64 dots

**Operating Temperature/Humidity Range:**

$-10^\circ$  to  $50^\circ\text{C}$ , 20 to 85% RH (noncondensing)

**Power Supply:** AA size alkaline dry cell (2 pieces)

**Auto Power OFF:** Power is automatically turned off if no key operation is done for 5 minutes. In interval measurement mode with the interval set at 3 minutes or longer, it is automatically turned off during standby period but it is turned on again 1 minute before the next measurement time comes. (Auto power OFF function can be set to ON or OFF.)

**Dimensions:** 108.4 x 188 x 41 mm

**Weight:** Approx. 450 g

## Handy Data Logger SME-100A

**Number of Measuring Channels:** 1

Network Terminal Box enables sequential measurement in a maximum 33 channels (1 + 32 through NTB)

**Sampling Frequency\***

Approx. 2 Hz with strain input in a range of 0 to  $\pm 30000 \mu\text{m/m}$   
Approx. 1 Hz with strain input exceeding  $\pm 30000 \mu\text{m/m}$   
Approx. 1 Hz with civil engineering transducer with temperature measuring function

**Measuring Mode:** Relative mode (each value is obtained by deducting the initial unbalance)

**Calculation Function:** Enables multiplication of each measurement by coefficient.

**Applicable Sensors:** Strain gages, strain-gage transducers and civil engineering transducers with temperature measuring function

**Applicable Gage Resistance\*:**

120, 240 and 350  $\Omega$  for quarter bridge  
120 to 1000  $\Omega$  for half or full bridge

**Bridge Excitation\***

Constant voltage: 2 VDC  
Constant current: 5.6 mA (bridge resistance 350  $\Omega$ )

**Measuring Range\***

Strain: 0 to  $\pm 300000 \mu\text{m/m}$  with constant-voltage bridge excitation  
0 to  $\pm 20000 \mu\text{m/m}$  with constant-current bridge excitation  
Temp.:  $-30^\circ$  to  $70^\circ\text{C}$  with civil engineering transducer with temperature measuring function

**Resolution\***

Strain: 1  $\mu\text{m/m}$  in a range of 0 to  $\pm 30000 \mu\text{m/m}$   
10  $\mu\text{m/m}$  in a range of 0 to  $\pm 300000 \mu\text{m/m}$   
Temp.: 0.1 $^\circ\text{C}$

**Accuracy\*** (when connected with one-touch NDIS connector)

Strain:  $\pm(0.05\% \text{ rdg.} + 2)$  in a range of 0 to  $\pm 30000 \mu\text{m/m}$   
 $\pm(0.1\% \text{ rdg.} + 20)$  in a range of 0 to  $\pm 300000 \mu\text{m/m}$   
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**Dimensions:** 108.4 x 188 x 41 mm

**Weight:** Approx. 450 g

\* Asterisked specifications apply to the SME-100A used as a single independent unit with no network terminal box connected.



JQA-0821  
JQA-EM4824

Reliability through integration



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Cat. No. K-60-B1-E

Specifications are subject to change without notice for improvement.



**Safety precautions**

Be sure to observe the safety precautions given in the instruction manual, in order to ensure correct and safe operation.

Manufacturer's Representative