

HealthLab Satellite SAT-06



The HealthLab Measuring Satellite SAT-06 is a measurement module of the psycho-physiological monitoring system HealthLab. In the context of measurements with HealthLab the satellite SAT-06 acquires the 2-channel electrooculogram of a proband by EOG sensor cable. The electrical skin resistance of the proband is captured by means of adhesive electrodes and the corresponding sensor cable. The body temperature can be measured using a PT100 sensor, for example in the armpit. The SAT-06 forwards the captured data to a master, from which they are stored and transmitted to a host computer (Windows), which is provided as a monitoring and evaluation unit.

Technical Data

Designation

SAT-06 HealthLab Measuring Satellite, EOG, skin resistance SRL, temperature

Power Supply / Consumption

3,3 V DC via Master / 22 mA

Data Capturing

measuring ranges see Channel Index

Electrooculography EOG

measurement via-sensor cable with 4 mm snap fasteners, 12 Bit

Electrical Skin Resistance SRL

sensor cable with 4 mm snap fasteners

Temperature (armpit temperature)

PT-100 sensor 1-channel

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 condensation)
up to 8.000 m

Dimensions

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

Ordering Information:

SAT-06 EOG-Satellite:
(EOG / SRL / temperature)

Teile-Nr.

E1158

Accessories:

EOG-02 / Sensor Cable EOG: E1254

TPS-01 Temperature Sensor: E1352

VSS-03 Candy-Cable E1816

(SAT-SAT connection cable)

VSMS-10 Master / Satellite E1276

Connection Cable



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-06, the Address is '6'. 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 (default)	Offset
EOGH	119	EOG horizontal	mV	$\pm 6,5 \dots \pm 0,12 \text{ mV}$	12 bit	8 ... 1000	300 ... 16000 (700)	2048
EOGV	120	EOG vertical	mV	$\pm 6,5 \dots \pm 0,12 \text{ mV}$	12 bit	8 ... 1000	300 ... 16000 (700)	2048
SRL_H	52	skin resistance	k Ω	1 ... 2.100 k Ω	0,01 k Ω	0,4 ... 100	100	-
TEMP2	55	temperature	$^{\circ}\text{C}$	15 ... 45 $^{\circ}\text{C}$	0,005	0,4 ... 100	200	-



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 additional documents:

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

