

Description

The **BRIDGE.AI** is advanced technology sensor applied for measurement of the magnitude displacement, vibration and temperature of bridges and buildings. **BRIDGE.AI** sensor embedded with integrated advanced intelligent (AI) computational algorithm enables reliable capability of the measurements. The data transmitted from the sensor based on Narrowband Internet of things (NB-IoT) network. **BRIDGE.AI** is powered with D-cell batteries and able to operate up to 7 years depending on the configuration.



Applications

- Bridge monitoring
- Building monitoring
- Industrial asset monitoring
- Industrial facilities
- Any construction monitoring
- Any industrial construction monitoring

Product features

- NB IoT communication
- Computational AI algorithm
- Displacement sensor
- Accelerometer
- Temperature sensor
- Configuration over the air
- Robust enclosure (IP67)
- Auto self-calibration



Internal sensing characteristics

Temperature measurement (internal)	Accuracy 0.5C
Accelerometer (3-axis)	+/- 2, 4, 8, 16G

Mechanical specification

IP rating	IP67
Dimensions	157 x 93 x 38 mm
Enclosure	Plastic ASA
Storage Temperature	-30 to 70 °C

Sensor Power Supply

Battery Type and voltage	2 x 3.6 V D-Cell Lithium Battery
Expected Battery Life	<7 years (Depending on configurations and environment)

Radio / Wireless specification

Wireless Technology	NB IoT
Protocol	MQTT
Sending of battery voltage	Included

Sensor specification

Supported displacement sensors	Elastic semiconductor type or classic Cylindrical type
Supported external sensors	Sensors with 4-20mA current output Sensors with 0-10V voltage output



Displacement accuracy	with elastic sensor: 0.5%
Displacement resolution	0.01%
Elastic displacement sensor options	5mm / 20mm / 50mm / 100mm / 250mm
Cylindrical displacement sensor options	10mm / 25mm / 50mm / 75mm / 100mm / 125mm / 150mm

Sensor dimensions:

