

SURETECH DC Multi-channel Voltage & Current Sensors

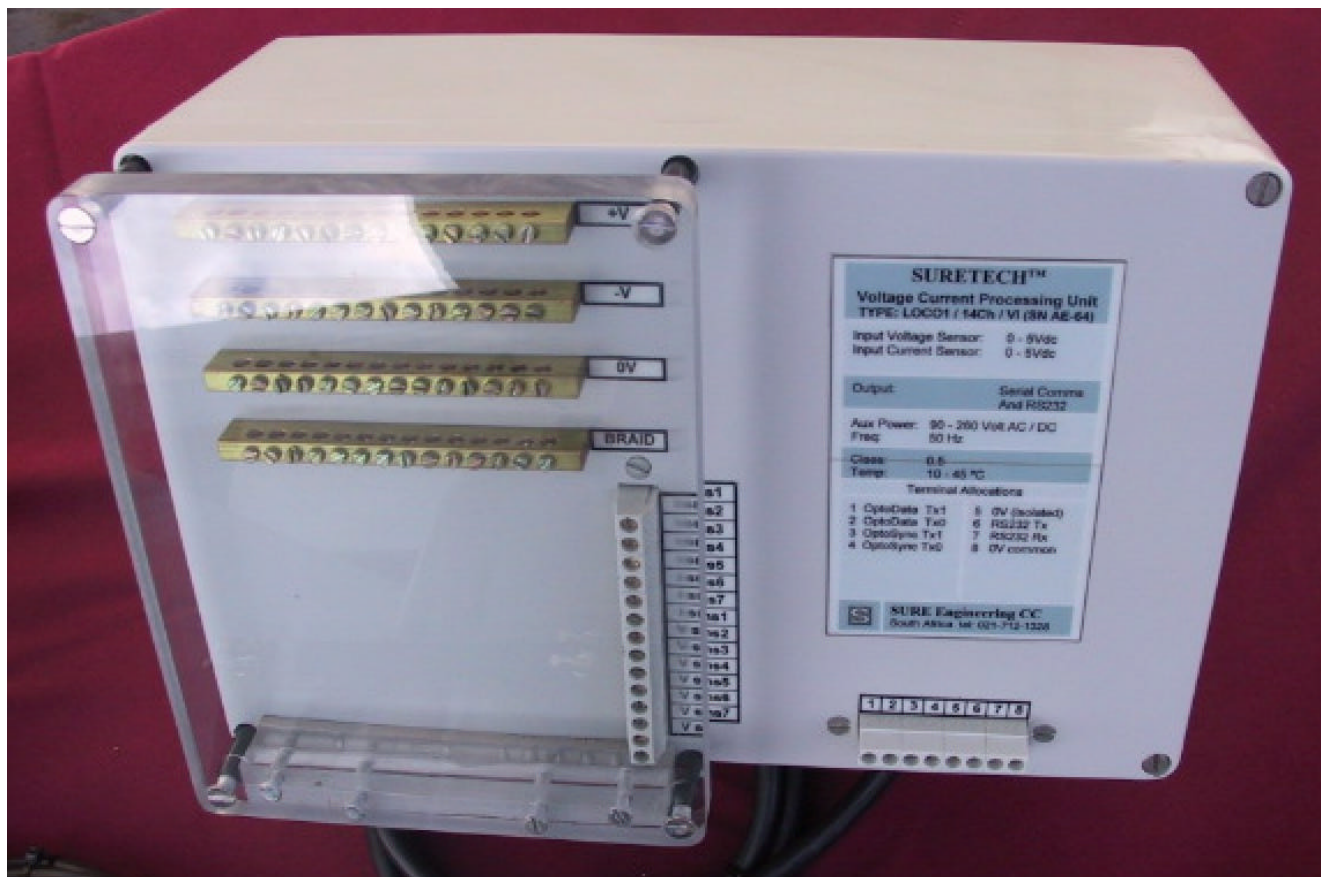
The **SURETECH DC Voltage Sensor** measures DC voltage on switch-gear, cables, railway catenary etc. The SURETECH DC Voltage Sensor provides a range of outputs such as 4-20mA or RS232. Potential-free relay contacts are also available to interface to alarms, telemetry, protection or SCADA systems if required. The SURETECH DC Voltage Sensor can be fitted with signal processing options for a wide range of smart applications.

The **SURETECH HECS** (Hall Effect Current Sensor) measures DC current on traction equipment. The SURETECH HECS can be selected to measure a wide range of current, from less than an amp up to thousands of amps. The bandwidth characteristics of the SURETECH HECS can be made to be useful up to tens of kHz. The SURETECH HECS provides a range of outputs such as 0-5V, 0-10V, +/-10V, 0-20mA, 4-20mA, true rms, instantaneous, relay contacts, LCD display, RS232, RS485 etc. The SURETECH HECS can optionally be fitted with signal processing options for a wide range of smart applications, including controllers.

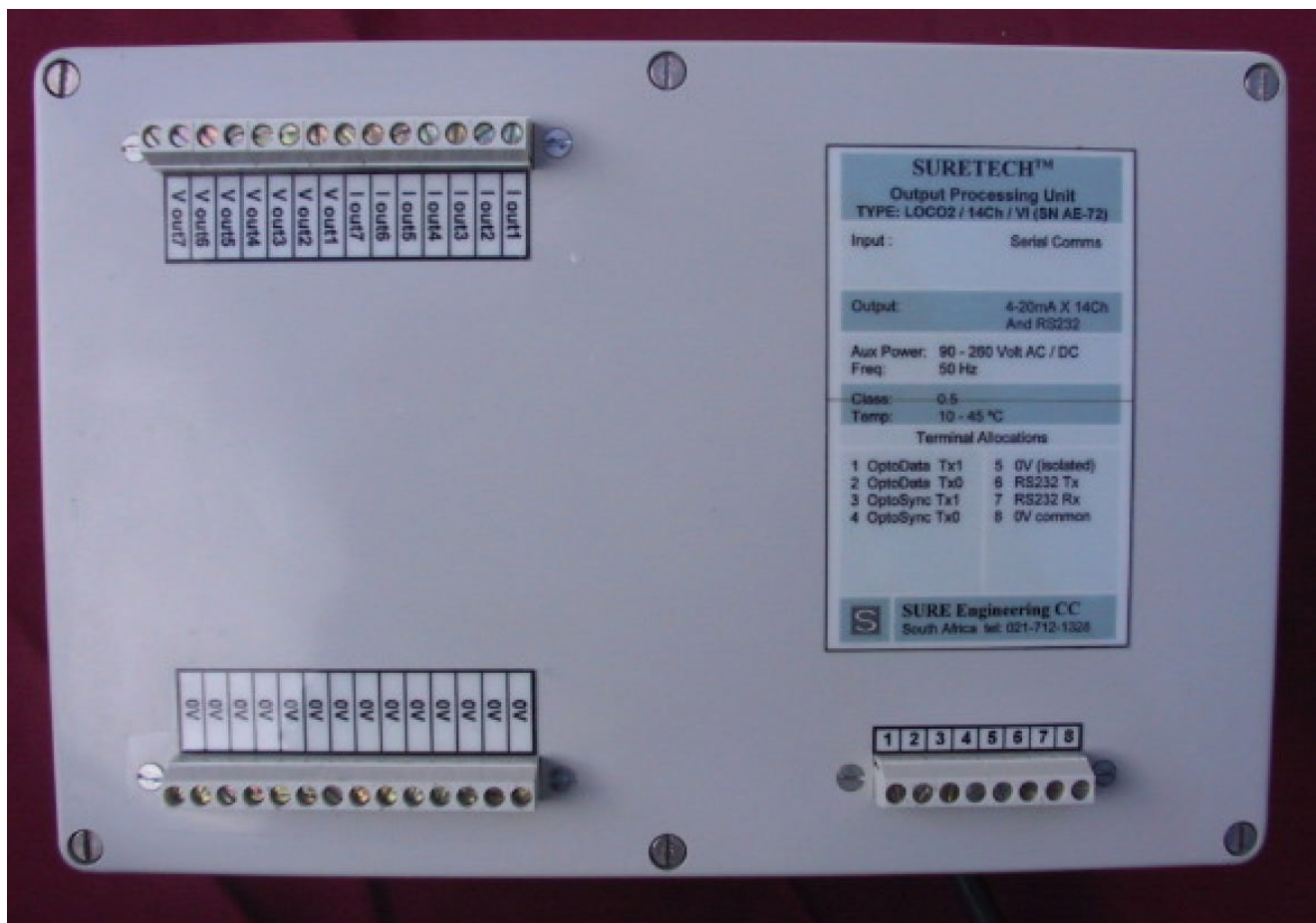
Processing can also be specified to yield Power outputs directly from 4-20ma outputs or RS232, and threshold alarm processing etc can also be implemented.



Multi-channel Voltage and Current sensor input multiplexer, with opto-isolation



Multi-channel signal output processor (4-20mA)



Voltage Sensors Specifications:

| Parameter | Value |
|------------------------------------|----------------------|
| Input Voltage (nominal) | 3000Vdc |
| Input Voltage (FSD) | 4200Vdc |
| Input Voltage (Max - 1min): | 13500Vdc |
| Input Resistance | 30Mohms |
| Isolation voltage to PSU | 2kV |
| Isolation voltage (input - output) | 2kV (optional extra) |
| Accuracy | 0.5% |

Hall Effect Current Sensor Configuration Options:

| Input Types | Input Ranges | Signal Processing | Output types | Aux PSU | Enclosure formats |
|-------------|--------------|---------------------|--------------------|---------------|----------------------|
| Uni-polar | 60Amps | Precision rectified | 0 / 5V dc | 0-12Vdc | Split Box (72x50x35) |
| Bi-polar | 125Amps | Instantaneous | -5 / 0 / +5V dc | 0-24Vdc | Slip Over (72x50x50) |
| | 250Amps | True RMS | 0 / 10V dc | +/- 15Vdc | Split Core (enq) |
| | 500Amps | Filtered | -10 / 0 / +10V dc | 90-260V ac/dc | |
| | 1000Amps | Threshold detect | 0 / 20mA dc | | |
| | 6000Amps | | 4 / 20mA dc | | |
| | Higher enq | | Opto Isolated | | |
| | | | Relay contact | | |
| | | | RS232 | | |
| | | | LCD (16 x 2 lines) | | |

Outputs Available:

| Output type | Range | Type |
|------------------------------|--------------------------------|-----------------------|
| Relay contact | Single voltage threshold | LR1 |
| Relay contact | High and Low voltage threshold | LR2 |
| Opto-Isolated | High and Low voltage threshold | LOI |
| Analog voltage | 0-2V, 0-5V, 0-10V | AV2, AV5, AV10 |
| Analog current | 0-1mA, 5mA, 20mA, 4-20mA | AI1, AI5, AI20, AI420 |
| RS232 | DC Voltage | RS232 |
| LCD (Liquid Crystal Display) | DC Voltage | HO |

Power Supply Options:

| Auxiliary Power Supply | Tolerance | PS Type |
|------------------------|-----------------|---------|
| 12V battery | 10 Vdc to 20Vdc | PS12 |
| 30V battery | 20 Vdc to 35Vdc | PS 30 |
| 110 Vac (50 / 60 Hz) | +/-15% | PS 110 |
| 220 Vac (50 / 60 Hz) | +/-15% | PS 220 |

General Features:

- ✓ Linear measurement circuits
- ✓ Optional LCD readout available
- ✓ Noise filtering available
- ✓ Cylindrical HV sensor enclosure has epoxy potted components for long life and reliability
- ✓ Dimensions: 70mm diameter x 130mm
- ✓ LV enclosure is K125 standard for panel mount flush or top-hat rail
- ✓ Integral cable connection
- ✓ Transient suppression on input and outputs protects sensor against lightning and fault induced transients
- ✓ Wide selection of input and output options including, logic, analogue, RS232 and human
- ✓ Wide selection of auxiliary power supply options
- ✓ Galvanic isolation from HV source (optional)
- ✓ Engineering backup to provide you support for design, applications information, installation & calibration, maintenance

NB SPECIFICATIONS CAN CHANGE AT ANY TIME

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