

## S-BOX

The S-Box is an advanced battery data logger designed to continuously monitor standby batteries via the Sentinel intelligent transducer. The S-Box collects and stores key electrical parameters of the batteries being monitored. This data is compared against easily-configurable alarm/event thresholds and provides valuable information on the performance of each bloc and overall battery health. The S-Box includes installation software (SIMS) that allows easy commissioning and maintenance of the system, as well as display software (CellView Net) to plot and trend the data graphically.



### Electrical data

$V_c$	DC supply voltage <sup>1)</sup>		+ 20 .. + 30	V
$I_c$	Typical current consumption	@ 24 V DC	115	mA
		max.	2	A
$V_{Bat}$	Output DC voltage for Backup-Battery		max. 13.8	V
$I_{Bat}$	Typical DC current for Backup-Battery		90	mA
	Internal battery for Clock and RAM Backup (dataloging):			
	Typical DC voltage		3	V
	Max. life time in use		265	Days
	Digital Outputs: single contact relay rating @ 50°C <sup>2)</sup> :			
	Quantity		4	
	@ 150 V AC		max. 3	A
	@ 30 V DC		max. 3	A
	@ 110 V DC		max. 0.2	A
	Max AC voltage		150	V
	Analog inputs: 4 .. 20 mA	Quantity	6	
		Resolution (13 bits)	typical 2.93	µA
	Analog inputs Pt1000	Quantity	2	
		Mode	2 wires	
		Resolution	14	Bits
		Resolution	0.1	°C
		Range	Typical - 40 .. 85	°C
		Accuracy	± 2.5	°C

### Communication

Built-in communication Ports	1 Ethernet (10/100Base T-RJ45)
S-Bus converter connection	RS232 - 3 wires
Maximum Sentinel on Bus	254
Maximum string	6

### General data

$T_A$	Ambient operating temperature	- 25 .. + 65	°C
$T_S$	Ambient storage temperature	- 40 .. + 80	°C
	Max relative humidity without condensing	95	%
$m$	Mass	300	g
	Standards	EN 60950-1: 2005 (2 <sup>nd</sup> Edition)	
		EN 61000-6-4	
		EN 61000-6-2	

Approvals CSA

Notes: <sup>1)</sup> Power supply must comply with limited energy circuit criteria.

<sup>2)</sup> Resistive load.

### Features

- Remote monitoring and configuration
- Fast, simple set up process
- Easily configurable alarms per bloc
- 4 configurable relays for alarms
- 6 analog inputs (4 .. 20 mA) for string charge /discharge transducers
- 2 Pt1000 inputs for ambient temperature measurement
- DIN rail mounting
- Ethernet communication
- Dedicated RS-232 for S-Bus Converter communications with Sentinels
- Data storage
- Charger for external Backup-Battery.

### Monitors and logs

- Bloc voltage
- String voltage
- Bloc temperature
- Bloc impedance
- Discharge performance data
- Discharge/Charge current
- Daily measurements.

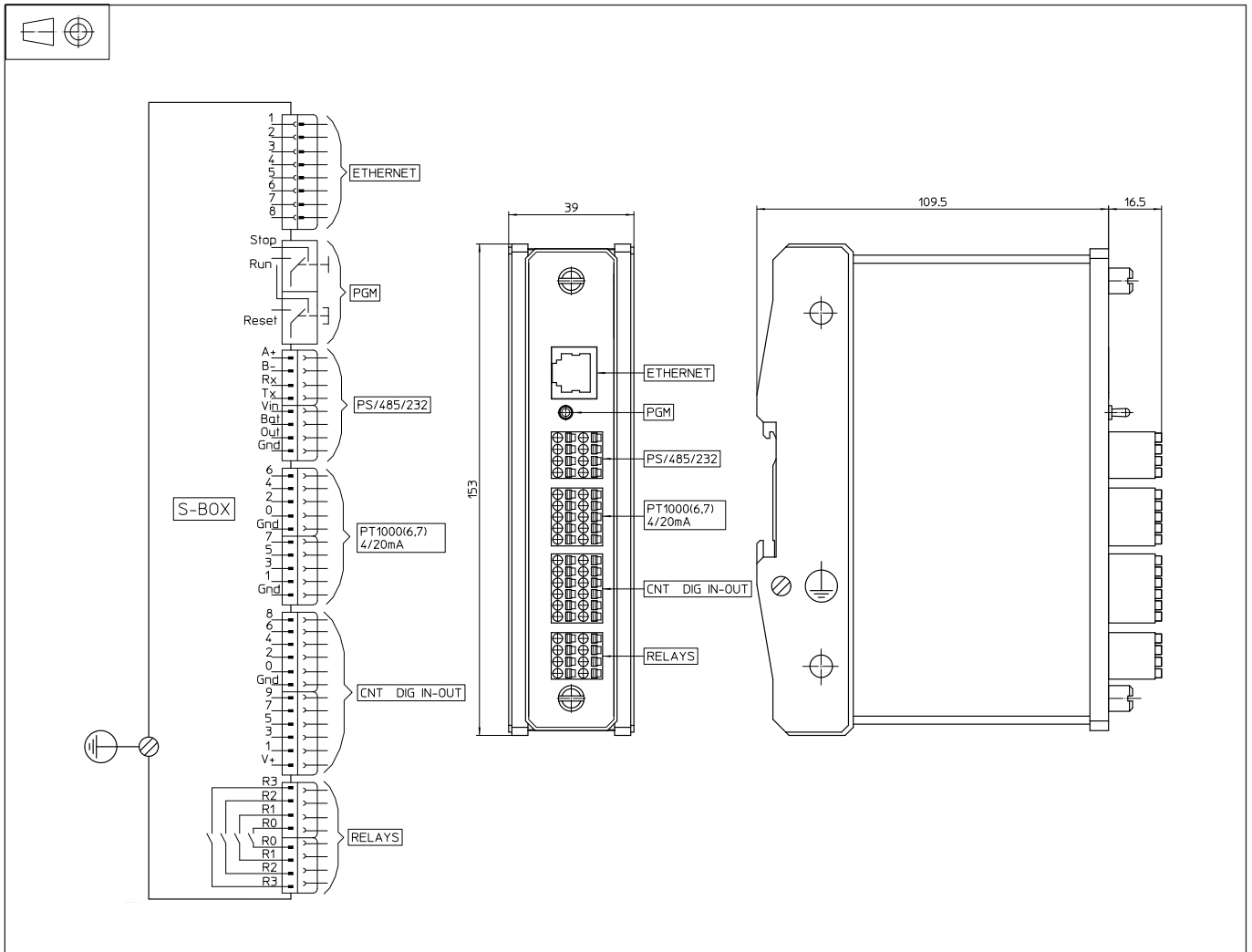
### Applications

- UPS
- Telecommunications
- Battery supplied applications
- Utilities
- Fire & Safety system
- Remote monitoring.

### Application Domains

- Energy & Automation
- Industrial.

## Dimensions S-Box (in mm.)



### Isolation characteristics

- Isolation Class 1



This device must be connected to earth (ground), use the screw as indicated above.

### Mechanical characteristics

- General tolerance  $\pm 1$  mm
- Device fixing DIN rail rear box
- Connection terminal use cable max. cross section  $1.5 \text{ mm}^2$  (AWG 16)

### Safety



This device must be used an electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the manufacturer's operating instructions.



Caution, risk of electrical shock:  
Do not remove any parts of the S-Box