



## VL-700 BASE ETH

**IoT Edge Controller, 2x Ethernet, +24V DC**

Version 1.00

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Every conceivable measure has been taken to ensure the accuracy and completeness of this documentation. However, as errors can never be fully excluded, we always appreciate any information or suggestions for improving the documentation.

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## 1.1 About this manual

This manual describes the products

- VL-700 BASE ETH / Part. Nr. 12757

(also referred to as "PRODUCT" in this document). These operating instructions are part of the product.

- You may only use the product if you have fully read and understood this manual.
- Verify that this manual is always accessible for any type of work performed on or with the product.
- Pass this manual as well as all other product-related documents to all owners of the product.
- If you feel that this manual errors, inconsistencies, ambiguities or other issues, contact the manufacturer prior to using the product.

This manual is protected by copyright and may only be used as provided for by the corresponding copyright legislation. We reserve the right to modifications. The manufacturer shall not be liable in any form whatsoever for direct or consequential damage resulting from failure to observe these operating instructions or from failure to comply with directives, regulations and standards and any other statutory requirements applicable at the installation site of the product.

## 1.2 Notes about this Manual

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### Note

#### **Always retain this documentation!**

This documentation is part of the product. Therefore, retain the documentation during the entire service life of the product. Pass on the documentation to any subsequent user. In addition, ensure that any supplement to this documentation is included, if necessary.

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**Note****Technical terms in this documentation**

The technical terms used in this documentation are available in the glossary at the end of the manual.

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### 1.3 Validity of this documentation

This documentation applies to the following products:

- VL-700 BASE ETH / Part. Nr. 12757

The device must only be installed and operated according to the instructions in this manual.

## 1.4 Symbols / Information on safety

The symbols in this is document and their meaning are as follows:

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 **DANGER****Personal Injury!**

Indicates a high-risk, imminently hazardous situation which, if not avoided, will result in death or serious injury.

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 **DANGER****Personal Injury Caused by Electric Current!**

Indicates a high-risk, imminently hazardous situation which, if not avoided, will result in death or serious injury.

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 **WARNING****Personal Injury!**

Indicates a moderate-risk, potentially hazardous situation which, if not avoided, could result in death or serious injury.

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 **CAUTION****Personal Injury!**

Indicates a low-risk, potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

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**NOTICE****Damage to Property!**

Indicates a potentially hazardous situation which, if not avoided, may result in damage to property.

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**NOTICE****Damage to Property caused by Electrostatic Discharge (ESD)!**

Indicates a potentially hazardous situation which, if not avoided, may result in damage to property.

**Note****Important Note!**

Indicates a potential malfunction which, if not avoided, however, will not result in damage to property.

**Information****Additional Information:**

Refers to additional information which is not an integral part of this documentation (e.g., the Internet).

## 2 Information on product safety

### 2.1 Intended use

The **VL-700 BASE ETH** can be used as an IoT Edge controller to collect and transmit data to a customer's IoT cloud for data evaluation purposes.

### 2.2 Predictable incorrect application

The product **VL-700 BASE ETH** must never be used in the following cases and for the following purposes:

 **DANGER****Personal Injury!**

Products must never be used solely or in conjunction with devices which are used for health-saving or life-saving purposes, or whose operation may incur hazards to humans, animals or property.

** DANGER****Do not use in Hazardous area (EX)**

If the products are operated in hazardous areas, sparks may cause deflagrations, fires or explosions

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**NOTICE****Risk of electric defect due to high humidity**

Do not use the VL-700 BASE ETH in rooms that are subject to high humidity (such as bathrooms).

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**NOTICE****Risk of overheating!**

Do not position the VL-700 BASE ETH close to the floor or the ceiling, between shelves or behind curtains.

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** CAUTION****Do not use for health-saving or life-saving purposes!**

In conjunction with devices which are used for health-saving or life-saving purposes or whose operation may incur hazards to humans, animals or property!

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## 2.3 Qualification of personnel

### 2.3.1 VL-700 BASE ETH

This product is powered by an external power supply with +24 V DC. There is no special training necessary to use them.

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**NOTICE****Replace defective or damaged devices!**

Replace defective or damaged devices, i.e. products or power supplies (e.g., in the event of damaged housings or contacts).

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### 3 Disposal



Electrical and electronic equipment may not be disposed of with household waste. This also applies to products without this symbol.

Electrical and electronic equipment contain materials and substances that can be harmful to the environment and health. Electrical and electronic equipment must be disposed of properly after use.

Note only for EU: WEEE 2012/19/EU applies throughout Europe. Directives and laws may vary nationally.

## 4 Functional description

### 4.1 Functionality

The software functionality is described in the document

SW\_User\_manual\_VL\_700\_BASE\_IoT\_V1\_2\_2022\_01\_05\_EN.pdf

### 4.2 Observe intended use

The **VL-700 BASE ETH** must not be used in any relation with equipment that supports, directly or indirectly, human health or life or with applications that can result in danger for people, animals or real value.

## 5 Technical data

### 5.1 Display

Type	No display
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Table 1: Technical data / Display

### 5.2 System resources

CPU	0 .. 2.550 ppm (with MSC instead of standard EEP up to 10.000 ppm, on request)
Operating system	$\pm 30$ ppm + 3% MV (@ 25 °C, range 400 – 2.550 ppm)
RAM	10 ppm
FLASH	2,5 ppm / °C
Real Time Clock	Typ. 25 s
RTC backup	Yes, rechargeable battery
Buzzer	No

Table 2: Technical data / System resources

### 5.3 User interfaces

Touc screen	No
Type	-

Table 3: Technical data / User interface

### 5.4 Interfaces

Ethernet	2x 10/100 Mbit/s
USB	-
Serial	-
SD card	-
Expansion slot	-

Table 4: Technical data / Interfaces

### 5.5 Power supply

Supply voltage	+24 V DC (10 .. 32 V DC)
Power consumption	0.5 A max. @ 24 V DC
Fuse	Yes resettable fuse

Table 5: Technical data / Power supply

### 5.6 Environmental conditions

Operating temp.	-20° .. +60° C
Storage temp.	-20° .. +70° C
Humidity	5 .. 85% rel. humidity, non condensing
Protection class	IP20

Table 6: Technical data / Environmental conditions

### 5.7 Dimensions and weight

Dimensions (LxHxD)	45 x 134 x 102 mm (L x H x D)
Weight	0.6 Kg

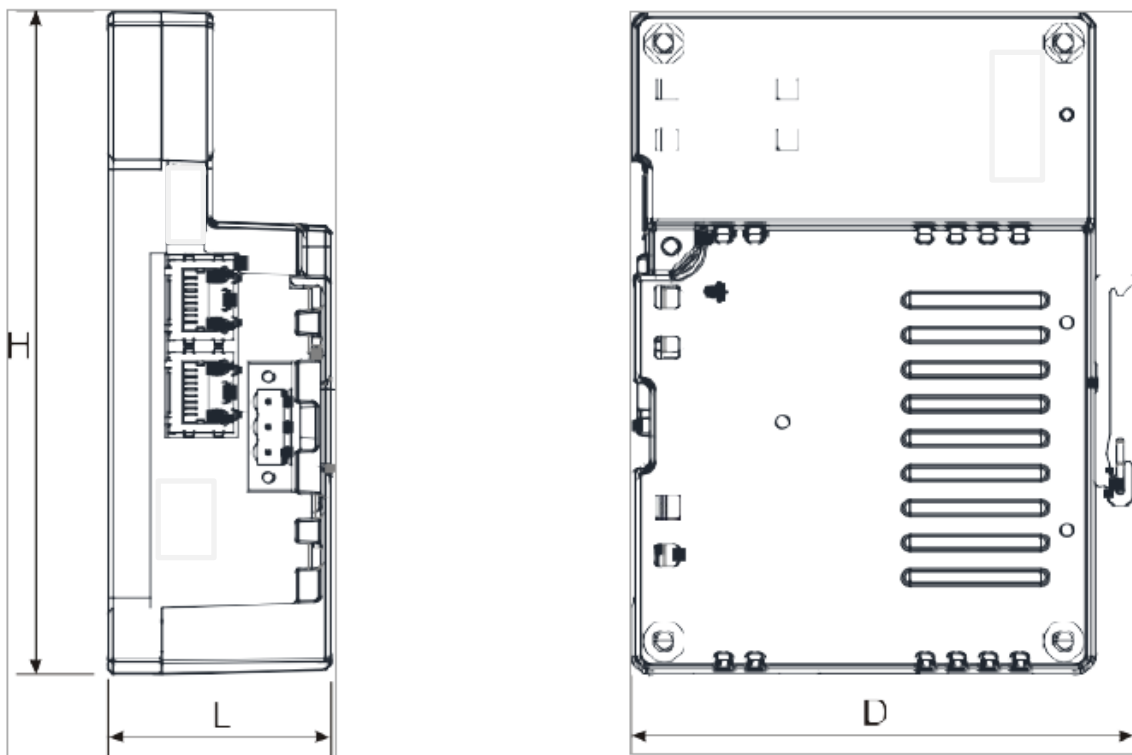
Table 7: Technical data / Dimensions and weight

## 5.8 Standards / approvals

CE	EN 61000-6-4 EN 61000-6-2, industrial environment EN 61000-6-3 EN 61000-6-1 EN 60945
UL	cULus: UL61010-1 / UL61010-2-201 cULus: Class 1 Div 2 Zone 2: Ex nA IIC T5 Gc Zone 2: II 3 G Ex nA IIC T5 Gc
IECEX ATEX DNV-GL	Yes Yes

Table 8: Technical data / Standards / approvals

## 5.9 Dimensions



## 6 Ordering information

Article text	Part number	Description
VL-700 BASE ETH	12757	CPU module and IoT Controller, 4 GB Flash, 512 MB RAM, ARM Cortex-A8 Single Core 1 GHz, Linux RT, 2x Ethernet Ports 10/100, 24V DC, 0.5A, Operating temp. extended, -20°C to +60°C, with jMobile-Runtime, Dimensions: 45 x 134 x 102 mm

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## 7 Revision history

Version	Author	Reviewer	Date	Major changes
1.00	Lehzen	Pohl	21.07.2023	Initial release

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