AL-515-00-868 EnoDisc® 2, CE

Secure EnOcean-to-IP gateway with TLS, Ethernet and Wi-Fi
Order no. 12984

PRELIMINARY DATA SHEET – as of 01.11.2026. Values marked “to follow” will be added with the series release.

Interfaces:
1x Ethernet RJ45 (10/100 Mbit/s, PoE), Wi-Fi 2.4 GHz, 1x EnOcean 868.3 MHz bidirectional (internal antenna or external via SMA), supply: PoE or 24 V DC,
further radio frequencies in preparation: EnOcean 902 / 921 / 928 MHz, additionally 2.4 GHz,
86 x 86 x 25.5 mm





The EnoDisc® 2 securely connects batteryless EnOcean® wireless sensors to your network. It receives and transmits EnOcean radio at 868.3 MHz and forwards every telegram immediately: as an encrypted ESP3 data stream to the VL-700 BASE 2 or as an MQTT message to your broker. Further radio frequencies are in preparation, as for all country variants of the EnoDisc®: EnOcean at 902 MHz (USA, Colombia), 921 MHz (Taiwan, Korea) and 928 MHz (Japan), and 2.4 GHz in addition to EnOcean.

Every connection is encrypted. The VL-700 BASE 2 and the EnoDisc® 2 authenticate each other with certificates; from the factory, both devices carry certificates from the DEUTA manufacturer PKI and recognize each other without configuration. Alternatively, you can integrate your own PKI. The firmware only starts if it has been signed by DEUTA.

Ethernet and Wi-Fi work in parallel. If the cable fails, Wi-Fi takes over automatically; during short network outages, the EnoDisc® 2 buffers telegrams for 30 seconds and delivers them afterwards.

Configuration is done in a web interface in the browser. For commissioning, the device opens its own Wi-Fi access point; the credentials are printed on each device label. Eight status LEDs show the state without any software.

Technical data

Radio interface

Type	EnOcean ERP1, bidirectional (receive and transmit)
Quantity	1
Transmit/receive center frequency	868.3 MHz / ASK
Frequency range used	868.0 – 868.6 MHz
Further radio frequencies	in preparation: EnOcean 902 MHz (USA, Colombia), 921 MHz (Taiwan, Korea) and 928 MHz (Japan), additionally 2.4 GHz
Transmit power	10 dBm (default setting)
Receive threshold	−96 dBm (default setting)
Antenna	internal or external via SMA jack, selectable in the web interface
Telegram types	all ERP1 telegrams, incl. RPS, 1BS, 4BS, VLD
Capacity	designed for approx. 100 sensors; tested with 50 telegrams/s without loss
Frequency calibration	individually for each device in production
Range	to follow

Table 1: EnOcean radio interface

Network

Ethernet	10/100 Mbit/s, RJ45
Wi-Fi	2.4 GHz, simultaneously with Ethernet
Failover	Ethernet preferred, automatic switch to Wi-Fi on failure
IP	IPv4, DHCP
Name resolution	mDNS (<hostname>.local)
Time	NTP or manual
Commissioning	own Wi-Fi access point, credentials per device on the label

Table 2: Network interfaces

Forwarding (selectable)

Feature	ESP3 server	MQTT client
Transport	TLS 1.2 / 1.3, port 8424	MQTT 3.1.1 over TLS
Authentication	client certificate, optional name rules, block list	user/password and/or client certificate
Peers	up to 2 clients simultaneously	1 broker
Data format	ESP3 as EnOcean USB300	JSON per telegram
Transmit	yes, via ESP3	yes, via topic <prefix>/tx (can be disabled)
Buffer on outage	30 s	30 s

Table 3: Forwarding via ESP3 or MQTT

Security

Firmware	signed only (secure boot), automatic rollback, downgrade blocked
Storage	encrypted
Connections	TLS 1.2 / 1.3 only (HTTPS, MQTT, ESP3)
Device identity	factory certificate from the DEUTA manufacturer PKI; the private key is generated in the device and never leaves it
Own PKI	4 identities, 10 trust slots, assignment per service, block list
Access	no default password, initial password per device, lockout after failed attempts
Log	security log with 500 entries
Security updates	for at least 5 years

Table 4: Security functions

Web interface

Access	HTTPS, no plug-ins and no external content
Language	English
Users	up to 8; roles User (view), Elevated (configure), Admin
Sessions	up to 8; logout after 15 min of inactivity, after 12 h at the latest

Table 5: Operation via the browser

Display and controls

Status LEDs	8, RGB, brightness in 4 levels, mode normal / warnings only / off
Button	1 (access point, factory reset, recovery)

Table 6: Display and controls

Housing / connections

Connections	RJ45 (Ethernet, PoE), plug-in terminal 24 V DC, SMA jack for external antenna
Housing	ABS, UL94-V0, white RAL 9003, vented
Mounting	wall or ceiling, also on suspended grid ceilings

Table 7: Housing and connections

Power supply

Supply	PoE or 24 V DC
PoE class	to follow
Power consumption	to follow

Table 8: Power supply

Ambient conditions

Operating temperature	to follow
Storage temperature	to follow
Humidity	to follow
Protection class	IP20

Table 9: Permissible ambient conditions

Dimensions and weight

Dimensions	86 x 86 x 25.5 mm
Weight	to follow

Table 10: Dimensions and weight

Tests / approvals

CE	2014/53/EU RED Directive RoHS 3 Directive, 2011/65/EU + Annex 2015/863/EU
FCC	in preparation
Production test	each device individually tested and logged

Table 11: Tests and approvals

Factory settings

IP	via DHCP
Hostname	AL-515-<serial number>
ESP3 port	8424 (TLS)
Credentials	per device on the label

Table 12: Factory settings

Supported EEPs (EnOcean Equipment Profiles)

Receive / RX

No.	EEP	Description
–	n/a	all ERP1 telegrams, forwarded unchanged

Table 13: Received EnOcean profiles

The EnoDisc® 2 does not interpret the received EnOcean data but forwards it unchanged: in ESP3 format to a controller, for example the VL-700 BASE 2, or as a JSON message to an MQTT broker. The peer evaluates the data according to the EEP. Decoding in the device is planned for a later firmware version.

Device description

Power supply

The EnoDisc® 2 is powered via the Ethernet cable from a PoE switch or a PoE injector. Alternatively, it can be supplied with 24 V DC via the plug-in terminal.

Network

Ethernet and Wi-Fi work simultaneously; Ethernet is the preferred path. If the cable connection fails, Wi-Fi takes over automatically. The IP address is obtained via DHCP. On the local network, the device is reachable at <hostname>.local.

Forwarding

Telegrams are sent either to up to two ESP3 clients or to one MQTT broker. The ESP3 server only accepts clients with a valid certificate; towards the application it behaves like an EnOcean USB300. The MQTT client always verifies the broker certificate. If the connection is lost, telegrams are buffered for 30 seconds and delivered afterwards.

Certificates

Each EnoDisc® 2 generates its own private key and carries a factory certificate from the DEUTA manufacturer PKI, issued to its serial number. This establishes mutual trust with the VL-700 BASE 2 out of the box. For your own PKI, create a certificate signing request (CSR) in the web interface; up to four own identities and ten trust slots can be assigned per service (HTTPS, MQTT, ESP3). The device warns 30 days before a certificate expires.

Status LEDs

Eight LEDs show the device state. The colors always have the same meaning: green = OK, yellow (slow blinking) = notice, red (fast blinking) = error, blue = special state.

LED	Function	Green	Yellow	Red / Blue
1	Reserve	reserved for future functions	–	–
2	System	running	start-up, self-test after update, memory warning	start-up error, watchdog restart
3	Security	off = everything OK	time invalid, certificate expiring soon	certificate expired
4	Radio	ready to receive, flickers per telegram	–	radio module not responding
5	Forwarding	MQTT or ESP3 peer connected	no connection, waiting for time	TLS, certificate or login error
6	Access	–	commissioning pending	blue: Wi-Fi access point active
7	Wi-Fi	connected	connecting	login rejected
8	Ethernet	connected with IP address	connected without IP address	no connection

Table 14: Meaning of the status LEDs

Web interface

Configuration is done in the browser, exclusively via HTTPS. Up to eight users each receive a role: User (view), Elevated (additionally network and forwarding) or Admin (additionally users, certificates and firmware). There is no default password; the initial password is printed on each device label and must be changed at the first login.

Firmware update

Updates are installed via the web interface. The device only accepts firmware signed by DEUTA. After the restart, the new firmware tests itself; if this fails, the device starts again with the previous version. Downgrading to older, vulnerable versions is blocked.

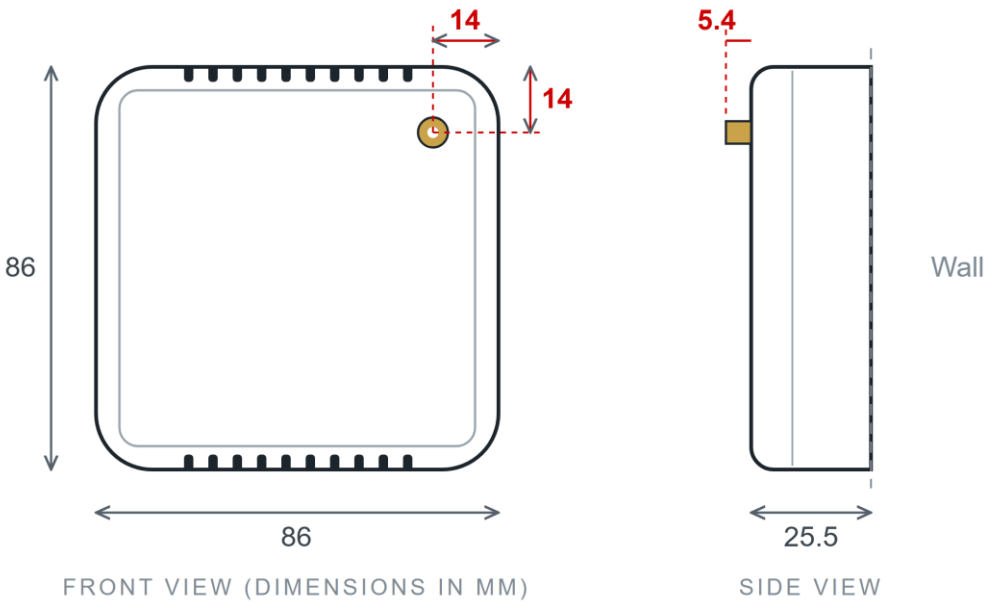
Mounting

The clip housing is mounted on the wall or on the ceiling, also on panels of suspended grid ceilings (with cavity anchors or a wooden backing behind the panel). Cables are fed in from the rear. An external rod antenna (accessory) is screwed onto the SMA jack at the top right.

Production test

Each device is individually tested and logged before delivery: button, frequency calibration, noise level, radio link, Ethernet, Wi-Fi and power supply.

Dimensions



Ordering information

Item	Order no.	Description
AL-515-00-868 EnoDisc® 2 / white / CE	12984	Secure EnOcean-to-IP gateway; EnOcean 868.3 MHz bidirectional; Ethernet 10/100 Mbit/s and Wi-Fi 2.4 GHz; forwarding via ESP3 over TLS or MQTT over TLS; supply PoE or 24 V DC; internal antenna, SMA connector for external antenna; 86 x 86 x 25.5 mm; white; CE
External rod antenna 868 MHz / white	to follow	Accessory; SMA connector

Table 15: Ordering information

Note:

This device is approved for operation within the member states of the European Union only.

EU declaration of conformity

DEUTA Controls GmbH hereby declares that the radio equipment type **AL-515-00-868 EnoDisc® 2, CE** is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.deuta-controls.net under Service/Downloads (doc. no. to follow).

Document control			
Document no.	DB-12984-EN-01	Version	1 (preliminary)
Date	01.11.2026	Classification	Public
Author	Technical documentation	Reviewed and approved	pending
Change	First edition, preliminary: values for power consumption, ambient conditions, weight and range to follow		
Printed copies are not subject to change control. The currently valid version is available at www.deuta-controls.net under Service/Downloads.			

Table 16: Document control