Operating Instructions Field Xpert SMT77

Universal, high-performance tablet PC for device configuration in Ex Zone 1 areas





Change history Field Xpert SMT77

Change history

Product version	Operating instructions	Changes
1.00.xx	BA01923S/04/EN/ 01.18	Initial version
1.04.xx	BA01923S/04/EN/ 02.19	 New screenshots Section 1.2.3: New symbols Section 4.2.1: Manufacturer's address Section 8.2: Bluetooth connection Section 8.4: License renewal Section 8.7.1: Offline use case Section 8.7.2: Link to Netilion Library Section 8.8: Uploading a photo to the Netilion Library
1.05.xx	BA01923S/04/EN/ 03.20	 New screenshots Section 1.2.3: New symbols Section 4.2: Nameplate Section 8.2: Bluetooth connection and WLAN Section 8.4: License renewal New section 8.7 "Netilion Library" New section 8.8 "Scanner app" New section 8.9 "Uploading a Heartbeat Verification report to the Netilion Library"
1.06.xx	BA01923S/04/EN/ 04.22	 Screenshots in English from this version Section 5.3: Software Update Service Section 9.1: Battery maintenance Appendix: Protecting mobile devices
1.07.xx	BA01923S/04/EN/ 05.22	 Section 1.2.3: Explanation of symbols updated Section 1.3: Acronyms used Section 8: Screenshots adapted Section 8.3.6: Bluetooth (new)
1.08.xx	BA01923S/04/EN/ 06.24	 Section 1.2.3 "Field Xpert symbols": note added Section 1.4: Revised Section 3.1: Figure revised Section 5.3: Revised Section 8.2: Fieldgate PAM SFG600 removed Sections 8.5 " Fieldgate PAM SFG600 via PROFINET" removed Section 8.8 "Scanner app" removed

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About this document Field Xpert SMT77

1 About this document

1.1 Document function

These Operating Instructions contain all the information required in the various life cycle phases of the device: from product identification, incoming acceptance and storage, to installation, connection, operation and commissioning, through to troubleshooting, maintenance and disposal.

1.2 Symbols

1.2.1 Safety symbols

⚠ DANGER

This symbol alerts you to a dangerous situation. Failure to avoid this situation will result in serious or fatal injury.

WARNING

This symbol alerts you to a potentially dangerous situation. Failure to avoid this situation can result in serious or fatal injury.

A CAUTION

This symbol alerts you to a potentially dangerous situation. Failure to avoid this situation can result in minor or medium injury.

NOTICE

This symbol alerts you to a potentially harmful situation. Failure to avoid this situation can result in damage to the product or something in its vicinity.

1.2.2 Symbols for certain types of information

Symbol	Meaning
✓	Permitted Procedures, processes or actions that are permitted.
	Preferred Procedures, processes or actions that are preferred.
X	Forbidden Procedures, processes or actions that are forbidden.
i	Tip Indicates additional information.
	Reference to documentation
A=	Reference to page
	Reference to graphic

Field Xpert SMT77 About this document

Symbol	Meaning		
>	Notice or individual step to be observed		
1., 2., 3	Series of steps		
L-	Result of a step		
?	Help in the event of a problem		
	Visual inspection		

1.2.3 Field Xpert symbols

Symbol	Meaning			
	Switch tablet on and off.			
12	Windows button			
((_T))	Wireless communication (WLAN, WWAN, GPS, Bluetooth)			
□	Battery			
[*]	Opens the Offline Dynamic Installed Base Analysis (DIBA)			
	This function is only available for Endress+Hauser Service.			
A	Open the home screen of the device configuration software.			
<	Jump back to the last page opened.			
	Information and software settings.			
?	Additional information about the software.			
	Minimize the program.			
K 7	Enable full screen.			
YK YK	Disable full screen.			
×	Close the program.			

About this document Field Xpert SMT77

Symbol	Meaning
•	Scroll up
v	Scroll down
O	Update
\odot	Expand information.
⊙	Collapse information.
•	Connect automatically
t _{to}	Connect with wizard (manual connection)
	Connect with Endress+Hauser WLAN and Bluetooth devices
N ₀	RFID
\bigcirc	Cloud
☆	Favorites
	Keypad
	Camera
7	Link to Netilion Library
Û	Attach photos and PDFs to an asset in Netilion Library
 	Start
₩	Trash

1.3 Acronyms used

Acronyms	Explanation	
DFS	Dynamic Frequency Selection	
DTM	Device Type Manager	

Field Xpert SMT77 About this document

Acronyms	Explanation	
FCC	Federal Communications Commission	
HF	High frequency [RF = radio frequency]	
MSD	Menu Structure Description	
SD	Secure Digital	
WWAN	Wireless Wide Area Network	

1.4 Documentation



For an overview of the scope of the associated Technical Documentation, refer to the following:

- Device Viewer (www.endress.com/deviceviewer): Enter the serial number from the nameplate
- Endress+Hauser Operations app: Enter serial number from nameplate or scan matrix code on nameplate.

Field Xpert SMT77

- Technical Information TI01418S
- Operating Instructions BA01923S

1.5 Registered trademarks

Windows 10 IoT Enterprise® is a registered trademark of Microsoft Corporation, Redmond, Washington, USA.

Intel® Core™ is a registered trademark of Intel Corporation, Santa Clara, USA.

BARTEC is a registered trademark of BARTEC Top Holding GmbH, Bad Mergentheim/ Germany.

FOUNDATIONTM Fieldbus is the trademark of the FieldComm Group, Austin, TX 78759, USA.

HART®, WirelessHART® is the registered trademark of the FieldComm Group, Austin, TX 78759, USA.

PROFIBUS® is a registered trademark of the PROFIBUS User Organization, Karlsruhe/ Germany.

Modbus is the registered trademark of Modicon, Incorporated.

IO-Link® is a registered trademark of the IO-Link Community c/o PROFIBUS User Organization, (PNO) Karlsruhe/Germany - www.io-link.com

All other brand and product names are trademarks or registered trademarks of the companies and organizations in question.

Basic safety instructions Field Xpert SMT77

2 Basic safety instructions



The Operating Instructions supplied with the device and containing the safety instructions of the tablet PC manufacturer must be observed.

2.1 Requirements for the personnel

The personnel for installation, commissioning, diagnostics and maintenance must fulfill the following requirements:

- ► Trained, qualified specialists must have a relevant qualification for this specific function and task.
- ► Are authorized by the plant owner/operator.
- ► Are familiar with federal/national regulations.
- ▶ Before starting work, read and understand the instructions in the manual and supplementary documentation as well as the certificates (depending on the application).
- ▶ Follow instructions and comply with basic conditions.

The operating personnel must fulfill the following requirements:

- Are instructed and authorized according to the requirements of the task by the facility's owner-operator.
- ► Follow the instructions in this manual.

2.2 Intended use

The tablet PC for device configuration enables mobile plant asset management in hazardous and non-hazardous areas. It is suitable for commissioning and maintenance staff to manage field instruments with a digital communication interface and to record progress. This tablet PC is designed as a complete solution and is an easy-to-use, touch-enabled tool which can be used to manage field instruments during their entire life cycle. It provides extensive, pre-installed driver libraries and offers access to the "Industrial Internet of Things" as well as to information and documentation during the entire life cycle of the device. The tablet PC offers a modern software user interface and the option of online updates based on a secure Microsoft Windows 10 multi-functional environment.

2.3 Workplace safety

When working on and with the device:

▶ Wear the required personal protective equipment as per national regulations.

2.4 Operational safety

Damage to the device!

- ▶ Operate the device in proper technical condition and fail-safe condition only.
- ► The operator is responsible for the interference-free operation of the device.

Modifications to the device

Unauthorized modifications to the device are not permitted and can lead to unforeseeable dangers!

▶ If modifications are nevertheless required, consult with the manufacturer.

Field Xpert SMT77 Product description

Repair

To ensure continued operational safety and reliability:

- ► Carry out repairs on the device only if they are expressly permitted.
- ▶ Observe federal/national regulations pertaining to the repair of an electrical device.
- ▶ Use only original spare parts and accessories.

2.5 Product safety

This measuring device is designed in accordance with good engineering practice to meet state-of-the-art safety requirements, has been tested, and left the factory in a condition in which it is safe to operate.

It meets general safety standards and legal requirements. It also complies with the EU directives listed in the device-specific EU Declaration of Conformity. The manufacturer confirms this by affixing the CE mark to the device.

2.6 IT security

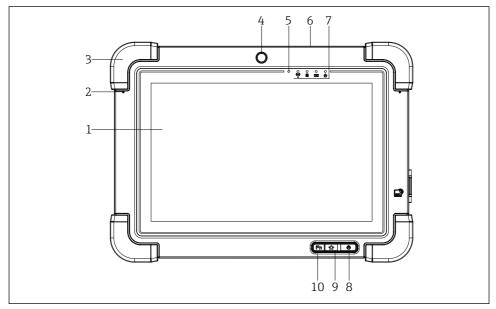
Our warranty is valid only if the product is installed and used as described in the Operating Instructions. The product is equipped with security mechanisms to protect it against any inadvertent changes to the settings.

IT security measures, which provide additional protection for the product and associated data transfer, must be implemented by the operators themselves in line with their security standards.

3 Product description

The Field Xpert SMT77 tablet PC is a robust and flexible industry tablet PC for harsh working environments. It has numerous international certifications and can be used worldwide. It is certified for ATEX and IECEx Zone 1 as well as for UL Class I Division 1. Other national certifications are available on customer request. Thanks to its many functions, the Field Xpert SMT77 is the perfect companion for service technicians, engineers and project managers in mobile applications and in industry.

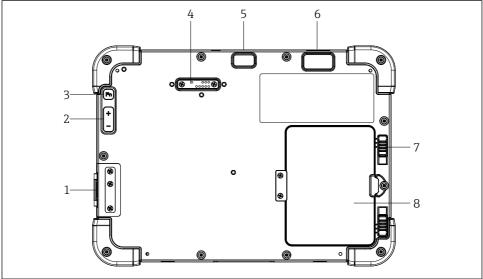
Product description Field Xpert SMT77



■ 1 Front view of tablet PC

- 1 Full HD 10-finger multi-touch display
- 2 2 x digital microphone including noise cancellation
- 3 Rubber bumper
- 4 Front camera
- 5 Brightness sensor
- 6 Kensington lock
- 7 LED indicators
- 8 On/off button
- 9 Home button
- 10 Function key (Fn1), can be programmed as required

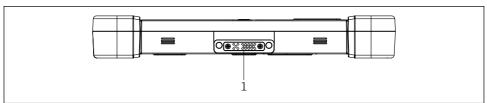
Field Xpert SMT77 Product description



A0037966

■ 2 Rear view of tablet PC

- 1 I/O ports
- 2 Volume
- 3 Function key
- 4 Expansion port for add-on modules
- 5 5 MP auto-focus camera with flash
- 6 1D/2D imager SE4500 from Zebra Technologies Corporation (optional)
- 7 Multi-stage battery compartment lock
- 8 Empty module/external battery (hot-swappable) for battery compartment

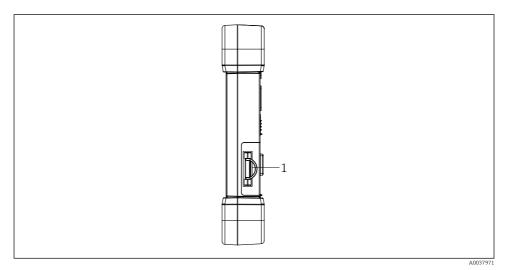


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■ 3 Bottom view of tablet PC

1 Port for docking station

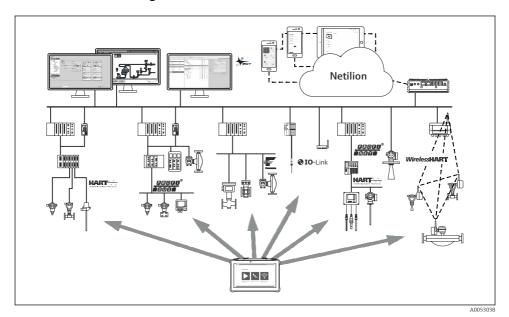
Product description Field Xpert SMT77



■ 4 Side view of tablet PC

1 Charger connection, Micro SIM card slot, MicroSD card slot, USB 2.0 port

3.1 Product design



■ 5 Network architecture

Field Xpert SMT77 Product description

3.2 Field of application

The tablet PC for device configuration enables mobile plant asset management in hazardous and non-hazardous areas. It is suitable for commissioning and maintenance staff to manage field instruments with a digital communication interface and to record progress. This tablet PC is designed as a complete solution and is an easy-to-use, touch-enabled tool which can be used to manage field instruments during their entire life cycle. It provides pre-installed driver libraries and offers access to the "Industrial Internet of Things" as well as to information and documentation during the entire life cycle of the device. The tablet PC offers a modern software user interface and the option of online updates based on a secure Microsoft Windows 10 multi-functional environment.

3.3 License model

The device configuration software is already installed on the tablet PC upon delivery.

To use the software as designated, the software must be activated. A user account is required in the Endress+Hauser software portal for this purpose. This account might first need to be created via the "Create Account" function.

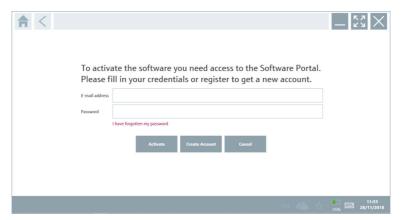
Activating the device configuration software package

- 1. Double-click **Field Xpert** on the start screen.
 - ► The software licensing page opens.



2. Click **Activate Software**.

The dialog box where you can enter the software portal data opens.



- Enter the **E-mail address** and **Password** and click **Activate**.
 - The dialog box with the message "The application has been activated successfully." opens.
- Click **Show license**. 4.
 - ► The dialog box with the licensing information opens.
- Click Close.

The home screen of the device configuration software program opens.

4 Incoming acceptance and product identification

4.1 Incoming acceptance

Visual inspection

- Check the packaging for visible damage arising from transportation
- Open the packaging carefully
- Check the contents for visible damage
- Check that the delivery is complete and nothing is missing
- Retain all the accompanying documents
- The device may not be put into operation if the contents are found to be damaged beforehand. In this case, please contact your Endress+Hauser Sales Center:

www.addresses.endress.com

Return the device to Endress+Hauser in the original packaging where possible.

The scope of delivery comprises:

- Field Xpert SMT77 tablet PC
- \bullet AC charger (100 to 240 V_{AC} , 1.5 A, 50 to 60 Hz) with connecting cable as per order
- Software and interfaces/modem as per order

4.2 Nameplate



- 1 Endress+Hauser software ID
- 2 Endress+Hauser product name
- 3 Endress+Hauser serial number

4.3 Product identification

4.3.1 Manufacturer's address



BARTEC GmbH, 97980 Bad Mergentheim, Germany is responsible for the tablet hardware and produces it exclusively for Endress+Hauser.

Hardware

BARTEC GmbH

Max-Eyth-Straße 16

97980 Bad Mergentheim

Germany

www.bartec.de

Software

Endress+Hauser Process Solutions AG

Christoph Merian-Ring 12

CH-4153 Reinach

Switzerland

www.endress.com

4.4 Storage and transport



Always use the original packaging when transporting the product.

4.4.1 Storage temperature

-20 to 50 °C (-4 to 122 °F)

Installation Field Xpert SMT77

5 Installation

5.1 System requirements

The software is already installed on the tablet PC upon delivery.

5.2 Installing the software

The device configuration software is already installed on the tablet PC upon delivery. The device configuration software must be activated.

Licensing model → 🖺 13

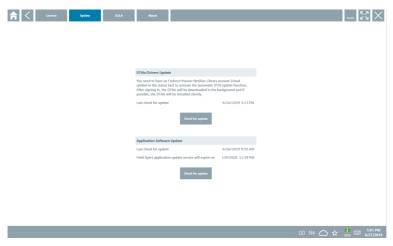
5.3 Updating the software

Software update service

The inclusive maintenance period starts when the license is created and ends automatically after one year (reference date).

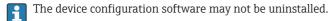
Software updates can also be installed at a later stage if the software release has been published within a valid active maintenance period.

- 1. Click the ? icon on the home page of the device configuration software.
 - └ The dialog box with the licensing information opens.
- 2. Click the **Update** tab.
 - ► The dialog box with the update information opens.



- 3. Click Check for updates.
 - ightharpoonup The device configuration software searches for updates.

5.4 Removing the software



6 Operation

Information regarding operation can be found in the manufacturer's Brief Operating Instructions, www.bartec.de

7 Commissioning

Information regarding commissioning can be found in the manufacturer's Brief Operating Instructions. www.bartec.de

8 Operation

NOTICE

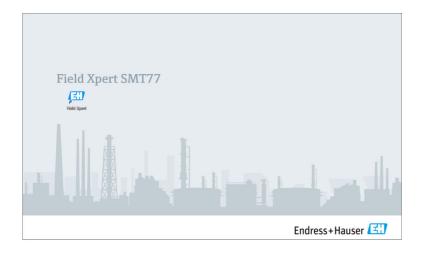
Operation with unsuitable objects.

Damage to screen.

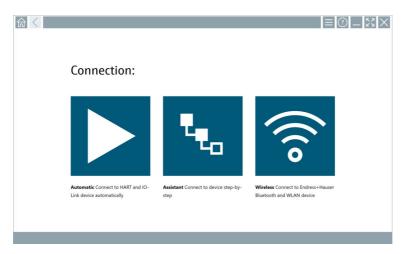
▶ Do not use pointed objects for the screen.

8.1 How to start

The user must accept the terms of use the first time the device configuration software is started



- ▶ Double-click **Field Xpert** on the start screen.
 - └ The device configuration software starts.



8.2 Establishing a connection to the device

A connection can be established in one of three ways:

- Automatic
- Using a wizard (manually)
- Wi-Fi and Bluetooth

Connect the desired modem or interface. Wait until the modem or interface has been detected (e.g. USB icon).

The following modems/interfaces are supported by the tablet PC:

Communication protocol	Connection	Modems/interfaces
HART	▶	Commubox FXA195 4 to 20 mA
		MACTek Bluetooth modem 4 to 20 mA
	T _C	
	₹ _{₹0}	Memograph RSG45 (4 to 20 mA)
		MACTek USB modem (4 to 20 mA)
	t e₀	FieldPort SFP50
	T _{To}	
	t _{eo}	Fieldgate SFG250
	t _{to}	Tank Scanner NXA820
		BARTEC add-on module
	**to	
WirelessHART	t _{to}	WirelessHART adapter SWA70
	T _C	WirelessHART adapter SWG70
PROFIBUS	t _{eo}	Softing PROFIusb
	t _{to}	Softing PBpro USB
	*****	FieldPort SFP50

Communication protocol	Connection	Modems/interfaces
	t _{to}	Fieldgate SFG500
FOUNDATION Fieldbus	₹ _{₹0}	NI USB
	₹ _{₹0}	FieldPort SFP50
	T _{EO}	Softing FFusb
Modbus	T _{EO}	Modbus serial
Endress+Hauser service interfaces	>	Commubox FXA291 CDI
	• _•	
	T _{EO}	Commubox FXA291 IPC, ISS, PCP
	T _{Ta}	Commubox FXA193 IPC, ISS
	** _{e0}	TXU10 V2 CDI
	•	TXU10 V2 PCP
	₹ _{₹0}	
	**************************************	TXU10 V1 PCP, CDI
	•	CDI USB
	E _{E0}	
	₹ _{€0}	CDI TCP/IP
Bluetooth	A0041855	Endress+Hauser Bluetooth devices, also some level and pressure equipment

Communication protocol	Connection	Modems/interfaces
Wi-Fi	A0041855	Endress+Hauser Wi-Fi devices
IO-Link	>	FieldPort SFP20
	₹ _{₹0}	

"Automatic" connection

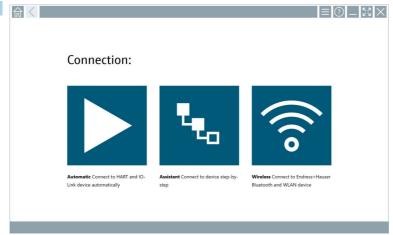


Tap the 🔼 icon.

└ The device configuration software establishes a connection to the connected device.

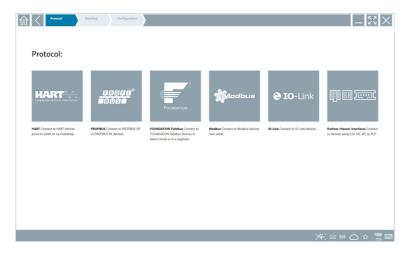
"Assistant" connection



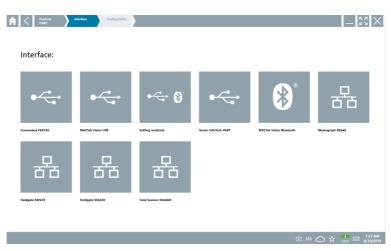


Tap the 🔽 icon.

► An overview of all the protocols available opens.



- 2. Select a communication protocol.
 - ► An overview of all the modems available opens.



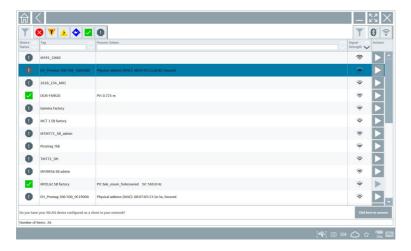
- 3. Select a modem.
 - ightharpoonup The device can be configured.

"Wireless" connection



Tap the 🛜 icon.

The live list showing all available Endress+Hauser Wi-Fi and Bluetooth devices is displayed. This list can be filtered for Wi-Fi and Bluetooth devices.

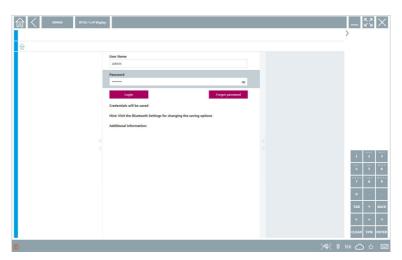


"Bluetooth" connection

1. Tap the licon to filter for Bluetooth devices.

2. Tap the icon next to the device that you want to configure.

 The Login dialog box appears.



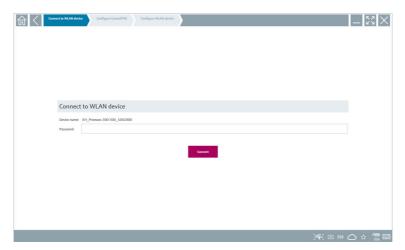
- 3. Enter the **User Name** (admin) and **Password** and tap **Login**.
 - ☐ The DTM (default) or the MSD opens.
- The initial password corresponds to the serial number of the device.

 To get the reset code, please contact your Endress+Hauser Sales Center.

"WLAN" connection

1. Tap the sicon to filter for WLAN devices.

- 2. Tap the icon next to the device that you want to configure.
 - ► The Connect to WLAN device dialog box appears.



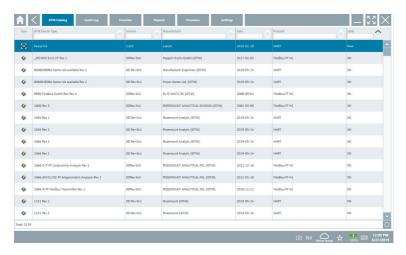
- 3. Enter the **Password** and tap **Connect**.
 - ► The connection window opens.
- 4. Do not change the IP address leave it as is.
- 5. Tap the ▶ icon.
- 6. Tap **Vendor specific**.
- 7. The DeviceDTM opens and the device can be configured.
- The initial password corresponds to the serial number of the device.
- Tap **Click here to connect** to establish the connection directly via an IP address.

8.3 Information and software settings

- ► Click the ≡ icon in the main menu.
 - igspace An overview of all the information and settings opens.

8.3.1 DTM catalog

- ► Click the **DTM Catalog** tab.
 - An overview of all the DTMs available opens.



Device driver offline view

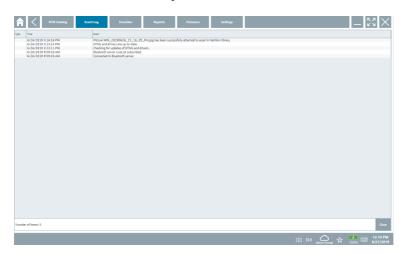
▶ Double-click the desired device driver.

The offline view of the device driver opens.

- This function is only possible if the device driver supports the offline view.
- If other device drivers (DTMs) are required, they can be installed additionally. After an automatic or manual oupdate, these drivers appear in the DTM catalog.

8.3.2 Event log

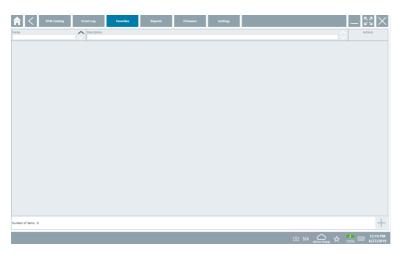
- ▶ Click the **Event Log** tab or the gray status bar.
 - An overview of all the events opens.



If event logs are already listed, they can be deleted using the **Clear** button.

8.3.3 Favorites

- ▶ Click the **Favorites** tab or the ☆ icon.
 - ► An overview of all the favorites opens.



8.3.4 Managing reports

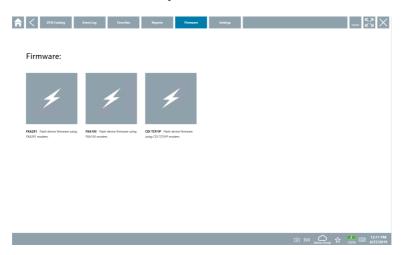
- 1. Click the **Reports** tab.
 - └ The overview with the "Manage saved device reports" folder opens.



- 2. Click the "Manage saved device reports" folder.
 - An overview of all the saved device reports opens.

8.3.5 Firmware

- ► Click the **Firmware** tab.
 - ► An overview of the firmware opens.



8.3.6 Settings

Language

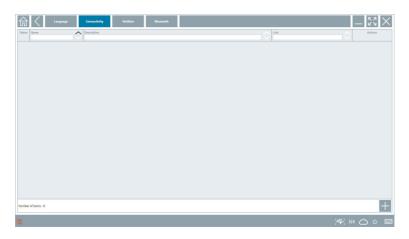
- 1. Click the **Settings** tab.
 - The **Language** tab opens with an overview of all the languages available.



- 2. Select the desired language.
- 3. Click the \times icon.
 - ► The device configuration software closes.
- 4. Restart the device configuration software.
 - ► The selected language is saved.

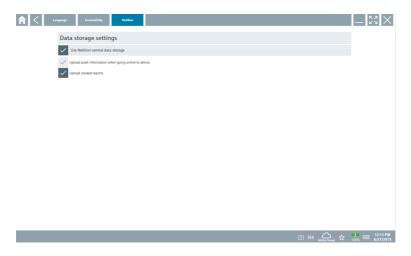
Connection

- ► Click the **Connectivity** tab.
 - ► An overview of all the connections opens.



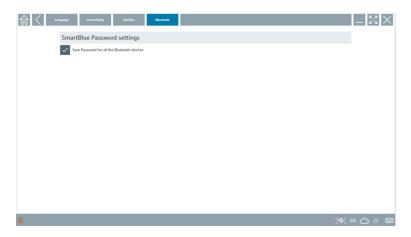
Netilion

- ► Click the **Netilion** tab.
 - ► An overview of data storage settings opens.



Bluetooth

- ► Click the **Bluetooth** tab.
 - ► The Bluetooth device security data function opens.

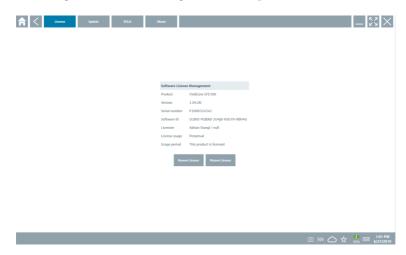


8.4 Additional information about the software

- ► Click the ? icon.
 - → An overview of all the additional information opens.

8.4.1 License

- ► Click the **License** tab.
 - └ The dialog box with the licensing information opens.



Renewing the license

If the maintenance contract has expired, you must order a "Field Xpert SMT71" maintenance extension.

Renewing the license for software versions as of 1.05

Once a "Field Xpert SMT71" maintenance extension has been successfully ordered:

▶ You receive a notification in the Field Xpert software.

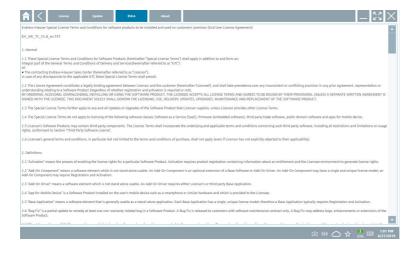
Renewing the license for software versions up to 1.04

Once a "Field Xpert SMT71" maintenance extension has been successfully ordered:

- 1. Click the **License** tab.
- 2. Click **Update license**.
- 3. Sign in once with email and password in the software portal.
 - The license has been renewed.

8.4.2 FULA

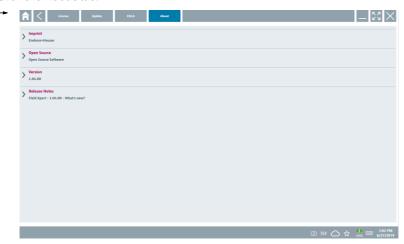
- Click the EULA tab.
 - └ The window with the Endress+Hauser Terms and Licensing Conditions opens.



8.4.3 Info

This tab contains information about the software currently installed, the manufacturer and the software source text.

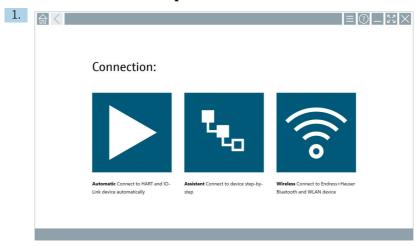
1. Click the **About** tab.



An overview of all the information opens.

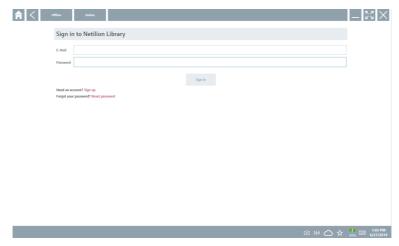
2. Click the ⊙ icon to view the information.

8.5 Automatic DTM update



Click the icon in the status bar.

└ The "Sign in to Netilion Library" dialog box opens.

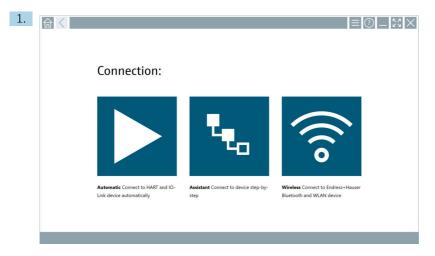


- 2. Click Sign in.
- 3. Choose subscription (Basic/Plus/Premium).
- 4. Sign in with the Netilion data.
 - └ The tablet searches for DTMs in the background, and they are downloaded.
- 5. Confirm download.

8.6 Netilion Library

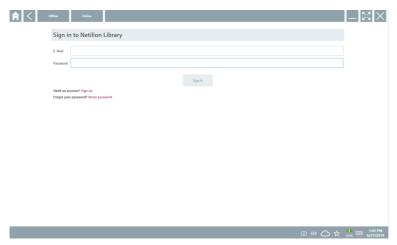
8.6.1 Uploading a device report to the Netilion Library

This function is possible with HART, PROFIBUS, FOUNDATION Fieldbus and IO-Link devices as well as via the Endress+Hauser Service interface (CDI).



Click the icon in the status bar.

 $\begin{tabular}{ll} \end{tabular}$ The "Sign in to Netilion Library" dialog box opens.



- 2. Click Sign in.
- 3. Choose subscription (Basic/Plus/Premium).

Field Xpert SMT77 Operation

- 4. Connect device and open DTM.
 - ► Device is automatically stored in the Netilion Library.
- 5. Click "Save device report"".
 - ► The device report is appended to the device in the Netilion Library.

8.6.2 Uploading a photo to the Netilion Library

- 1. Establish a connection to the device and open the DTM.
 - Click the 🔯 icon.
 - The camera opens.
- 2. Create a device photo.
 - └ The "New image found" dialog box opens.
- 3. Click **Yes**.
 - The photo is uploaded to the Netilion Library for the existing asset.

Uploading a photo from Camera Roll

- 1. Establish a connection to the device and open the DTM.
 - Click the licon.
 - ► The dialog box opens.
- 2. Select the file type.
- 3. Select the photo from a directory in Field Xpert.
- 4. Click **Yes**.
 - The photo is uploaded to the Netilion Library for the existing asset.

8.6.3 Uploading a PDF to the Netilion Library

- 1. Establish a connection to the device and open the DTM.
 - Click the cicon.
 - ► The dialog box opens.
- 2. Select the file type.
- 3. Select the PDF from a directory in Field Xpert.
- 4. Click Yes.
 - ► The PDF is uploaded to the Netilion Library for the existing asset.

8.6.4 Uploading parameter data records to the Netilion Library

- 1. Click the icon in the status bar and sign in.
- 2. Connect device and open DTM.
- 3. In the **Program functions** menu, click **Save device data**.
 - The parameter data records are uploaded to the Netilion Library for the existing asset.

Operation Field Xpert SMT77

8.6.5 Offline use case

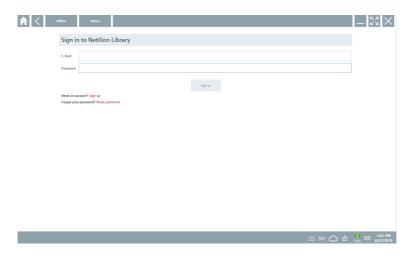
i

Scanned devices, new photos, device reports (PDF) and parameter records are automatically saved in the offline cache. They are uploaded automatically once a new Internet connection is established.



Click the icon in the status bar.

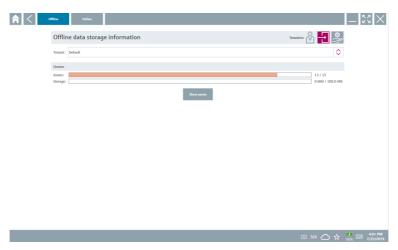
→ The "Sign in to Netilion Library" dialog box opens.



Field Xpert SMT77 Operation

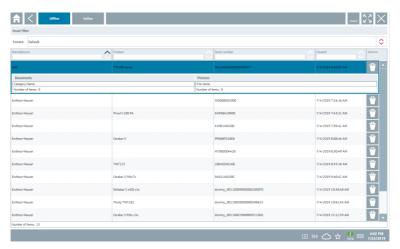
2. Click the **Offline** tab.

└ The "Offline data storage information" dialog box opens.



Click Show assets.

► An overview of all assets and documents appears.



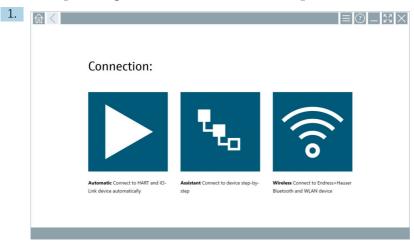
- 4. Click the icon to remove assets and documents.
- 5. Click the **Online** tab and sign in.
- 6. Click **Upload asset data**.
 - └ The dialog box with all of the data to upload opens.
- 7. Click **Upload**.

Operation Field Xpert SMT77

8.6.6 Link to Netilion Library

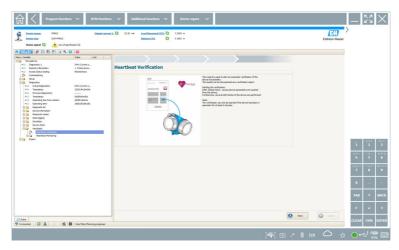
- 1. Click the icon in the status bar.
 - The Netilion Library dialog box opens.
- 2. Sign in to the Netilion Library.

8.7 Uploading a Heartbeat Verification report to the Netilion Library



Click the ▶ icon.

→ A connection to the desired device is established.



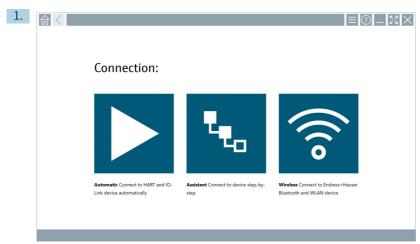
- 2. Start the Heartbeat wizard.
- 3. Follow the Heartbeat wizard and start a Heartbeat Verification.

Field Xpert SMT77 Operation

- 4. When the Heartbeat Verification is finished, save the result as a PDF.
 - ► A dialog appears where you can select the storage location for the PDF file.
- 5. Select the storage location and click **Save**.
 - ► A dialog for saving in the Netilion Library appears.
- 6. Click **Yes**.
 - ightharpoonup A dialog appears where you can select the document type.
- 7. Select Heartbeat Verification Report and click Yes.
 - The Heartbeat Verification Report is uploaded to the Netilion Library for the existing asset.

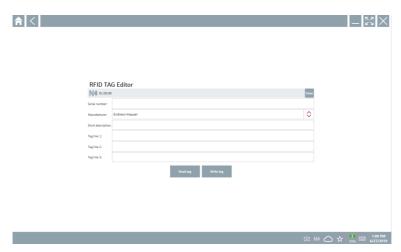
Operation Field Xpert SMT77

8.8 RFID



Click the ⋈ icon in the status bar.

└ The "RFID TAG Editor" dialog box opens.



- 2. Plug in the RFID scanner.
- 3. Click **Read tag**.
- 4. Place the RFID tag on the scanner, and click **Device Viewer**.
 - └ The Device Viewer opens in Internet Explorer.
- 5. Change the tag or serial numbers and click **Write tag**.
 - ► The RFID tag is changed.

Field Xpert SMT77 Maintenance

9 Maintenance

Maintenance information is provided in the Manufacturer's Brief Operating Instructions. www.bartec.de

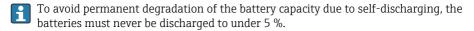
9.1 Battery

Please note the following if the battery is used:

- Charge and discharge the battery at room temperature
- The battery operating life depends on several factors:
 - Number of charge and discharge cycles
 - Ambient conditions
 - State of charge during storage
 - Demands placed on the battery
- Predominant battery usage will negatively affect the device performance
- Batteries can discharge outside the device
- The deterioration in performance can increase with the battery operating life due to the stress from daily charging and discharging.

Li-ion batteries are usually replaced after 300 to 500 charge cycles (complete charge/discharge cycles) or if the battery capacity has reached 70 to 80 %.

The actual number of cycles varies depending on the pattern of use, temperature, age and other factors.



MARNING

Dropping, crushing or any other improper handling of the battery can cause a fire or chemical burns.

▶ Always use the battery properly.

NOTICE

The battery cannot be charged if temperatures are too low or too high.

This prevents potential damage to the battery.

► Only charge the battery at a temperature of approximately 20 °C (68 °F).

A CAUTION

Damaged or leaking batteries

can cause personal injury.

► Handle the battery with utmost care.

A CAUTION

If the battery overheats or there is a smell of burning during the charging process, leave the area immediately.

Notify safety personnel immediately.

Maintenance Field Xpert SMT77

Please note the following when using the battery:

- Replace the battery if the operating time becomes shorter
- Do not place any objects or materials on the battery
- Keep the battery away from conductive or flammable materials
- Keep the battery out of the reach of children
- Only use original batteries
- Only charge the battery with original devices or original charging stations
- Keep the battery away from water
- Do not burn the battery
- Do not expose the battery to temperatures below 0 °C (32 °F) or above 46 °C (115 °F)
- If the battery is exposed to extreme temperatures, 100 % battery capacity cannot be achieved. The capacity may be restored if the battery returns to a temperature range of approximately 20 °C (68 °F).
- Keep the ventilation free
- Charge the battery at a location with temperatures of approximately 20 °C (68 °F)
- Do not place the battery in a microwave
- Do not take the battery apart or touch it with a pointed object
- Do not remove the battery from the device with a sharp object
- Batteries are Ex-certified in combination with the device. The use of batteries not listed on the certificate will invalidate the Ex-certification.
- Battery energy conservation
 - Windows 10 Creators Update
 - Improve battery life
 - Check battery drain
 - Switch off wireless modules that you are not using
 - Check and optimize settings of the wireless devices
 - Reduce the brightness of the display
 - Switch off all modules not being used in the service program, e.g. GPS, scanner, camera
 - Turn on the screensaver
 - Create a power plan according to Microsoft guidelines
 - Configure power options according to Microsoft guidelines
 - Configure sleep settings according to Microsoft guidelines

9.1.1 Replacing the battery

⚠ DANGER

Incorrect replacement of the battery

can cause an explosion.

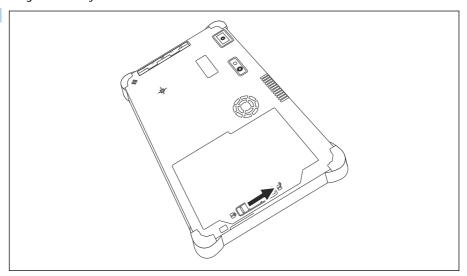
- Always replace the battery with an identical battery or an equivalent type of battery recommended by the manufacturer.
- The battery capacity gradually diminishes over time, depending on how the battery is used. The battery can be replaced after 18 to 24 months.

Dispose of used batteries in accordance with the manufacturer's instructions.

Field Xpert SMT77 Maintenance

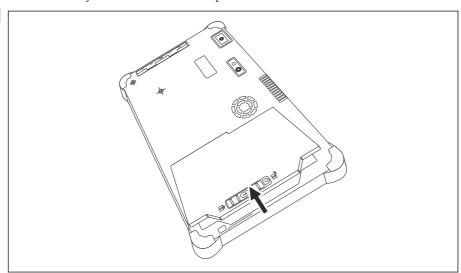
Removing the battery





Slide the battery lock into the "Unlocked" position.





Open the battery compartment and remove the battery.



For information on inserting the battery

Repair Field Xpert SMT77

10 Repair

10.1 General information

NOTICE

Unauthorized repairs to the device

Damage to the device and/or voiding of the warranty/quarantee.

▶ The repair work may only be performed by Endress+Hauser. For repairs, always contact the Endress+Hauser sales organization: www.addresses.endress.com

10.2 Spare parts



For spare parts currently available for the product, see online at: https://www.endress.com/deviceviewer (→ Enter serial number)

10.3 Return

The requirements for safe device return can vary depending on the device type and national legislation.

- 1. Refer to the web page for information: https://www.endress.com/support/return-material
 - ► Select the region.
- If returning the device, pack the device in such a way that it is reliably protected against 2. impact and external influences. The original packaging offers the best protection.

10.4 **Disposal**



If required by the Directive 2012/19/EU on waste electrical and electronic equipment (WEEE), the product is marked with the depicted symbol in order to minimize the disposal of WEEE as unsorted municipal waste. Do not dispose of products bearing this marking as unsorted municipal waste. Instead, return them to the manufacturer for disposal under the applicable conditions.

10.4.1 **Battery disposal**

This product contains a lithium-ion battery or a nickel-metal hydride battery. These batteries must be disposed of in the correct manner. Please contact your local environmental protection authority for information on recycling and disposal schemes in your country.

Field Xpert SMT77 Accessories

11 Accessories

The accessories currently available for the product can be selected at www.endress.com:

- 1. Select the product using the filters and search field.
- 2. Open the product page.
- 3. Select **Spare parts & Accessories**.

12 Technical data

For detailed information on the "technical data", see the Technical Information. \rightarrow $\stackrel{\triangle}{=}$ 7

13 Appendix

13.1 Protecting mobile devices

These days mobile technology is an important part of modern business enterprises, since more and more of our data is stored on mobile devices. Furthermore, these devices are now just as powerful as conventional computers. As these mobile devices frequently leave the business premises, they need even more protection than desktop devices. Below you can find four quick tips to help you protect mobile devices and the information they contain.

Switch on password protection

Use a sufficiently complex password or a PIN.

Run security updates

All manufacturers release regular security updates to protect the device. This process is quick, easy and free. Under your settings, make sure that the updates are installed automatically. If the manufacturer does not plan to release any more updates for the device, the device must be replaced with an up-to-date version.

Run app and operating system updates

Update all installed applications and the operating system regularly with patches released by the software developers. These updates not only add new functions but all fix any security vulnerabilities that may have been detected. The Endress+Hauser software update function provides automatic notification of new updates. This requires Internet access. For staff it is important to know when the updates are available, how they are installed, and that this must be done as quickly as possible.

Do not connect to unknown WLAN hotspots

The easiest precaution to take is to never connect to the Internet through unknown hotspots and to use the 3G or 4G mobile communications network instead. Via virtual private networks (VPNs), your data is encrypted before being transmitted over the Internet.



www.addresses.endress.com