








# IoT Multi Channel Data Logger

## LogBox LTE



- Suitable for mobile applications in long distance locations
- Configuration and data download via USB or NOVUS Cloud
- SMS alarm notification
- Built-in rechargeable backup battery
- Easy integration with NOVUS Cloud
- Data communication via LTE network through NXperience and SCADA

 <p><b>SMS ALARM</b> Alarm notification</p>	 <p><b>BATTERY</b> Up to 80 hours* of operation, in energy saving mode</p>	 <p><b>IOT DEVICE</b> MQTT Protocol (Publisher and Subscriber)</p>	 <p><b>EASY COMMISSIONING</b> NOVUS Cloud integrated</p>	 <p><b>NXPERIENCE TRUST</b> GMP and FDA Regulation Title 21 CFR Part 11 compliance</p>
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**LogBox LTE** is an IoT data logger with LTE NB IoT, CAT-M1 or 2G communication network. This device allows monitoring and data recording remotely, in installations with LTE infrastructure, perfectly suitable for mobile applications at long-distance locations or sites that do not need to use IT infrastructure.

The device has two analog inputs, plus a digital input and one digital output. **LogBox LTE** works with MQTT protocol both in publisher and subscriber mode, therefore it can publish data to IoT brokers and also read commands, enabling to remotely execute some commands. Remote connection with low-cost infrastructure and application versatility are the highlights of this product.

**LogBox LTE** has a built-in rechargeable **backup battery** to keep data safe during a power outage. SMS notification and easy integration with **NOVUS Cloud** will also help commissioning this device quickly. **LogBox LTE** uses **NXperience** software, which has the **NXperience Trust**, a version that meets **GMP (Good Manufacturing Practice)** compliance, meeting with the technical requirements of **FDA Regulation Title 21 CFR Part 11** for validation of computer systems.

For pricing or any further information, please contact Omni Instruments Ltd.

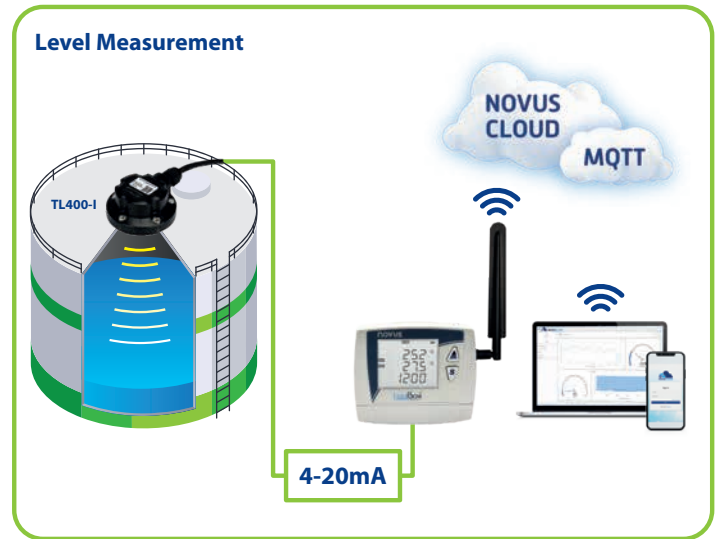
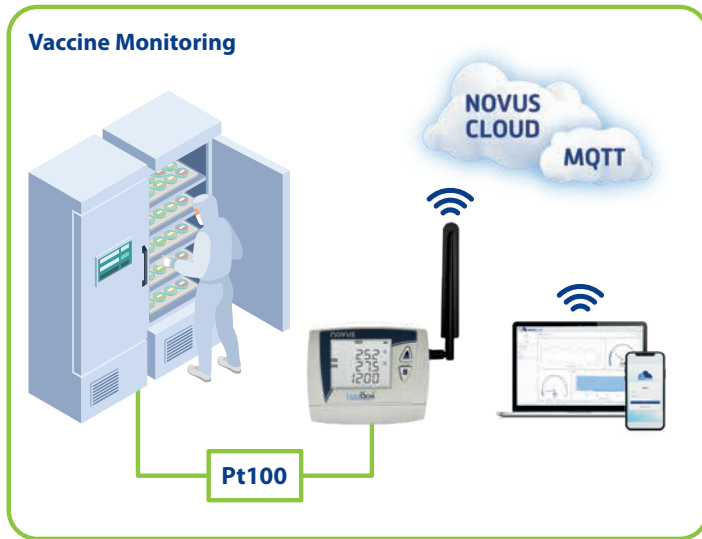


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# Topology



## Technical Specifications

<b>Input Channels</b>	2 analog 2 interns 1 digital
<b>Compatible Analog Signals</b>	Thermocouples J, K, T, N, E, R, S and B, Pt100, 0-50 mV, 0-5 V, 0-10 V, 0-20 mA, 4-20 mA
<b>Internal Measurements</b>	Internal Temperature (NTC) Battery Voltage External Power Supply Voltage
<b>Input Impedance of Analog Channels</b>	Thermocouples / Pt100 / mV: > 2 MΩ mA: 15 Ω + 1.5 V V: 1 MΩ
<b>Pt100</b>	Maximum compensated cable resistance: 25 Ω Excitation current: 166 μA Curve used: α= 0.00385

<b>Digital Input</b>	
<b>Logical Levels</b>	Logic level "0": from 0 to 0.5 Vdc Logic level "1": from 3 to 30 Vdc
<b>Maximum Voltage</b>	30 Vdc
<b>Input Impedance</b>	270 kΩ
<b>Input Current @ 30V DC (typical)</b>	150 μA
<b>Maximum Frequency (square wave)</b>	Dry Contact: 10 Hz PNP: 2 kHz NPN: 2 kHz
<b>Minimum Pulse Duration</b>	Dry Contact: 50 ms PNP: 250 μs NPN: 250 μs

<b>Digital Output</b>	1 PNP type output Maximum current that can switch on the output: 700 mA
<b>Display</b>	3 lines, 4½ digits
<b>Resolution</b>	Analog Signals: 15 bits (32768 levels) Digital Signal: 16 bits (65536 levels)

<b>Memory Capacity</b>	140.000 records (total)
<b>Record Interval</b>	1 second to 12 hours (recommended: 300 seconds)
<b>Record Type</b>	Instant and Medium
<b>Registry Trigger</b>	Date/time, alarm, start button, digital input, software command or SMS
<b>Alarms</b>	10 alarms available (can activate digital output, send SMS and MQTT publication)
<b>Communication Interfaces</b>	USB interface Mobile communication module (2G, LTE Cat M1, LTE NB1/2, SMS)
<b>Communication Protocols</b>	MQTT with TLS 1.2 NTP
<b>MQTT Brokers</b>	AWS, Azure**, Google Cloud**, NOVUS Cloud and generic
<b>Software</b>	NXperience (for desktops and notebooks – locally via USB or remotely via NOVUS Cloud)

<b>Power Supply</b>	
<b>Power Supply Source</b>	Voltage: 10Vdc to 30Vdc Maximum Consumption: 300 mA Typical Consumption: 20 mA <sup>1</sup>
<b>Batteries</b>	Built-in rechargeable battery***

<b>Estimated Battery Life for Backup</b>	Up to 80h*
<b>Operating Temperature</b>	Using the power supply: -20 to 60 °C**** Using backup power: 0 to 45°C*****
<b>Accommodation</b>	ABS+PC
<b>Protection Index</b>	IP40
<b>Dimensions</b>	120 x 100 x 40 mm
<b>Certifications</b>	CE, UKCA, FCC, ANATEL

\* Power Safe Mode, logging and publishing interval 15 minutes.

\*\* Connection with Azure MQTT Brokers and Google Cloud under development.

\*\*\* Risk of explosion: The internal batteries can only be replaced by the manufacturer or authorized technical assistance.

\*\*\*\* Risk of explosion: Be careful with the operating temperature of the device. Extremely high or low temperatures can cause backup batteries to rupture and leak and cause damage.

\*\*\*\*\* The batteries for backup will be charged while the device is operating in the temperature range of 0 to 45 °C.

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