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Danfoss e30bv013.10 VLT Mains Free Interface

Danfoss e30bv013.10 VLT Mains Free Interface Installation Guide

Contents

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Product Information

Specifications

- **Model:** e30bv013.10
- **Manufacturer:** Danfoss A/S
- **Connectivity:** USB Type A
- **LED Indication:** Yes

Product Usage Instructions

1. **Installation and Usage**

   1. **Description**

      The product is designed to facilitate communication between a PC and a drive unit. It requires the installation of drivers on the PC for proper functionality.

   2. **Item Supplied**

      The product package includes the communication device and necessary cables for connection.

   3. **Product Overview**

      The product features front, side, and back views for easy identification of ports and connections. Refer to the illustrations provided for recommended cable examples.

2. **Safety Precautions**

   Before installation or usage, ensure that the product is disconnected from power sources to prevent electrical hazards.

3. **Installation**

Follow the installation guide provided in the manual to securely connect the device to the PC and the drive unit.

Usage

- **Installing Driver on the PC**

  Download and install the required drivers on the PC to enable communication with the drive unit.

- **COM Port Configuration**

  Check and configure the COM port settings on the PC. Refer to Illustration 5 for guidance on locating the COM port number.

- **LED Indication**

  The product features LEDs for status indication. Refer to Table 1 for an understanding of the different LED statuses and their meanings.

FAQ

Q: How do I know if the product is successfully connected to the drive?
A: The LED will start flashing initially and become solid after a few seconds, indicating a successful connection.

Description
This installation guide explains how to install and use the USB-based VLT® Mains-Free Interface.

Item Supplied

- VLT® Mains-Free Interface (code number: 132B9222)
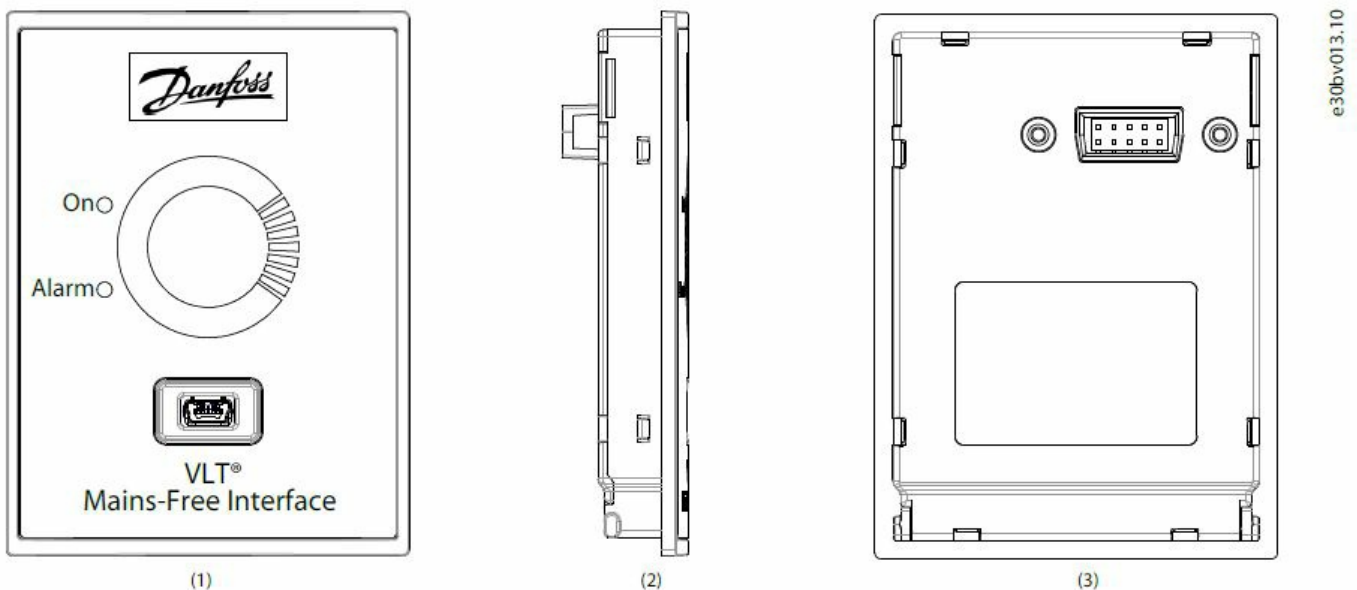
Product Overview

Illustration 1: VLT® Mains-Free Interface

1. Front view
2. Side view

3. Back view

The connection between the VLT® Mains-Free Interface and a PC is based on a USB 2.0 interface. A Mini-B USB connector is located on the front side, and a standard drive connector is located on the backside. Both Vthe LT® Mains-Free Interface and the drive get current from the PC USB ports, thus the drive is mains-free when the VLT® Mains-Free Interface is installed on the drive.

- For drives of enclosure size H1–H5 and I2–I4, the required current is within the standard capability of a single USB port, and a single USB type A connector can be used.
- For drives of enclosure size H6–H10 and I6–I8, more than 500 mA current is required (500 mA is the maximum standard current a USB port can deliver). It is recommended to use a double USB type A cable for connection to a PC. It is possible for the drive to obtain the required current via both of the USB ports (the 2nd USB port is marked with Auxiliary power only).

See Illustration 2 for the recommended cable examples.

NOTICE
The cables are not provided with the VLT® Mains-Free Interface.

Installation and Usage

Illustration 2: Cable Examples

1. Example of a cable with a single USB type A connector
2. Example of a cable with 2 male connectors to the PC

NOTICE

- Connecting the VLT® Mains-Free Interface to a live drive may impair the use of the standard RS485 port on the drive.
- For IP54 drives, the VLT® Mains-Free Interface can be used only for programming. To keep the IP54 level, LCP must be reinstalled.

Safety Precautions

- Only qualified personnel are allowed to install the VLT® Mains-Free Interface described in this installation
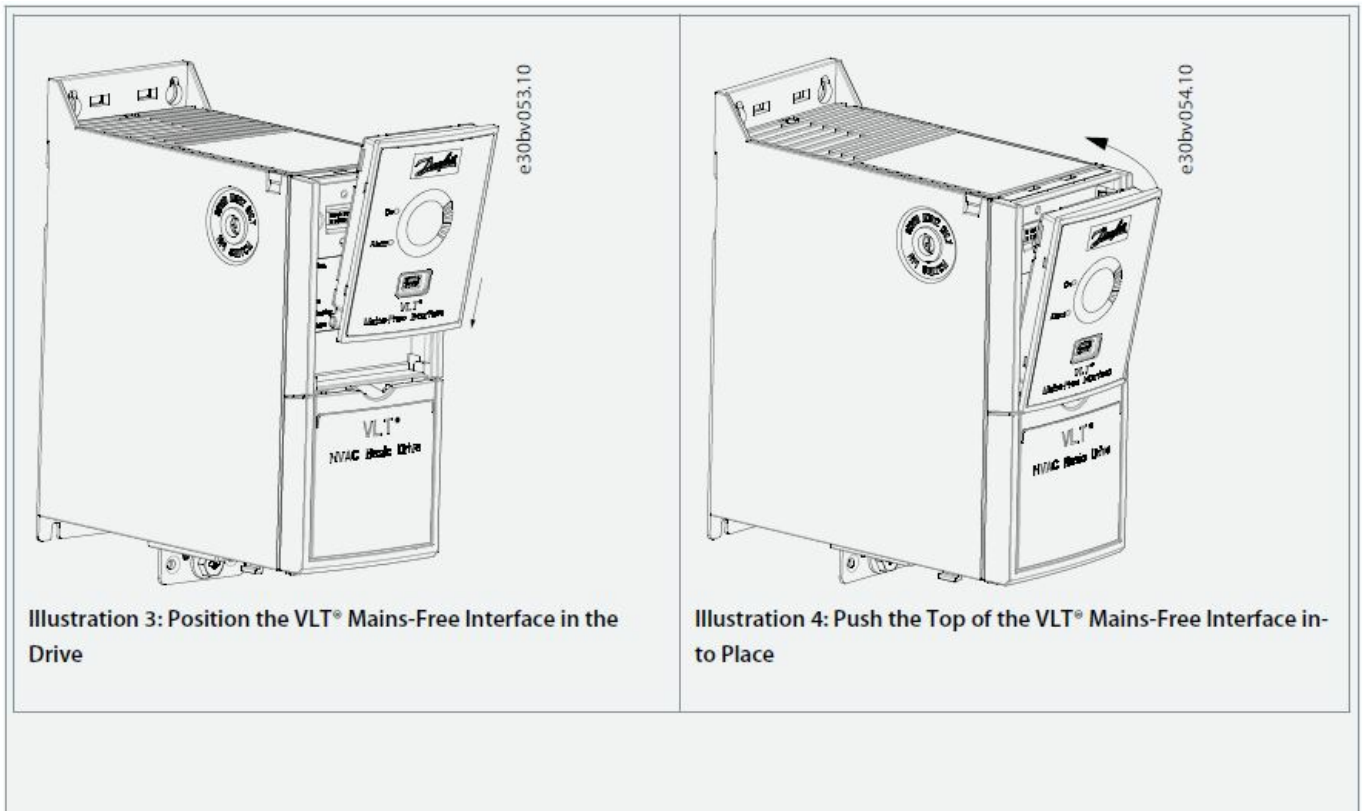
guide.

- For important information about safety precautions for installation, refer to the drive's operating guide.

Installation

The VLT® Mains-Free Interface is physically identical to the local control panel (LCP 31) and connects to the same dedicated port on the drive. The VLT® Mains-Free Interface can be mounted to the drive as follows:

Procedure

1. Position the bottom of the VLT® Mains-Free Interface in the drive, see Illustration 3.
2. Push the top of the VLT® Mains-Free Interface into place, see Illustration 4.

Illustration 3: Position the VLT® Mains-Free Interface in the Drive

Illustration 4: Push the Top of the VLT® Mains-Free Interface into Place

NOTICE

The VLT® Mains-Free Interface can also be connected to the drive using the remote mounting kit cable or the RJ45 converter plugs.

Usage

Installing Driver on the PC

Before connecting the VLT® Mains-Free Interface, install the correct driver on the PC first. Download the following files from the Danfoss website **https://suite.mydrive.danfoss.com/introduction**.

- For Win7 32-bit operating system, use dpinst_x86.exe.
- For Win7 64-bit operating system, use dpinst_amd64.exe.
- For Win10 32-bit operating system, use dpinst_x86.exe.
- For Win10 64-bit operating system, use dpinst_amd64.exe.

NOTICE

The minimum software versions to use the VLT® Mains-Free Interface is 4.23 on the drive, 10.11 on the test monitor, and 1.00 or later of the VLT® Mains-Free Interface for firmware download and parameter/SIVP programming.
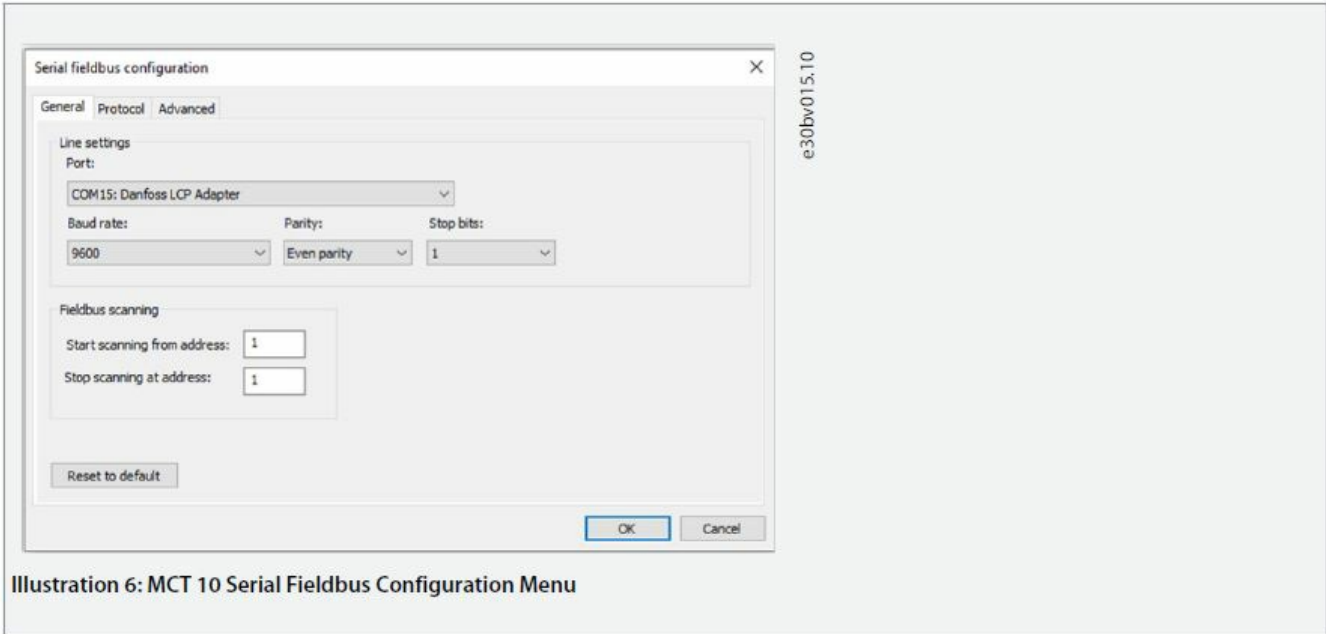
COM Port

Before configuring the COM port, the VLT® Mains-Free Interface must be installed on the drive and the correct driver must be installed on the PC.

Procedure

1. Connect the VLT® Mains-Free Interface to the PC using the recommended cable.
   - A COM port named Danfoss LCP Adapter is created when the VLT® Mains-Free Interface is connected to a PC.
2. Check the COM port number in Device Manager as shown in Illustration 5.

   ➡ The COM port number is *15* in the following example.

Illustration 5: COM Port Number Example

3. The COM port created by the VLT® Mains-Free Interface can be used with the Danfoss PC communication tool (VLT® Motion Control Tool MCT 10) or any standard terminal communication software. See the following example:

Illustration 6: MCT 10 Serial Fieldbus Configuration Menu

LED Indication

After the successful connection between the VLT® Mains-Free Interface and PC, the green LED at the front of the VLT® Mains-Free Interface indicates the connection status, see Table 1.

Table 1: LED Indication

LED status	Description
Starts flashing, and becomes solid after a few seconds.	Successful connection to the drive.
Keeps flashing.	Incompatibility between the drive software and the VLT® Mains-Free Inter-face.

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- **vlt-drives.danfoss.com**.

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* 1 3 0 R 1 2 3 0 *
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Documents / Resources

Danfoss e30bv013.10 VLT Mains Free Interface [pdf] Installation Guide
e30bv013.10 VLT Mains Free Interface, e30bv013.10 VLT, Mains Free Interface, Free Interface, Interface

References

- 🌐 **Global AC drive manufacturer - Danfoss Drives | Danfoss**
- **MyDrive® Suite**
- **User Manual**