

Wi-SOS 480 Star Wireless Monitoring System

Analogue Node



The Wi-SOS 480 analogue data node admits most inputs from analogue sensors, such as voltage, 4–20mA, potentiometer, FWB, thermistor or PT100, allowing it to easily connect load cells, strain gauges and pressure cells to the Internet. It transforms manual and sporadic data collection to a more regular and automatic process making it the most cost-effective way to capture data from any environment. It is capable of transmitting data via long-range radio to a gateway connected to the Internet up to 9 miles / 15 kilometers away. One gateway can also support dozens of data nodes in the same network through a star network topology. It has an internal C-size battery that can last up to 10 years with minimal to zero maintenance required. The units are easy to deploy, very robust and do not require recasing as they already hold relevant certifications. The analogue data node is IP67 certified and tested from -40C to +80C. It can also be used as a standalone node for manual monitoring and can be easily configured and connected with a USB cable and an Android phone.

MAIN SPECIFICATIONS

Power supply: 5 V DC / 12 V DC / 24 V DC up to 60 mA selectable for each channel.

VOLTAGE

Measuring ranges [V DC]: +/- -10 ; +/- -1.25 (8x).

Accuracy (-40 to +85°C): +/- 0.05 % FS.

CURRENT LOOP (2-3 WIRES)

Measuring range: 4-20 mA.

Accuracy (-40 to +50°C): +/- 0.05 % FS.

POTENTIOMETER (POT)

Accuracy (0 to +50°C): +/- 0.02 % FS.

FULL WHEATSTONE BRIDGE (FWB)

Accuracy (0 to +50°C): +/- 0.1 % FS.

THERMISTOR

Accuracy (0 to +50°C): +/- 0.2°C.

PT 100

Accuracy (20°C): +/- 0.8°C.

MECHANICAL

SIZE: 145 x 220 x 61 mm

WEIGHT: 1.100 g without batteries.

HOUSING MATERIAL: Aluminium alloy.

WEATHER PROTECTION: IP67.

BATTERY LIFE ESTIMATION*

Channels & Sampling	Current @12V@24mA	Current @24V@24mA	Voltage @12V@24mA	FWB@5V@0.7kΩ	FWB@5V@1.5kΩ
Warm uptime	1 second	1 second	1 second		
1 CH 5 min.	6 months	4 months	5 months	1.5 years	1.5 years
1 CH 6 hours	>10 years	>10 years	>10 years	8.5 years	>10 years
4 CH 5 min.	1.5 months	39 days	2 months	1.5 years	7 months
4 CH 6 hours.	8 years	6.6 years	>10 years	8.5 years	>10 years

*Estimations for 4 x saft LSH 14 batteries. Considering laboratory.

ACCESSORIES

Saft LSH 14 C-size spiral cell.

Data logger mobile cable.

External mounting brackets (set of 2) for wall mounting.

Plate for pole mounting. Includes: U-bolts and nuts for a pole diameter of less than 50 mm or of less than 35 mm.

Network Rail Approved
London Underground Approved Product (ID 3576)

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