# **Technical Data**



BSM-6301K

BSM-6501K

BSM-6701K



NIHON KOHDEN CORPORATION

1-31-4 Nishiochiai, Shinjuku-ku, Tokyo 161-8560, Japan Phone +81 (3) 5996-8036 Fax +81 (3) 5996-8100 www.nihonkohden.com CSA: 0 to 60 Hz DSA: 0 to 60 Hz aEEG trace: 0.0 to 100.0  $\mu$ V aEEG value: 0.0 to 3276.7  $\mu$ V

Data display update cycle: Every 3 s or when alarm is generated

Electrode impedance check:  $> 10 \text{ k}\Omega$  within  $\pm 20\%$ Sensitivity:  $10 \text{ \mu}V/1 \text{ mm}$  within  $\pm 5\%$ 

Non distorted maximum input:  $> \pm 2 \text{ mV}$ Polarization voltage:  $> \pm 700 \text{ mV}$ 

Input impedance:  $> 15 \text{ M}\Omega \text{ at } 10 \text{ Hz}$ 

CMRR: > 110 dB (in isolation mode)

Frequency characteristics:

High range: 70 Hz at 70% amplitude (-3 dB) within  $\pm 20\%$ 

Low range:  $2 \text{ s} \pm 20\% \text{ or } 0.08 \text{ Hz at } 70\% \text{ amplitude } (-3 \text{ dB}) \text{ within } \pm 20\%$ 

AC filter: attenuation ratio > 26 dB

Noise: within 3  $\mu$ Vp-p

SEF alarm:

Upper limit range: 1.0 to 60.0 Hz in 0.5 Hz steps, OFF Lower limit range: OFF, 0.5 to 59.5 Hz in 0.5 Hz steps

TP alarm:

Upper limit range: 0.02 to 9.99 nW in 0.01 nW steps, OFF Lower limit range: OFF, 0.01 to 9.98 nW in 0.01 nW steps

#### CCO

For the APCO/IBP processor specifications, refer to the APCO/IBP processor manual.

CCO alarm:

Upper limit range: 1.1 to 20.0 L/min in 0.1 L/min steps, OFF Lower limit range: OFF, 1.0 to 19.9 L/min in 0.1 L/min steps

CCI alarm:

Upper limit range: 1.1 to 20.0 L/min/m² in 0.1 L/min/m² steps, OFF Lower limit range: OFF, 1.0 to 19.9 L/min/m² in 0.1 L/min/m² steps

### **Battery (SB-671P Battery Pack)**

Type of battery: Nickel-metal hydride

Number of batteries: 2

Battery lifetime: 1 year or 200 cycles of full discharging/charging

Battery operation time:

BSM-6301/6501: 90 minutes BSM-6701: 60 minutes

(new battery, fully charged and no options are used in normal temperature)

DC voltage: 9.6 V

Charging current: 360 mA ±50 mA (normal use)

Charging time:

During monitoring: 10 hours

During non-monitoring: 6 hours (two battery at the same time)

Battery status indication: Battery lamps on the front panel, screen message and alarm sound, alarm indicator

Operating environment:

Charging temperature: 10 to 55°C (50 to 131°F) Discharging temperature: 5 to 50°C (41 to 122°F) Humidity: 30 to 85% RH (noncondensing)

Atmospheric pressure: 700 to 1060 hPa

Transport and storage environment: When the battery pack is stored more than 6 months, charge and discharge or charge

the battery once every 6 months.

Temperature:  $-20 \text{ to } +60^{\circ}\text{C} (-4 \text{ to } +140^{\circ}\text{F}) \text{ (within 30 days)}$ 

-20 to +45°C (-4 to +113°F) (within 90 days)

-20 to +35°C (-4 to +95°F) (more than 90 days)

Humidity: 20 to 85% RH (noncondensing)

Atmospheric pressure: 700 to 1060 hPa

### **Power Requirement**

Line voltage:

AC: AC 100 to 240 V  $\pm 10\%$ 

DC (SB-671P): 8.5 to 12.6 V Line frequency: 50 or 60 Hz

Power input:

BSM-6301: AC 140 VA BSM-6501: AC 90 VA BSM-6701: AC 100 VA

#### **Clock Accuracy**

At operating temperature 25°C: approx.  $\pm 2 \min 40 \text{ s/month maximum}$ At storage temperature -20 to +60 °C: approx.  $\pm 6 \min/\text{month maximum}$ 

#### **Environment**

Operating environment:

Temperature:  $10 \text{ to } 40^{\circ}\text{C } (50 \text{ to } 104^{\circ}\text{F})$ 

SpO<sub>2</sub> accuracy is guaranteed at surrounding temperature of 18 to 40°C (60 to 104°F)

Humidity: 30 to 85% RH (10 to 40°C, noncondensing)

Atmospheric pressure: 700 to 1060 hPa

Transport and storage environment:

Temperature:  $-20 \text{ to } +65^{\circ}\text{C} (-4 \text{ to } +149^{\circ}\text{F})$ 

−15 to +55°C (Recording paper)

Humidity: 10 to 95% RH Atmospheric pressure: 700 to 1060 hPa

#### **Mechanical Strength**

Mechanical strength: Indoor mobile type

# **Electromagnetic Compatibility**

IEC 60601-1-2: 2001

IEC 60601-1-2 Amendment 1: 2004

# **Safety Standard**

Safety standard: CAN/CSA C22.2 No. 601-1 M90 (BSM-6501A, BSM-6701A)

CAN/CSA C22.2 No. 601-1S1-94 (BSM-6501A, BSM-6701A) CAN/CSA C22.2 No. 601-1B-98 (BSM-6501A, BSM-6701A) CAN/CSA C22.2 No. 60601-1-1-02 (BSM-6501A, BSM-6701A) CAN/CSA C22.2 No. 601.2.27-98 (BSM-6501A, BSM-6701A)