INDUSTRIAL IOT CONTROLLER

Neo ONE

Industrial-grade IoT hardware platform with edge computing, universal connectivity, and native CORE platform integration.



2	4+	IP65
Hardware Variants	Protocol Interfaces	Rated Enclosure

Seamlessly integrated with CORE cloud-native IoT platform

Revision 2.0 | 2026 | Datasheet

Overview

The Neo ONE is an IoT-enabled hardware device designed for industrial automation, remote monitoring, and real-time control applications. Built with a decentralized modular architecture and multi-protocol communication, it integrates seamlessly with the CORE platform to deliver unparalleled efficiency, scalability, and intelligence for agriculture, water management, utilities, mining, and smart infrastructure.

Key Features

Universal Connectivity

Native support for Modbus RTU, 4-20 mA, digital I/O, and serial. Seamless integration with VSDs, flow meters, PLCs, and legacy field devices.

Modular Scalability

Expansion-ready architecture allows incremental I/O and communication module additions as operational requirements evolve.

CORE Integration

Real-time dashboards, digital device shadows, serverless automation, and enterprise-grade security frameworks with encrypted communications.

Technical Specifications

Specification	Details
PROGRAMMING **Lua scripting with AI-assisted development**	**On-device runtime with OTA updates, OTA Programming via ESECore portal**
DISPLAY **Optional LCD + touch keypad (HMI variant)**	**128x64 monochrome LCD, capacitive touch keypad, transflective lcd for easy daylight reading.**

Specification	Details
CONNECTIVITY **LTE Cat-1m, NB-IoT, LoRaWAN, Corelink, Wi-Fi**	**802.11 b/g/n, cellular multi-band**
GPS **Integrated GPS/GNSS positioning**	**Multi-constellation: GPS, RTK**
POWER OPTIONS **Internal 7000mAh Li-Ion, Solar, External DC**	**Solar, external 5-24V DC input, battery life 7+ days ***
I/O **4x Analogue, 2x Digital In, 4x Digital Out**	**Analogue: 0-10V / 4-20mA configurable. Digital: 0 -24V logic pulse counters, 0-24V High speed transistorized output.**
COMMUNICATIONS **RS485 Modbus RTU, SDI-12, Wiegand, BLE**	**Isolated RS485 - Modbus – Genibus – Ascii, SDI-12 v1.4 for environmental sensors, Wiegand 26/34, Bluetooth 4.2 BLE**
ENCLOSURE **Weatherproof IP65 industrial housing**	**IP65 rated, enclosure, -20°C to +70°C operating range**
PLATFORM **CORE Cloud-native IoT platform**	**Real-time dashboards, device shadows, serverless functions, TLS 1.3 encryption, real-time notification and historian.**

Hardware Variants

Variant	Description
Neo One HMI V2	Standard industrial IoT controller with HMI
Neo One Solar	Controller with integrated solar panel

Certifications & Compliance

Standard	Description
CISPR 32:2015 Class B	Electromagnetic compatibility (Emissions)
IEC 61000-4-2	Electrostatic discharge immunity
IP65 Rated Enclosure	Dust-tight and protected against water jets

POWERED BY CORE PLATFORM