### **iBridge** DATASHEET

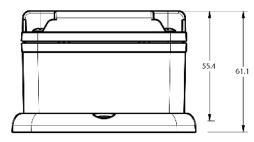


#### **Features**

- iBridge is an intelligent communications unit that stores and sends sensor samples from a wide selection of sensors
- Built-in wheatstone bridge electronincs for straingauge support in quarter-, half-, and full bridge configuration.
- ♦ Internal temperature and accellerometer sensor
- Internal data pre-processing to reduce network usage
- Trigger functionality to sample faster in the event of a sensor reading outside preconfigured trigger levels
- ♦ Operating temperature -20°C to +50°C
- ♦ Internal cellular antenna
- Remote firmware updates and configuration of settings
- Transmits data to an online cloud-service, the sensor samples can be analysed and processed from all over the world.
- Data can be viewed through our portal, or fetched directly from our API
- ♦ Battery powered (or external 12-24V supply)
- ♦ IP67 enclosure



## Dimensions



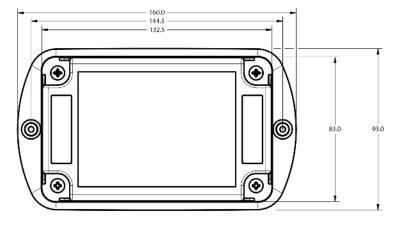
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FNSOR





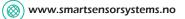


# Specifications

| Internal Sensors                                      |                                      |
|---|--------------------------------------|
| - Quarter, half, or full strain gage bridge input     | Built in PGA, LP Filter, ADC 24 bit. |
| - Temperature measurement (internal)                  | Accuracy 0.5C                        |
| - 3-axis Accelerometer                                | +/- 2, 4, 8 and 16G                  |
| Data handling internal                                |                                      |
| - Internal data pre-processing to reduce network data |                                      |
| - Sampling configuration                              | Sample rate adjustment               |
| - Internal memory keeping                             | 128000 samples                       |
| - Strain gage resistance                              | 1k to 10kΩ                           |
| - Measuring range                                     | 20mV/V                               |
| - Trigger modes (all channels)                        | none, min, max, min/max, slope       |
| - Sample averaging                                    |                                      |
| Battery   |                                      |
| - Туре  | Saft LSH20 3,6V Lithiumbattery       |
| - Battery life  | >12 months (settings dependant)      |
| External Sensors Supported                            |                                      |
| - Sensors with 4-20mA current output                  |                                      |
| - Sensors with 0-10V voltage output                   |                                      |
|   |                                      |
| Communication Components                              |                                      |
| - NB/CAT-M modem                                      | 4G with 2G fallback                  |
| - Internal antenna                                    |                                      |
| - Micro SIM card                                      |                                      |
| - Remote Data settings                                |                                      |
| - Telemetry transfer protocol                         | MQTT                                 |
| - Reporting battery voltage                           |                                      |
| - Remote device configuration                         |                                      |
| Physical characteristics                              |                                      |
| - Enclosure   | IP67                                 |
| - Product dimensions                                  | 160 X 93 X 61.1 mm                   |
| - Regulatory compliance                               | CE (Europe)                          |
| - Operating temperature                               | -20°C to +50°C                       |
|   |                                      |



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# Cable mapping

| 10-lead cable |                             |
|---------------|-----------------------------|
| Red           | +12V                        |
| Black         | -12V                        |
| Yellow        | Excitation voltage 3,3V (+) |
| Blue          | Signal ground (-)           |
| Gray          | Sensor Channel 1 (+)        |
| Green         | Sensor Channel 2 (+)        |
| Brown         | Sensor Channel 3 (+)        |
| White         | Sensor Channel 3 (-)        |
| Purple        | Sensor Channel 4 (+)        |
| Pink          | Sensor Power out 12V (+)    |



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