advarna

IOT SOLUTIONS

OBSESSIO X2

LVDT and Potentiometric Sensor Displacement Module

Created and produced in France

FEATURES

The **OBSESSIO_X2** module from the DISPLACEMENT series monitors **crack progression**. Its versatility allows it to interface with **LVDT displacement sensors**, which are celebrated for their precision, minimal temperature variability, and enduring reliability. The Obsessio X2 module is also **compatible with potentiometric sensors**.

It functions across **multiple radio communication networks** (SIGFOX, LoRa, and LoRaWAN technologies), providing extensive range and superior signal penetration. Configuration is conducted locally through **Bluetooth/NFC interfaces** utilizing a smartphone, tablet, or PC.

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 displacement sensors** : LVDT and potentiometric.
- **Alternative M2M* radio protocol** with 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

LVDT Displacement

Sensor type :	LVDT*
Excitation :	3.0 VAC at 5 kHz
Measurement range :	± 5 mm
Resolution :	± 0.01 µm
Measurement accuracy : (module + probe)	≤ 10 µm
Linearity :	0,5 % PE
Protection rating :	IP67

***Specifications provided for an ADV/5/S type LVDT sensor**

Potentiometric Displacement

Sensor type:	Potentiometer
Excitation :	2.5 VDC
Suggested nominal resistance :	> 1 kΩ
Measurement range :	0 to 200 mm
Resolution :	21 bits from PE

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) ± 1 °C (within -40 et 80)

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
Antenna :	Omnidirectional - 3 dBi gain
Mass :	200 g

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	Extended Range	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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