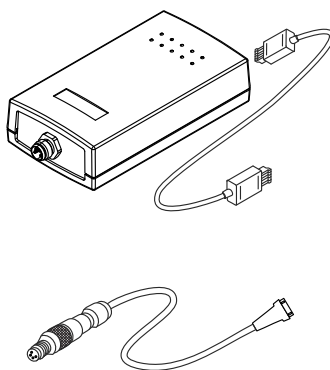


ToF Adapter FXA291



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1 Safety instructions

1.1 Designated use

The ToF Adapter is an adapter set for connecting the Commubox FXA291 to ToF devices, pressure transmitters and the Gammapiot M.

The manufacturer does not accept liability for damages resulting from incorrect use or use other than that designated.

1.2 Installation, commissioning and operation

- The device must be installed, connected, commissioned and serviced only by qualified and authorized specialist personnel (e.g. electrical technician) and in strict compliance with these instructions, the applicable standards, legal regulations and, if necessary, certificates.
- The specialist personnel must have read and understood these instructions and must follow the instructions contained therein.
- Changes and repairs to the device may be carried out only if expressly permitted in the Operating Instructions.
- If faults cannot be rectified, the device must be taken out of service and secured against unintentional commissioning.
- Damaged devices must not be commissioned and must be labeled as defective.

1.3 Operational and process safety





- To guarantee operational and process safety, alternative monitoring measures must be taken while configuring, testing or servicing the device.
- The device is designed to meet state-of-the-art safety requirements, has been tested, and has left the factory in a condition in which it is safe to operate. The relevant regulations and European standards have been observed.
- Take note of information on nameplate.
- Devices for use in hazardous areas are fitted with an additional nameplate. When using in hazardous areas, compliance with the relevant national standards is mandatory. The device is accompanied by separate Ex documentation, which forms an integral part of these Operating Instructions. The installation regulations, connection data and safety instructions in the Ex documentation must be observed. The documentation number of these instructions is also indicated on the additional nameplate.

1.4 Return



Follow the instructions in the Operating Instructions.

1.5 Symbols used






1.5.1 Safety symbols

Symbol	Meaning
 <small>A0011189-EN</small>	DANGER! This symbol alerts you to a dangerous situation. Failure to avoid this situation will result in serious or fatal injury.
 <small>A0011190-EN</small>	WARNING! This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in serious or fatal injury.
 <small>A0011191-EN</small>	CAUTION! This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in minor or moderate injury.
 <small>A0011192-EN</small>	NOTE! This symbol contains information on procedures and other facts, which do not result in personal injury.



1.5.2 Electrical symbols

Symbol	Meaning
 <small>A0018338</small>	Ground connection A grounded terminal which, from the operator's point of view, is grounded via a grounding system.
 <small>A0018339</small>	Protective ground connection A terminal that must be connected to ground before other connections are established.

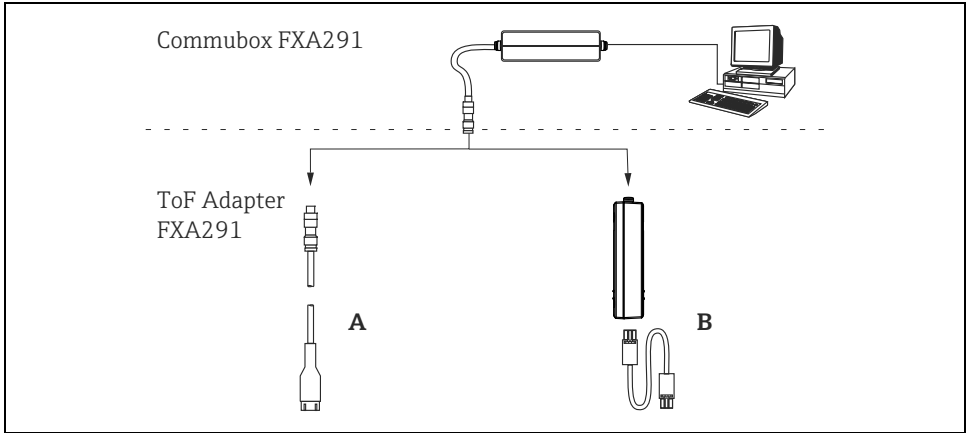
1.5.3 Symbols for types of information

Symbol	Meaning
 A0011182	Allowed Indicates procedures, processes or actions that are allowed.
 A0011183	Preferred Indicates procedures, processes or actions that are preferred.
 A0011184	Forbidden Indicates procedures, processes or actions that are forbidden.
 A0011193	Tip Indicates additional information.
 A0015484	Reference to page Refers to the relevant page number.
1. , 2. , ...	Series of steps

1.5.4 Symbols in graphics

Symbol	Meaning
1, 2, 3, 4, ...	Numbering for main positions
1. , 2. , ...	Series of steps
A, B, C, D, ...	Views
 A0011187	Hazardous area Indicates a hazardous area.
 A0011188	Safe area (non-hazardous area) Indicates a non-hazardous area.

2 Product description



A0023045

- A Cable for device group 1
- B Cable for device group 2

3 Incoming acceptance and product identification

3.1 Incoming acceptance

Check the packaging and the contents for damage.

Check that the goods supplied are complete and compare the scope of delivery with your order details.

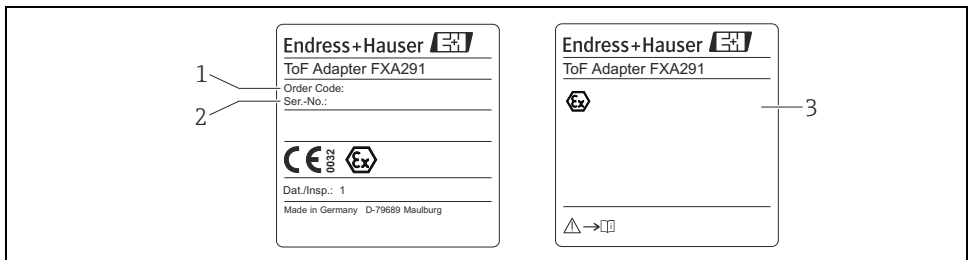
3.2 Product identification

The following options are available for measuring device identification:

- Nameplate data
- Order code with breakdown of the device features on the delivery note
- Enter serial numbers from nameplates in W@M Device Viewer (www.endress.com/deviceviewer): All information on the measuring device is displayed.

For an overview of the technical documentation supplied, enter the serial number from the nameplates in the W@M Device Viewer (www.endress.com/deviceviewer)

3.2.1 Nameplate



A0023046

- 1 Order code
 2 Serial number
 3 Approval-specific data

3.3 Scope of delivery

- 1 x ToF Adapter FXA291 (order number: 71007843)
- one cable for each device group 1 and 2

Not included:

- Commubox FXA291 (order number: 51516983)
- Cable for Tank Side Monitor NRF590 (order number: 71027289)

3.4 Documentation supplied:

3.4.1 Safety instructions

Additional Safety Instructions (XA01181F) are supplied with certified device versions. The nameplate indicates which safety information applies to your device version.

3.5 Certificates and approvals

CE mark, Declaration of Conformity

The device is designed to meet state-of-the-art safety requirements, has been tested, and has left the factory in a condition in which it is safe to operate. The device complies with the applicable standards and regulations as listed in the EC declaration of conformity and thus complies with the statutory requirements of the EC directives. By applying the CE mark, Endress+Hauser confirms that the device has passed the necessary tests.

3.6 Registered trademarks

ToF[®]

Registered trademark of Endress+Hauser GmbH+Co.KG, Maulburg, Germany

4 Electrical connection

NOTICE

Destruction of the device possible

Use only cables pre-terminated by Endress+Hauser. The device is suitable only for connection to certified, intrinsically safe equipment with Ex ia type of protection.

4.1 Connection data

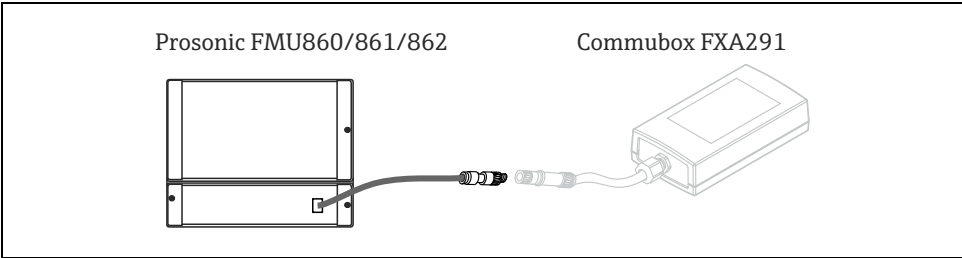
Intrinsically safe power circuit (e.g. Commubox FXA291)
$U_i \leq 7.5 \text{ V}$ $I_i \leq 1 \text{ A}$ $P_i \leq 2 \text{ W}$ $C_i = 0 \text{ nF}$ $L_i = 0 \text{ }\mu\text{H}$

Intrinsically safe output circuit	
$U_o \leq 3.75 \text{ V}$ $I_o \leq 9.4 \text{ mA}$ $P_o \leq 8.7 \text{ mW}$ $C_o = 100 \text{ }\mu\text{F}$ $L_o = 340 \text{ mH}$	$U_i \leq 7.5 \text{ V}$ $I_i \leq 1 \text{ A}$ $P_i \leq 2 \text{ W}$ $C_i = 0 \text{ nF}$ $L_i = 0 \text{ }\mu\text{H}$

4.2 Connecting to devices of device group 1

4.2.1 Connecting to the Prosonic FMU860/861/862

Connect the Commubox FXA291 to the service interface in the Prosonic FMU860/861/862.

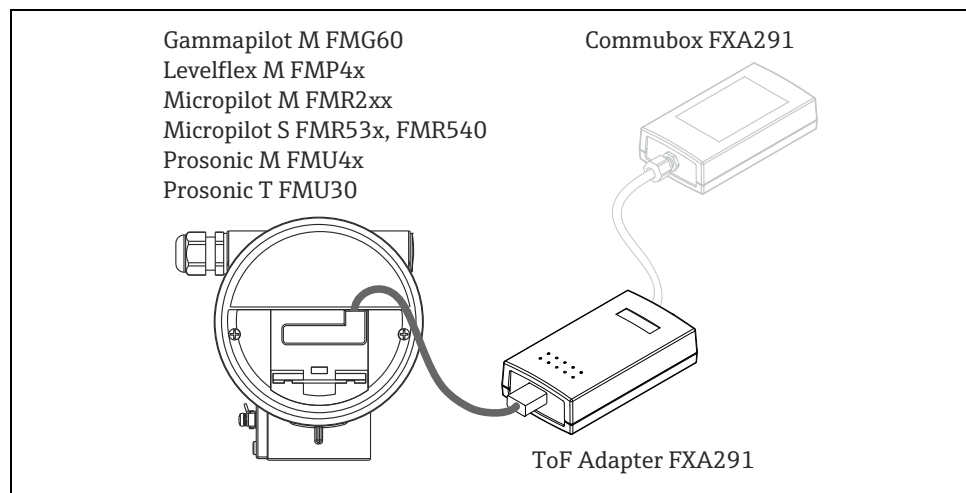


A0023047

4.3 Connection with devices of devices group 2

4.3.1 Connecting to ToF device

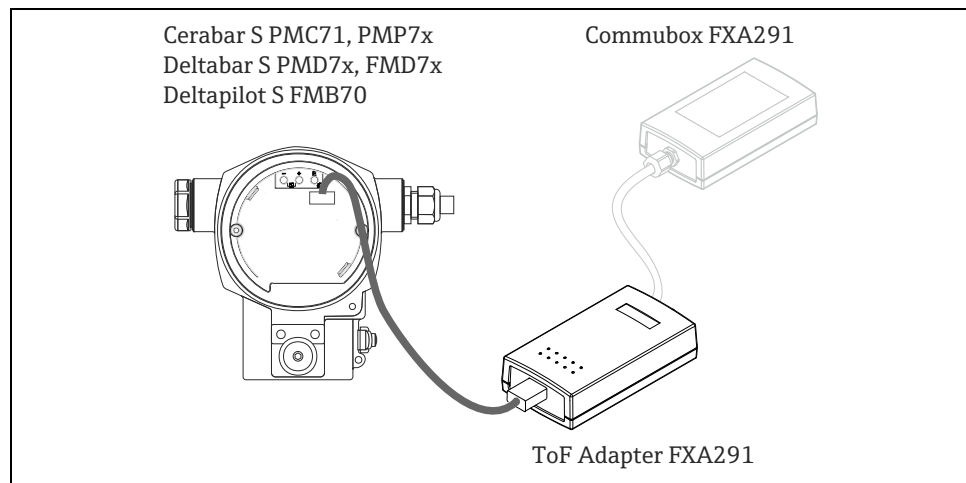
Connect the ToF Adapter FXA291 to the device's display connector.



A0023048

4.3.2 Connecting to pressure transmitter

Connect the ToF Adapter FXA291 to the device's display connector.

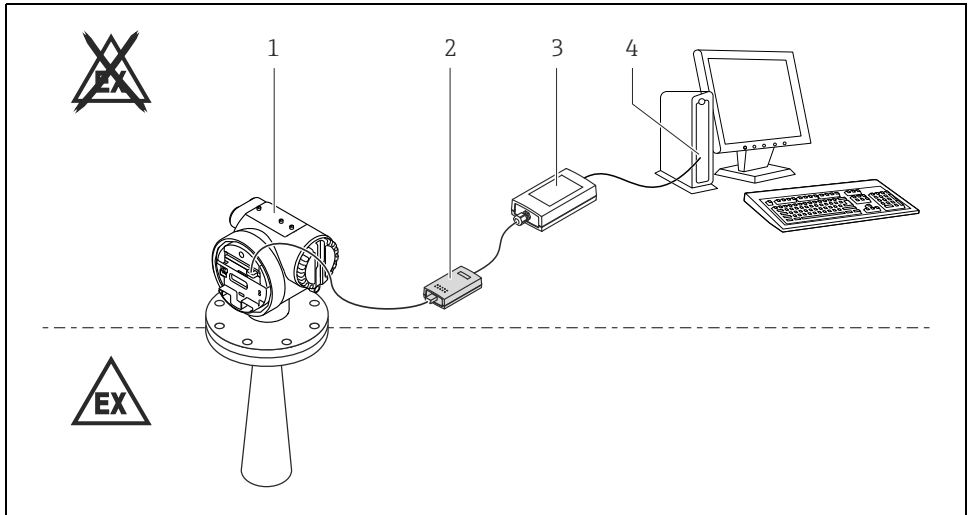


A0023049

5 Operation

5.1 Overview of operating options

5.1.1 Local operation



A0023050

- 1 ToF device (e.g. Micropilot M)
- 2 ToF Adapter FXA291
- 3 Commubox FXA291
- 4 USB connection

Operation is performed using a Personal Computer, a Commubox FXA291 with ToF Adapter FXA291 (USB) and the operating software "FieldCare". FieldCare is a graphical operating program for measuring devices from Endress+Hauser. It assists with commissioning, data back-up, signal analysis and documentation of the measuring point.

5.1.2 Operation with FieldCare

FieldCare is Endress+Hauser's plant asset management tool based on FDT technology. With FieldCare, you can configure all Endress+Hauser devices as well as devices from other manufacturers that support the FDT standard. Hardware and software requirements can be found on the Internet:

www.de.endress.com ► Search: FieldCare ► FieldCare ► Technical data.

FieldCare supports the following functions:

- Configuration of transmitters in online operation
- Loading and saving device data (upload/download)
- Documentation of the measuring point

Connection options:

- Commubox FXA291 with ToF Adapter FXA291 via service interface

6 Commissioning

NOTICE

If using the ToF Adapter FXA291 with FDT/DTM software (e.g. FieldCare), the special IPC devices DTMs (according to the communication protocol) and „Level Pressure FXA193 CommDTM“ must be used. The DTMs are supplied on the FieldCare-CD-ROM.

7 Maintenance and repair

7.1 Cleaning

When cleaning the device externally, ensure that the cleaning agent used does not attack the housing surface and seals.

7.2 Repair

The Endress+Hauser repair concept does not envisage any repairs:
For further information, please contact Endress+Hauser Service.

7.3 Return

The device may be returned in the event of an incorrect delivery or order. As an ISO-certified company, Endress+Hauser is required by law to follow certain procedures when handling returned products that are in contact with the medium.

To ensure that your device is returned swiftly, safely and in a professional manner, please read the procedures and conditions on the Endress+Hauser website at www.services.endress.com/return-material

7.4 Disposal

When disposing of the device, the device components must be separated and recycled based on the materials involved.

7.5 Contact addresses for Endress+Hauser

Contact addresses can be found on our homepage: www.endress.com/worldwide.
If you have any questions, please contact your Endress+Hauser subsidiary.

8 Technical data

8.1 Permitted ambient temperature range

$$-20\text{ °C} \leq T_a \leq 70\text{ °C}$$

8.2 Degree of protection

IP30

8.3 Supplementary Documentation

This documentation can be found on our product pages at "www.endress.com".

8.3.1 Certificates and approvals

Ex approval

The Ex certificates available can be found in the ordering information.
Observe the relevant safety instructions (XA01181F).

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www.addresses.endress.com
