

Technical Information

DeviceCare SFE100

Configuration of Endress+Hauser devices

Configuration tool for devices via fieldbus protocols and Endress+Hauser service protocols

Application

DeviceCare is the tool developed by Endress+Hauser for the configuration of Endress+Hauser devices. All smart devices in a plant can be configured via a point-to-point or point-to-bus connection. The status information given provides users with a simple yet effective tool for monitoring devices. Automatic functions and wizards guide the user easily through the program. The user-friendly menus enable transparent and intuitive access to the field devices.

Your benefits

- Fast and easy installation, online application updates, one-click connection to devices.
- Automatic hardware identification and driver catalog update.
- Device configuration with DTMs, Heartbeat verification support.
- Multi-language support, touch-ready for tablet use.
- The following communication protocols are supported: HART, PROFIBUS DP/PA, FOUNDATION Fieldbus, IO-Link, Modbus, CDI and Endress+Hauser service interfaces.
- Hardware interfaces for modems (USB/RS232), Bluetooth, TCP/IP and USB.
- Connection to Endress+Hauser Bluetooth and WLAN devices – perfect for wireless device configuration and diagnostics.

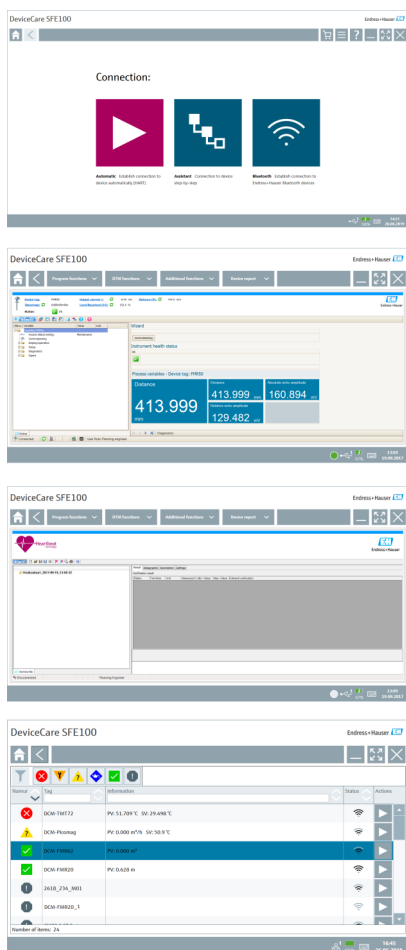










Table of contents

Document information	3
Symbols for certain types of information	3
Function and system design	3
Function	3
System design	4
User operation	6
System integration	6
Installed software and information on connecting devices . . .	7
Connecting IO-Link devices	7
Ordering Information	7
Additional documentation	7
DeviceCare SFE100	7
FieldCare SFE500	7
Plant Asset Management	7
Registered trademarks	8

Document information

Symbols for certain types of information

Symbol	Meaning
	Permitted Procedures, processes or actions that are permitted.
	Preferred Procedures, processes or actions that are preferred.
	Forbidden Procedures, processes or actions that are forbidden.
	Tip Indicates additional information.
	Reference to documentation
	Reference to page
	Reference to graphic
	Visual inspection

Function and system design

Function

DeviceCare is a free configuration tool for all Endress+Hauser devices with a suitable DeviceDTM. DeviceCare supports a variety of protocols, the Endress+Hauser service protocols and connection to Endress+Hauser Bluetooth devices. You can connect the devices directly via a suitable interface, such as a modem (point-to-point), a bus system (point-to-bus) or a wireless connection (WLAN/Bluetooth).

The tool is aimed at customers without a digital network in plants and workshops and Endress+Hauser service technicians. DeviceCare is fast, easy and intuitive to use and can run on a PC, laptop or tablet with a Windows operating system.

Supported field devices and protocols


Endress+Hauser field devices

- HART
- PROFIBUS DP/PA
- PROFINET
- FOUNDATION fieldbus
- Modbus
- IO-Link

Endress+Hauser service protocols

- CDI
- ISS
- IPC
- PCP



Connection of IO-Link devices: →  7

System design

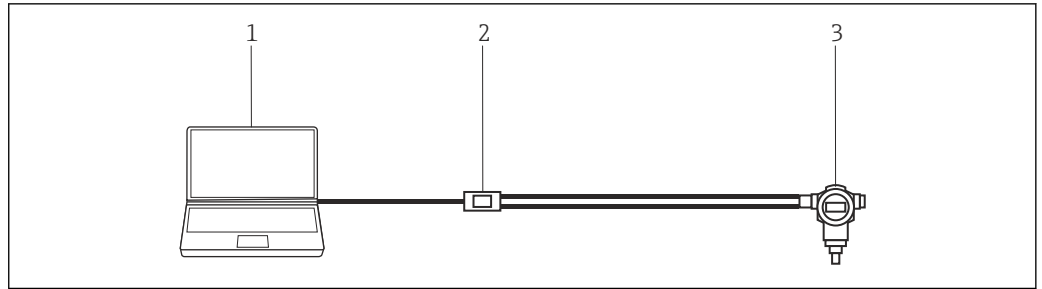
Communication

The following communication methods are supported by DeviceCare:

Communication	Interface/modem/gateway	Use in non-hazardous zone permitted?	Use in hazardous zone permitted?
HART	Commubox FXA195 (4 to 20 mA)	Yes	No
	Viator Bluetooth modem (4 to 20 mA)	Yes	Yes
	Memograph RSG45 (4 to 20 mA)	Yes	No
	Viator USB modem (4 to 20 mA)	Yes	No
	Viator Power USB modems	Yes	No
	FieldPort SFP50	Yes	Yes
	Fieldgate SFG250	Yes	No
PROFIBUS	Softing PROFlusb	Yes	No
	Softing PBpro USB	Yes	No
	FieldPort SFP50	Yes	Yes
	Fieldgate SFG500	Yes	No
	Thorsis isPro USBv4	Yes	No
PROFINET		Not applicable	Not applicable
FOUNDATION fieldbus	NI USB	Yes	No
	Softing FFusb	Yes	No
	FieldPort SFP50	Yes	Yes
Bluetooth		Not applicable	Not applicable
Modbus	Modbus serial	Not applicable	Not applicable
	Modbus TCP	Not applicable	Not applicable
WirelessHART	Wireless HART adapter SWA70	Yes	Yes
	WirelessHART Fieldgate SWG70	Yes	Yes
Endress+Hauser service interfaces	Commubox FXA291	Yes	No
	Commubox FXA193	Yes	No
	TXU10 V2	Yes	No
	TXU10 V1	Yes	No
	CDI USB	Yes	No
	CDI TCP/IP	Yes	Yes
IO-Link	FieldPort SFP20	Yes	No
	Turck IO-Link master	Yes	Follow the manufacturer's instructions

HART point-to-point connection

The diagram shows a HART point-to-point connection with an FXA195 USB/HART modem. If an FXA195 is connected to the computer, DeviceCare can connect to the device automatically.



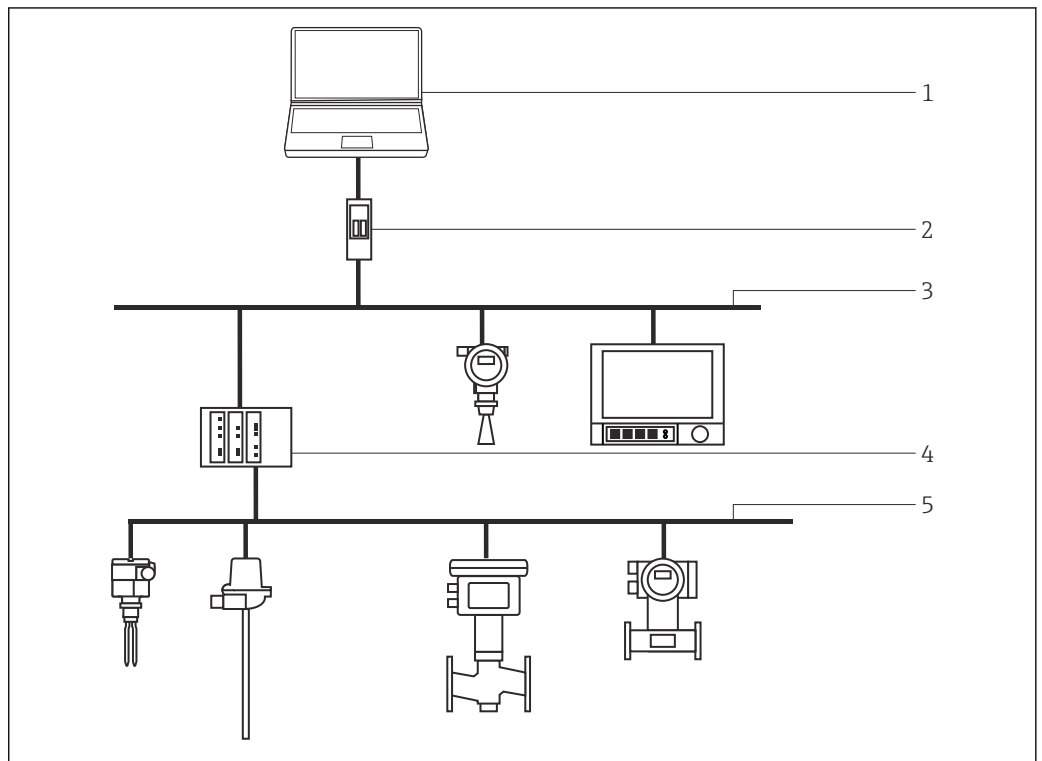
1 Point-to-point connection with a HART field device

- 1 DeviceCare
- 2 HART FXA195
- 3 Field device

To establish communication with the HART device, a resistor of at least 250 Ω must be provided in the circuit. The way in which this is done depends upon the system architecture and power source used. Please read the FXA195 manual carefully.

PROFIBUS point-to-bus connection

The diagram shows how the connection from PROFIBUS DP to PROFIBUS PA can be established using a Siemens DP/PA Link or a Pepperl+Fuchs SK3.

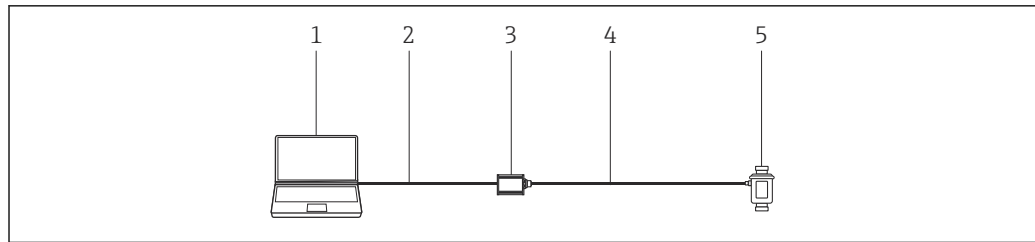


2 PROFIBUS point-to-bus connection

- 1 DeviceCare
- 2 Fieldgate SFG500
- 3 PROFIBUS DP
- 4 Segment coupler
- 5 PROFIBUS PA

IO-Link point-to-point connection

The diagram shows an IO-Link point-to-point connection of an IO-Link device to a laptop via the FieldPort SFP20 communication interface. The IO-Link device is directly connected via the M12 connector.

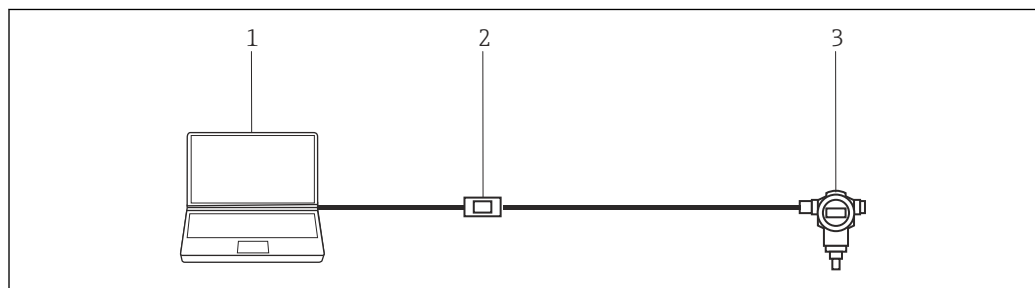


3 IO-Link point-to-point connection

- 1 DeviceCare
- 2 USB
- 3 FieldPort SFP20
- 4 IO-Link/M12-M12 connector
- 5 IO-Link device

CDI point-to-point connection

The diagram shows a CDI point-to-point connection with an FXA291 modem. If an FXA291 is connected to the computer, DeviceCare can connect to the device automatically.



4 CDI point-to-point connection to a device

- 1 DeviceCare
- 2 CDI FXA291
- 3 Field device

User operation

- Standard configurable Windows graphical user interface with icons, short cuts etc.
- Hardware: Windows PC, laptop, tablet
- Supported operating systems: Windows 8.1, 10 (32/64bit)
- Connection to Endress+Hauser devices automatic or via wizard
- Languages available for selection in DeviceCare: Arabic (AR), Chinese (ZH), Czech (CS), Dutch (NL), English (EN), Finnish (FI), French (FR), German (DE), Indonesian (ID), Italian (IT), Japanese (JA), Korean (KO), Polish (PL), Portuguese (PT), Russian (RU), Spanish (ES), Swedish (SV), Thai (TH), Turkish (TR), Vietnamese (VI)
- DTM user interface and language depend on the field device and manufacturer

System integration

System requirements

Operating system

Version	DeviceCare support status
Windows 11 Professional	OK
Windows 11 Enterprise	OK

Required hardware

Position	Recommended
Processor type	Intel Core i3/i5/i7 ≥ 1.8 GHz
Working memory	Minimum 4 GB RAM
Required hard disk space	Approx. 2 GB
Min. screen resolution	1280 x 768, 64,000 colors
Bluetooth	Bluetooth LE 4.0 or higher necessary for configuration of Endress+Hauser devices via Bluetooth

Software required

- Microsoft .Net 3.5
- Microsoft .Net 4.x
- PDF reader

Installed software and information on connecting devices

The necessary USB drivers and CommDTMs are installed with DeviceCare.

Perform the following steps, depending on your devices:

- Select the DeviceDTMs for your devices and install them
- Install the PDF printer to save the device reports
- Additionally install Endress+Hauser for SFG500 and SWA70
- Additionally install the DTM for Siemens DP/PA Link
- Additionally install the DTM for Modbus

Connecting IO-Link devices

The following steps are necessary to connect an IO-Link device:

- Additionally install the IO-Link CommDTM SFP20 for the FieldPorts SFP20
- Additionally install the IODD Interpreter DTM for configuration via IODDs
- Search for IO-Link device drivers (IODDs) via IODDFinder and download them
- Integrate IODDs into the IODD DTM Configurator
- Use IODDs with the IODD Interpreter

The FieldPort SFP20 serves as the communication interface between the laptop and IO-Link device. The IODD Interpreter DTM "translates" the IODDs listed in the IODD DTM Configurator and makes the information contained therein available to DeviceCare in such a way that the parameters are provided in the same way as in a DeviceDTM.



- Endress+Hauser software portal – Download area <https://software-products.endress.com>
- IODDFinder: <https://ioddfinder.io-link.com>

Ordering Information

Detailed information about the product structure is available:

- In the Product Configurator on the Endress+Hauser web site: www.endress.com/SFE100
- From the Endress+Hauser Sales Center: www.addresses.endress.com

Additional documentation

DeviceCare SFE100

Innovations IN01047S/04/EN

FieldCare SFE500

- Getting Started KA01303S/04/EN
- Operating Instructions BA00065S/04/EN
- Technical Information TI00028S/04/EN
- Tutorial for FieldCare projects SD01928S/04/EN
- Competence Brochure CP00001S/04/EN

Plant Asset Management

Fields of Activity FA00024S/04/EN

Registered trademarks

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

FOUNDATION 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.

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

Modbus is the registered trademark of Modicon, Incorporated.

Microsoft®, Windows 10®, Windows 8.1®, Internet Explorer® and the Microsoft logo are registered trademarks of the Microsoft Corporation.

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



71762896

www.addresses.endress.com
