Accessories for OPTITEMP transmitters
Including the Ex-approved USB-interface TT-CON Ex

Transmitter configuration kit
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1.1 General safety notes

CAUTION!
The USB interface TT-CON Ex is an Ex-approved product that is intended to be used for all type of transmitters when in safe areas.

1.2 General information

The configuration kit includes all necessary software and hardware for configuration of the temperature transmitters from a PC’s USB port.

Configuration starts from the main program ConSoft. ConSoft will identify the connected transmitter and open the necessary configuration software.

TT-CON Ex configuration kit consists of:
- USB interface TT-CON Ex
- USB cable (connection between PC and USB interface)
- Adapter cables (connection between USB interface and transmitter)
- Software and drivers on a USB memory stick

The configuration kit is compatible with Windows XP (SP3), Windows Vista, Windows 7, Windows 8, Windows 8.1 and Windows 10.

CAUTION!
Only one transmitter may be connected at a time.

1.3 Certifications

1.3.1 EU directive compliance

The USB interface, used with the provided cables, is CE-marked and complies with the EMC directive 2014/30/EU based on the harmonised standard EN 61326-1:2013 and the ATEX-directive 2014/34/EU based on the harmonised standards EN 60079-0:2012 including A11 and EN 60079-11:2012. For more information refer to the Declaration of Conformity.

For other cables than the provided and with cable length 3 m / 9.8 ft. other requirements are valid and are not covered by this EMC directive.

1.3.2 Ex approvals

<table>
<thead>
<tr>
<th>ATEX</th>
<th>KIWA 16ATEX0014 X</th>
<th>II (1) G [Ex ia Ga] IIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>IECEx</td>
<td>IECEx KIWA 16.0006X</td>
<td>[Ex ia Ga] IIC</td>
</tr>
</tbody>
</table>

See also "Special conditions for safe use" in the Ex certificates in the download area of the manufacturer’s website.
1.4 Scope of delivery

Figure 1-1: Scope of delivery

1. USB communication cable (connection between PC and USB interface)
2. USB interface
3. Mini USB to Mini USB adapter (USB interface to transmitter)
4. Mini USB to four pole rectangular connector (USB Interface to transmitter)
5. Mini USB to 3.5 mm tele plug connector (USB Interface to transmitter)
6. Mini USB to three pole rectangular connector (USB Interface to transmitter)

1.5 Nameplate

PN = Part number
SN = Serial number (yyww = year and week of manufacturing)
PO = Batch number
1.6 Technical data

Operating conditions

<table>
<thead>
<tr>
<th></th>
<th>0...+50°C / +32...+122°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process temperature</td>
<td></td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20...+70°C / -4...+158°F</td>
</tr>
<tr>
<td>Humidity (non-condensing)</td>
<td>0...90% RH</td>
</tr>
</tbody>
</table>

Installation

<table>
<thead>
<tr>
<th>Installation</th>
<th>For detailed information, refer to chapter &quot;Installation&quot;.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions USB interface</td>
<td>Length: 114 mm / 4.49&quot;; width: 36 mm / 1.42&quot;; height: 26 mm / 1.02&quot;</td>
</tr>
</tbody>
</table>

Electrical connection

<table>
<thead>
<tr>
<th>Power supply</th>
<th>PC’s USB port; 5 VDC; 74 mA max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galvanic isolation</td>
<td>1500 VAC</td>
</tr>
<tr>
<td>Input (PC to USB interface)</td>
<td>USB cable type A to type B</td>
</tr>
<tr>
<td>Output (USB interface to transmitter)</td>
<td>Changeable adapter cables</td>
</tr>
</tbody>
</table>

System requirements

<table>
<thead>
<tr>
<th>Windows</th>
<th>Windows XP (SP3), Vista, 7, 8, 8.1 or 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display resolution</td>
<td>Minimum 800x600</td>
</tr>
<tr>
<td>Free hard disk space</td>
<td>185 MB</td>
</tr>
<tr>
<td>PC Port</td>
<td>1x USB 1.1 or higher port type A</td>
</tr>
<tr>
<td>Ex parameters</td>
<td></td>
</tr>
<tr>
<td>Comm. port (PC connection)</td>
<td>Um = Vmax : 250 V AC/DC</td>
</tr>
<tr>
<td>Output port (to transmitter)</td>
<td>Uo = Voc : 9.4 VDC</td>
</tr>
<tr>
<td></td>
<td>Io = Isc : 96 mA</td>
</tr>
<tr>
<td></td>
<td>Po : 680 mW</td>
</tr>
</tbody>
</table>
2.1 General safety notes

**CAUTION!**
The USB interface TT-CON Ex is an Ex-approved product that is intended to be used for all type of transmitters when in safe areas.

2.2 Safety Diagram

![Safety Diagram](image)

1. Hazardous Area
2. Safe Area
3. Temperature Sensor
4. Temperature Transmitter
5. TT-CON Ex USB interface
6. Ex-approved Power Supply/ Zener barrier
7. PC

2.3 Installation of USB interface drivers

Before you can use the USB interface you must install the USB drivers on your PC. The setup file includes drivers for the USB interface and can be installed manually when running the setup file. The drivers can also be installed automatically by using Windows Update if the computer supports this function.

For detailed information refer to section "Installation guide for ConSoft and USB-Interface drivers".

All software, USB drivers and installation guides can also be downloaded from the website.
2.4 Installation of configuration software ConSoft

All necessary software for configuration are included on the memory stick or can be downloaded from the website of the manufacturer.

For detailed information refer to section “Installation guide for ConSoft and USB-Interface drivers”.

All software, USB drivers and installation guides can also be downloaded from the website.

2.5 Description of USB interface

The USB interface is powered from the PC’s USB port. There are three LED indicators on the USB interface: “USB”, “PC” and “DEV”. They are indicators to make the understanding of the communication between PC and transmitter easier. Their functions are described below:

- “USB” LED indicates data transfer. It lights during data transfer, otherwise it is off.
- “PC” LED indicates connection between configuration program and PC. It is green only during reading or writing to transmitter.
- “DEV” LED indicates the transmitter connection status. If it’s green, the connected transmitter is detected by the USB interface. Flashing green indicates that the USB interface is waiting for a new transmitter from the same product family, e.g. changing to a new device. When it’s red no transmitter is detected by the USB interface and any sort of transmitter can be connected to the USB interface.

**CAUTION!**
The installation guide must be read prior to installation.

2.6 Installation guide for ConSoft and USB-Interface drivers

Locate the executable setup file “ConSoftSetup”. Double click on the file to start the installation process and follow the instructions on screen.
## 2.7 Troubleshooting

<table>
<thead>
<tr>
<th>Error message</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error message “USB Interface is not installed. The program will not work.”</td>
<td>Install drivers for the USB interface.</td>
</tr>
<tr>
<td>displayed when starting ConSoft.</td>
<td></td>
</tr>
<tr>
<td>Error message “USB Interface:s hardware and/or software should be updated.”</td>
<td>Contact us for update of your USB interface.</td>
</tr>
<tr>
<td>appears in ConSoft.</td>
<td></td>
</tr>
<tr>
<td>Error message “Unable to install because a newer version of this product is</td>
<td>A newer version of ConSoft is already installed on the computer. If</td>
</tr>
<tr>
<td>already installed.” is displayed during installation of ConSoft.</td>
<td>you still want to install the older version, uninstall ConSoft through</td>
</tr>
<tr>
<td></td>
<td>“Control Panel – Add or Remove Programs”.</td>
</tr>
</tbody>
</table>
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