HealthLab Satellite SAT-08

The HealthLab Measuring Satellite SAT-08 is a measurement module of the psycho-physiological monitoring system HealthLab. In the context of measurements with HealthLab the satellite SAT-08 acquires measuring data on the microclimate in the immediate vicinity of a proband. Air temperature, humidity and barometric pressure are measured.

Technical Data

Designation
HealthLab Measuring Satellite SAT-08, vicinity temperature, humidity, barometric pressure

Voltage Supply / Current Consumption
3,3 V DC via Master / 28 mA

Data Capturing (internal sensors)
measuring range see Channel Index

Vicinity Temperature (partly)
-10 … 120 °C, accuracy ±0,3 °C
Humidity
5 … 95 % RH, resolution 0,1 %
Barometric Pressure
500 … 1.500 hPa,
resolution 0,001 hPa

Digital Interfaces
RS-485 from Master / Satellites to Satellites using four core shielded cable, 460 kbps

Climatic Conditions
acc. to DIN EN 60204-1 (10-2014)

Ambient Temperature
operation: -20 … +55 °C
transport / storage: -25 … +60 °C

Humidity / Altitude
20 … 90 % RH (without condensing)
up to 8.000 m

Dimensions
W / H / D : 46 x 85 x16 mm
weight : 45 g

Ordering Information:	**Part No**
SAT-08 Environment Satellite: (ambient temperature, humidity, barometric pressure)	E1131
Accessories:	
VSS-03 Candy Cable (SAT-SAT connection cable)	E1816
VSMS-10 Connection cable Master / Satellite	E1276

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DIN EN ISO 9001:2008
Zertifikat: 01 100 000628

The measuring satellites of the HealthLab system can be operated at one Heally Master (e.g. HFM-01) simultaneously with up to six (note the current requirement!) additional satellites via the serial system bus (HealthLab Serial Slave Bus). Using this bus, the Master provides the Satellites with energy and controls the data exchange. An unique address (0 … 26) is assigned to each satellite. By default for the SAT-08, the Address is '8'. This slave address is factory preset but can be modified by the manufacturer in case of need. The HealthLab system is designed as a mobile, autarkic measurement system, but may as well stationary be used, with a permanent connection to the host computer.

For the usage of the HealthLab system, the software package 'HealthLab' is available. It includes the module 'Heally Control', which enables the user to configure the system as well as to display data and to perform measurements. For complex psycho-physiological experiments further software modules are available.

Channel Index

Channel-Designation	Channel No. (Identifier)	Signal	Unit	Measuring Range	Resolution	Sample Rate (Hz)	Gain	Offset
ETMP	66	vicinity temperature (partly)	°C	-10 … +120 °C	0,005 K	1	20	0
EQNH	67	barometric pressure	hPa	500 … 1.500 hPa	0.01	1	100	0
EHUMI	68	relative humidity	%RH	5 … 95 %RH	0,1	1	10	0

Note: The psycho-physiological monitoring system HealthLab is manufactured and delivered in configurations according to customer's request. The HealthLab components are not certified for use in the medical field. Therefore they shall be used solely for research purposes in scientific area.

Links on further documents:

- Hardware: Master HFM-01 → https://secure.turboj.de/documents/HFM-01.pdf
- Software: Heally Control → https://secure.turboj.de/documents/Heally5_en.pdf