

## Sentry series Automatic Battery Chargers



### Features

- Automatic float charging:  
Output 5A @ 12VDC, 3A / 5A @ 24VDC
- Simple, economic design
- For vented lead acid or NiCd cells
- Open-frame design for mounting in a control panel / enclosure
- For stationary engine, genset and standby power applications

The Sentry range provides automatic, current limited and thyristor controlled charging of vented lead acid or NiCd batteries. The units may be used in a wide range of industrial charging applications, including standby engines, pumps and generators.

The charger uses an open frame construction, designed for surface mounting in an enclosed panel. Each unit consists of a transformer, rectifier and control circuit. The control circuit ensures that the charger maintains a battery voltage at the pre-calibrated float level, whilst supplying any additional loads current up to the specified maximum.

Sentry is designed to give a constant current output while battery voltage is below a 'knee point' (approx. 13V on a 12V LA). Above the knee-point, as the battery approaches its float voltage, the charger output current ramps down. This multi-stage charge regime gives an optimum combination of fast charge rate, followed by float charge without overcharging.

### Electronic self-resetting fuse

An electronic poly-fuse provides protection against DC output reverse polarity and short circuit faults. The fuse automatically resets on battery disconnection, allowing correct reconnection without manual replacement of fuses.

### Installation and connection

Electrical connection of the AC supply input and DC output is via spring clamp terminals. Transformer, circuit board and terminal blocks are mounted on an open chassis baseplate/heatsink, designed for surface mounting in an enclosed control panel.

**Warranty:** a two year limited warranty on materials and workmanship is given with this product, details available on request.

## Specifications

### Power supply

#### Operating voltage:

110/120V units: 104 – 127 VAC

220/240V units: 207 – 254 VAC

#### Operating frequency: 50/60 Hz.

### DC Charge Output

Maximum power output, W

Nominal voltage, V

Maximum current limit, A

Float / boost voltages

S100		S120	
12	100	24	120
5		3	24
see 'output calibration' section			

### Physical

#### Operating temperature:

-10 to +55°C / +14 to +131°F

#### Dimensions: see Dimensions section

#### Weights:

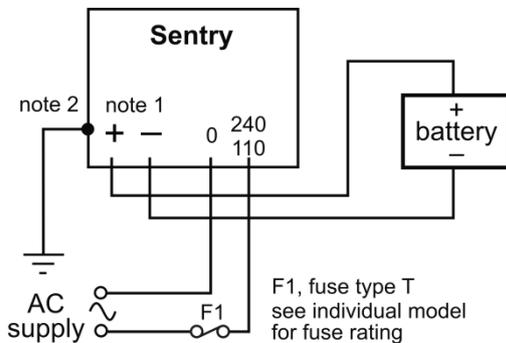
S100 models: 1.8 kg / 4.0 lb

S120 models: 2.6 kg / 5.8 lb

#### Electromagnetic compatibility:

EN 50081-2 / EN 50082-2

## Electrical connection



#### Notes:

- 1) battery output is isolated from chassis.
- 2) chassis earth stud must be connected AC supply earth.

## How to Order

Stock code	Model ref.	Description
42.70.0000	S1001205DLA	Open-frame Sentry, 240VAC, 5A/12VDC
42.70.0002	S1001205CLA	Open-frame Sentry, 120VAC, 5A/12VDC
42.70.0001	S1002403DLA	Open-frame Sentry, 240VAC, 3A/24VDC
42.70.0003	S1002403CLA	Open-frame Sentry, 120VAC, 3A/24VDC
42.70.0004	S1202405DLA	Open-frame Sentry, 240VAC, 5A/24VDC
42.70.0005	S1202405CLA	Open-frame Sentry, 120VAC, 5A/24VDC

Standard chargers above are factory calibrated for vented lead-acid batteries. For other battery types, please specify at order (calibration tables shown right), or contact our technical department for further advice.



For sales & support, contact:

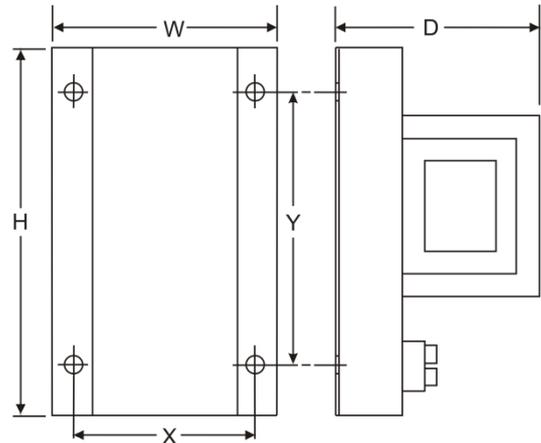
#### ENOVATION CONTROLS LTD.

Church Road, Laverstock,  
Salisbury, SP1 1QZ, United Kingdom  
Phone: +44 1722 410055  
Fax: +44 1722 410088  
E-mail: sales@novationcontrols.eu  
Web: www.computroniccontrols.com  
www.fwmurphy.eu/computronic

#### ENOVATION CONTROLS

5311 S 122nd East Avenue,  
Tulsa, OK 74146, USA  
Phone: +1 918 317 4100  
Fax: +1 918 317 4266  
E-mail: sales@novationcontrols.com  
sales@fwmurphy.com  
Web: www.fwmurphy.com

## Dimensions



	S700	S7120
Overall:-		
H	148 mm / 5.83 in	
W	110 mm / 4.33 in	
D	117 mm / 4.61 in	125 mm / 4.92 in
Fixing holes:-		
X	98.8 mm / 3.89 in	
Y	130 mm / 2.95 in	

Approximate dimensions for reference only. Use actual product as a mounting template.

For safe heat dissipation, mount product in the orientation shown, with minimum air-gap clearance of 40mm above/below and 25mm at sides.

## Output Calibration

Calibration figures at 20 deg C. Temperature compensation causes output voltage to automatically decrease (or increase) at a rate of 3mV per cell, per °C increase (or decrease) in temperature.

Battery type		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
	NiCd (10 cells)	14.1	14.5
24V	Vented Lead acid (12 cells)	27.0	28.2
	Calcium-Calcium (12 cells)	27.6	31.2
	NiCd (18 cells)	25.6	26.1
	NiCd (20 cells)	28.2	29.0

**Note: Sentry chargers are designed for vented batteries only, and are NOT suitable for VRLA or sealed batteries. If in doubt, contact our technical department**