

## SBM3000

### STRAIN BRIDGE MONITOR



### SBM3000 FEATURES

#### *IECEX Approved*

For use with 120  $\Omega$  strain gauges

Compatible with  $\frac{1}{4}$ ,  $\frac{1}{2}$  and Full Wheatstone Strain Bridge configurations

Supports CSIRO developed Hollow Inclusion cells (HI Cells)

Up to 16 Single ended voltage inputs

Precision sensor excitation voltage and lead wire compensation

Alpha-numeric liquid crystal display

Data logging of attached instruments with time and date stamp

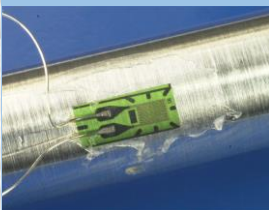
Intuitive GUI software for configuring inputs and uploading stored data

### SBM3000 Applications

The SBM3000 Strain Bridge Monitor is a combined readout / data logging unit, designed specifically for field deployment. It is an evolution of the industry standard IS2000 readout unit, which has been used for over 30 years by stata control specialists to produce accurate in situ data sets and mitigate risk in mining and tunneling projects world wide.

The SBM3000 can be used with both strain gauge and single ended voltage type transducers.

Traditionally strain gauge based transducers are used to measure force, mass, torque, pressure and strain. Single ended voltage transducers are commonly used for displacement measurements.







## SBM3000

### STRAIN BRIDGE MONITOR

PROUDLY  
AUSTRALIAN  
DESIGNED AND  
BUILT



## SPECIFICATIONS

### PHYSICAL SPECIFICATIONS:

|              |  |
|--------------|--|
| Size:        | 240mm high x 198mm wide x 109mm deep                                       |
| Weight:      | 1.6Kg  |
| Material:    | Black polypropylene case   |
| Sealing:     | Rated to IP64 with lid open or closed                                      |
| Temperature: | Operating Temperature -20°C to +40°C<br>Storage Temperature -25°C to +70°C |

### INTRINSIC SAFETY APPROVAL (for readouts Serial Nos <SBM3000I\*\*\*\*> only)

|                   |  |
|-------------------|--|
| Int'l Standards:  | IEC 60079-0, Ed 6.0 (2011)<br>IEC 60079-11, Ed 6.0 (2011)<br>IEC 60079-11, Ed 6.0 (2011)/Cor.1 (2012)  |
| AUS/NZ Standards: | AS/NZS 60079.0:2012<br>AS/NZS 60079.11:2011  |
| Certification:    | A full copy of the IECEx Certification is available from:<br><a href="https://www.iecex-certs.com/#/deliverables/CERT/57714/view">https://www.iecex-certs.com/#/deliverables/CERT/57714/view</a> |

### ELECTRICAL SPECIFICATIONS

#### POWER

|                   |  |
|-------------------|--|
| Internal Battery: | 6 x AA Cells, NiMH technology, 7.2V, 2.55Ah                                    |
| Charger:          | 240V Plug-pack Charger Module, 15v DC output<br>Integrated intelligent charger |
| Charge Time:      | Approximately 3 hours from flat  |
| Auto-off:         | 3-min, 10-min, 20-min or Disabled (user selectable)                            |

#### DATA LOGGING

|                     |  |
|---------------------|--|
| Input Channels:     | Dependant on wiring options, maximum 20 channels   |
| Storage Capacity:   | All configurations can store a maximum of 1024 scans   |
| Data Backup:        | 10 years without primary power   |
| Internal Clock:     | Real-time clock, non-volatile operation<br>10-year count without primary power   |
| Scanning Intervals: | Manual trigger<br>10, 15, 30 seconds (all modes, selectable while scanning)<br>1, 2, 5, 10, 20 mins (all modes, selectable while scanning) |

#### COMMUNICATIONS

|                 |   |
|-----------------|---|
| Baud Rate:      | 9600 baud, 8 data, 1 start, 1 stop, no parity |
| Data Format:    | Date, Time, Data dependant on configuration   |
| Data Separator: | Tab separated columns, ASCII text format      |
| Data Recovery:  | Custom WINDOWS™ Interface software            |