

HealthLab Satellite SAT-28



Technical Data

Designation

SAT-28 HealthLab Measuring Satellite,
Micro-Climatic - Satellite

Power Supply / Consumption
3,3 V DC via Master / 18 mA

Data Capturing

measuring ranges see Channel Index
(sample configuration for RFT-05 sensors)

Temperature / Humidity

measurement by Combined Sensor

Digital Interfaces

RS-485 from Master / Satellite
to Satellite using a four-core shielded
cable 460 kbps
4 x RS-485 from Satellite to combined
sensors (Heally-Sensor-Bus)

Climatic Conditions

acc. to DIN EN 60204-1 (05-2010)

Ambient Temperature

operation: -20 ... +60 °C
transport / storage: -25 ... +60 °C

Humidity / Altitude

20 ... 90 % RH (without condensation)
up to 8.000 m

Dimensions

W / H / D : 46 x 85 x16 mm
weight: 48 g

The HealthLab SAT-28 Measuring-Satellite is a measurement module of the psycho- physiological monitoring system HealthLab. In the context of measurements with HealthLab, the satellite SAT-28 acquires micro climatic data of a proband from up to four external combined sensors for relative humidity and temperature. The SAT-28 receives the captured digital data of the sensors RFT-05, which are connected to the jack sockets SEN1 to SEN4, and leads the data to a Master. The Master stores and transmits it to a host computer (Windows), which is provided as a monitoring and evaluation unit.

Note: The sensor RFT-05, which is available for the HealthLab Satellite SAT-28, has its own integrated intelligence, which inter alia manages the respective channel parameters. The SAT-28 manages the jack sockets SEN1 to SEN4 by means of a sensor bus whose bus addresses are registered within the sensors. *Important:* sensors with identical bus addresses must not be connected to the same sensor bus / satellite!

Ordering Information:

Part No.

SAT-28 Micro-Climatic-Satellite: (temperature, humidity)

E1622

Accessories:

RFT-05 Combined Sensor:
(rel humidity / temperature)

E1441

VSS-03 Candy-Cable
(SAT-SAT connection cable)

E1816

VSMS-10 Master / Satellite
Connection Cable

E1276



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-28, the Address is '18'. 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

(sample configuration for RFT-05 sensors)

Channel-Designation	Channel No. (Identifier)	Signal	Unit	Measuring Range	Resolution	Sample Rate (Hz)	Gain (default)	Offset
KT01	91	temperature	°C	-40 ... +100	0,02	0,5	50 0	0
KF01	93	relative humidity	% RH	0 ... 100	0,02	0,5	50 0	0
KT02	94	temperature	°C	-40 ... +100	0,02	0,5	50 0	0
KF02	95	relative humidity	% RH	0 ... 100	0,02	0,5	50 0	0
KT03	96	temperature	°C	-40 ... +100	0,02	0,5	50 0	0
KF03	97	relative humidity	% RH	0 ... 100	0,02	0,5	50 0	0
KT04	55	temperature	°C	-40 ... +100	0,02	0,5	50 0	0
KF04	56	relative humidity	% RH	0 ... 100	0,02	0,5	50 0	0
KT05	66	temperature	°C	-40 ... +100	0,02	0,5	50 0	0
KF05	68	relative humidity	% RH	0 ... 100	0,02	0,5	50 0	0
KT06	98	temperature	°C	-40 ... +100	0,02	0,5	50 0	0
KF06	99	relative humidity	% RH	0 ... 100	0,02	0,5	50 0	0

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

