

Process Automation

NEON Temperature Sensor

Measures surface temperature and alerts on temperature differences





NEON Temperature Sensor

Measures surface temperature & alerts on temperature differences

The real value of Industrial IoT lies in the new data points it provides for monitoring key elements of industrial processes, especially when the devices are easily retrofitted and provisioned within seconds. The NEON Temperature Sensor is designed for exactly that. It provides insight into temperature changes, on almost every industrial asset, instantly. All in the reliable NEON form factor that comes as a battery powered, IECEx Class 1 / ATEX Zone 1¹ certified I-IoT device, communicating wirelessly via LoRaWAN.

NEON Temperature Sensors can be mounted on existing infrastructure and monitors changes in surface temperature. These insights can positively benefit operations. Currently deployed at industrial sites such as insulated oil storage terminals and transportation pipelines, the NEON Temperature Sensor is versatile across many applications. In oil storage, it monitors product temperature to achieve the desired viscosity for transport and to preserve product quality.

¹ IS Class I Div 1, Group C,D T4 - AEx ia IIB T4 Gb II 2G Ex ia IIB T4 Gb



Key Benefits

Maximise efficiency, safety, and insight with intelligent temperature monitoring.

- Reduce manual rounds by enabling remote data access.
- Increase safety through to instant notifications and trigger alarms.
- Minimise downtime through early fault detection.
- Lower implementation and scaling costs with easy deployment options.
- Improve insights with time synchronisation and trend analysis.
- Reduce maintenance time with smart data insights.

Technical Overview

The NEON Temperature Sensor

Sensor	Measures surface temperature
Accuracy	0.5°C (depending on application and installation) ¹
Wireless protocols	LoRaWAN 868, 915 MHz ²
Dimensions	95 x 64 x 39 mm (L x W x H)
Operating temperature	-40°C to 80°C (-40°F to 176°F)
Certifications	IECEx Class 1 ³ / ATEX Zone 1 ³ IP-65 rated
Lifetime	Battery lifetime up to 5 years
Mounting Options	Magnet, bandclamp or bracket

LoRa Devices Designed For Heavy Industry

The NEON product line supports all industrial customers moving towards LoRaWAN as the Industrial IoT network of the future.

LoRaWAN networks provide industrial facilities with a secure solution with no vendor lock-in that is quickly becoming an industry standard. The network can scale tens of thousands of sensors and cover sites in their entirety with only a small number of gateways. Best of all, the low power approach can extend the lifetime of our NEON products significantly.

NEON stands for a standardised approach to collecting data points from within the operation and a general approach to creating integrated solutions with existing IT ecosystems.

- Fully LoRaWAN compatible²
- Based on the highest security standards
- 100% ownership of data
- Delivered with unique provisioning keys
- IECEx class 1 / ATEX zone 1 certified
- Battery powered for easy deployment
- Installation within live environments ensuring continuous operation
- Integration with existing data backends or DCS
- Detailed and extensive documentation
- No legacy; compatible with all types of different assets
- Provision of lifecycle support
- Availability of spare parts and refurbishment packages

¹ For absolute temperature measurement, insulation of the sensor and the measured object is required

² Compatible with international LoRaWAN standards (long-range, low power wide-area network)

³ IS Class I Div 1, Group C,D T4 - AEx ia IIB T4 Gb II 2G Ex ia IIB T4 Gb

IECEX Class 1 ATEX Zone 1 Certified

The NEON product line is built to not only operate in industrial sites where explosive gasses are being handled but also all other elements that a sensor may be exposed to in the course of its lifetime.

It has been tested and certified to work in conditions from -40° to 80° Celsius without hampering performance. The devices are designed and engineered for safe, secure deployment in wireless LoRaWAN networks and are fully remotely configurable, ensuring both longevity and reliability within an operation.

NEON offers you a standardised approach to collecting data points and an approach to creating integrated solutions within existing IT ecosystems.



Process Automation

The information in this brochure is provided for general informational purposes only. Specifications for products and services are subject to change without prior notice. IMI plc and its subsidiaries own all product brands mentioned herein.

IMI makes no warranties or representations about the accuracy or completeness of the content in this brochure and assumes no liability for any errors or omissions it may contain. We reserve the right to modify, enhance, or discontinue any product or service described herein without prior notification..

IMI plc

Lakeside, Solihull Parkway
Birmingham Business Park
Birmingham
B37 7XZ
United Kingdom

www.imiplc.com/process-automation

16005.01/25EN

