

For health professionals in  
rough & challenging environments

# The ultralight solution for mobile patient monitoring

Ultralight patient monitor that can be carried in the pocket:  
An in-ear sensor and a smartphone application to monitor your patients' vital signs close to the brain. Getting access to vitals even when there is bad perfusion in the finger.

- One device
- 5.5 cm
- 6.5 g
- Three vitals: Body temperature, oxygen saturation, heart rate
- Additional parameters: Perfusion, Quality, Pulse wave
- Inside the ear-canal, close to the brain



MULTI-PARAMETER

ULTRALIGHT

POCKET-SIZED

## Key Features and Benefits

### One device - three vital signs

The c-med° alpha captures oxygen saturation (SpO2), body temperature and heart rate continuously. In addition, it provides the PPG curve, perfusion index and a quality indicator, which indicates measurement accuracy.

### Close to the brain

The sensor is applied inside the outer ear canal and is monitoring the vital signs close to the brain. This measuring site not only enables access to readings even in cold weather and during bad perfusion in fingers but may also provide additional information about oxygen supply to the brain itself.

### Fast Access

The sensor can be placed in the patient's ear swiftly as the head is usually exposed first during the initial assessment. This allows rapid deployment without requiring the patient to be exposed further for monitoring.

### Simultaneous Access on Multiple Devices

Multiple devices are able to receive and visualize the data of the same patient at the same time which allows several medical professionals to look at one patient. This ability is especially valuable when a patient is passed on to another healthcare provider and improves coordination in complex scenarios

### Wireless Connectivity

The wireless design eliminates the need for cables, making the sensor suitable for tight spaces, air transport, and areas where cables would hinder operations. Its flexibility enhances usability in difficult-to-access locations.

### Real-Time Data Transfer, No Internet Required

The implemented wireless technology allows real-time, near-field data transmission without the need for an internet connection. This ensures monitoring anywhere since no network access is needed.

## Sensor Specifications

### c-med° alpha

#### OPERATING CONDITIONS:

0 - 50 °C

#### OUTPUT RANGES VITALS:

22 - 43 °C, 35 - 220 bpm, 70 - 100%

#### SIZE AND WEIGHT:

5.5 cm, 6.5 g

#### BATTERY RUNTIME:

12 hours, continuously

#### CERTIFICATES:

Medical CE, FCC, BLE

## References

### Tested in Extreme Conditions

The c-med° alpha maintains high reliability in extreme environments, such as varying weather, altitude, and oxygen levels. It was not only tested in various studies but is also in usage by:

- Global Special Rescue Solutions (GSRS)
- X-Strategies Offshore Rescue
- Special Forces of several NATO member states
- Slovenian Mountain Rescue Association
- Mountain Rescue Upper Austria
- Martin Flugrettung Austria
- AICHER Ambulanz Union during Oktoberfest 2023
- DRK at the Hamburg Marathon 2024
- Munich University Hospital (LMU)
- Institut für Notfallmedizin und Medizinmanagement (INM), Munich
- Technical University of Munich

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