

# Satelite-E

## Compact logger for energy measurements

### Description

Satelite is a unique compact multi channel data logger specially designed for measurements on energy systems.

Satelite-E measure signals from standard current clamps with AC output and from energy meters with pulse outputs. Output signals from energy meters with rotating disc, is obtained by use of an optical eye.

Satelite-E register and store AC-current graphs as TRUE RMS, mean value or peak value. A unique function is the harmonics registration.

The 16 Hz registration interval enables registration of fast events such as motor starts.

Satelite-E is enclosed in a sturdy aluminium casing and powered by a common 1.5 V battery. This ensures good economy and simple handling.

Any of the Mitec Windows programs MONITOR, WINLOG or WINSAT can be used.

Satelite is manufactured in Sweden by Mitec.

### Function

The built-in electronics is powered by a single standard 1.5 V battery. The power consumption is low and a battery can last up to 1 year depending on how the measurement is done.

Different sensors can be connected using the built in modular connector. Satelite automatically adapts itself depending on use of connection cable type.

Current clamps with AC-output is directly connected to Satelite-E. Type of measurement and scaling factors are selected using any of the Mitec Windows programs.

When measuring on energy meters an optical eye is placed on the meter glass window. No external supply is needed. Meters with pulse outputs is connected with an standard cable.

The Mitec analysis programs will automatically mark the data with instrument ID for full traceability according to the requirements in ISO 9000.

Satelite-E has a built in non-volatile data memory, therefore it will not lose its information if the battery runs out. The memory size is 20,000 values.

Satelite is part of the Mitec system for professional data acquisition. The measured data can be analysed by WinSat or any of our standard programs WinLog or Monitor. The two last programs can also be used with other products from Mitec.

### Features

- Compact multi-instrument
- Current True RMS, mean and peak. Optical eye, pulses.
- Motor start currents
- Sturdy design, large memory
- Powered by a common 1.5V battery



*Satelite-E data logger*

## Technical Data Sat-E

### GENERAL

Number of measuring channels	1-4
Memory size	32k byte. Total 20,000 values.
Resolution storage	12 bits
Clock	Crystal controlled, date and time.
Registration interval	62,5 ms (16Hz), 125 ms (8Hz), 250 ms (4Hz), 500ms (2Hz), 1, 2, 5, 10, 15 or 30 s. 1, 2, 5, 10, 15 or 30 min. 1, 2, 4, 6, 8, 12 or 24 h
Measuring frequency	Selectable for each registration interval
Input selection	Automatic detection.
Power Supply	1.5V battery LR6 (alkali) or Lithium or external 1,5VDC.
Battery life span	1 week to 1 year. (Depending on registration interval, measuring time, ambient temperature and sensor type)
Ambient temperature	-20°C to +50°C. Non condensing.
EU standard	EN50081-1, EN50081-2, EN50082-1

### PULSE MEASUREMENT

Connection	Cable, automatic connection
Min pulse with	32 ms
Max. frequency	16 Hz
Sensor power	12V from internal
Scaling factors	Scaling in analysis program (Windows)

### PULSE OPTICAL EYE

Sensor	Optical eye, Mitec MS-DO101
Max. frequency	Aprox. 1 rotation / s. (min 62,5 ms time for mark)
Sensor power	From internal battery (max. 1 week). External battery can be connected
Scaling factors	Scaling in analysis program (Windows)

### CURRENT

Range	0-1VAC, 0-200mV AC
Sensor	Current clamps with AC-output
Signal types	True RMS, Mean (RMS-shoving), Peak, Harminic indication (Mean/TRMS).
Accuracy	< 1% @ current, current clamp excluded.
Resolution	0,1%, (10 bit)
Crest factor	3
Signal type selection	From Windows program at setup

### FUNCTIONS

Start and stop conditions	Selectable, time and manual start. Stop at time, manual and memory full
Storage method	Mean value, adjustable number of measurements per registration.
Reading and setting	Via PC and one of the Mitec programs WinSat, WinLog or Monitor.

### COMMUNICATION

Computer	RS232, 9600 baud. Control from PC.
Indication	LED. One flash every 4:th second while logging is in progress.

### MECHANICS

Contact device	4 pin modular contact 4/4 and 8 pin modular 8/8
Box	Aluminium 60 x 50 x 30 mm / 2.36 x 2 x 1.2 in.
Weight	120 g / 0.27 lb. including battery.

## Ordering information

Article number:	Sat-E/32	Accessories:	WinSat, WinLog, Monitor Analysis program for PC
Delivery includes:	1st Data logger Satelite-E and alkali battery. English manual.		LPC-7 PC connection cable, MS-DO101 optical eye, cable to energy meter pules output.
			Various current clamps 0-1000 A AC

*We reserve the right to make technical improvements without notice*

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