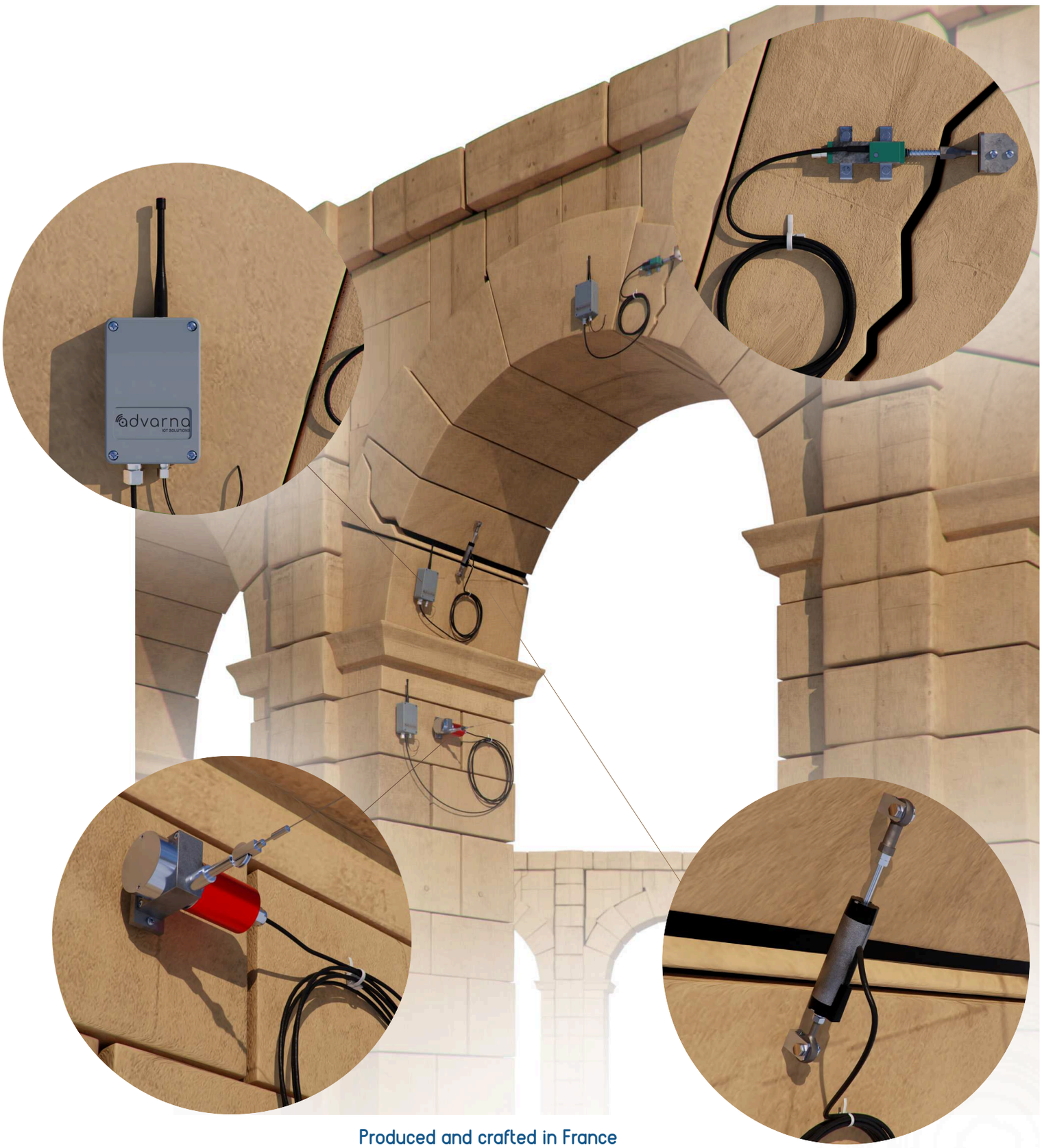
advarna

IOT SOLUTIONS

OBSESSIO X1

DISPLACEMENT MODULE FOR POTENTIOMETRIC SENSORS



Produced and crafted in France

FEATURES

The **OBSESSIO_X1** module from the DISPLACEMENT series monitors **crack progression**.
It connects with a **potentiometric displacement sensor.**

It operates on **various radio communication networks** (SIGFOX technology, LoRa, and LoRaWAN), providing extensive range and superior signal penetration. Configuration is conducted locally through a smartphone, tablet, or PC interface utilizing a **Bluetooth/NFC connection.**

BENEFITS

- Effortless and **intuitive implementation**
- Product **produced in France**
- Durable equipment **designed for industrial settings**
- Data redundancy ensured by the **integrated datalogger.**
- Extensive **range of potentiometric displacement sensors**: spring sensor, ball joint sensor, cable sensor, and more.
- **Alternative M2M* radio protocol** offering an elevated sampling rate (1Hz to 50Hz).
- **Local data access and configuration** through a smartphone interface (Bluetooth/NFC connection).

M2M: Machine-to-Machine

Instrument PLATFORM

The web application enables users to **access data from all modules** within the ADVARNA range, as well as:

- Establish **alert thresholds** to avert threshold exceedances.
- **Export data in .CSV format.**

PERFORMANCES

Potentiometric Displacement Measurement

Sensor type :	Potentiometer
Excitation :	2.5 VDC
Recommended nominal resistance :	> to 1 kΩ
Measurement range :	0 to 200 mm
Resolution :	21 bits of PE
Measurement accuracy : (module + probe)	≤ 20 µm (with temperature variation)
Linearity :	± 0.5% of PE

Specifications provided for a potentiometric sensor by the manufacturer GEFRAN (PY-2-F-050)

Temperature

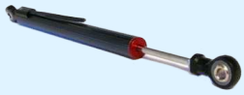
Sensor type :	NTC thermistor*
Measurement range:	-40°C to 105°C
Resolution :	± 0.01 °C
Measurement precision:	± 0.5 °C (within 0 and 40)

Specifications provided for a VISHAY thermistor (ref. NTCLE413 Series)

GENERAL INFORMATION

Power supply :	Pile 3,6 Vtype A External power supply: 4.8 to 32 VDC
Battery longevity :	> 2 years with one measurement per hour
Acquisition rate :	Configurable as required
Mobile communication :	NFC / Bluetooth
Internal memory :	Sliding memory data logger function
Sensor linkage :	Quick terminal block
Transmitter :	Omnidirectional - 3 dBi gain
Mass :	200 g

Compatible potentiometric sensors

Spring sensor (0 at 150 mm)	Ball joint sensor (0 à 250 mm)	Cable sensor (0 à 1250 mm)
		

AVAILABLE RADIO PROTOCOLS

Reference	Network	Modulation	Operator
X6.ADVN8.SF	SIGFOX	UNB	/
X6.ADVN8.LRW	LoRaWAN	CSS	/
X6.ADVN8.P2P	LoRa P2P	CSS	M2M
X6.ADVN8.LD	Long-Distance	GFSK	M2M
X6.ADVN8.LP	Low Power	GFSK	M2M

HOUSING

Protection rating :	IP67
Operating temperature :	-20°C to +60°C
Dimensions excluding antenna :	98 x 64 x 35 mm
Housing materials :	Polycarbonate

CE In accordance with the stipulations of the EMC RED directive 2014/53 /EU

Anticipate possible vulnerabilities in your structures with our technologically advanced monitoring systems.

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