

Nexus Panel



The Nexus Panel is a small cellular gateway designed for industrial panel applications. RS-485 and USB ports allow it to connect to a wide array of PLCs, controllers, sensors, and other equipment for real-time monitoring. A single digital input can be used as an alarm or trigger and a single digital output can be used for signaling external devices. It can accept one of two daughter cards: a 4-port Ethernet switch or an RTD / CT card that is designed for electric motor or pump monitoring.

The Nexus Panel uses a CAT-1 cellular link to communicate with cloud servers. It supports Bluetooth, Thread and Wi-Fi natively and can optionally be outfitted with Wi-Fi HaLow, a long-range 900MHz wireless links. Nexcomm Systems offers cloud services to maintain the data, reporting and visualizations. However, the system can also forward the data to a customer's existing cloud services.

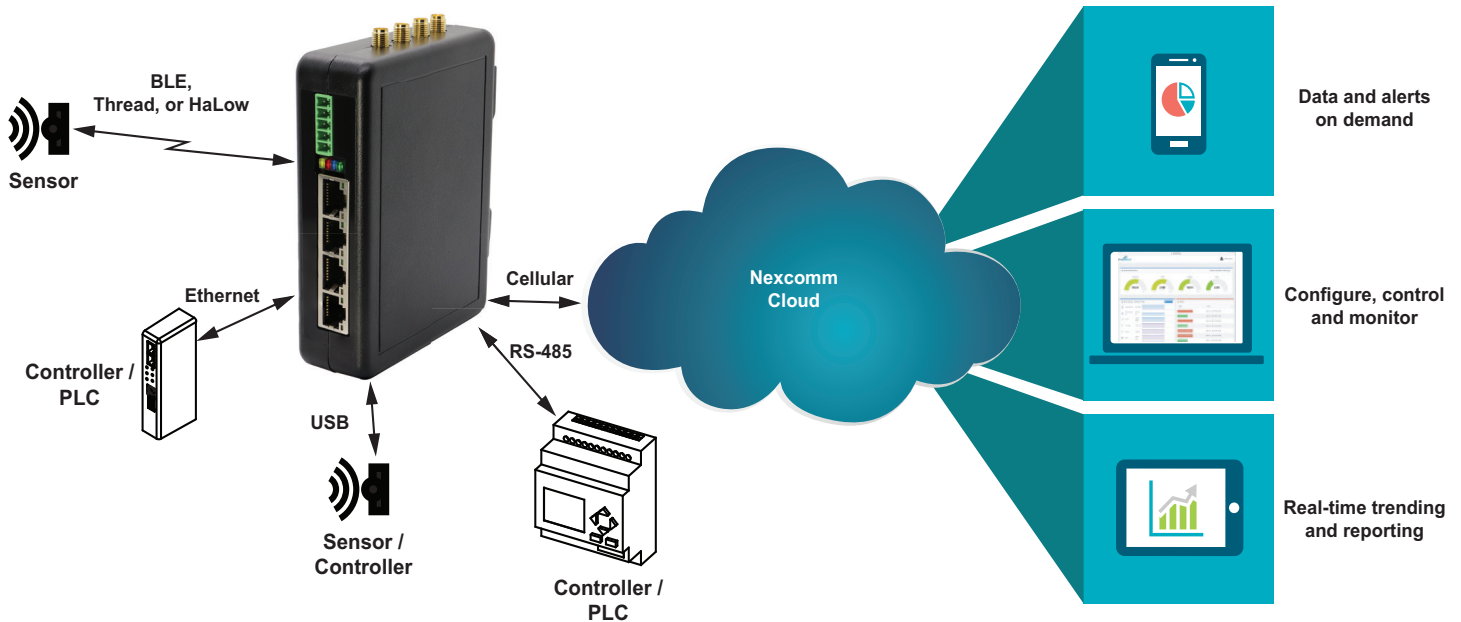
Housed in a DIN rail-mount enclosure, the Nexus Panel acts as a wired and wireless communications hub to the cloud for industrial control panels. This makes the Nexus Panel ideal for integrating into new and existing systems.

Benefits

- One digital input that can be an alarm or trigger.
- RS-485 and USB ports for communications with PLCs or other equipment.
- Two daughter board options: one board with a four-port Ethernet switch or one RTD/CT board with three PT100 RTD inputs, three 0-1V CT inputs, one 4-20mA input, two digital inputs and one current sink output
- CAT-1 LTE cellular connection offers better range and power management than traditional CAT-4 links.
- Wi-Fi, Bluetooth Low Energy, and Thread wireless connections with optional Wi-Fi HaLow wireless connection.
- DIN rail package for easy addition to panels.
- Nexcomm Cloud services are available, or the system can forward data to a customer's existing cloud services.
- Custom labeling and packaging are available.



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Nexus Panel Specifications

Electrical

Operating Voltage: 9 to 36VDC, reverse polarity protected

Communications:

One RS-485 Modbus channel

One USB channel

Four 10/100 Ethernet ports (with Ethernet card)

One 10/100 Ethernet port (with CT/RTD card)

Radios

Wi-Fi: 802.11 b/g/n

Cellular: LTE, CAT-1

GNSS location services

Thread, Bluetooth

Wi-Fi HaLow 900MHz (option)

Inputs

One digital input for alarm or trigger

Three PT100 RTD, Three 0-1V CT, One 4-20mA / 0-10V Analog Inputs (with CT/RTD card)

Two 36V Digital / Pulse Inputs (with CT/RTD card)

Outputs

One digital output for signaling external devices

One Digital Output Current Sinks (with CT/RTD card)

Environmental

Operating temperature: -40°C to +85°C (-40°F to +185°F)

Mechanical

4.50 x 3.50 x 1.25 inches (114.30 x 88.90 x 31.75mm)

DIN rail clip

CPU

Qualcomm Atheros AR9331 Chipset (MIPS 24Kc architecture) at 400MHz

16MB Flash (total), 64MB RAM

OpenWRT Operating System

