

# uMEC12 Vet

## Veterinary monitor



### Physical Specifications

Weight	≤4kg, Standard parameters configuration, including a lithium batter
Size	345mm x160mm x 255mm
Display screen	12.1" color LED, or touchscreen
Resolution	800 x 600 pixels
Waveforms	up to 11

### ECG

Lead set	3-lead: I, II, III 5-lead: I, II, III, aVR, aVL, aVF, V
Sweep speed	6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s
Gain	x 0.125, x 0.25, x 0.5, x 1, x 2, x 4, auto
Bandwidth	Diagnostic mode: 0.05 to 150 Hz Monitor mode: 0.5 to 40 Hz Surgical mode: 1 to 20 Hz ST mode: 0.05 to 40 Hz
CMRR	Diagnostic: > 90 dB Monitor, Surgical, ST mode: > 105 dB
Defib. protection	Withstand 5000V (360J) defibrillation
ST analysis	Range:-2.0 to 2.0 mV
Accuracy	±0.02 mV or ±10 %, whichever is greater (-0.8 to +0.8 mV) Resolution: 0.01mV
Arr analysis	Yes, multi-lead, 24 classifications, including AF
QT analysis	Yes

### Heart Rate

HR range	15 to 350 bpm
HR accuracy	± 1 bpm or ± 1%, whichever is greater.
HR resolution	1 bpm

### Respiration

Lead	I or II
RR range	0 to 150 rpm
RR Accuracy	7 to 150 rpm: ±2 rpm or ±2%, whichever is greater 0 to 6 rpm: Not specified
RR Resolution	1 rpm
Sweep speed	3mm/s,6.25mm/s,12.5mm/s,25mm/s,50 mm/s

### SpO<sub>2</sub>

Range	0 to 100 %
Resolution	1%
Accuracy	± 3 % (70 to 100%)
Refreshing rate	≤2s

### PR

PR range	20 to 254 bpm (SpO <sub>2</sub> ) 25 to 350 bpm (IBP) 30 to 300 bpm (NIBP)
PR accuracy	± 3 bpm (SpO <sub>2</sub> ) ±1 bpm or ±1 %, whichever is greater (IBP) ± 3 bpm or ±3 %, whichever is greater (NIBP)
Refreshing rate	≤2s

### Temperature

Channels	2-ch
range	0 to 50 °C (32 to 122 °F)
Accuracy	± 0.1 °C or ± 0.2 °F (without probe)
Resolution	0.1 °C

### NIBP

Technique	Oscillometry
Operation mode	Manual, Auto, STAT, Sequence
Parameters	Systolic, Diastolic, Mean
Systolic range	>50lb or 23kg: 25 to 290 mmHg 21lb~50lb or 10kg~23kg: 25 to 240 mmHg <21lb or <10kg: 25 to 240 mmHg
Diastolic range	>50lb or 23kg: 10 to 250 mmHg 21lb~50lb or 10kg~23kg: 10 to 200 mmHg <21lb or <10kg: 10 to 200 mmHg
Mean range	>50lb or 23kg: 15 to 260 mmHg 21lb~50lb or 10kg~23kg: 15 to 215 mmHg <21lb or <10kg: 15 to 125 mmHg
Accuracy	Max mean error: ± 5 mmHg
Max standard deviation	8 mmHg
NIBP resolution	1 mmHg
Assisting Venous Puncture	Yes

### IBP

Channel	up to 2 channels
Impedance range	300 to 3000 Ω
Range	-50 to 300 mmHg
Accuracy	±1 mmHg or ±2 %, whichever is greater
IBP resolution	1 mmHg

### C.O.

Technique	Thermodilution
C.O. range	0.1 to 20 L/min
C.O. accuracy	±0.1 L/min or ±5%, whichever is greater
C.O. resolution	0.1 L/min
TB range	23 to 43 °C (73.4 to 109.4 °F)
TI range	0 to 27 °C (32 to 80.6 °F)
TB, TI accuracy	± 0.1 °C (without sensor)
TB, TI resolution	0.1 °C

### CO<sub>2</sub>

Method	Sidestream
Sweep speed	3 mm/s, 6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s
CO <sub>2</sub> range	0 to 20%
CO <sub>2</sub> accuracy	±0.1% (<1%) ±0.2% (1 to 4.9%) ±0.3% (5 to 6.9%) ±0.4% (7 to 11.9%) ±0.5% (12 to 12.9%) ±(0.43%+8%rel) (13 to 20%) Unspecified (over 20%)
Sample flowrate	90, 120 ml/min (Sidestream)
Sample flowrate Accuracy	±15% or ±15 ml/min, whichever is greater.
Start-up time	<90s
Response time	When using adult water trap and 2.5 m adult

	sampling line<5.5 s @120 ml/min
	When using neonatal water trap and 2.5 m neonatal sampling line<4.5 s @ 90 ml/min
AWRR range	0 to 150 rpm
AWRR precision	<60rpm: ±1 60-150 rpm: ±2
Apnea time	10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s

#### Data Storage

Trends data	1200hrs (interval 10min), 120 hrs (interval 1 min), 4 hrs (interval 5 sec)
Events	1800 events and associated waveforms
NIBP	1600 sets
Full disclosure	48 hours at maximum

#### Interfacing

Connectors	1 AC power connector 1 RJ45 network connector 2 USB 2.0 connector 1 VGA output connector 1 multifunctional output connector (output ECG,nurse call and Defib.Synch. Signals)
WiFi support	Yes, 5G/2.4G dual band
Barcode Scanner	Support
Network printer	Support

#### Battery

Type	1 Build-in chargeable Lithium-ion battery
Voltage	10.95VDC

Capacity	2500 mAh (5000 mAh optional)
Run time	4 hrs(2500 mAh), 8 hrs (5000 mAh)
Recharge time	2500 mAh: 4 hrsmaximum (power off ) 5000 mAh: 8 hrsmaximum (power off )

#### Recorder

Type	Thermal array
Speed	12.5mm/s, 25 mm/s, 50 mm/s
Trace	3

#### Power Requirements

AC Voltage	100 to 240 VAC, 50/60Hz
Current	1.5 A

#### Environmental requirements

Temperature	Operating: 0 to 40 °C (32 to 104 °F) Storage: -20 to 60 °C (-4 to 140 °F )
Humidity	Operating: 15 to 95 % (non condensing) Storage: 10 to 95 % (non condensing)
Barometric	Operating: 427.5 to 805.5 mmHg (57.0 to 107.4 kPa) Storage: 120 to 805.5 mmHg (16.0 to 107.4 kPa)

Some of functions marked with an asterisk may not be available. Please contact your local Mindray sales representative for the most current information.

[www.mindray.com](http://www.mindray.com)

P/N:ENG-uMEC12 Vet Datasheet -210285X2P-20200228

©2020 Shenzhen Mindray Bio-Medical Electronics Co.,Ltd. All rights reserved.

**mindray**  
healthcare within reach