

NT SECURE DEVICE

NTSecureNode BLE100: Data acquisition platform for stationary IoT networks

NTSecureNode is a simple, inexpensive and reliable solution for data acquisition in mobile or stationary work environments. Each sensor node device is equipped with an individual key, which allows for secure and confidential communications between the device and the NTSecureCloud environment. Analog and digital input signals can be captured, processed, encrypted and provided to cloud services via the NTSecureGateway.

NTSecureNode BLE100: full assembled configuration

Our secure sensor nodes BLE 100 merge, buffer and filter the data from sensors and transfer them in an encrypted form to the IoT gateway – also wireless e.g. NTSecureGateway.



Temperature



Light



9-Axis Inertial
Sensor



Humidity



Pressure

Typical Applications

- _ Stationary use cases
- _ Process Industry
- _ Manufacturing
- _ Critical Infrastructure
- _ Logistics

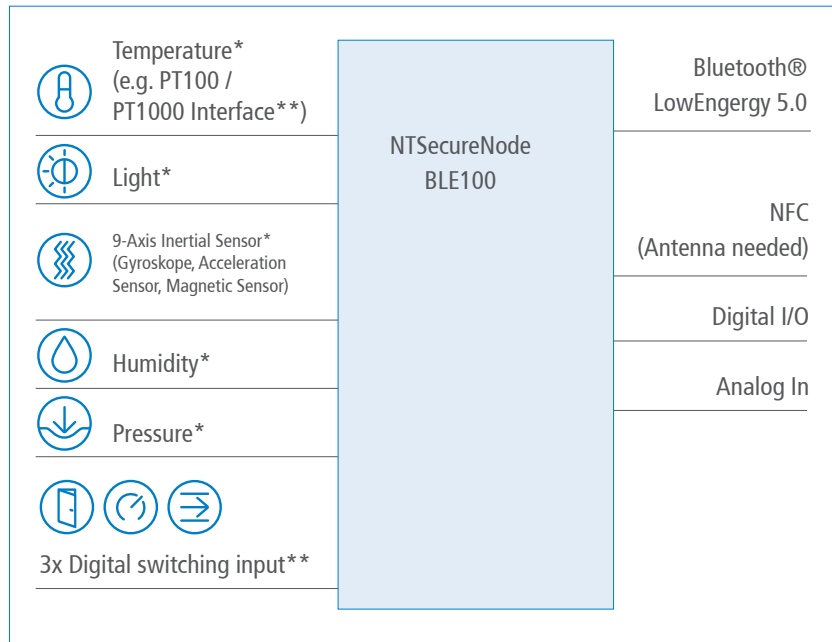
Customer Benefit

- _ Accelerate time to market
- _ Reduction in costs for development and certification
- _ Ready-to-use communication interfaces
- _ Highly secure

NTSecureNode BLE100: partly assembled

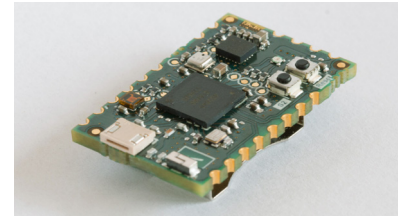
The BLE100Flex brings your data securely into the cloud. Our Node is available in cost optimized flexible variants. It can be ordered partly assembled, adapted to your sensor needs.

System Overview

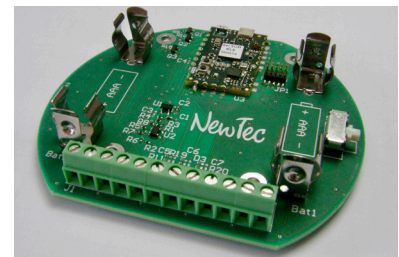


* Flexible components ** Optional baseboard

Variants



BLE100 fully assembled



BLE100 fully assembled with optional baseboard for more battery capacity and 3 additional digital switching inputs.

Key features

- _ Sensor data acquisition and secure transfer into the cloud
- _ End-to-end encryption
- _ Over-the-air firmware update
- _ Edge computing platform
- _ Parametrization via mobile app / internet
- _ Data compression, buffering and selection
- _ Extensible through individual application programming
- _ Configurable transmission parameters
- _ Battery powered

Security and Encryption

- _ Dedicated cryptographic hardware engine (ARM Crypto Cell 310)
- _ Cryptography and security middleware services
- _ Security Library NTSecureCloudConnector
- _ Device Life-Cycle-State management
- _ Key Management infrastructure
- _ Secure Boot
- _ Various supported encryption algorithms, such as AES, RSA, Diffie-Hellman, Elliptic Curve ECC, etc.

Environmental Parameters

- _ Operating Temperature: from -25°C to +70°C
- _ Storage Temperature: from -40°C to 85°C
- _ Operating Humidity: from 20% to 95% RH (non-condensing)
- _ Storage Humidity: from 0% to 95% RH (non-condensing)
- _ Protection Level: IP 65