



ENGLISH

Sentinel 150P

Configurable Switch Mode Battery Chargers

RS Stock number: 885-3663

Model: SNTL150P1205CD

Output: 12V / 5A

RS Stock number: 885-3672

Model: SNTL150P2405CD

Output: 24V / 5A



- Microprocessor controlled, programmable battery charger / power supply
- Switch Mode Power Supply technology: light and compact, power efficient with low heat dissipation
- Automatic float charging: 5 Amp @ 12/24 VDC
- Suitable for 12 or 24V lead acid and NiCd standby battery applications: engines, generators, pumps, etc.
- Low ripple (<1%) DC output: safely charges sealed VRLA (AGM/Gel) or vented Lead Acid/NiCd cells, or operates as a DC power supply
- Selectable output calibrations for optimal battery performance, reliability and lifetime
- AutoBoost: time limited, automatic boost for cell charge equalization – prevents sulphation/stratification
- Temperature compensation: automatic adjustment of charge output based on ambient temperature
- LED indication of charging status and faults
- Alarm output: remote signalling of battery and charger faults
- Configuration using PC/Windows® software
- Panel mounted module

Specifications

Power supply

Operating voltage: 95 to 265 V AC

Operating frequency: 47 – 63 Hz.

DC Charge Output

Nominal voltage: 12 or 24 V DC

Float/boost voltage: see 'output calibration' table

Maximum current limit: 5 A

Voltage ripple: <1%

Line regulation: <2%

Load regulation: <2%

Input/Output

Control input

digital (switch) input, close to –DC to activate, programmable function

Alarm output:

relay switched +DC, 1A max @ 30 VDC, programmable function

Physical

Protective cover: 1050 aluminium, 1.2mm

Operating temperature: –30 to +60°C/ –22 to +140°F

Storage temperature: –40 to +60°C/ –40 to +140°F

Humidity: 20% to 90% RH

Dimensions: see Dimensions/Weights section

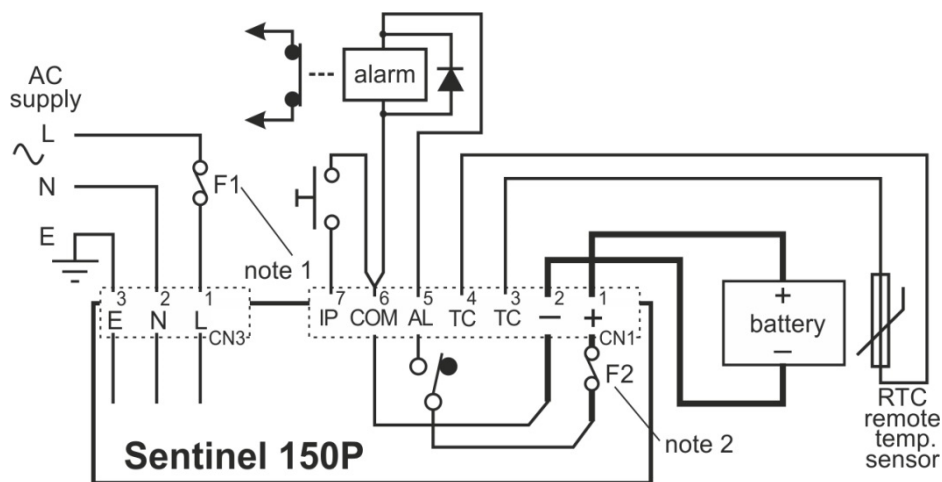
Weights: see Dimensions/Weights section

Electrical safety: 2006/95/EC (EN 60065)

Electromagnetic compatibility:

2004/108/EC (EN 61000-6-2, EN 61000-6-4)

Electrical Connection



Notes:

- 1) External AC fuse (F1) required: see charger labelling
- 2) Internal, self-resetting DC fuse (F2)
- 3) Battery output is isolated from chassis.
- 4) Alarm output (pin 5) relay shown in de-energized state. Output function is software configurable.
- 5) Control input (pin 7) shown with momentary-action operator panel switch. Input function is software configurable.

Output Calibration

Standard and custom output calibrations are selected using the SNTL150P-PCSUITE software tool. Calibration figures shown below are at 20 deg C. If temperature compensation is enabled, and remote SNTL-RTC temperature sensor connected, output voltage automatically varies by 3mV per cell per 1°C deviation from 20°C, within the range -10 to +50°C. Increasing temperatures give decreasing outputs; decreasing temperatures give increasing outputs.

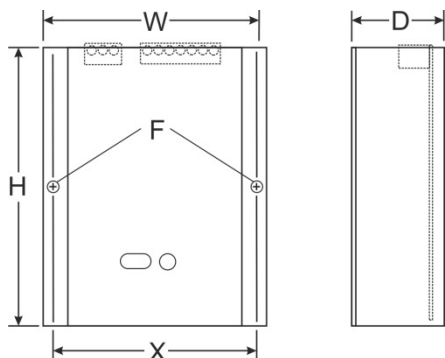
Standard calibrations / battery types		float volts (V DC)	boost volts (V DC)
12V	Vented lead acid (6 cells)	13.5	14.1
	Calcium-Calcium (6 cells)	13.8	15.6
	Lead acid antimony (6 cells)	13.5	14.7
	VRLA, AGM (6 cells)	13.5	14.4
	VRLA, Gel (6 cells)	13.5	13.8
	NiCd (10 cells)	14.1	14.5
	Power supply	12.0	n/a
24V	Vented Lead acid (12 cells)	27.0	28.2
	Calcium-Calcium (12 cells)	27.6	31.2
	Lead acid antimony (12 cells)	27.0	29.4
	VRLA, AGM (12 cells)	27.0	28.8
	VRLA, Gel (12 cells)	27.0	27.6
	NiCd (18 cells)	25.6	26.1
	NiCd (20 cells)	28.2	29.0
Power supply	24.0	n/a	



Dimensions / Weights

ENGLISH

Dimensions for reference only. Use actual product for mounting template. For safe heat dissipation, mount product in orientation shown, with minimum air-gap clearance of 40mm/1.5 in. above/below and 25mm / 1.0 in. at each side.



	12V models	24V models
Overall:		
W	108.6 mm / 4.28 in.	
H	135 mm / 5.31 in.	
D	45 mm / 1.77 in.	55 mm / 2.17 in.
Fixing holes:		
X	99 mm / 3.90 in.	
F	∅ 5.65 mm / 0.22 in.	
Weight:		
	0.65 kg / 1.43 lb.	0.75 kg / 1.65 lb.

Accessories

Remote Temperature Compensation Sensor

Model: RTC

RS Stock number: 882-3688

An optional sensor with 3 Metre integral lead that allows Sentinel chargers to measure battery temperature, and optimize charging by automatic compensation of the DC output voltage (see Output Calibration section for details). For correct operation, the sensor head should be mounted on or close to the batteries being charged.



Sentinel 150P configuration kit for PC/Windows®

Model: SNTL150P-PCCONN

RS Stock number: 885-3681

An optional kit for custom configuration and monitoring of Sentinel 150P battery chargers. The kit includes an interface/lead for connection between the SNTL150P and a PC USB port, plus SNTL150P-PCSUITE configuration software on CD.

