



HALL RYAN LABORATORIES

Introduces **ManDown**
Mobile Biosensors For Fire and Police Safety



- ») Proprietary technology originally used for monitoring patients in medical settings.
- ») No software required - IP Based
- ») Just one biosensor mounted inside the rim of a mask will monitor SpO_2 for weeks at a time.
- ») Ideal for remote settings connected via the Internet with WIFI or satellite link

How it works:

A wireless forehead sensor (the size of the face of a wristwatch) is mounted inside the mask.



A small transmitter inside the sensor sends a wireless stream of vital sign information to our node.

Our proprietary Intelligent Network Node (INN) acts as the interface for your present monitoring service to provide this seamless monitoring feature.

Turn-key Safety Monitoring Services

SPECIFICATIONS

EFFECTIVE MEASURING RANGE

Saturation: 40 - 99%
Heart Pulse Rate: 40 - 250 bpm
Resolution: 1 digit

ACCURACY (including motion artifacts & low profusion)

Saturation (70-99%): $\pm 2\%$ or ± 2 digits
Heart Pulse Rate: $\pm 3\%$ or ± 3 digits

UNIT

Input Power Requirements: 3.5v, 22 milliamp consumption

COMMUNICATION INTERFACE: Bluetooth streamed via Internet Protocol (IP) to central monitoring station

DISPLAY SATURATION: 2 characters

HEART PULSE RATE: 3 characters

TRANSMITTER DIMENSIONS: 1.25" diameter x 0.75 thick
Weight: 0.3 lb.

INN DIMENSIONS: 10" x 2.5" x 1" w/5" diameter base
Weight: 1 lb.

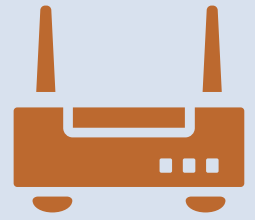
SYSTEM ENVIRONMENTAL

Operating Temperature: 0° - 70°C
Storage Temperature: -20° - 70°C
Operating Shock: Up to 15 G/ms²
Humidity: 90% relative humidity with no condensation
Security: Storage Data Compliancy:
U.S. DoD, NSA, Air Force, Army & Navy



| | | |
|---------------------|---------------------|---------------------|
| SpO ₂ 97 | SpO ₂ 88 | SpO ₂ 77 |
| ♥ 66 | ♥ 100 | ♥ 140 |

Hall Ryan's portable Intelligent Network Node (INN) operates up to nine hours at an event site. It will monitor up to 21 biosensors up to 300 feet away line of site, or closer with obstructions.



FEATURES

- Multiple sensors are continuously and seamlessly monitored. You don't have to watch a monitor, ManDown will notify you by your choice of protocol when pre-set vital sign levels are exceeded
- Accurate and fast wellness measurements
- Low power consumption
- Robust and attractive design
- Up to 21 biosensors can be monitored from one portable INN
- Installation in minutes and you're up and running

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