

# Technical Data

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## Life Scope **TR**

### Bedside Monitor

BSM-6301K

BSM-6501K

BSM-6701K



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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 k $\Omega$ within $\pm$ 20%
Sensitivity:	10 $\mu$ V/1 mm within $\pm$ 5%
Non distorted maximum input:	> $\pm$ 2 mV
Polarization voltage:	> $\pm$ 700 mV
Input impedance:	> 15 M $\Omega$ at 10 Hz
CMRR:	> 110 dB (in isolation mode)
Frequency characteristics:	
High range:	70 Hz at 70% amplitude ( $-$ 3 dB) within $\pm$ 20%
Low range:	2 s $\pm$ 20% or 0.08 Hz at 70% amplitude ( $-$ 3 dB) 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/m <sup>2</sup> in 0.1 L/min/m <sup>2</sup> steps, OFF
Lower limit range:	OFF, 1.0 to 19.9 L/min/m <sup>2</sup> in 0.1 L/min/m <sup>2</sup> 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 $\pm$ 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 to +60°C (-4 to +140°F) (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 ±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. ±2 min 40 s/month maximum
At storage temperature -20 to +60°C:	approx. ±6 min/month maximum

### Environment

Operating environment:	
Temperature:	10 to 40°C (50 to 104°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 to +65°C (-4 to +149°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
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### 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)
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