eNode-Gen2

Industrial Edge IoT Node

Local sensing, control and connectivity for field deployment.

Four versions for analog sensing, temperature and humidity, particulate monitoring, and general I/O with RS485.



Choose the field interface that matches your site.

7-30 VDC	4	8	8
Input supply	Product versions	Max. logical channels	Max. alert rules

Version-specific connector layouts: verify the SKU on the rear label before wiring.

01 INTRODUCTION

Edge processing, right where data is generated

eNode-Gen2 brings signal acquisition, local alert logic and network connectivity into one compact field node. Select the version for the physical interface required at your installation.



Built for practical commissioning

- **Local decisions**

  Alert rules run on the node, so supported actions do not depend on a cloud connection.

- **Version-specific I/O**

  Analog, RS485 and remote I2C connections are available according to the selected SKU.

- **Flexible uplink**

  Ethernet or Wi-Fi can send telemetry over MQTT; local Web and CSV setup support commissioning.

01 8 logical channels

Map up to 8 active logical channels in one profile. A channel is not a physical port.

02 8 alert rules

Combine multiple logic conditions in each rule; available actions depend on the SKU.

03 Browser-based setup

Use the local Web Control Panel and CSV profiles for monitoring and configuration.

04 Connected operation

Ethernet and Wi-Fi provide network access for MQTT and supported firmware updates.

02 FEATURES

Capabilities designed for field operations

Functions shown below are qualified by version; check the connector and firmware configuration before deployment.

01 Edge Alert Engine

Up to 8 local rules. Each rule may combine multiple logic conditions from supported sources.

02 8 logical channels

Mix supported signal types within a profile, up to 8 active logical channels total.

03 4-20 mA acquisition

Versions A and G provide two analog inputs with scaling, filtering and calibration.

04 Modbus RTU master

Version G has RS485 D+/D- and communicates with one slave device.

05 Digital and relay I/O

Version A has one DI and two relay contacts. Version G has three DI on its 9-pin connector.

06 Web, CSV, MQTT and OTA

Commission locally, import CSV V2.1 profiles, publish MQTT data and update firmware.

How a combined-logic alert works

INPUTS	CONDITIONS	ACTION
Supported sensors or DI	Multiple logic conditions in one rule	Available output or MQTT action

The rule limit is 8. The specific condition operators and actions depend on the installed firmware and SKU.

03 VERSIONS AND APPLICATIONS

Four versions, one connected platform

Order the version that provides the required field connection. The front enclosure can carry an earlier eNODE32-S3 marking; identify the version from the rear label.

SKU / role	Field interface	Typical application
Version A Analog Sensor	2 x 4-20 mA; 1 DI; 2 relay contacts	Analog stations, level and pressure sensing
Version TH Temperature / Humidity	5-pin remote I2C; SHT40	Temperature and humidity points
Version AQ Air Quality	5-pin remote I2C; SPS30	Particulate and PM monitoring
Version G General Version	2 x 4-20 mA; 3 DI; RS485 Modbus RTU master	Mixed analog and Modbus field signals

Connector layout, available actions and sensor supply vary by version. Verify the device rear label and pinout before wiring.



VERSION TH / SHT40



VERSION AQ / SPS30

04 TECHNICAL SPECIFICATIONS

Technical specifications

System and power

Item	Specification
Input voltage	7-30 VDC
Ethernet	1 x RJ45, 10/100 Mbps
Wi-Fi	2.4 GHz, station and SoftAP modes

Field I/O

Item	Specification
Analog input	2 x 4-20 mA on Version A and G
Digital input	Version A: 1 DI; Version G: 3 DI
Relay output	Version A: 2 relay contacts, 250 VAC / 2 A each
RS485	Version G only; Modbus RTU master, 1 slave
Remote I2C	Version TH (SHT40) and Version AQ (SPS30), 5-pin sensor connector

Software and operation

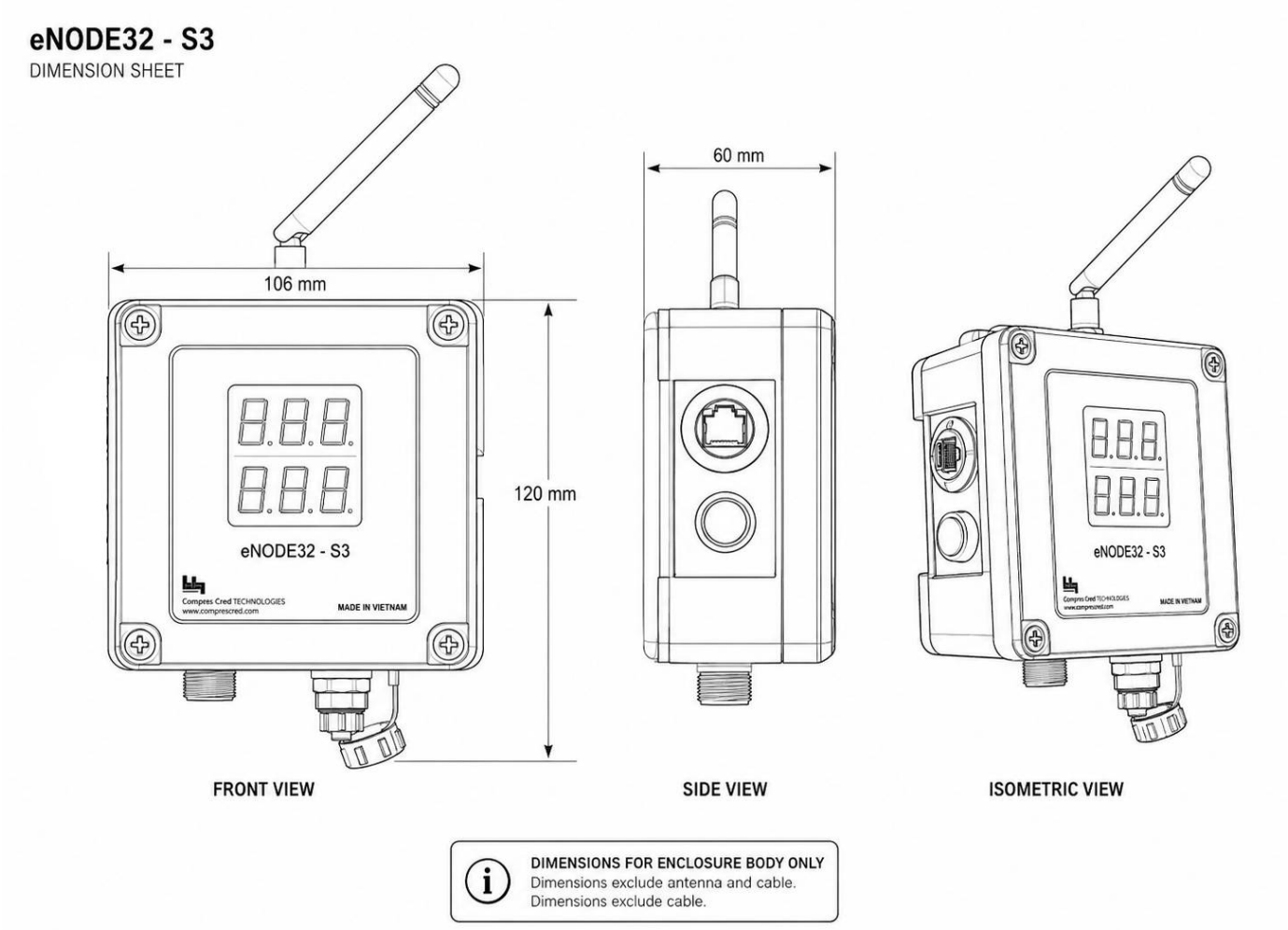
Item	Specification
Logical channels	Maximum 8 active logical channels total
Alert Engine	Maximum 8 local rules; each rule can combine multiple logic conditions
CSV mapping	V2.1 profiles for interfaces available on the selected SKU
Modbus on G	Read FC03/FC04; write single FC06/FC05; default 19200 8E1
Network data	MQTT telemetry, attributes and LWT
Local UI and OTA	Web Control Panel and supported firmware updates

The 8-channel limit refers to logical channels, not physical connectors or available sensor measurements.

05 MECHANICAL

Enclosure and mounting reference

Use the drawing for enclosure clearance and mounting. The illustration retains the marking used on existing hardware.



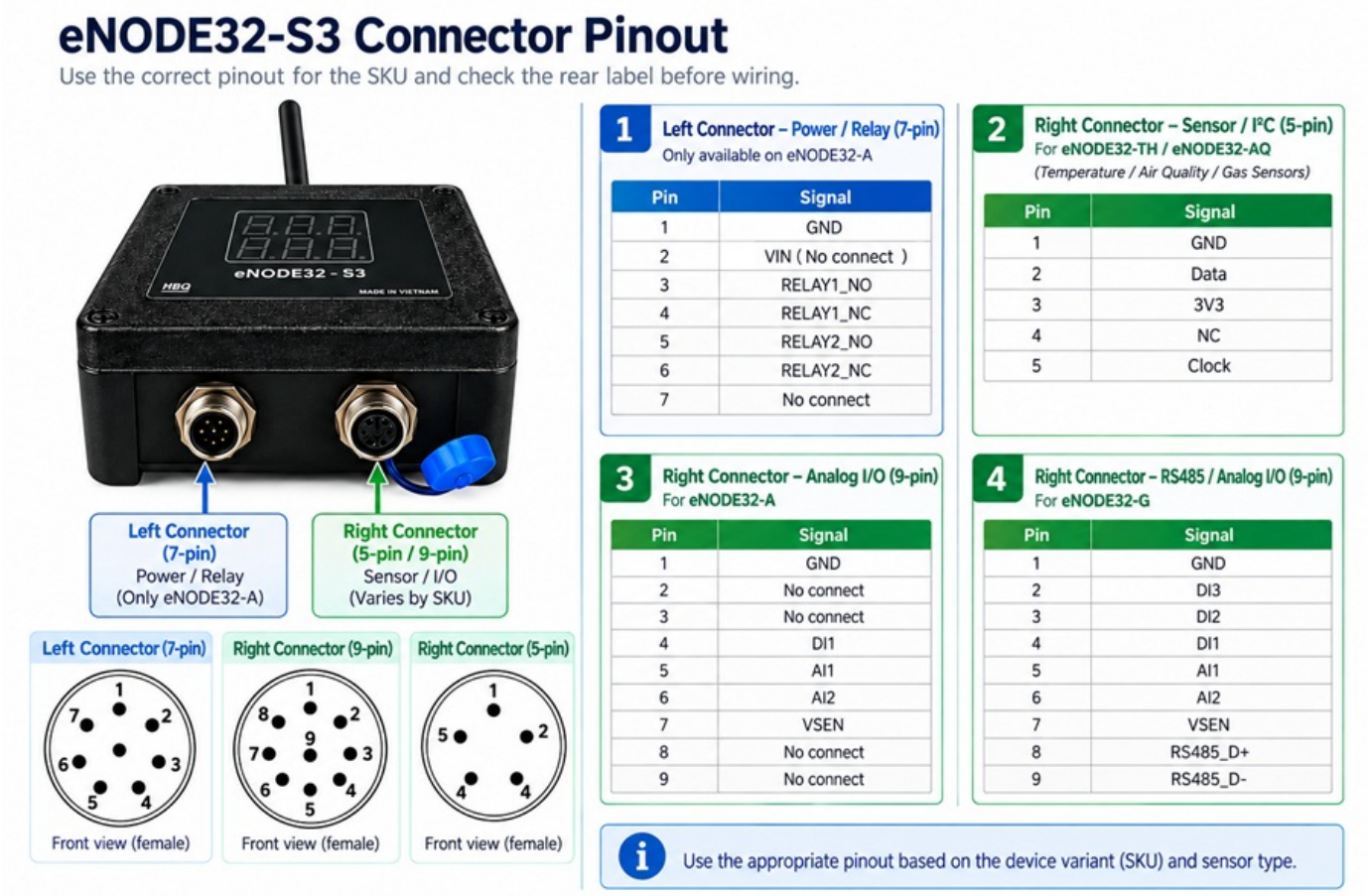
106 x 120 x 60 mm	< 500 g	4 corners	IP65
Enclosure, excluding antenna and cables	Reference weight	Screw mounting	Design target, factory-tested; verify project requirements

Before installation, confirm the SKU, cable routing, mounting clearance and connector assignment on the rear label.

06 CONNECTORS

Pinout by version

Use the connector drawing for the exact SKU and verify the rear label. The image retains earlier eNODE32-S3 and Power/Relay labels. Power enters through the separate DC jack; never supply a pin marked No connect.



Version A

Left 7-pin relay and right 9-pin analog/DI connectors. Supply via DC jack.

Version TH / AQ

Right 5-pin remote I2C sensor connector; no Modbus port.

Version G

Right 9-pin analog/DI/RS485 connector; public RS485 marking D+/D-.

Safety: check DC plug and polarity against the rear label. Leave pins marked NC or No connect unconnected; confirm relay contacts on the approved device label.

07 MANUAL AND ORDERING

Select a version and commission online

Installation, configuration, sensor profiles and commissioning steps are maintained on the product Wiki.

eNode-Gen2 Configuration Guide

Web setup, CSV import, sensor profiles, local alerts and connector reference.

wiki.hbqsolution.com/enode32.html

Ordering information

SKU	Configuration	Primary purpose
Version A	Analog Sensor - 2 AI, 1 DI, 2 relays	Analog field sensing
Version TH	SHT40 temperature / humidity	Environmental T/RH
Version AQ	SPS30 particulate / PM	Air quality
Version G	General Version - 2 AI, 3 DI, RS485	Mixed analog and Modbus

Current catalog: four versions

Confirm connector and supply details for the ordered SKU. The maximum configuration is 8 logical channels and 8 alert rules with combined logic conditions.

HBQ TECHNOLOGY

HBQ Technology Co., Ltd.

contact@hbqsolution.com | +84 357 191 643 | web.hbqsolution.com