

ARGUS[®] F200

User manual

Version: 4.81 / **EN**

Important note:

The basic package contains the selective xPON-OPM (3-fold, 4-fold or 5-fold OPM), which includes various functions and tests. All other interfaces and functions are optional (see data sheet). Depending on the scope of functions supplied, individual menu items may therefore be hidden.

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D-58507 Lüdenscheid, Germany, 02/2026

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ARGUS testing the telecom network



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1 Introduction

ARGUS® F200: The basic fiber tester

The ARGUS® F200 is a specialized selective power meter, designed for use in GPON and XGS-PON networks.

Modern design and new housing concept

With its robust and even more compact design than its predecessors, the ARGUS® F200 is ideally suited to the demands of daily field service use. The device is equipped with a user-friendly touchscreen and the familiar intuitive ARGUS® menu navigation. Thanks to the freely configurable favorites feature, the most frequently used functions can be accessed even more quickly.

Tests on mixed optical fiber accesses

The ARGUS® F200 supports measurements at several wavelengths simultaneously. The selective 4-fold powermeter can be switched into an existing PON connection in through mode, enabling the optical levels on the different downstream (OLT) and upstream (ONT) wavelengths for GPON and XGS-PON to be determined precisely at the same time. Other transmitters that may be on the line (so-called Alien-ONT) can be detected. In addition, the PON ID can be read from the PLOAM message. A PLOAM monitor scans all ONU IDs and serial numbers of connected ONTs on a PON branch. With the 5xOPM, a video overlay via up to five separate filters is also possible as an option.

Additional features

The ARGUS® F200 also features WLAN management and 2.4GHz wireless technology. In addition, the Fiber Inspection Tool can be connected via USB, which detects scratches and defects on optical fiber end faces and displays them as a video image and in tabular form. Optionally, it is possible to carry out an ONT simulation and perform simple IP tests directly on the GPON or XGS-PON access.

Overview of key ARGUS® functions:

Fiber interfaces

- GPON and XGS-PON
- Selective Optical Power Meter
- Selective Through Mode
- Fiber Inspection Tool (external via USB)
- Visual Fault Locator (external, additional)
- Optical Light Source (external, additional), Extension to Optical Loss Test Set

WLAN interface

- WLAN Management

IP tests via GPON + XGS-PON

- Ping / Traceroute, down- and upload tests

Documentation and analysis

- **Documentation** of data through automatic access tests in access acceptance logs, in device and on PC in HTML format
- Transmission of results to smart phone using **QR code**
- Transfer of test results to the **ARGUS® Mobile App** (optional / on request)
- Free firmware updates via the **cloud** or using the update tool
- **WLAN extension** for transferring measurements to systems for electronic job processing, access point mode (browsers, download) or remote control using smart phones.



Note:

You can download the latest manuals at <http://www.argus.info/service/downloads> or simply contact one of our service representatives:

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D-58507 Lüdenscheid
Tel.: +49 (0) 2351 / 9070-0
Fax: +49 (0) 2351 / 9070-70
www.argus.info
support@argus.info

2 Safety information

The ARGUS® may only be operated with the accessories included in the scope of delivery. The use of other accessories can lead to incorrect measurements or even damage to the ARGUS® and the connected equipment. Only use the ARGUS® in accordance with the instructions in this operating manual. Any other use can lead to personal injury and destruction of the ARGUS®..



- Before connecting the ARGUS® to a connection, make sure that the optical output power is not too high for which the ARGUS® or its accessories are not specified. It must also be taken into account that the output power may change during the connection period.
- The ARGUS® may only be used at all interfaces and connections within the scope of its intended use (standard).
- Never take measurements without the battery pack!
- The ARGUS® is not waterproof. Therefore, protect the ARGUS® from water ingress!
- Before replacing the battery pack, remove the mains adapter and all test leads and switch off the ARGUS®.

CAUTION: The battery pack must never be removed during operation.

- Unplug the mains adapter from the socket as soon as the ARGUS® is switched off and is no longer in use (e.g. after charging the battery)!
- The ARGUS® may only be used by trained personnel.
- The ARGUS® may only be operated with the mains adaptor supplied.
- Only USB devices approved by the manufacturer without a mains connection may be connected to the USB host interface (USB-A). Connection as a mass storage device to a PC is permitted.
- When using external USB devices on the USB host interface (USB-A), no guarantee is given for processes that cause mechanical stress outside the normal plugging process.
- Only use SFP types in the SFP slots that have been explicitly approved by intec GmbH. Never insert other objects or SFP modules into the SFP slots.
- When the SFP slots are not in use, always ensure that they are closed with the protective caps supplied.
- When handling the SFP slots and SFP modules, always ensure that they are kept clean.
- When handling SFP modules, always observe the safety instructions of the SFP manufacturer applicable to this module and only use it as intended.



- The SFP modules typically approved for the ARGUS® are generally class 1 laser products.

No special protective measures are usually required when handling Class 1 laser products.

For your own safety, however, please note the following

- The ends of the optical fiber or SFP module must always be covered when the connection is interrupted.
- Avoid direct eye contact with emitted laser light at all times. Visual aids and long exposure times can make even low doses of light very dangerous.
- Only trained personnel are permitted to handle this equipment.
- The electromagnetic compatibility (EMC) has been tested in accordance with the regulations specified in our declaration of conformity.

The ARGUS® is a class A device. This device may cause radio interference in residential areas. In this case, the operator may be required to take appropriate measures.

- Active charging of the battery pack (charging the battery) and automatic charging (switched on by default) may only take place within a temperature range of 0 °C to +40 °C.
- The appliance must not be operated during a thunderstorm.
- If the ARGUS® is operated under extreme conditions, it can switch to an energy-saving mode to protect the device and the user and may terminate the current test and disconnect the connection.

To ensure reliable long-term operation of the ARGUS®, always make sure that it is optimally protected against high temperatures.

- The appliance must not be opened.
- Observe the following safety and transportation instructions for handling the lithium-ion battery pack.
- Before carrying out a test or connecting to an interface, determine how the ARGUS® is to be supplied with power (battery pack or mains adapter). The car charging adapter is only used to charge the device. If the ARGUS® is connected to it, no tests should be carried out with it.
- The ARGUS® contains highly sensitive electronic components. Depending on the set operating mode, under extreme conditions, electronic discharge by the user can lead to functional impairments in exceptional cases. The impaired test or operating mode may require the user to trigger the device again.

Return and environmentally compatible disposal

Current environmental law restricts the use of certain hazardous substances in electrical and electronic devices, in particular the concentration or use of lead (Pb), cadmium (Cd), mercury (Hg), hexavalent chromium [Cr(VI)], polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE).

We hereby confirm that, according to the assurances, marking and documentation of our suppliers, ARGUS® brand measuring products do not contain any substances in concentrations, compounds or applications whose marketing is prohibited according to the valid provisions of the RoHS Directive 2011/65/EU of the European Parliament and Council dated 8 June 2011.

Our registration number issued by the EAR is: WEEE REG. no. DE 92829367.

Since October 2005, we have been marking all our measuring devices with this symbol, in compliance with WEEE 2002/96/EC and the corresponding German statute ElektroG:

() (DIN EN 50419).

In other words, the ARGUS® and its accessories may not be disposed of as household waste. Please consult with our Service department with respect to the return of old devices.

2.1 Safety and transport information for the battery pack

Transport

The battery pack has been tested according to the UN directive (ST/SG/AC.10/11/Rev. 4, part III., subchapter 38.3). Protective functions have been implemented to guard against short-circuit, destruction and dangerous reverse currents. The quantity of lithium contained in the battery pack is below current thresholds, and thus not subject to international regulations governing hazardous materials either as an individual part or mounted in the ARGUS®. When transporting multiple battery packs, however, you may also need to observe these regulations. Further information is available on request.



Failure to observe the following danger and warning information can impair the protective functions of the battery pack. This can cause extremely high voltages and currents which can in turn result in abnormal chemical reactions, acid leaks, overheating, smoke, explosion and/or fire. Additionally, failure to observe this information can negatively impact both the performance capacity and the performance duration.

Hazard information and warnings

1. Do not disassemble or short-circuit the battery pack.
2. Do not throw the battery pack into fire or overheat it ($> 60\text{ °C}$).
3. The battery pack must not become wet or damp.
4. Active charging of the battery pack and automatic charging (on by default) may only be carried out in a temperature range of 0 °C to $+40\text{ °C}$.
To maximise battery life, do not store the battery long-term at temperatures above $+50\text{ °C}$.
5. The battery pack may only be charged using the corresponding ARGUS® device.
6. Do not puncture the battery pack with a sharp object.
7. Do not throw the battery pack or expose it to shocks.
8. Do not use battery packs that have become damaged or deformed.
9. The battery pack contacts have a specific polarity (positive and negative); do not insert them in the ARGUS® with reverse polarity.
10. Only connect the battery pack to the corresponding ARGUS® in the intended manner.
11. The battery pack may not be directly connected to electrical outputs such as power adapters, car adapters etc.
12. Only use the battery pack with ARGUS®.
13. Do not attach, transport or store the battery pack together with metallic objects.
14. Do not expose the battery pack to electrostatic charges.
15. The battery pack may not be charged or discharged together with primary batteries or other battery packs.

16. If the battery pack fails to charge by the end of the charging time, it can no longer be recharged.
17. Do not expose the battery pack to excessive pressure.
18. If the battery pack emits odours or heat, becomes discoloured or deformed or otherwise appears different from normal during operation, charging or storage, immediately remove the battery pack from the device and never use it again.
19. In the event that acid leaks and comes in contact with eyes or skin, wash immediately with clean water. Do not rub. In both cases, seek medical attention immediately. Otherwise, permanent injury may occur.
20. Keep the battery pack away from children.
21. Read this manual and the corresponding safety information carefully before using the battery pack.
22. If odours, rust or other abnormalities are detected before the first use, contact intec GmbH to clarify the next steps.

Further details

Battery compartment

The battery pack compartment is on the rear of the device. Generally, you do not need to replace the battery pack. If this should become necessary, unscrew the two screws of the battery compartment cover and remove the cover. The battery pack inside the compartment can easily be detached from the plug connector and removed. The plug is reverse polarity protected, so that you can insert a new battery pack with no difficulties. Use only the battery pack supplied with the device.

First-time operation

Connect the switched-off ARGUS® to the supplied plug-in power supply. The ARGUS® will automatically switch on when the power supply is plugged in. After pressing the  key, select the option "Battery (status, charging)". The option "Status" displays further information, such as voltage and current level.

The Accesses display can vary depending on the configuration. You must first charge the battery pack supplied with the device completely before full capacity is reached.

Automatic charging

Select this option to toggle the automatic charging functionality on or off. You can also do this in the ARGUS® Manager, which you can access by swiping down or pressing the power key. Here, automatic charging can be toggled on and off. The ARGUS® charges the battery automatically in the background when the power adapter is connected as soon as the battery status falls below a threshold value (battery symbol in display). When the ARGUS® is disconnected from the power adapter before that battery is completely charged, the ARGUS® does not automatically continue charging when it is subsequently reconnected because the charge is no longer below the threshold.

Power-saving mode

In battery mode, the ARGUS® automatically switches off after five minutes of no activity (interval adjustable). The ARGUS® does not switch off during a test (e.g. loop) or in trace mode. The device can alternatively be operated using the supplied external adapter. When the adapter is connected, power supply via the battery is automatically switched off. The ARGUS® must always be operated with the battery, regardless of the power supply. This ensures e.g. uninterrupted operation of the real-time clock. Remove the power adapter from the mains socket as soon as the ARGUS® is switched off or no longer in use (e.g. after charging the battery pack)!

Handling the battery pack

Power down the ARGUS® and disconnect the power adapter. Then unscrew the screws holding the battery compartment cover. The battery pack inside the compartment can easily be detached from the plug connector and removed. The plug is reverse polarity protected, so that you can insert a new battery pack with no difficulties.

Use only the battery pack supplied with the device.

Attaching any other power supply to the device contacts will damage your ARGUS® instrument.

- Only charge the supplied battery pack in the ARGUS®.
- Do not use the ARGUS® battery pack in other devices.
- Active charging of the battery pack and automatic charging (on by default) may only be carried out in a temperature range of 0 °C to +40 °C.
- The lithium ion battery pack should be stored with a charge of 40 to 60 %. When storing the device for longer periods, you should refresh this charge level every six months. To prevent full discharge, remove the battery pack from the device for long-term storage. To maximise battery life, do not store the battery long-term at temperatures above +50 °C.

Battery indicator

The ARGUS® indicates the current state of the battery graphically in the display when no power adapter is connected. A battery symbol flashes in the display when it is down to a power reserve of approx. 8 minutes (depending on the operating mode). Tone errors, and in extreme cases malfunctions, can occur in this period. Connect the power adapter. The ARGUS® can recharge the battery completely when the power adapter is connected. The ARGUS® power pack does not require manual discharge. A complete charging process can take up to approx. 6 hours. The battery is not charged in certain operating modes.

Mains adaptor

USB-C PD power supply unit for ARGUS® F200 (with USB-C connector)

The following power supply units are approved for use with the ARGUS®:

HKY Q36MV-Type-C

Contact:

Manufacturer:

Shenzhen Huikeyuan Electronic Technology Co., Ltd.

BLK 3,Guiyue Rd 308

Longhua Shenzhen 518000 CN

Importer:

intec GmbH Lüdenscheid, Germany

No other power supply units may be used.

3 General technical data

Device specifications:

Dimensions/weight	Inputs/outputs
Height: 225 mm	- 1x SFP+ port: for GPON and XGS-PON transceivers
Width: 120 mm	- 2x SC/APC (OLT, ONT) for PON
Weight: approx. 815 g	- 1x USB 2.0 client type C, with Power Delivery (15V, 3A) and for accessing mass storage
(incl. battery pack)	- 1x USB 2.0 host type A, for external devices
	- WLAN IEEE802.11a/b/g/n
Control panel	
4 keys	
Touch display	
Display	Temperature range
TFT colour display,	Temperature range for charging battery pack: 0 °C (+32 °F) to +40 °C (+104 °F)
Touchscreen, illuminated	Max. Operating temperature (endurance tests): 0 °C (+32 °F) to +40 °C (+104 °F)
800 x 400 Pixel	Max. Operating temperature (battery mode): 0 °C (+32 °F) to +40 °C (+104 °F)
	Operating temperature (with power/car adapter): 0 °C (+32 °F) to +40 °C (+104 °F)
	Storage temperature: -20 °C (-4 °F) up to +60 °C (+140 °F)
	Humidity: up to 95 % rel. humidity, non-condensing
	Power supply
	Lithium-ion battery pack with 7.2 V nominal voltage (always follow the safety instructions!)
	or USB-C with Power Delivery and 15V, 3A

Miscellaneous

ARGUS® user safety tested according to EN62368-1,
RoHS conformity according to the WEEE Directive.
The electromagnetic compatibility (EMC) was tested
according to the regulations specified in our declaration of
conformity.

CE mark



The ARGUS® F200 fulfils the EC directives for the CE
mark. We will be happy to provide a detailed declaration of
conformity on request.

Supported Standards:

GPON: ITU-T G.984 PON Installation Test
XGS-PON: ITU-T G.9807.1
Fiber Inspection (USB-A): IEC 61300-3-35
WLAN: IEEE 802.11a/b/g/n IEEE 802.11a/an/ac

4 Quick-start guide



Power key



- Switches on the ARGUS®
- Restart after power down
- Switches on display illumination (also possible with any other key). In battery mode, the display illumination switches off automatically after an interval that can be set in ARGUS®
- Opens the ARGUS® Manager from any point in the menu (press briefly).
- Return from the ARGUS® Manager to the original menu.
- Switches off the ARGUS® (key must be held down): after an adjustable interval (e.g. after 10 minutes), the ARGUS® automatically shuts down in battery mode (s. p. 125).
- Emergency switch off if pressed for more than 10 seconds

Wheel key



- Opens the setup menu

Menu key



- Opens the quick menu

Shift key



- In some menus, the softkeys are assigned two functions. The Shift key switches the assignment of the softkeys.

The ARGUS® F200 is mainly operated via touchscreen.

Tapping on the respective item takes you to the next selection menu or allows you to make or confirm settings.

The  und  symbols can be found in the status bar of many displays.



These can have the following functions:



- Open menu
- Switch to the next display
- Start/open test
- Accept setting



- The ARGUS® will return to the previous display without accepting current entries (e.g. changing a setting parameter)
- Exiting graphic displays
- After switching on: Switch to the main menu

The softkeys shown in the bottom line of the display can also be selected via the touchscreen. The current assignment of the four softkeys is shown in the bottom line of the display.

On the following pages of the manual, the meaning of a softkey is shown in angle brackets

< >, Z. B. <Access>. The softkey  can be used to confirm something.

It is also possible to scroll up and down by swiping and to zoom in and out of graphics with two fingers.

Top connections



USB-A

USB host interface (WLAN)

USB-C

Connection for external USB-C plug-in power supply unit.

If the plug-in power supply unit is connected, the ARGUS® switches off the power supply from the battery during operation.



The ARGUS® regularly checks whether USB devices are connected.

SFP

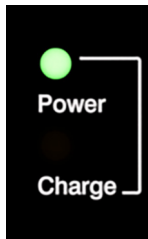
Connection of selected SFP modules from various manufacturers for connection to fiber optic-based interfaces (Ethernet, FTTx/GPON).

PON (OLT/ONT)

Connection of GPON and/or XGS-PON routes via SC/APC in the direction of the OLT or ONT side (through mode)

LEDs

The LEDs next to the touch display indicate the following:



Power

When the device is switched on, the LED lights up green.

Charge

A flashing green LED indicates that the device is charging.

Charging the battery in initial operation

The battery pack compartment is on the rear of the device. Attach the battery back by placing it against the retaining points at the top end and then screwing down the screws. Use only the battery pack supplied with the device. Observe the safety information given on page 10. Now connect your (switched-off) ARGUS® to the external power supply supplied with the device.

The ARGUS® switches on automatically. The following display appears (you may first need to acknowledge warnings or messages with <Continue>):



The Accesses display can vary depending on the configuration.

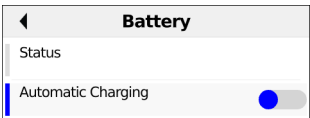
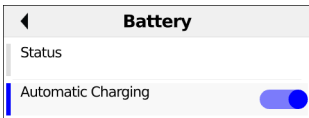
Current assignment of the softkeys

Quick Menu	
Status	
File Manager	
Save Test Result	
QR Code	
Test Results	
Firmware Update	▶
Battery (Status, Charge)	▶
Open Manual	
Licences	

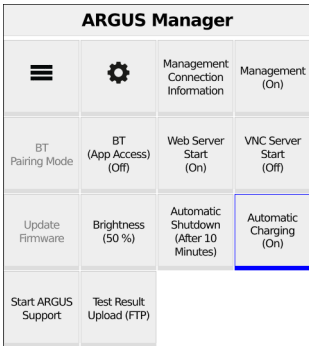
Battery	
Status	
Automatic Charging	☒

Battery Status	
State	Discharging
Power Supply Plugged In	No
Remaining Charge	23 %
Battery Capacity	93 %
Discharge Cycles	2
Actual Voltage	6935 mV
Actual Current	-231 mA
Temperature	18,5 °C
Battery Type	105
Date (WW/YY)	40/23

After pressing the Menu key, select the option “Battery (Status, Charge)” (see image at left). Selecting “Status” (see image above right) displays further information, such as voltage and current level (see image below right).



Select “Automatic charging” to toggle the automatic charging functionality on or off.



You can also do this in the ARGUS® Manager, which you can access by pressing the power key or swiping from top to bottom. Here, touch to toggle automatic charging on and off.

You must first change the battery pack supplied with the device (s. Seite 125 Using the battery pack) completely before full capacity is reached.

Power-saving mode



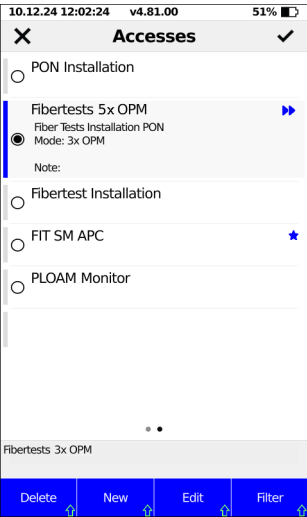
In battery mode, the ARGUS® automatically switches off after five minutes of no activity (interval adjustable). The ARGUS® does not switch off during a test (e.g. loop box) or in trace mode.

The device can alternatively be operated using the supplied external adapter. When the adapter is connected, power supply via the battery is automatically switched off. The ARGUS® must always be operated with the battery, regardless of the power supply. This ensures e.g. uninterrupted operation of the real-time clock.



Remove the power adapter from the mains socket as soon as the ARGUS® is switched off or no longer in use (e.g. after charging the battery pack)!

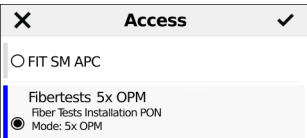
5 Configuring accesses



If an access was selected the last time the instrument was used, the ARGUS[®] starts in the Access menu.

After selecting <Access>, the ARGUS[®] displays all configured accesses (up to 100 in all). When changing connections, the last connection used is marked with a ● in the display. You can select a different access using the cursor keys or the touchscreen. The selected access is marked with a vertical blue line on the left side. Press to confirm your access selection.

The marked accesses also provide a preview of the selected access settings. In the example shown here, the access PON Installation is selected. The access Fibertests 3xOPM is highlighted, and a preview of the access settings is displayed.



The fiber test connection 5-fold OPM is marked and selected here.



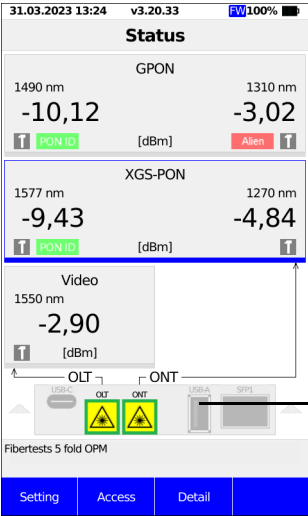
The status bar (above the softkeys) shows the selected connection.

- <Delete> Deletes the selected access.
- <New> Creates a new access, s. p. 24.
- <Edit> Edits an access , s. p. 24.
- <Filter> Filters by accesses.



- <↓>
 - <↑>
- The connection highlighted in blue moves with you when you press the ↑ and ↓ buttons to scroll through the connections. The ARGUS® allows you to set the order of the configured connections so that frequently used connections are immediately available.

- <Add as Favourite> The access is added or removed as a favourite. Further information can be found in the chapter Favorites view from page 32.
- or
- <Remove as Favourite>



In the status display, the connection sockets that can be used for the selected connection are highlighted.

5.1 Access wizard

The access wizard prompts for different information depending on the access/interface. The prompts for the parameters depend on the parameters that were previously selected.

Access Wizard

Access Parameter ▶

Autostart Access ☒

Note T-COM

Name Fibertests 3x OPM

✕ Access ✓

☒ Fiber Tests

After selecting the connection, the connection wizard can be selected in the menu via <Edit> (see image on the left). The query parameters of the connection wizard depend on the interface selected. The physical interface can now be selected (see image on the right).

✕ Fiber Mode ✓

☒ Installation

☐ Fiber Inspection Tool

✕ Interface ✓

☒ PON

The connection mode (here: Installation, see image on the left) and the interface (here: PON, see image on the right) are then selected.

✕ Mode ✓

☐ 3x OPM

☒ 5x OPM

✕ Single Tests ✓

☒ Only Status (PON Level Check)

☐ PON Installation

☐ PLOAM Monitor

Selection of the mode (here: 5x OPM) and a single test (here: Status only (PON level check)).

✕

Access Name

✓

Fibertests 5x OPM

17/24 Characters

!	"	\$	%	&	/	(	)	=	
1	2	3	4	5	6	7	8	9	0
Q	W	E	R	T	Z	U	I	O	P
A	S	D	F	G	H	J	K	L	
▲	Y	X	C	V	B	N	M	⌫	
123								⌨	✓

✕

Summary

✓

Fiber Tests Installation PON
Mode: 5x OPM

Note:

✓: Save and quit wizard.
✕: Step back.

The ARGUS® will now suggest an access name depending on the previously selected settings. Up to 24 characters can be entered.

<Delete> Deletes access name.

The ARGUS® displays a summary of the configurations (see illustration on the right).

<Access parameters> Edits the connection parameters.

<Note> Entry of notes, s. p. 28.

✕

Step back.

✓

Exit wizard and save.

5.2 Access parameters

◀

Fibertests 5x OPM

Access Wizard

Access Parameter ▶

Autostart Access ☒

Note [Empty]

Name Fibertests 5x OPM

◀

Fibertest Installation

PON ID Format T-COM

Opt. Power Evaluation ▶

Editing the access parameters of the selected connection. The physical parameters can also be opened and edited directly at the end of the connection wizard.



Further information on the settings can be found in the ARGUSpedia in the device.

5.3 Autostart Access

The screenshot shows a configuration window titled 'Fibertests 5x OPM'. It contains several sections: 'Access Wizard', 'Access Parameter' with a right-pointing arrow, 'Autostart Access' with a slider control that is currently turned off (the blue knob is on the left), 'Note' with '[Empty]' text, and 'Name' with the value 'Fibertests 5x OPM'.

This screenshot is identical to the previous one, but the 'Autostart Access' slider is now turned on. The blue knob has moved to the right, and the slider bar is highlighted in blue.

If the selected access is to be started automatically, this can be activated quickly and easily using a slider.

The screenshot shows a list of access points. The first item is 'Fibertests 5x OPM', which is highlighted with a blue bar on the left. Below it, smaller text reads 'Fiber Tests Installation PON' and 'Mode: 5x OPM'. At the bottom, it says 'Note:'. To the right of the highlighted item is a blue double arrow icon (»).

Accesses that are started automatically are marked with a blue double arrow in the access menu. The access is started automatically when the device is switched on.

5.4 Notes

← **Fibertests 5x OPM**

Access Wizard

Access Parameter ▶

Autostart Access ☒

Note [Empty]

Name Fibertests 5x OPM

Fibertests 5x OPM

☒ Fiber Tests Installation PON

Mode: 5x OPM

Note: T-COM

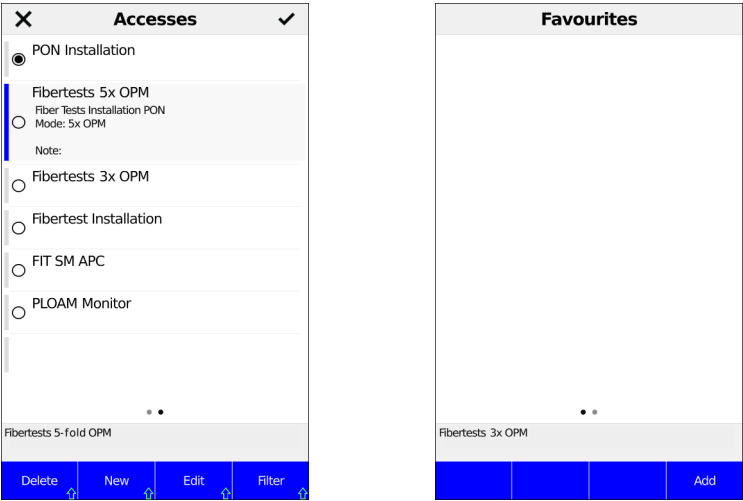
A note can also be added when editing a connection. This note can have a length of up to 49 characters.

In the access preview, the ARGUS® displays the access mode and a freely editable note next to the selected access (in the example: T-COM).

Hints for entering the note: see Access name on p. 25.

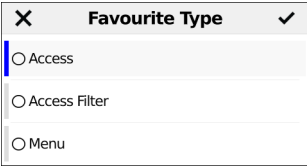
6 Favourites view

With the freely configurable favourites view in the ARGUS F200, the most frequently used functions can be accessed even more quickly.



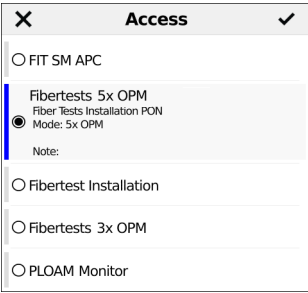
To access the favourites view, swipe from left to right on the display in the access menu. If you have not yet added any favourites, the favourites view is empty.

<Add> Favourites can be added here.



After selecting the <Add> softkey, you can select the following favorite types:

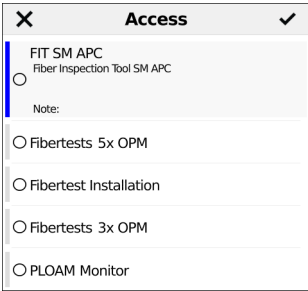
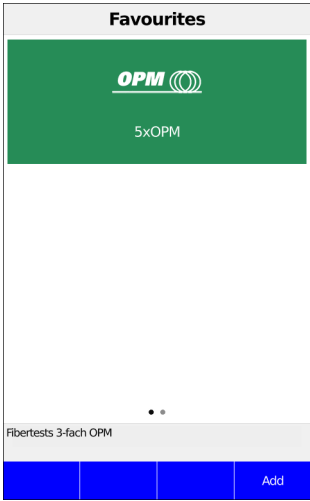
- Access
- Access filter
- Menu



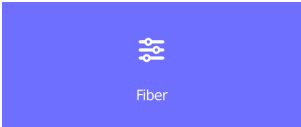
The following accesses can be selected:

- FIT SM APC
- Fibertests 5xOPM
- Fibertest Installation
- Fibertests 3xOPM
- PON Installation Test
- PLOAM Monitor

To select one of the accesses, tap on it and then change the suggested short name if necessary, in this example fiber tests. Up to 10 characters can be entered.



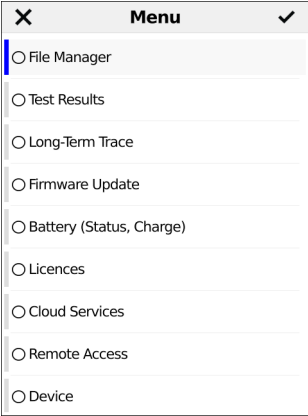
After confirming with the check mark, the access appears in the favourites view. Accesses have a green background color there. The suggested name has been changed to “5xOPM”. Accesses that have already been added disappear from the list of connections to be selected in the favourites types. In this example, the fiber test access has already been added.



The following favorites can be selected for the access filters:
- Fiber

Access filters are displayed with a violet background color in the favourites view.

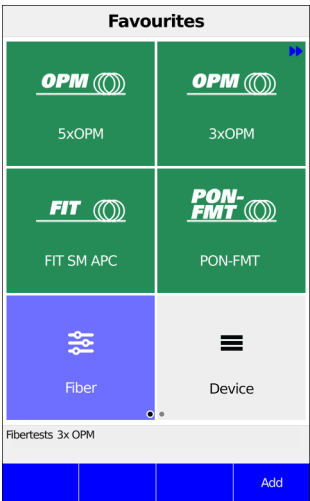
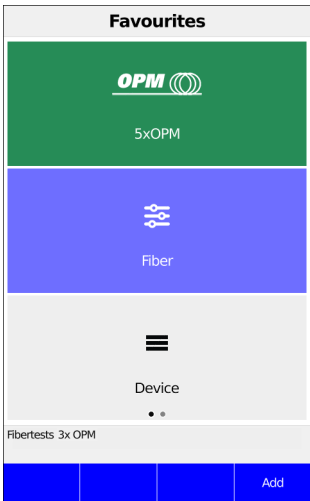
6 Favourites view



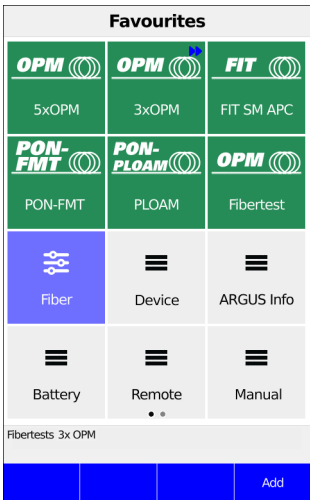
The following favourites can be selected in the Favourites type menu:

- File Manager
- Test Results
- Firmware Update
- Battery (Status, Charge)
- Open Manual
- Licences
- Cloud Services
- Remote Access
- Device
- Company Address
- ARGUS Info
- Backup/Restore

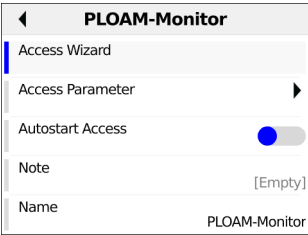
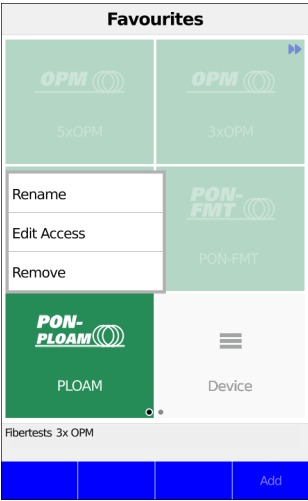
Access filters are displayed with a grey background color in the favourites view.



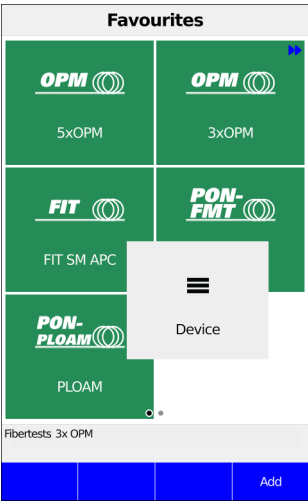
Depending on the number of favourites added, three large, six medium or twelve small tiles are displayed.



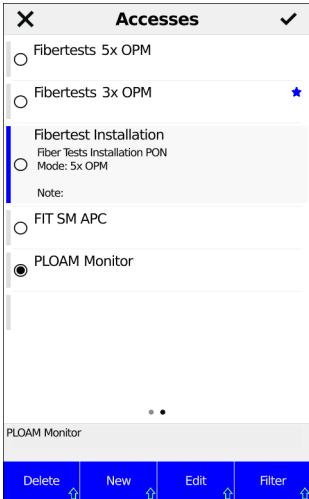
If you have added more than twelve favourites, they become visible when you swipe up from the bottom of the favourites view.



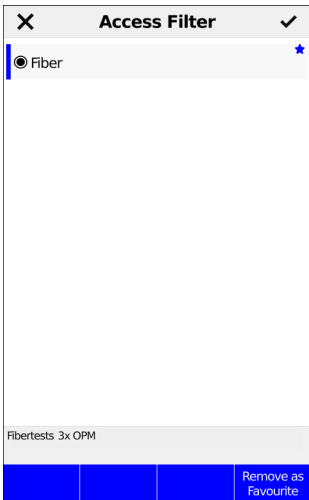
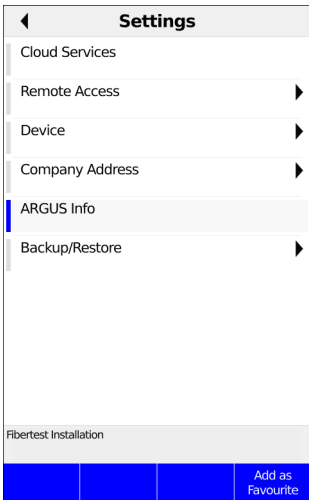
If you hold down one of the tiles, you can rename or remove it. Accesses can also be edited.



It is also possible to move the tiles. To do this, press and hold a tile and drag it to the desired position. In the example, the “Device” tile has been moved from the bottom right to the bottom left.



In the access menu, for example, the favourites are marked with a blue star, in this example fiber tests 3-fold OPM.



Favourites can also be added in the settings (accessed via the wheel key) and via the “Filter” softkey in the access menu by selecting the “Add as favourite” softkey. If you select “Remove as favourite”, the favourite is removed again.

7 IP tests

7.1 IP ping

In IP ping, the ARGUS® tests whether a connection to the internet service provider (ISP) or another computer or server address is possible via Ethernet, GPON or XGS-PON using an OLT and the IP network. The ARGUS® sends a test packet to a specified IP address (remote station) and waits for a response packet. On the basis of the received response packet, it is possible to draw conclusions as to the availability and delay of the IP network. It is also possible to measure the maximum data packet size of the path.

The IP ping needs the following parameters:

Protocol-independent parameters

Opening of test parameters is described in the chapter "Configuring accesses", see page 22.

You can configure the following settings:

- IP address
- Number of pings
- Pause
- Packet size
- Fragmentation



You can obtain further information on settings in the ARGUSpedia on the instrument.

◀
IP Address

☒
www.argus.info

☐
ipv6.argus.info

☐
0.0.0.0

☐
0.0.0.0

☐
0.0.0.0

☐
0.0.0.0

☐
0.0.0.0

☐
0.0.0.0

☐
0.0.0.0

✕
IP Address
✓

☐
As IPv4 Address
0.0.0.0

☐
As IPv6 Address
::

☒
As Domain Name
www.argus.info

The ARGUS® displays the ten available slots for IP addresses. Mark the line with the IP address you wish to edit using the cursor keys or the touch screen (in this example the first slot is marked, see image at left).

<Edit> Edits the selected IP address.

The address can be saved in the form of an IPv4 number, IPv6 number or a name (see image at right).

Default: **www.argus.info**

X

IPv4 Address

✓

0.0.0.0

Please enter an address between 0.0.0.0 and 255.255.255.255

1	2	3	A	B	C
4	5	6	D	E	F
7	8	9	:	-	<X>
*	0	#	.	ABC	✓

X

IPv6 Address

✓

::

Please enter an address between :: and FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFF

*1=A *2=B *3=C *4=D *5=E *6=F

1	2	3	A	B	C
4	5	6	D	E	F
7	8	9	:	-	<X>
*	0	#	.	ABC	✓

Enter the IPv4 (see left image) or IPv6 address (see right image) in numerical form. The editable area is highlighted in blue. When entering an IPv6 address, the letters A-F are available.

<Delete> Deletes the place in front of the cursor.

 Adopts the marked IP address as the default.

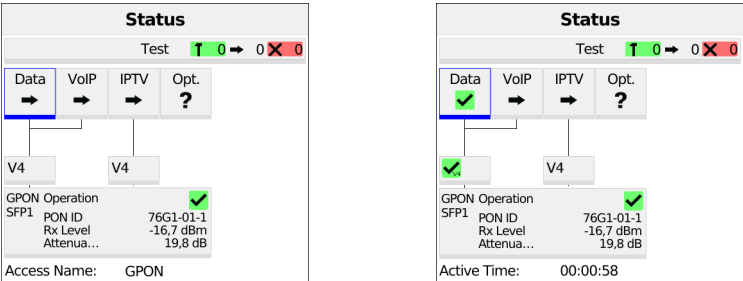
Enter the address as name, see Access name, page 36. You can enter the name by tapping characters on the touch screen.

- <Abc>ABC>** Entry begins with upper-case letters and continues in lower-case.
- <ABC>123>** Entry of upper-case letters.
- <123>abc>** Numerical entry.
- <abc>Abc>** Entry of lower-case letters.



For IPv6 addresses, you can use square brackets to include port information with IPv6 addresses in “IP address as name”.

Starting IP ping (example access mode GPON, already active):



Connecting the service:

The profile shown in the display (in this example PPP VLAN 7/8) is used for IP ping.

If no GPON, XGS-PON or Ethernet connection is established, ARGUS[®] automatically connects at this point using the default profile.

The service Data and the GPON connection are active (see image at right).

- <Info> Duration of activation
- <Test> Opens test selection
- <Stop> Deactivates the service

Single Tests

IP Ping

www.argus.info

Traceroute

www.argus.info

Path MTU

www.argus.info

iperf Client

www.argus.info

iperf Server

Version 3

ARGUS® Real Speed Direct (iperf)

ARGUS Server GER [10G]

ARGUS® Real Speed Formal (RFC 6349)

iperf Profile 1

HTTP Download

Server Profile 1

FTP Download

Server Profile 1

IP Address

☒ www.argus.info

☐ ipv6.argus.info

☐ 0.0.0.0

☐ 0.0.0.0

☐ 0.0.0.0

☐ 0.0.0.0

☐ 0.0.0.0

☐ 0.0.0.0

☐ 0.0.0.0

Select IP ping.

<Setting> Change IP ping parameters.

The ARGUS® displays the addresses stored in the protocol.

☒

 Select the address for the ping; the default is indicated with ● .

<Edit> Edit address, see page 36.



 In this example a ping test is conducted with IP version IPv4. Use with IPv6 is analogous.

Status

Test

T

1

→

0

X

0

Data

VoIP

IPTV

Opt.

☒

☐

☐

☐

GPON Operation

SFP1

PON ID

Rx Level

Attenua...

76G1-01-1

-16,7 dBm

19,8 dB

IP-Ping

T

Test Overview

IP Ping

T

Sent:

Received:

Current:

Maximum:

6

6

23 ms

23 ms

Test Overview

IP Ping

→

Sent:

Received:

Average:

Maximum:

10

10

22 ms

23 ms

Pressing OK automatically starts the IP ping.

In the status screen, you can select <Test> (at the top) to see which IP ping is currently running (see image at left).

Selecting <Test> again opens the test overview. During the IP ping test, a green hammer

can be seen to the right of "IP ping" (see top right image), and an arrow appears there after the IP ping test is complete (see bottom right image).

Display during the IP ping test:

- Number of test packets sent
- Number of response packets
- Current time in ms
- Maximum time in ms

Display after the IP ping test:

- Number of test packets sent
- Number of response packets
- Average time in ms
- Maximum time in ms

◀ IP Ping	
Pings	
Sent	10
Received	10
Repeated	0
Checksum Error	0
Error	0
Times	
Minimum	22,595 ms
Maximum	23,838 ms
Average	22,910 ms
Configuration	
Packet Size	84 Byte

Target	
URL	www.argus.info
IPv4	185.224.154.37
Used Version	IPv4

<Detail> Opens a detailed overview of the test results.

The ARGUS[®] displays the results when the test is finished:

- Number of packets sent
- Number of packets received
- Number of packets repeated
- Checksum errors
- Number of packets received with error
- Minimum packet response time in ms
- Maximum packet response time in ms
- Average packet response time in ms
- Selected packet size in bytes

- Display of destination URL
- Display of IPv6 address
- Display of IPv4 address
- Indication whether IPv4 or IPv6 is used

<Restart> Starts a new IP ping test.

<Stop> Stops the IP ping test with the option to save.

Test Overview			
IP Ping		IP Ping	
Sent:	10	Sent:	7
Received:	10	Received:	7
Average:	22 ms	Average:	22 ms
Maximum:	23 ms	Maximum:	23 ms
IP Ping			
Sent:	2		
Received:	2		
Average:	22 ms		
Maximum:	22 ms		
Data	VoIP	IPTV	Opt.

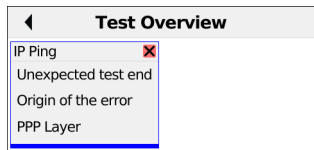
Press  to return to the test overview. You can start a new test as needed by selecting <New>. The GPON link and the service are still connected (the connection can be disconnected in the status screen with <Stop>). The test overview displays multiple active and completed tests (see image).

Status			
Test 1 0 → 0 X 1			
Data	VoIP	IPTV	Opt.
X	?	?	?
X			
GPON Operation ✓			
SFP1	PON ID	76G1-01-1	
	Rx Level	-16,7 dBm	
	Attenua...	19,8 dB	
IP-Ping		X	

Error Details	
This test was stopped due to an error	
Origin of the error	PPP Layer

Error messages in IP ping

ARGUS® displays an X in a red field in the status for data as soon as an error occurs (see image at left). Clicking “Info” displays the error message (see image at right).



Open the test overview to obtain more detailed information on the source of the error (see image).

7.2 Traceroute

In IP traceroute, the ARGUS® sends test packets and displays all hops and their response times on the way to the destination address. This data enables precise localisation of possible delays in the network.

The following parameters must be saved in the profile for the IP traceroute:

Protocol-independent parameters:

Opening of test parameters is described in the chapter "Configuring accesses", see page 22.

The following test parameters can be configured:

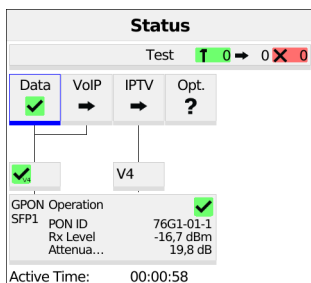
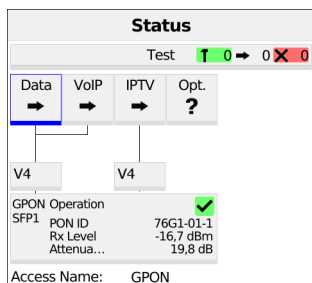
- IP address
- Maximum hops
- Probes
- Timeout



You can obtain further information on settings in the ARGUSpedia on the instrument.

Starting traceroute

(Example: access mode GPON, already active)



Connecting the service.

The profile shown in the display (in this example profile 1) is used for the traceroute test.

If no GPON, XGS-PON or Ethernet connection is established, the ARGUS® automatically connects at this point using the default profile.

The service Data and the GPON connection are active (see image at right).

Single Tests	
IP Ping	www.argus.info
Traceroute	www.argus.info
Path MTU	www.argus.info
iperf Client	www.argus.info
iperf Server	Version 3
ARGUS® Real Speed Direct (iperf) ARGUS Server GER [10G]	
ARGUS® Real Speed Formal (RFC 6349) iperf Profile 1	
HTTP Download	Server Profile 1
FTP Download	Server Profile 1

Traceroute	
IP Address	www.argus.info
Maximum Hops	25
Probes	3
Timeout	3,000 s

Select traceroute

<Setting> Change traceroute parameters, see page 43.

IP Address	
☒ www.argus.info	
☐ ipv6.argus.info	
☐ 0.0.0.0	
☐ 0.0.0.0	
☐ 0.0.0.0	
☐ 0.0.0.0	
☐ 0.0.0.0	
☐ 0.0.0.0	
☐ 0.0.0.0	

Test Overview	
Traceroute	
Hops:	9

The ARGUS® displays the IP addresses or URLs saved in the protocol (see image at left).



Select the address for the traceroute test; the default is indicated with ● .

<Edit> Edit address, see page 36.



In this example a traceroute test is conducted with IP version IPv4.
Use with IPv6 is analogous.

The traceroute test starts automatically.

Display during the traceroute test (see image at right):

- Current hop and probe, in this example:
7 - 1: i.e. 7th hop and 1st probe
- Response time of hop for current attempt (0.000 seconds)
- IP address of the current hop, with name if applicable

Traceroute		
Hop	Target	Time
1	10.5.100.1	0,005 s

2	192.168.100.1	0,006 s

3	62.155.244.90	0,010 s
	p3e9bf45a.dlp0.t-ipconnect.de	
4	217.5.67.162	0,015 s
	f-ed12-i.F.DE.NET.DTAG.DE	

Target	
URL	www.argus.info
IPv4	185.221.105.52
Used Version	IPv4

Open “Details” to display the IP addresses of the individual hops and any names as well as their response times, for example: 217.5.90.126, 0.013 s.
This also shows the destination URL and the IP address as well as the IP version used.



Cancels test

Displays the test results up to this point, with possibility of saving (automatic prompt).

Saving traceroute result see also IP ping (see page 41).

7.3 Path MTU test

The Path MTU test is a standalone part of ARGUS® Real Speed (RFC6349). The test determines the maximum packet size that can reach a destination without fragmenting packets.

The Path MTU test needs the following parameters:

Protocol-independent parameters:

Opening of test parameters is described in the chapter "Configuring accesses", see page 22.

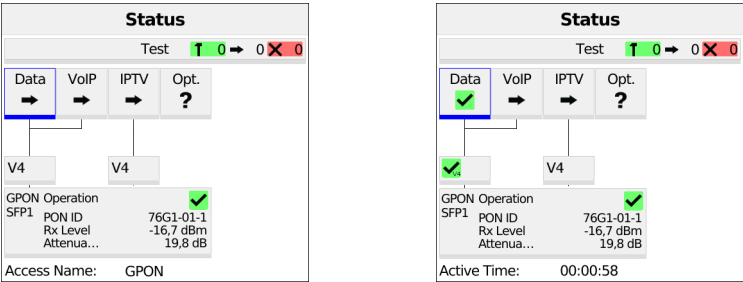
The following test parameters can be configured:

- IP Address
- Pause
- Timeout
- Number of Packets



You can obtain further information on settings in the ARGUSpedia on the instrument.

Starting Path MTU (Example: access mode GPON, already active):



Connecting the service.

The profile shown in the display is used for the Path MTU test.

If no GPON, XGS-PON or Ethernet connection is established, the ARGUS® automatically connects at this point using the default profile.

The service Data and the GPON connection are active (see image at right).

- <Info> Duration of activation
- <Test> Opens test selection
- <Stop> Deactivates the service

Single Tests	
IP Ping	www.argus.info
Traceroute	www.argus.info
Path MTU	www.argus.info
iperf Client	www.argus.info
iperf Server	Version 3
ARGUS® Real Speed Direct (iperf) ARGUS Server GER [10G]	
ARGUS® Real Speed Formal (RFC 6349) iperf Profile 1	
HTTP Download	Server Profile 1
FTP Download	Server Profile 1

Path MTU	
IP Address	www.argus.info
Pause	1,000 s
Timeout	1 s
Number of Packets	3

Select Path MTU.

- <Setting> Change Path MTU parameters.

The ARGUS® displays the addresses saved in the profile.

-  Select the address for the Path MTU test; the default is indicated with ●.

- <Edit> Edit the address.



In this example a Path MTU test is conducted with IP version IPv4.
Use with IPv6 is analogous.

Test Overview	
Path MTU	
Current Size	750 Byte
t:	00:00:03

Test Overview	
Path MTU	
Determined Size	1492 Byte

The Path MTU test starts automatically.
In the test overview you can observe the running test.

7.4 iperf Client

The iperf client is a data throughput test against an iperf server.

The iperf client needs the following parameters:

Protocol-independent parameters:

Opening of test parameters is described in the chapter "Configuring accesses", see page 22.

You can configure the following settings in profiles:

- IP Address
- Version
- Test Direction Version 2
- Test Direction Version 3
- Port Version 2
- Port Version 3
- Protocol
- Number of parallel Streams
- Bandwidth Limit
- Test Duration
- Window Size
- Authentication
- Profile Name



You can obtain further information on settings in the ARGUSpedia on the instrument.

Starting iperf Client (Example: access mode GPON, already active):

Status

Test ↑ 0 → 0 ✗ 0

Data

VolP

IPTV

Opt.

V4

V4

GPON Operation

SFP1

PON ID

Rx Level

Attenua...

76G1-01-1

-16,7 dBm

19,8 dB

Access Name: GPON

Status

Test ↑ 0 → 0 ✗ 0

Data

VolP

IPTV

Opt.

✓

V4

V4

GPON Operation

SFP1

PON ID

Rx Level

Attenua...

76G1-01-1

-16,7 dBm

19,8 dB

Active Time: 00:00:58

Connecting the service.

The profile shown in the display is used for the iperf Client.

If no GPON, XGS-PON or Ethernet connection is established, the ARGUS® automatically connects at this point using the default profile.

The service Data and the GPON connection are active (see image at right).

- <Info> Duration of activation
- <Test> Opens test selection
- <Stop> Deactivates the service

Single Tests	
IP Ping	www.argus.info
Traceroute	www.argus.info
Path MTU	www.argus.info
iperf Client	www.argus.info
iperf Server	Version 3
ARGUS® Real Speed Direct (iperf)	ARGUS Server GER [10G]
ARGUS® Real Speed Formal (RFC 6349)	iperf Profile 1
HTTP Download	Server Profile 1
FTP Download	Server Profile 1

iperf Profile	
IP Address	77.162.61.39
Version	Version 3
Test Direction Version 2	Send
Test Direction Version 3	Send
Ports Version 2	5001
Ports Version 3	5201
Server Port Version 2	5001
Server Port Version 3	5301
Protocol	TCP

Number of Parallel Streams	3
Bandwidth Limit	No
Test Duration	30 s
Window Size	Standard
Authentication	►
Profile Name	iperf-Profil 1

Select iperf Client.

- <Setting> Change iperf Client parameters.

The ARGUS® displays the addresses saved in the profile.



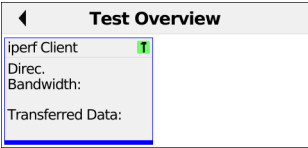
Select the address for the iperf Client; the default is indicated with ●.

<Edit> Edit the address.



In this example an iperf Client is conducted with IP version IPv4.
Use with IPv6 is analogous.

The iperf Client test starts automatically.



In the test overview you can observe the running test.

7.5 iperf Server

The iperf server is the remote station for a data throughput test with an iperf client.

The iperf server needs the following parameters:

Protocol-independent parameters:

Opening of test parameters is described in the chapter "Configuring accesses", see page 22.

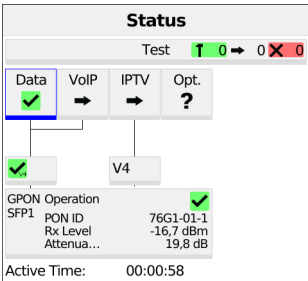
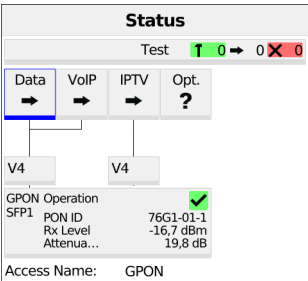
You can configure the following settings in profiles:

- IP Address
- Version
- Test Direction Version 2
- Test Direction Version 3
- Port Version 2
- Port Version 3
- Protocol
- Number of parallel Streams
- Bandwidth Limit
- Test Duration
- Window Size
- Authentication
- Profile Name



You can obtain further information on settings in the ARGUSpedia on the instrument.

Starting iperf Server (Example: access mode GPON, already active):



Connecting the service.

The profile shown in the display is used for the iperf Server.

If no GPON, XGS-PON or Ethernet connection is established, the ARGUS® automatically connects at this point using the default profile.

The service Data and the GPON connection are active (see image at right).

- <Info> Duration of activation
- <Test> Opens test selection
- <Stop> Deactivates the service

Single Tests	
IP Ping	www.argus.info
Traceroute	www.argus.info
Path MTU	www.argus.info
iperf Client	www.argus.info
iperf Server	Version 3
ARGUS® Real Speed Direct (iperf) ARGUS Server GER [10G]	
ARGUS® Real Speed Formal (RFC 6349) iperf Profile 1	
HTTP Download	Server Profile 1
FTP Download	Server Profile 1

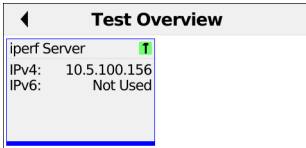
iperf Profile	
IP Address	77.162.61.39
Version	Version 3
Test Direction Version 2	Send
Test Direction Version 3	Send
Ports Version 2	5001
Ports Version 3	5201
Server Port Version 2	5001
Server Port Version 3	5301
Protocol	TCP

Number of Parallel Streams	3
Bandwidth Limit	No
Test Duration	30 s
Window Size	Standard
Authentication	►
Profile Name	iperf-Profil 1

Select iperf Server.

- <Setting> Change iperf Server parameters.

The iperf Server starts automatically.



In the test overview you can observe the running test.

7.6 ARGUS® Real Speed Direct (iperf)

ARGUS® Real Speed is a test in client/server mode against an iperf server.

The ARGUS® Real Speed Direct needs the following parameters:

Protocol-independent parameters:

Opening of test parameters is described in the chapter "Configuring accesses", see page 26.

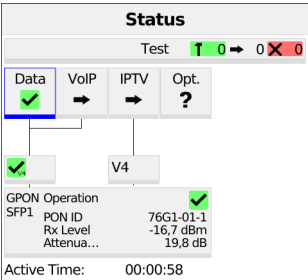
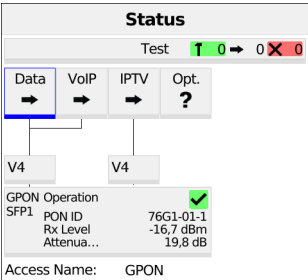
You can configure the following settings:

- IP Address
- Authentification
- Pofile Name



You can obtain further information on settings in the ARGUSpedia on the instrument.

Starting ARGUS® Real Speed Direct (Example: access mode GPON, already active):



Connecting the service.

The profile shown in the display is used for the ARGUS® Real Speed Direct.

If no GPON or Ethernet connection is established, the ARGUS® automatically connects at this point using the default profile.

The service Data and the GPON connection are active (see image at right).

<Info> Duration of activation

- <Test> Opens test selection
- <Stop> Deactivates the service

Single Tests	
IP Ping	www.argus.info
Traceroute	www.argus.info
Path MTU	www.argus.info
iperf Client	www.argus.info
iperf Server	Version 3
ARGUS® Real Speed Direct (iperf)	ARGUS Server GER [10G]
ARGUS® Real Speed Formal (RFC 6349)	iperf Profile 1
HTTP Download	Server Profile 1
FTP Download	Server Profile 1

Real Speed Direct Profiles	
☒	ARGUS Server GER [10G]
☐	RealSpeedDirect Pr. 2
☐	RealSpeedDirect Pr. 3

Select ARGUS® Real Speed Direct.

- <Setting> Change ARGUS® Real Speed Direct parameters.

The ARGUS® will display the addresses saved in the profile.

- ☒ Select the address for the ARGUS® Real Speed Direct; the default is indicated with ●.

- <Edit> Edit address.

-  In this example an ARGUS® Real Speed Direct is conducted with IP version IPv4.
Use with IPv6 is analogous.

ARGUS® Real Speed Direct starts automatically.

Test Overview	
Real Speed Direct	
Status	Path MTU
t:	00:00:02

Test Overview	
Real Speed Direct	
Status	TCP Throughput Search free port
t:	00:00:22

In the test overview you can observe the running test.

7.7 ARGUS® Real Speed Formal (RFC6349)

ARGUS® Real Speed Formal is a throughput test according to RFC6349 against an iperf server.

The ARGUS® Real Speed Formal needs the following parameters:

Protocol-independent parameters:

Opening of test parameters is described in the chapter "Configuring accesses", see page 26.

You can configure the following settings in profiles:

- IP Address
- Version
- Test Direction Version 2
- Test Direction Version 3
- Port Version 2
- Port Version 3
- Protocol
- Number of parallel Streams
- Bandwidth Limit
- Test Duration
- Window Size
- Authentication
- Profile Name



You can obtain further information on settings in the ARGUSpedia on the instrument.

Starting ARGUS® Real Speed Formal (Example: access mode GPON, already active):

Status

Test 1 0 → 0 X 0

Data

VoIP

IPTV

Opt.

V4

V4

GPON Operation

SFP1

PON ID

Rx Level

Attenua...

76G1-01-1

-16,7 dBm

19,8 dB

Access Name: GPON

Status

Test 1 0 → 0 X 0

Data

VoIP

IPTV

Opt.

V4

GPON Operation

SFP1

PON ID

Rx Level

Attenua...

76G1-01-1

-16,7 dBm

19,8 dB

Active Time: 00:00:58

Connecting the service.

The profile shown in the display is used for the ARGUS® Real Speed Formal.

If no GPON or Ethernet connection is established, the ARGUS® automatically connects at this point using the default profile.

The service Data and the GPON connection are active (see image at right).

- <Info> Duration of activation
- <Test> Opens test selection
- <Stop> Deactivates the service

Single Tests	
IP Ping	www.argus.info
Traceroute	www.argus.info
Path MTU	www.argus.info
iperf Client	www.argus.info
iperf Server	Version 3
ARGUS® Real Speed Direct (iperf)	ARGUS Server GER [10G]
ARGUS® Real Speed Formal (RFC 6349)	iperf Profile 1
HTTP Download	Server Profile 1
FTP Download	Server Profile 1

iperf Profile	
IP Address	77.162.61.39
Version	Version 3
Test Direction Version 2	Send
Test Direction Version 3	Send
Ports Version 2	5001
Ports Version 3	5201
Server Port Version 2	5001
Server Port Version 3	5301
Protocol	TCP

Number of Parallel Streams	3
Bandwidth Limit	No
Test Duration	30 s
Window Size	Standard
Authentication	►
Profile Name	iperf-Profil 1

Select ARGUS® Real Speed Formal.

- <Setting> Change ARGUS® Real Speed Formal parameters.

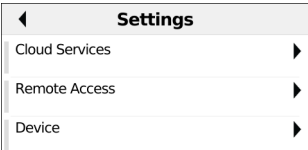
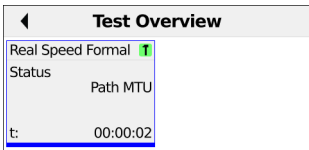
The ARGUS® will display the addresses saved in the profile.

 Select the address for the ARGUS® Real Speed Formal; the default is indicated with ●.

<Edit> Edit address.

 In this example an ARGUS® Real Speed Formal is conducted with IP version IPv4.
Use with IPv6 is analogous.

ARGUS® Real Speed Formal starts automatically.



In the test overview you can observe the running test.

7.8 HTTP download

In HTTP download, the ARGUS® downloads the data of a website or file. The ARGUS® displays the current "net download rate", the usable data of the IP packets, and following conclusion of HTTP download the average speed (for multiple download attempts).

The following parameters must be saved in the profile for the HTTP download:



No meaningful evaluations are possible for download tests with a duration of less than 10 seconds.

Therefore, the download file should be as large as possible (depending on the access speed). If the duration of the test is less than 10 seconds, the ARGUS® does not display any data rate or time.

Protocol-independent parameters:

Opening of test parameters is described in the chapter "Configuring accesses", see page 22.

The following test parameters can be configured:

- Server Profile
- Server Address
- FTP Port
- Download Filename
- Upload Filename
- Upload Filesize
- Username
- Password
- Number of Up-/Downloads
- Number of Parallel Downloads
- Number of Parallel Uploads
- Profile Name



You can obtain further information on settings in the ARGUSpedia on the instrument.



If a www alias address is entered as the "Source/destination address", the ARGUS® downloads "only" the HTML page in HTML download. The ARGUS® does not evaluate the HTML code, so that any link to a "real" www address is not considered. In this case, the ARGUS® does not indicate an error, as the HTML page of the specified "Source/destination address" was loaded without error.



Be sure to enter the "source" address (server address and download file name) precisely as set out (upper/lower case). Otherwise the ARGUS® will return error 301 (Moved Permanently) or 404 (Not Found).

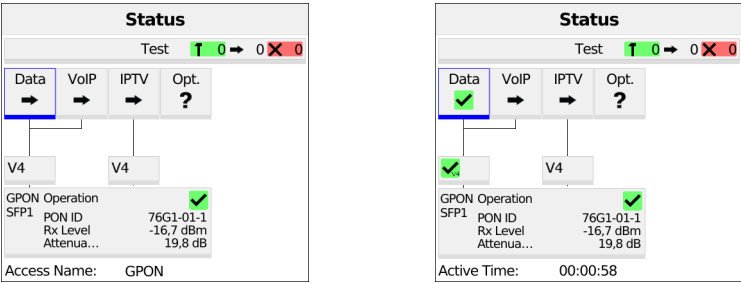


When requesting multiple download components, the ARGUS® may reduce the number of downloads depending on the server support, which can cause deviations from the set parameters. This can occur e.g. as soon as the size of the requested file is unknown.



If the download file name exceeds the maximum permissible length, you can work around this limit by fragmenting the address and additionally using the "Server" field. The server name may be up to 80 characters long, the file name 60 characters long.

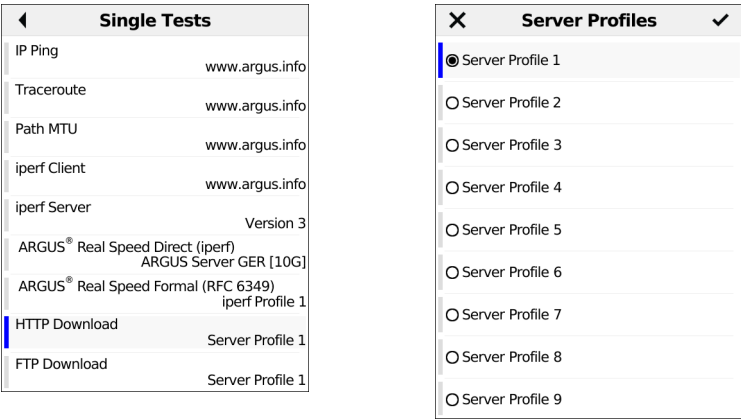
Starting HTTP download (example: access mode GPON, already active)



Connecting the service.

The profile shown in the display (in this example profile 1) is used for HTTP download.

If no connection is established, the ARGUS® automatically connects at this point using the default profile.



Select HTTP download.

<Profile> Displays the available HTTP download profiles (see image at left).

Mark the server profile:
(default is indicated with ●).

The server profiles are also used for HTTP upload, FTP download and FTP upload.

<Edit> Edits the marked profile, changes the individual settings.

HTTP download starts automatically.

Test Overview

HTTP Download

Speed: 70,717 Mb/s

Progress: 44 %

Filesize: 95,367 MB

HTTP Download

Speed: 43,613 Mb/s

Progress: 33 %

Filesize: 47,683 MB

Data

VoIP

IPTV

Opt.

99,767 Mbit/s

2,066 Mbit/s

V GPON Net Data Rate 102,772 Mb/s 41,998 Mb/s

Retransmission: CRC: FEC:

HTTP Download

60

40

20

0

0:00 0:01 0:02 0:03 0:04 0:05 0:06

Mbit/s h:mm

Bitrate (L4 Payload)

Current 43,970 Mb/s

Average 43,970 Mb/s

11 %

Current 5,666 MB

Overall 47,683 MB

Overall 37 %

Current 80,337 MB

Overall 143,050 MB

Time

Elapsed 00:00:04

Remaining 00:00:02

Parallel Downloads

Current 3

Configured 3

Target

URL iptest.testnetz

IPv4 192.168.100.20

Used Version IPv4

You can observe the running test in the test overview. You can access the long-term view (see images at right) via “Details”.

Display during HTTP download:

- Current download/total number of downloads.
- Status
- Current net average download rate
- Current net average download rate
- Bytes transferred so far
- Size of downloaded file
- Data transferred so far
- Total data transferred
- Transfer time so far in h:min:s
- Remaining transfer time in h:min:s
- Number of parallel downloads
- Destination URL
- IP version and IP address used

Test overview display:

You can observe the running test or start a new test here.

- <New> Selects a new single test.
- <Stop> Stops the HTTP download test.

Save HTTP download result, see page 41.

7.9 FTP download

In FTP download, the ARGUS® downloads data in the form of a file. The ARGUS® displays the current net download rate, the usable data of the IP packets, and following conclusion of the test the average speed (for multiple download attempts).



No meaningful evaluations are possible for download tests with a duration of less than 10 seconds. Therefore, the download file should be as large as possible (depending on the access speed). If the duration of the test is less than 10 seconds, the ARGUS® does not display any data rate or time.

Protocol-independent parameters:
Opening of test parameters is described in the chapter "Configuring accesses", see page 22. See HTTP download for an explanation of the test parameters.

Starting FTP download
The service Data is started in the same way as for HTTP upload.

◀

Single Tests

IP Ping	www.argus.info
Traceroute	www.argus.info
Path MTU	www.argus.info
Iperf Client	www.argus.info
Iperf Server	Version 3
ARGUS® Real Speed Direct (Iperf)	ARGUS Server GER [10G]
ARGUS® Real Speed Formal (RFC 6349)	Iperf Profile 1
HTTP Download	Server Profile 1
FTP Download	Server Profile 1

✕

Server Profiles

✓

☒

Server Profile 1

☐

Server Profile 2

☐

Server Profile 3☐☐☐☐☐☐

Select FTP download

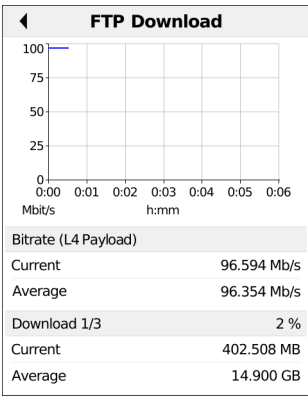
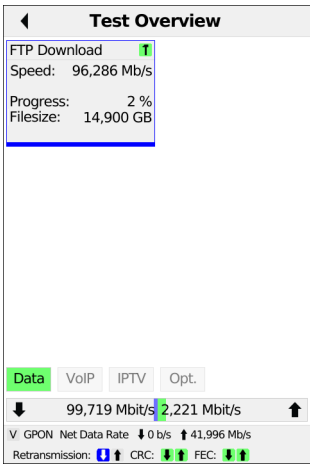
<Profile> Displays the available FTP download profiles.

Mark the server profile (default is indicated with ●).

The server profiles are also used for HTTP download, HTTP upload and FTP upload.

<Edit> Edits the marked profile, changes the individual settings.

FTP download starts automatically.



Current	80,337 MB
Overall	143,050 MB
Time	
Elapsed	00:00:04
Remaining	00:00:02
Parallel Downloads	
Current	3
Configured	3
Target	
URL	ip test.testnetz
IPv4	192.168.100.20
Used Version	IPv4

You can observe the running test in the test overview. You can access the long-term view (see images at right) via “Details”.

Display during FTP download:

- Current download/total number of downloads
- Files already transferred (current/overall)
- Current net download rate
- Average download rate
- Currently transferred bytes
- Total file size to transfer
- Data transferred in test (current and total)
- Total data transferred
- Current download time in h:min:s
- Remaining transfer time

- Number of parallel downloads

<New> Select a new single test.
<Stop> Stop the FTP download test.
<Detail> Open the long-term view.

For saving results, see IP ping, page 41.

7.10 FTP upload

In FTP upload, the ARGUS® sends the data of a file to a server. The ARGUS® displays the current net upload rate, the usable data of the IP packets, and following conclusion of test, the average net speed (for multiple download attempts).



No meaningful evaluations are possible for upload tests with a duration of less than 10 seconds. Therefore, the upload file should be as large as possible (depending on the access speed). If the duration of the test is less than 10 seconds, the ARGUS® does not display any data rate or time.

Protocol-independent parameters:
Opening of test parameters is described in the chapter "Configuring accesses", see page 22. See HTTP download for an explanation of the test parameters.

Starting FTP upload
The service Data is started in the same way as for HTTP upload.

Single Tests

IP Ping	www.argus.info
Traceroute	www.argus.info
Path MTU	www.argus.info
iperf Client	www.argus.info
iperf Server	Version 3
ARGUS® Real Speed Direct (iperf)	ARGUS Server GER [10G]
ARGUS® Real Speed Formal (RFC 6349)	iperf Profile 1
HTTP Download	Server Profile 1
FTP Download	Server Profile 1
FTP Upload	Server Profile 1

Server Profiles

☒ Server Profile 1
☐ Server Profile 2
☐ Server Profile 3
☐ Server Profile 4
☐ Server Profile 5
☐ Server Profile 6
☐ Server Profile 7
☐ Server Profile 8
☐ Server Profile 9

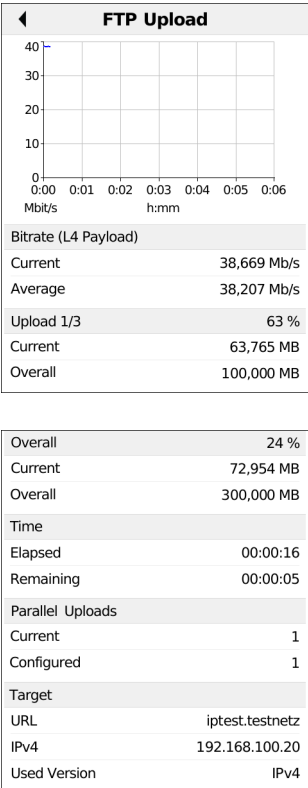
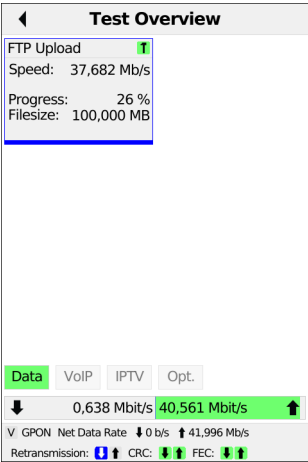
Select FTP upload

<Profile> Displays the available FTP upload profiles.

Mark the server profile (default is indicated with ●).
The server profiles are also used for HTTP download, HTTP upload and FTP download.

<Edit> Edits the marked profile, changes the individual settings.

FTP upload starts automatically.



You can observe the running test in the test overview. You can access the long-term view (see images at right) via “Details”.

Display during FTP upload:

- Current upload
- Data already transferred (current/total)
- Current net upload rate
- Average net upload rate
- Currently transferred bytes
- Total file size
- Data transferred
- Total data to be transferred

- Current upload time in h:min:s
- Remaining transfer time

<New> Selects a new single test.
<Stop> Stops the HTTP upload test.
<Detail> Opens the long-term view.

For saving results, see IP ping, page 41.

7.11 FTP server

In FTP server mode, the ARGUS® behaves like a server for FTP requests. In this mode, the ARGUS® serves FTP download and FTP upload requests. These requests can be sent from a second terminal device (e.g. another ARGUS® unit) via a GPON, XGS-PON or Ethernet access. This makes it possible to test end-to-end throughput and determine the maximum possible data rate for this access.

In the following, the throughput test is explained using the Ethernet interface as an example. This example uses two ARGUS® units: one as the FTP, one to send the FTP download request.

ARGUS® 1 - FTP server

No settings need to be configured on the ARGUS® used as the FTP server. The FTP server test just needs to be started on the selected interface.

Starting FTP server (example: Ethernet, already active)

The service Data is started in the same way as for HTTP upload.

Single Tests	
Path MTU	www.argus.info
iperf Client	www.argus.info
iperf Server	Version 3
ARGUS® Real Speed Direct (iperf) ARGUS Server GER [10G]	
ARGUS® Real Speed Formal (RFC 6349) iperf Profile 1	
HTTP Download	Server Profile 1
FTP Download	Server Profile 1
FTP Upload	Server Profile 1
FTP Server	21
Web Browser	http://www.argus.info

FTP Server	
Status	
Status	Active
IPv4	10.5.100.188
Port	21

The ARGUS® uses the IP address configured under "own IP address" as the destination address (server) for the second ARGUS® unit.

ARGUS® 1 now waits for an FTP request from a second terminal device (in this example the 2nd ARGUS® instrument). The IP mode in this example is "static", the default IP netmask configuration is used.

ARGUS® 2 - FTP down/upload

In principle, you can adopt the same configuration for the ARGUS® unit sending the FTP request (FTP download in this example) as in an FTP download test.
The netmask and IP address (IP mode: static) should match the settings on ARGUS® 1.

Starting FTP download:

The service Data is started in the same way as for HTTP upload.

Single Tests

IP Ping	www.argus.info
Traceroute	www.argus.info
Path MTU	www.argus.info
iperf Client	www.argus.info
iperf Server	Version 3
ARGUS® Real Speed Direct (iperf) ARGUS Server GER [10G]	
ARGUS® Real Speed Formal (RFC 6349) iperf Profile 1	
HTTP Download	Server Profile 1
FTP Download	Server Profile 1

Server Profiles

☒ Server Profile 1

☐ Server Profile 2

☐ Server Profile 3

☐ Server Profile 4

☐ Server Profile 5

☐ Server Profile 6

☐ Server Profile 7

☐ Server Profile 8

☐ Server Profile 9

Select FTP download

<Profile> Displays the available FTP download profiles.

Mark the server profile (default is indicated with ●).
The server profiles are also used for HTTP download, HTTP upload and FTP download.

<Edit> Edits the marked profile, changes the individual settings.

◀

Server Profile

Server Address	192.168.178.5
FTP Port	21
Download Filename	file
Upload Filename	file
Upload Filesize	100 MByte
Username	[Empty]
Password	[Empty]
Number of Up-/Downloads	1
Number of Parallel Downloads	3

Number of Parallel Uploads	1
Profile Name	Serverprofil 1

ARGUS

pedia

You can obtain further information on settings in the ARGUSpedia on the instrument.

Only enter the address of ARGUS® 1 in the server profile of ARGUS® 2 as the server IP address.

In this case too, the download file name is the size of file to be downloaded.



No meaningful evaluations are possible for download tests with a duration of less than 10 seconds. Therefore, the upload file should be as large as possible (depending on the access speed). If the duration of the test is less than 10 seconds, the ARGUS® does not display any data rate or time.

See page 65 for displaying the FTP download result during the FTP download.

8 Fiber

The ARGUS® enables various tests on fiber optic interfaces.

8.1 Selective OPM

The ARGUS® F200 has either a selective 3-fold, 4-fold or 5-fold OPM with through mode. The selective triple OPM filters the downstream wavelengths of GPON (ITU-T G.984.3) at 1490 nm and XGS-PON (ITU-T G.9807.1) at 1577 nm and measures them simultaneously on a fiber optic line with high accuracy and unaffected by other light.

Despite this filtering, the OPM can also be used to determine other wavelengths on the line, e.g. 1550 nm, by means of broadband measurement without having to be reconnected. For this purpose, it offers the wavelength spectrum from 1270 to 1625 nm for measurement, which is common for standard OPMs and also covers the upstream wavelengths 1310 (GPON) and 1270 nm (XGS-PON). The 4- or 5-fold OPM, on the other hand, measures the downstream (1490, 1577) and upstream (1270, 1310) wavelengths filtered in through mode. The 5-fold OPM has an additional optional 1550 nm filter for video overlay measurements.

In order to be able to correctly assign the data streams for each subscriber, the OLT on the switching side provides each ONT with a so-called PON ID. This ID and the transmission power of the OLT are read out without reconnection, and the insertion loss is also calculated directly.

The following important values are available:

- the filtered measurement of optical power
- the broadband measurement (3-fold OPM only)
- the optical attenuation of the link
- the xPON ID



The selective OPM must not be exposed to optical power levels greater than +18 dBm. Higher optical levels can lead to the destruction of the HW.



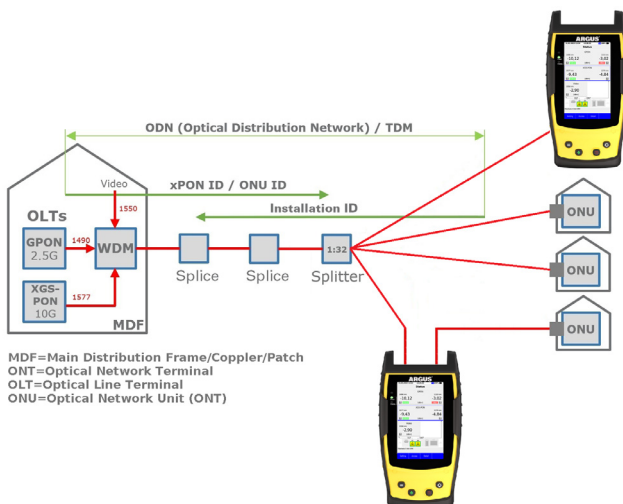
When working on and with optical cables, make sure that they are always plugged in in a perfectly clean condition. Check the cleanliness of your patch cable with an optical microscope, e.g. the Fiber Inspection Tool. Always use dust caps when sockets and cables are not in use.



When handling fiber optic cables, it is essential to observe the applicable health and safety regulations.

Connection scenario Selective Optical Power Meter (5-fold OPM):

Connection of the ARGUS® to a PON branch



The following specifications apply to the selective 3-fold OPM:

- Measuring range:
 - 1577 & 1490 nm (filtered): from -40 to +6 dBm (max. power +18 dBm)
 - 1270, 1300, 1310, 1550, 1610, 1625 nm (broadband): from -50 to +13 dBm
- Accuracy: ± 0.5 dB
- Calibration conditions: -20 dBm, 23°C ± 5 K
- Connector: SC/APC
- Readout of PON ID and XGS-PON ID* via SC/APC, detection up to:
 - GPON ≥ -31 dBm
 - XGS-PON ≥ -30 dBm

The following specifications apply to the selective 4-fold or 5-fold OPM with through mode:

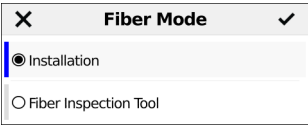
- Measuring range:
 - Downstream (OLT socket):
 - 1577 & 1490 nm (filtered): from -40 to +9 dBm (max. power +18 dBm)
 - 1550 nm (filtered): from -40 to +16 dBm (max. power +18 dBm) (**only 5xOPM**)
 - Upstream (ONT socket):
 - 1310 & 1270 nm (filtered): from -35 to +10 dBm (max. power +18 dBm)
- Accuracy: filtered ± 0.5 dB
- Insertion loss: 1.5 dB
- Alien ONT detection (burst + permanent)
- Calibration conditions: -20 dBm, 23°C ± 5 K
- Connectors: 2x SC/APC (ONT + OLT)
- Readout of PON ID and XGS-PON ID* via SC/APC, detection up to:

- GPON $\geq$ -28 dBm
- XGS-PON $\geq$ -27 dBm

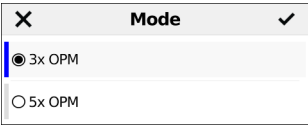
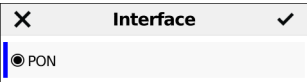
* The network must provide the ID for this.

8.1.1 Selective OPM configuration

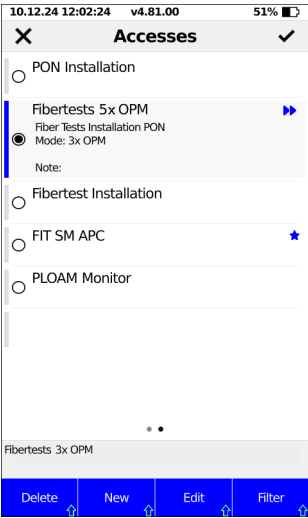
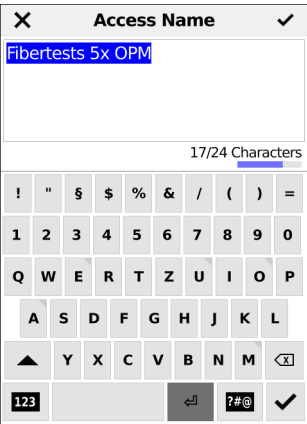
The setting of the access type is explained in the Kapitel Anschlusseinrichtung, siehe page 22.



If no "3x OPM" access is preconfigured, a new access can be created via <New>. Select "Fiber tests" and then "Installation".



After confirming the interface "PON" you can select the 3x OPM.

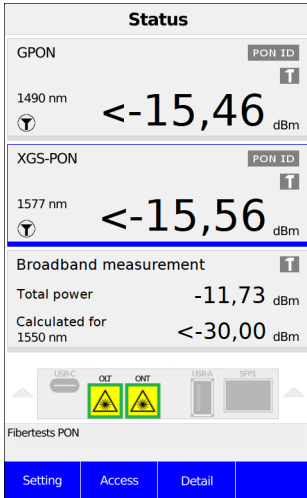


After confirming or changing the access name, it can be opened via the access menu. An access with the name "Fiber tests 3xOPM" has been created here.

- <Delete> Deletes the access.
- <New> Creates a new access.
- <Edit> Edits selected access.
- <Filter> Filters the access list.

8.1.2 Settings Selective OPM

Opening the 3x OPM (selective OPM) access starts the measurement immediately. If nothing is connected yet, no or very low optical levels (e.g. <-40 dBm or <-30 dBm for broadband measurement) are displayed.



<Setting>	Change settings
<Access>	Change access
<Detail>	Open details

The ARGUS[®] saves all relevant settings for a test with the accesses. Depending on the test situation, only the relevant settings are used. The default settings can be restored at any time (s. page 119).

The following settings can be made:

- Reference Level
- PON ID Format
- Opt. Power Evaluation

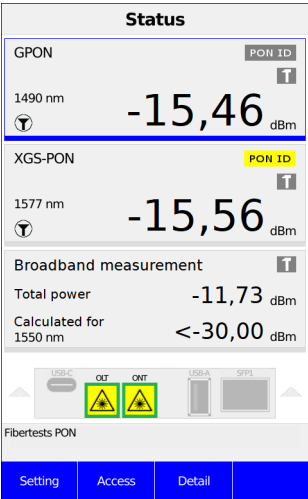
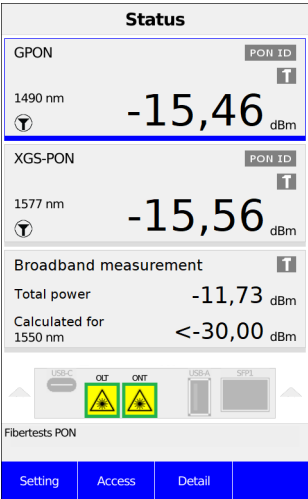


You can obtain further information on settings in the ARGUSpedia on the instrument.

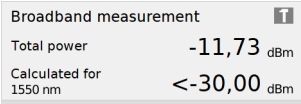
8.1.3 Starting the measurement

The measurement starts as soon as a fiber optic patch cable is plugged into the PON socket (SC/APC) at the head end of the ARGUS®. First, the total light output (total power) is measured unfiltered using a broadband diode and displayed (broadband measurement). A value is then calculated and displayed for the selected wavelength (1550 nm in the example).

If an OLT, a PON remote station, is connected on the far side, it transmits at the corresponding wavelengths into the connected PON branch. This light then passes through the corresponding filters for 1490 nm (GPON) and/or 1577 nm (XGS-PON).



The filtered optical level in dBm (indicated by a funnel symbol) then appears in the corresponding blue tile.



Total optical power in dBm. The value contains the optical levels for 1490 and 1577 nm. No value could be calculated for 1550 nm in this example.

- <Setting> Change settings
- <Access> Change access
- <Detail> Open details

PON ID No PON ID found (grey).

PON ID Readout of a PON ID has started (yellow).

PON ID The read out PON ID is available (green).



Stylized PON socket. Attention laser radiation.



No query of the values from the OLT (grey).



Query of values at OLT in progress (blue).



Measurement filtered.



Reference point OLT, if necessary with a transmission level transmitted by the OLT (Tx) (e.g. 3.60 dBm).



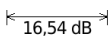
Reference point ARGUS®/3x OPM (Sel. OPM): The opt. level shown in large is measured at this point.



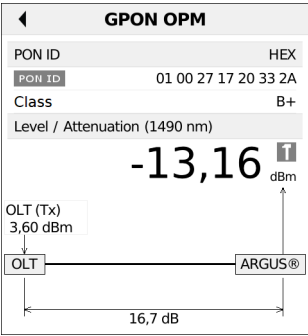
Alien ONT detected (red).



Reference point: Appears only when the reference level is set. Set reference level is displayed above.

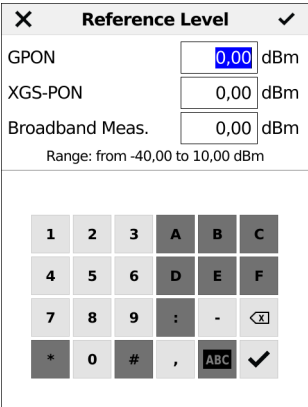
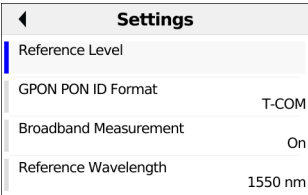


Attenuation calculated between the reference points in dB. Red = negative.



If you select the GPON tile by touch or via the <Detail> softkey, the GPON measurement details open (the XGS-PON tile behaves identically). Here, a PON ID was read out and displayed in hexadecimal format (other formats can be selected via the <Setting> softkey). An ODN class could be read from the OLT, in the example B+. At the reference point "ARGUS®", the following optical level was measured (in the example -13.16 dBm). The OLT has communicated a transmit level (OLT (Tx)) of 3.60 dBm. An attenuation of 16.7 dB is calculated from this between the OLT and the ARGUS®.

- <Setting> Further settings possible (see below).
- <Reference Level> Setting a reference value (see below).



In the settings, the reference levels for GPON, XGS-PON and the broadband measurement can be defined at the same time. These must be in the value range from -40.00 to 10.00 dBm.

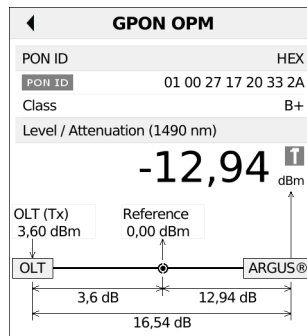
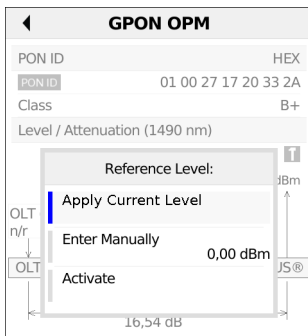
Furthermore, the following GPON PON ID formats can be selected:

- HEX
- ASCII
- T-COM
- KPN

If the broadband measurement is switched off in the settings, the corresponding tile is hidden in the status view.

The following reference wavelengths can be selected:

- 1270 nm
- 1300 nm
- 1310 nm
- 1550 nm
- 1610 nm
- 1625 nm



To set a reference value, select the **<Reference level>** softkey. Here you can either accept the current level, enter a reference level manually (value between -40.00 dBm and 10.00 dBm) or activate or deactivate the reference level.

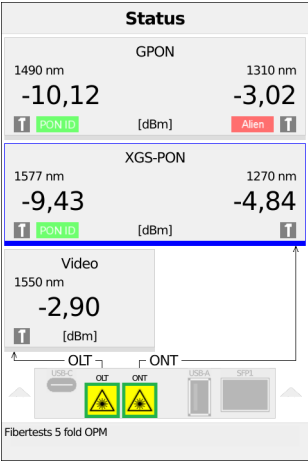
The reference level set is marked with a dot. The calculated attenuation between the OLT and the reference point and between the reference point and the ARGUS® can now be read off. Below this, the attenuation between the OLT and the ARGUS® is displayed.

The settings for XGS-PON are made in the same way as for GPON.

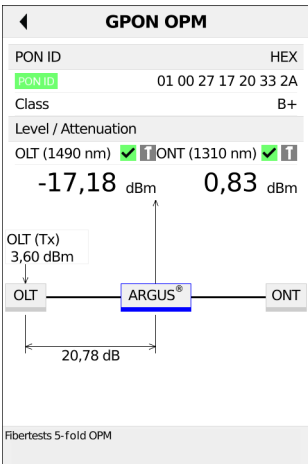
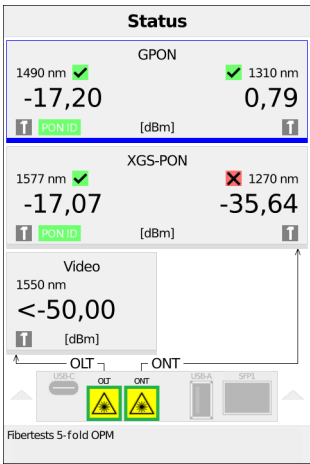
8.1.4 Measurements with the 4-fold or 5-fold OPM

The configuration of the “4-fold OPM” or “5-fold OPM” connection is the same as for the 3-fold OPM. In contrast to the 4-fold OPM, a wavelength of 1550 nm is also possible with the 5-fold OPM.

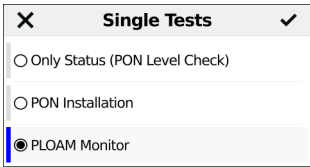
In the upstream, i.e. from the ONT, there is only a response if it has been prompted to do so by an OLT. If the line is interrupted in order to measure the downstream level, the ONT is simultaneously disconnected and silenced. The only way to reliably measure the upstream level is therefore to loop into the line in a kind of through mode. This requires two PON ports on the measuring device: one for the OLT side (down) and one for the ONT side (up). It is particularly important to influence the signal as little as possible. If possible, the insertion loss (IL) should not exceed 1.5 dB. For measurements with the 5-fold OPM, the OLT socket must therefore be connected to the fiber optic connection; the ONT socket is connected e.g. to a second ARGUS® or an ONT.



If an unauthorized terminal device is found during the measurement (here: with the 5x OPM) that interferes with the entire PON line (so-called Alien-ONT), this is indicated by the display of the word “Alien” with a red background.

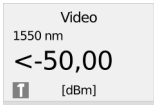


During the measurement (here: with the 5-fold OPM), the values for OLT and ONT are displayed separately.



PLOAM-Monitor	
Zeit	Info (DS)
11:54:10:970	PON ID
11:54:13:290	No Message
11:54:13:310	PON ID
11:54:13:320	No Message
11:54:13:330	PON ID
11:54:13:340	No Message
11:54:13:350	Upstream Overhead
11:54:15:710	Extended Burst Length
11:54:15:730	No Message
11:54:15:740	PON ID
11:54:15:750	No Message
11:54:15:770	PON ID
11:54:15:780	No Message
GPON (1490 nm) Level: -17 dBm	
PON ID: 01 00 27 17 20 33 2A Class: B+	

If you select the individual test “PLOAM monitor” under “Tests”, the PLOAM message can be read from the PON ID.



In contrast to broadband measurement with the 3-fold OPM, a video overlay can be provided via broadcast signal for TV applications, for example, with the 5-fold OPM over 1550 nm - only in the downstream direction.

8.2 Single Tests

8.2.1 PON Level Check

The PON level check is a quick test for 1 fiber without necessary entries. There is no login to the OLT. The measured values are continuously updated.

Settings in access mode PON level check:

In the example, the PON level check was configured and selected as described in chapter 8.1.2 Settings Selective OPM (see page 77).

X

Access

✓

☒ Fiber Tests

X

Fiber Mode

✓

☒ Installation

☐ Fiber Inspection Tool

X

Interface

✓

☒ PON

X

Mode

✓

☒ 3x OPM

☐ 5x OPM

X

Single Tests

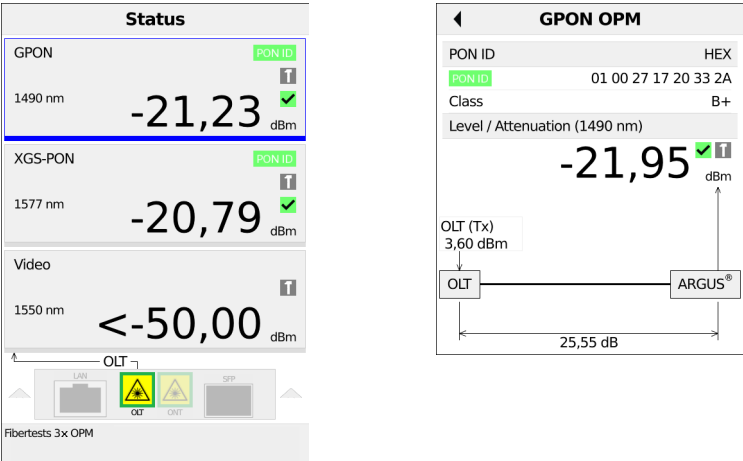
✓

☒ Only Status (PON Level Check)

☐ PON Installation

☐ PLOAM Monitor

If the access is now started, the level is automatically displayed:



<Access Parameters> Set PON ID format

The following PON ID formats can be selected under Access parameters:

- HEX
- ASCII
- T-COM
- KPN



You can obtain further information on the settings in the ARGUSpedia on the instrument.

The PON level check displays the following PON ID / port information:

- Rx Level
- Tx Level of the OLT
- Attenuation
- Class

8.2.2 PON Installation

The PON installation test is a guided measurement sequence with calculation of the set-point attenuation, automatic OK/n.OK evaluation and storage as a PDF measurement report.

Settings in access mode PON Installation:

In the example, the access PON Installation was configured and selected as described in chapter 8.1.2 Settings Selective OPM (see page 77).

X

Single Tests

✓

☐ Only Status (PON Level Check)

☒ PON Installation

☐ PLOAM Monitor

X

Summary

✓

Fiber Tests Installation PON

Mode: 3x OPM

Measurement: PON Installation

Note:

✓: Save and quit wizard.

X: Step back.

<Access Parameters> Set PON ID Format

The following PON ID formats can be selected under Access parameters:

- HEX
- ASCII
- T-COM
- KPN



You can obtain further information on the settings in the ARGUSpedia on the instrument.

←

PON Installation

✓

Installer Last Name

D

Installer First Name

A

Company Name

Intec

Street

[Empty]

ZIP/City

[Empty]

Phone Number

[Empty]

X

Wavelength

✓

☒ GPON (1490 nm)

☐ XGS-PON (1577 nm)

When you start the PON installation test, you first enter the employee name and the company address. Then select the wavelength.

✕

PON Installation

✓

Job Number

0

Area Code

0

Cabinet

0

Branch

0

AP

0

✕

Transmit Power

✓

☒ Auto OLT

☐ User/Manual

The customer-specific data can now be entered: job number, area code, cabinet, branch and AP. For the transmit power, you can choose between Auto OLT and user/manual (a value between 0.0 dBm and 9999.9 dBm is possible here).

✕

Max. Allowed Attenuation

✓

28,5

dB

Please enter a value between
0,0 dB and 99,9 dB

1	2	3	A	B	C
4	5	6	D	E	F
7	8	9	:	-	<X>
*	0	#	,	ABC	✓

✕

No. of Fibers

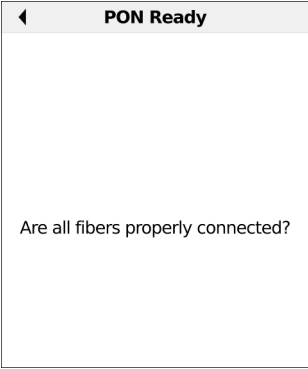
✓

1

Please enter a value between
1 and 64

1	2	3	A	B	C
4	5	6	D	E	F
7	8	9	:	-	<X>
*	0	#	.	ABC	✓

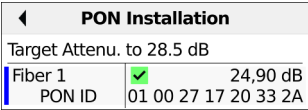
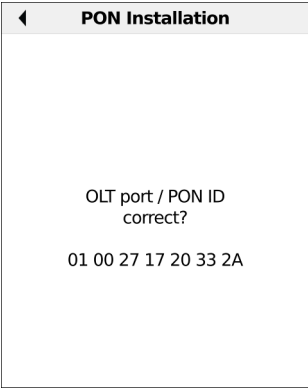
The maximum permissible attenuation is then entered (a value between 0.0 dB and 99.9 dB is possible here). Finally, enter the number of fibers (1 to 64 fibers are possible).



After checking whether all fibers are properly connected, the measurement can be started.

<Measurement>

Measurement is started.



After querying whether the OLT port / PON ID are correct, the measurement result is displayed.

8.2.3 PLOAM Monitor

The PLOAM monitor allows you to read out the PLOAM message from the PON ID.

Settings in access mode PLOAM Monitor:

In the example, the access PLOAM Monitor was configured and selected as described in chapter "15.1.2 Settings Selective OPM" (see page 150).

X	Single Tests	✓
☐	Only Status (PON Level Check)	
☐	PON Installation	
☒	PLOAM Monitor	

X	Summary	✓
Fiber Tests Installation PON Mode: 3x OPM Measurement: PLOAM Monitor Note:		
✓: Save and quit wizard. X: Step back.		

<Access Parameters> Set PON ID format

The following PON ID formats can be selected under physical parameters:

- HEX
- ASCII
- T-COM
- KPN



You can obtain further information on settings in the ARGUSpedia on the instrument.

X PLOAM Monitor		
Time	Info (DS)	
11:54:10:900	No Message	
11:54:10:970	PON ID	
11:54:13:290	No Message	
11:54:13:310	PON ID	
11:54:13:320	No Message	
11:54:13:330	PON ID	
11:54:13:340	No Message	
11:54:13:350	Upstream Overhead	
11:54:15:710	Extended Burst Length	
11:54:15:730	No Message	
11:54:15:740	PON ID	
11:54:15:750	No Message	
11:54:15:770	PON ID	
11:54:15:780	No Message	
GPON (1490 nm)	Level:	-17 dBm
PON ID: 01 00 27 17 20 33 2A	Class:	B+

Video

1550 nm

<-50,00

 [dBm]

The PLOAM monitor displays the PLOAM message from the PON ID.

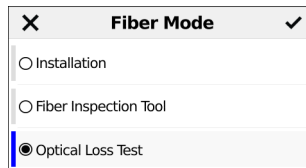
8.3 Optical Loss Test

With the Optical Loss Test software option and the Optical Light Source, the ARGUS® F200 can be upgraded to an Optical Loss Test Set (OLTS). An OLTS calculates the signal loss (attenuation) in fiber optic cables and evaluates the quality of data transmission. It enables precise calculations of optical attenuation in both directions to support installation, maintenance and troubleshooting in fiber optic networks.

The Optical Loss Test Set is available for the ARGUS® F200 with 3xOPM. With the OLTS, a level measurement for an adjustable wavelength with attenuation calculation in relation to a reference value is possible. The Optical Light Source is available with either two (1310 & 1550 nm) or four wavelengths (1310, 1490, 1550 & 1625 nm).

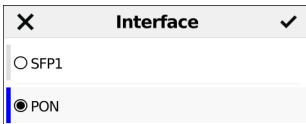


A screenshot of the 'Access' menu. The menu has a title bar with an 'X' icon, the text 'Access', and a checkmark icon. Below the title bar, there is a list of options: 'Fiber Tests'. The 'Fiber Tests' option is highlighted with a blue bar on the left.

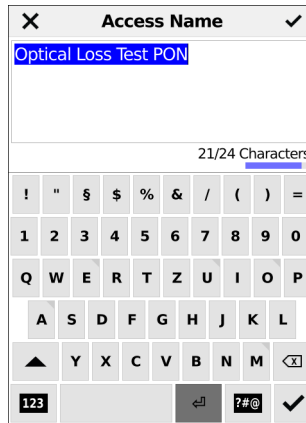


A screenshot of the 'Fiber Mode' menu. The menu has a title bar with an 'X' icon, the text 'Fiber Mode', and a checkmark icon. Below the title bar, there is a list of options: 'Installation', 'Fiber Inspection Tool', and 'Optical Loss Test'. The 'Optical Loss Test' option is highlighted with a blue bar on the left and has a radio button selected.

First, a new access is created in the connection menu by first selecting Fibertests and then Optical Loss Test.



A screenshot of the 'Interface' menu. The menu has a title bar with an 'X' icon, the text 'Interface', and a checkmark icon. Below the title bar, there is a list of options: 'SFP1' and 'PON'. The 'PON' option is highlighted with a blue bar on the left and has a radio button selected.



A screenshot of the 'Access Name' dialog box. The dialog box has a title bar with an 'X' icon, the text 'Access Name', and a checkmark icon. Below the title bar, there is a text input field containing the text 'Optical Loss Test PON'. Below the input field, there is a character count '21/24 Characters'. Below the character count, there is a keyboard layout with various symbols and letters. The 'Optical Loss Test PON' text is highlighted in blue.

After selecting the PON interface, an access name is suggested, in this case Optical Loss Test PON.

X

Summary

✓

Optical Loss Test PON

Note:

✓

: Save and quit wizard.

X

: Step back.

X

Accesses

✓

Optical Loss Test PON

Optical Loss Test PON

Note:

Fibertests 3x OPM

Fibertest Installation

FIT SM APC

PLOAM Monitor

Once you have confirmed the name and saved the access, the access is created and can be selected in the access menu.

X

Optical Loss Test

Wavelength:

1550 nm

Level [dBm]

Attenuation [dB]

Ref:

-5.00

Rx:

<-50.00

n/a

No OLS found!

LANS

PON

SPFS

Optical Loss Test PON

Reference

Wavelength

Stop

X

Optical Loss Test

Wavelength:

1310 nm

Level [dBm]

Attenuation [dB]

Ref:

-5.00

Rx:

-5.78

0.78

Wavelength:

1490 nm

Level [dBm]

Attenuation [dB]

Ref:

-5.00

Rx:

-5.75

0.75

Wavelength:

1550 nm

Level [dBm]

Attenuation [dB]

Ref:

-5.00

Rx:

-6.24

1.24

Detected OLS

Device

FHS2Q02F

Firmware

1.1

Optical Loss Test PON

Reference

Stop

The Optical Light Source must first be connected to the ARGUS® using a patch cable. Now press the  key on the OLS.

The optical light source has been recognized. It transmits an identifier that the ARGUS® can recognize and evaluate. The OLS always transmits with the same fixed transmission power (-5 dBm ±0.5 dB). The ARGUS® automatically recognizes the wavelength at which it is transmitting and displays the attenuation. The OLS can switch through the wavelengths one after the other.

✕

Reference Level

✓

1310 nm

-5.00

dBm

1490 nm

-5.00

dBm

1550 nm

-5.00

dBm

Range: from -50.00 to 10.00 dBm

1	2	3	A	B	C
4	5	6	D	E	F
7	8	9	:	-	<X>
*	0	#	.	ABC	✓

<Reference>

Accept current reference level, enter manually or deactivate.
A value range from -50.00 to 10.00 dBm can be set.

8.4 Fiber-Inspection-Tool

The Fiber Inspection Tool (FIT) is a USB video microscope for optical fiber inspection that detects scratches and defects on optical fibers.

X

Access

✓

☒ Fiber Tests

X

Fiber Mode

✓

☐ Installation

☒ Fiber Inspection Tool

X

Connector Type

✓

☒ SM PC RL >= 45dB

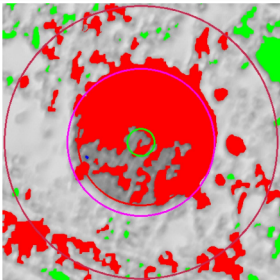
☐ SM APC

☐ SM PC RL >= 26dB

☐ MM PC

Select new fiber access and then Fiber Inspection Tool. Now select the connector type (here SM PC RL >= 45 dB).

Fiber Inspection Tool



Result

SM PC RL >= 45dB

Fail

Zone	Scratch	Defect
A:Core	0	1
B:Cladding	0	5
D:Contact	0	52

Detail

Access

Save

Video

Fiber Inspection Tool		
A: Core Defect 0 μm - 25 μm		0
Not allowed		0
B: Cladding Defect 25 μm - 115 μm		2
No limit < 2 μm		0
5 between 2 μm and 5 μm		2
Not allowed > 5 μm		0
C: Adhesive Defect 115 μm - 135 μm		0
No limit		0
D: Contact Defect 135 μm - 250 μm		64
Not allowed > 10 μm		6
A: Core Scratch 0 μm - 25 μm		0
Not allowed		0
B: Cladding Scratch 25 μm - 115 μm		0
No limit <= 2 μm		0
Not allowed > 3 μm		0
Image		

If the Fiber Inspection tool is now selected in the access menu, the measurement starts immediately. The current video image is automatically analyzed and the number of defects and scratches is displayed in an overview table sorted by zones (core, cladding, adhesive, contact).

<Details> Detailed display of defects and scratches (see image on the right).



Pass/fail evaluation is performed according to IEC 61300-3-35. The minimum particle size is 0.5 μm.

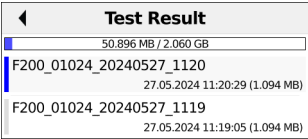
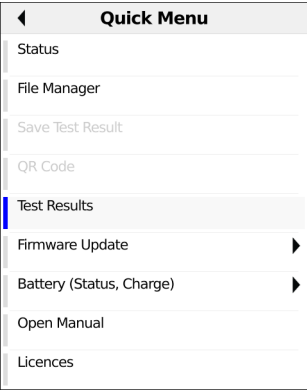


There are different adapters (tips) available for PC, UPC, APC and more, ask our support.

9 Test results

The saved test results are displayed either in the ARGUS® display or on the PC as a detailed measurement log.

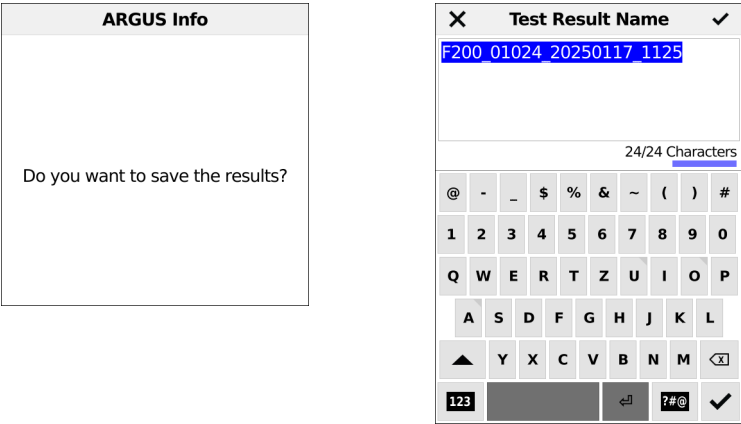
The ARGUS® stores the test results together in 50 definable save slots. The system suggests "New result" as the default save name. The saved test results are also deleted when all configuration settings are reset.



The test results can be selected in the Quick Menu. By selecting a test result and then confirming, the test results are displayed.

- | | |
|---------------------------|--|
| <More> | The "Sort" and "Rename" softkeys are displayed |
| <Sort> | Sorting: <ul style="list-style-type: none">- Ascending by name- Descending by name- Ascending by date- Descending by date |
| <Rename> | Changes the name |
| <Select all> | Selects all test results |
| <Delete all> | Deletes one or all test results |

9.1 Saving test results



You can save the result after the end of a test or after disconnecting a connection.

The ARGUS® saves the test result in the first free slot. If all slots are occupied, you need to manually select a slot to overwrite.

The ARGUS® automatically suggests a save name. The name is made up of:

- Device type (here F200)
- Serial number (here 01024)
- Configured date (here January 17, 2025)
- Set time (here 11:25 h)

You can accept the displayed save name or enter a new one using the number keys. You can enter up to 24 characters. The ARGUS® displays the number of characters used so far.

Save name: Input see Access name p. 25.

<Last Name> The ARGUS® suggests the last save name used.

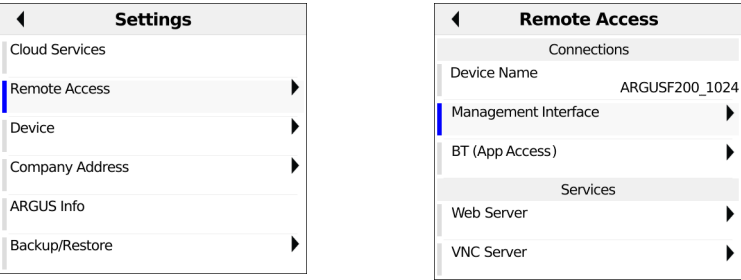
9.2 Sending test results to PC

The test results can be sent to the PC for visualization and archiving. Connect the ARGUS® (ARGUS® socket "USB-C") to the interface of your PC using the cable supplied and select AF200 in the Explorer. The "results" folder now contains the test results that can be opened in the browser.

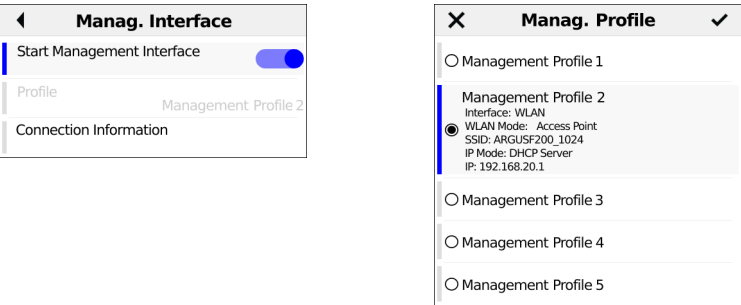
10 WLAN

The ARGUS® offers WLAN as the management interface for an array of functions.

10.1 Switching on WLAN



After pressing the wheel key, you reach the instrument settings. After selecting Remote Access, select Management Interface.



Here you can start the management interface and edit the profile.



For editing the profile, the Management Interface must be switched off.

The WLAN interface is now activated. The ARGUS® is now in access-point mode (ARGUS®-AP). The WLAN symbol in the status line is green .

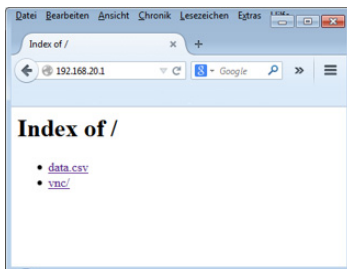
You can set up a WLAN connection with the the name “ArgusF200_SerialNumber” on a smart phone, tablet or laptop and entering the password stored in the ARGUS®.



Electronic job management applications can also access the ARGUS® and pick up measurements using WLAN. Ask our Support team about this.

10.2 Test results via WLAN

If for example a laptop has a working WLAN connection with the ARGUS®, you can open the Web server by entering the IP address of the ARGUS® unit or myargus.info in your browser's address bar.



The measurement log with the name data.csv can be opened directly or saved on the laptop.

You can also use this functionality to save, delete and rename measurement logs. For this, you require a WebDAV application/app on your PC/laptop or smart phone/tablet.



The connection data of the last measurement are saved in the .csv file.

The command “VNC” lets you control the ARGUS® remotely via your browser.



You may first need to activate the VNC server on the ARGUS®.



Further information regarding the VNC server is available on request.



The ARGUS® Web server has its own SSL certificate (myargus.info), which permits https:// access.



You can also access the ARGUS® using WebDAV via myargus.info. By this means, you can download measurement logs in .amp format directly from the ARGUS® via Ethernet or WLAN.

11 ARGUS® settings

The ARGUS® can be custom-configured for special requirements. The default values are restored using "Reset" (s. page 120).

11.1 Cloud services

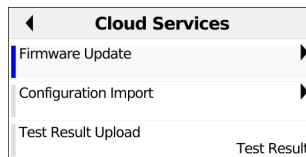
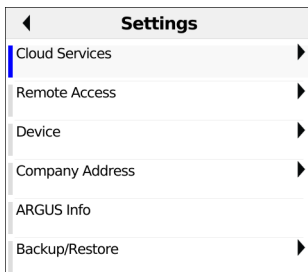
The ARGUS® supports cloud services for communication with its environment. These services enable the ARGUS® to exchange data with other systems via its test interfaces. As a test interface, WLAN management is available in the ARGUS®. Connected via these interfaces, the ARGUS® can download firmware updates, perform a configuration import and upload measurement logs.



The cloud services are deactivated by default.



The instrument only checks whether there is a different firmware on the server than the one it has loaded. Be aware of this if you have your own update server. Downgrades are possible, and can result in a loss of configuration data.



After pressing the gear button, you reach the instrument settings. After selecting the cloud services, select e.g. firmware update.

Select the cloud service you wish to configure and open it with .

You must agree to the privacy policy before use.

The following cloud service parameters can be configured:

- Firmware update
 - Server
 - FTP Server Address
 - Username
 - Password
 - Profile Name

- Update Check
- Update
- Configuration Import
 - Server
 - FTP Server Address
 - Username
 - Password
 - Profile Name
- Update Check
- Import Destination
- Test Result Upload
 - Server
 - Use FTPS
 - FTP Server Address
 - Username
 - Password
 - Profile Name



You can obtain further information on settings in the ARGUSpedia on the instrument.



Three server profiles are offered for server selection. All three profiles are identical, and differ only in their profile names:

- Server profile 1: Firmware
- Server profile 2: Configuration
- Server profile 3: Measurement log

You can also assign any name to the server profiles (Profile name) for your use, e.g. you can create two different profiles for importing configurations if measurement log uploading is not needed.



Only the server profile “Firmware” is preconfigured. When the server specified in this profile is used, the ARGUS® always looks for a new firmware version on intec's server. The ARGUS® instrument logs onto the server with its serial number and IP address.

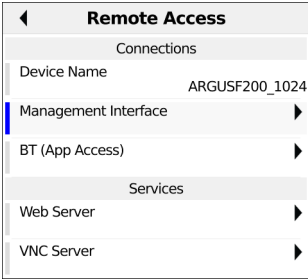
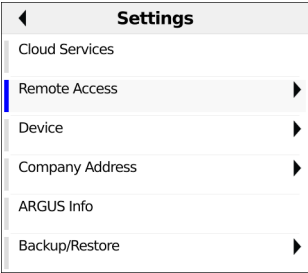


See page 137 for the meanings of all symbols used in the cloud updates.

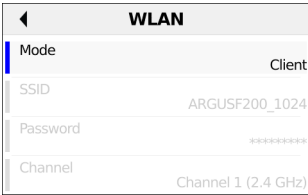
11.1.1 Cloud update

The cloud update process is explained in the following. For details on configuring the firm-ware updates, see chapter “ARGUS® settings”, page 101.

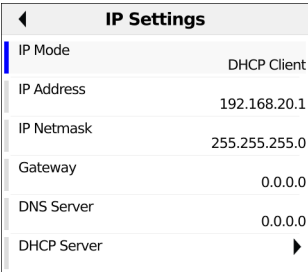
 Never under any circumstances import a configuration when the ARGUS® is operating in battery mode. Connect the ARGUS® to the power adapter before importing a configuration.



First, remote access and then the management interface must be selected in the settings.



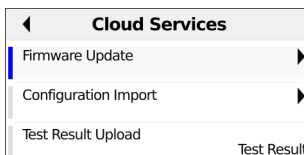
The Managemant profile can now be edited. Now select the client as WLAN mode.



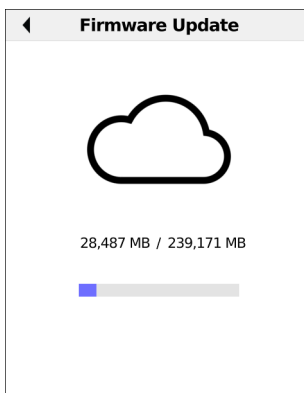
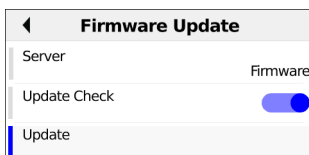
Then select DHCP client as IP mode in the IP settings. If you now start the management interface, you can select the connection information.

<WLAN> Selecting the WLAN network

<Info> Information on the configuration of the management profile and the data sent and received



Once you have selected the WLAN network and connected the ARGUS® to it, a blue FW symbol will appear next to the green WLAN symbol if new firmware is available. In the settings, select the cloud services and then the firmware update.



If you now select the update, the firmware update is started.

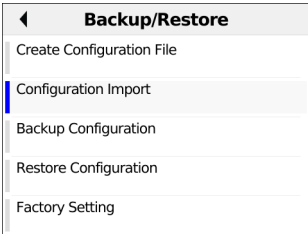
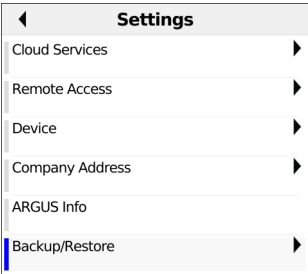
After a successful firmware update, the ARGUS® will restart automatically.

11.1.2 Automatic configuration import

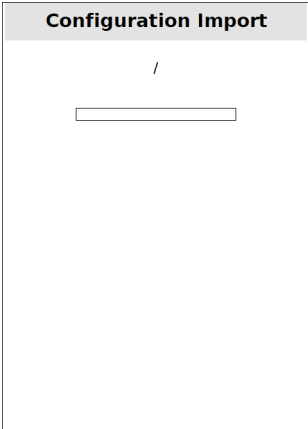
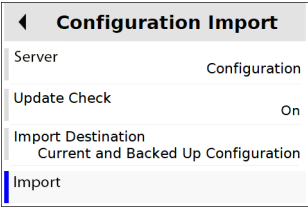
This function enables you to read out and adopt the ARGUS® configuration file.

 Never under any circumstances import a configuration when the ARGUS® is operating in battery mode. Connect the ARGUS® to the power adapter before importing a configuration.

Prerequisites:
The instrument is connected to the interface (WLAN).
The instrument must connect with the server, and a suitable configuration file for this instrument must be available.
If the configuration is not imported immediately, the instrument will display a corresponding message each time the instrument is powered up.



In the settings, select "Backup/Restore" and then "Configuration Import".



A new configuration file is available.

The configuration file is downloaded.

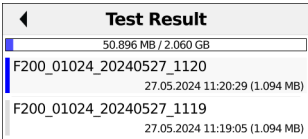
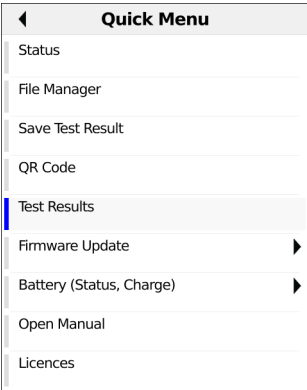


The instrument needs a few seconds before it can be restarted; this is indicated by an hourglass in the top right next to the battery indicator.

<Restart> Restarts device

11.1.3 Upload measurement logs

This function enables you to upload test results to an external server and download them again at a later date.



- <Order>

Sorts test results by name or date (ascending or descending).
- <Select all>

Selects all test results.
- <Delete>

Deletes test result.

11.2 ARGUS® Configuration Tool

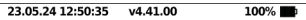
The ARGUS® Configuration Tool is a PC software based on the user surface of the ARGUS® 300, ARGUS® 260, ARGUS® F300, ARGUS® F240 and ARGUS® F200, allowing configuration files for these devices to be configured easily and intuitively.



The ARGUS® Configuration Tool supports the following operating systems (64-bit only): Windows 8 and Windows 10.



Please use only the version of the ARGUS® Configuration Tool that is identical to your firmware version. Other versions are not compatible.



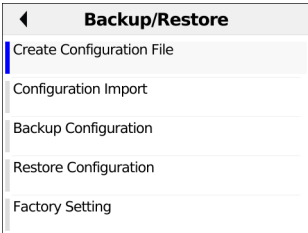
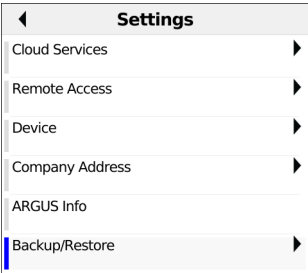
ARGUS Info	
Type:	ARGUS F200
SW Version:	R4.41.00D_ [1042-13]

You can read the firmware version of your ARGUS® in the status bar at the top. In addition, it will be displayed in the ARGUS® Info after pressing the wheel key.

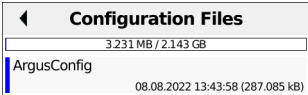
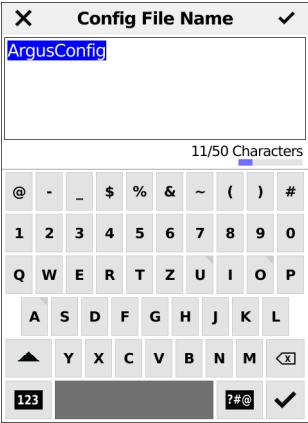
Unzip the file

Please unzip the file to start. The downloaded ZIP file is located in the "Downloads" folder on your computer. To extract the file, right-click on it and select "Extract All". After the files have been extracted, you can start the "ArgusConfigTool" application in the corresponding folder, e.g. "001_ArgusConfigTool_Software_-_V_3_00".

Creating a configuration file



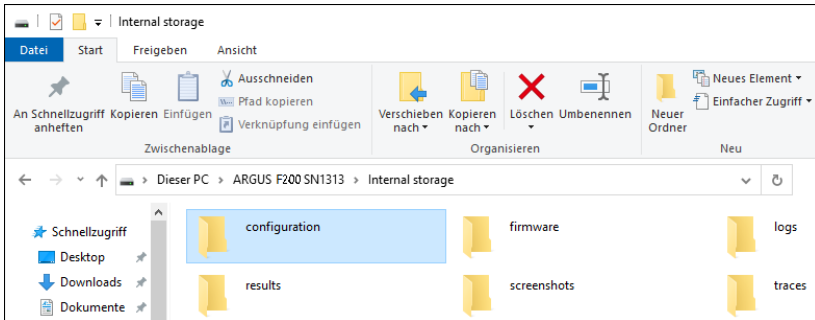
To create a configuration file in the ARGUS®, press the wheel key to access the device settings. Now select "Backup/Restore" and then "Create Configuration File".



The configuration file can now be saved. A file name of up to 50 characters can be entered for this purpose.

Loading a configuration into the ARGUS® Configuration Tool

To load a configuration from the ARGUS® into the ARGUS® Configuration Tool, connect the ARGUS® to your computer via USB.

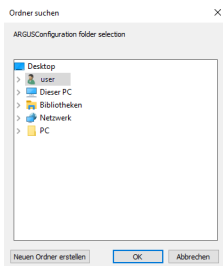


Now copy the desired configuration file from the "configuration" folder to your computer.

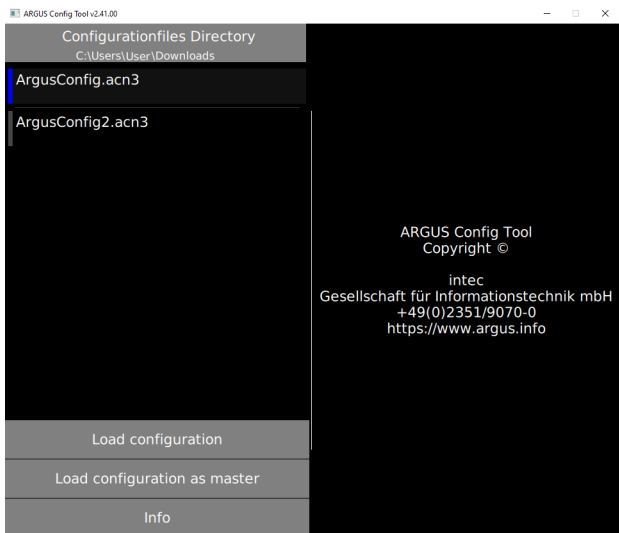


Configurationfiles Directory
C:\Users\User\Desktop

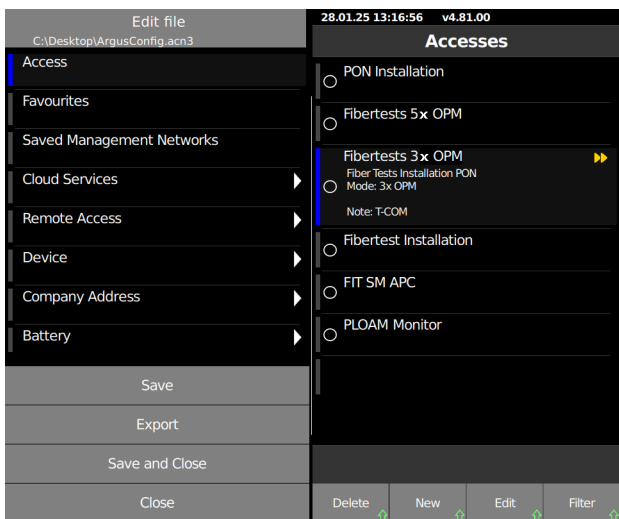
Start the ARGUS® Configuration Tool (left image: application icon) and click on "Configurationfiles Directory".



Now select the folder on your computer to which you previously copied the configuration file.

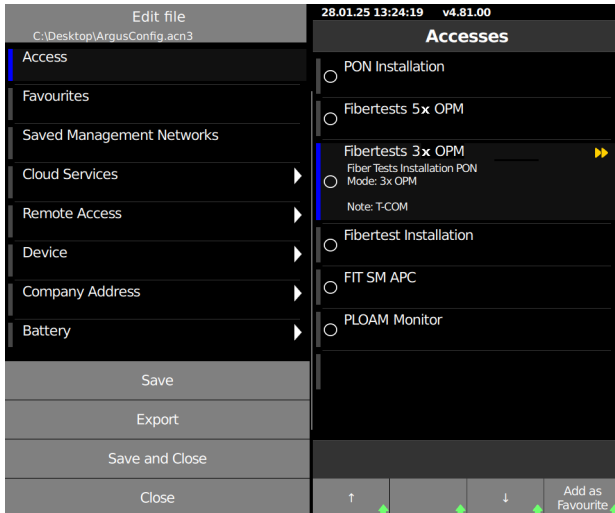


The configurations stored there will now be displayed in the ARGUS® Configuration Tool. Select the configuration that is to be loaded into the ARGUS® Configuration Tool (here: ArgusConfig.acn3). The selected configuration is marked with a blue bar. Click on "Load configuration" to load it.



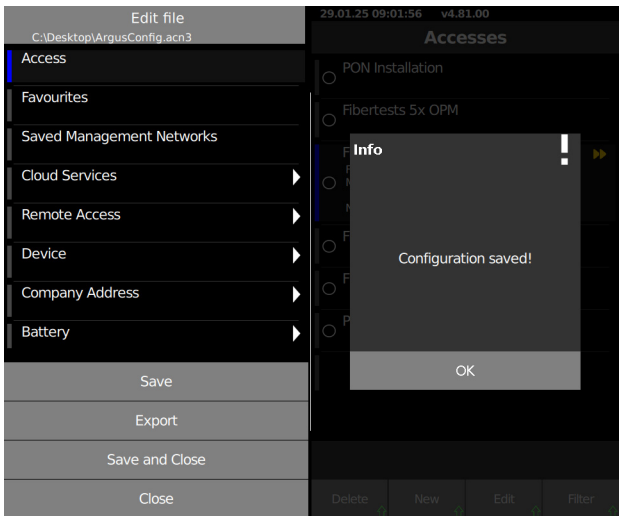
Now the configuration can be edited directly in the ARGUS® Configuration Tool.

If you select "Load configuration as master", the configuration is loaded as master configuration. All possible combinations of SW options and modules can be configured in it.

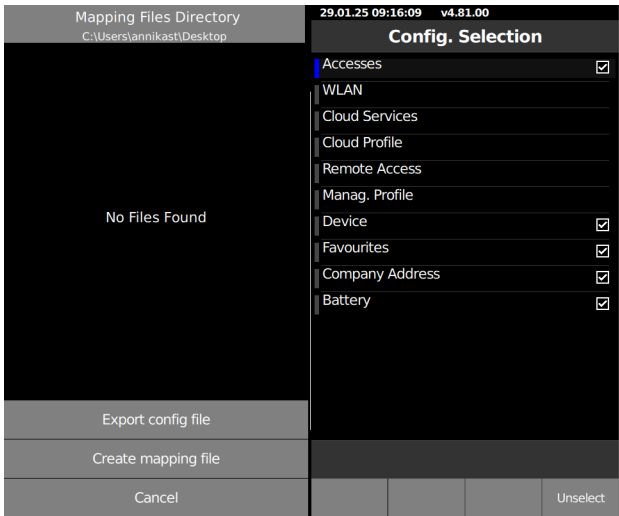


For some functions, it is necessary to press the Shift key in the ARGUS®. This is indicated here by the green arrow. In the ARGUS® Configuration Tool, press the F10 key on the PC keyboard instead.

The green arrows are now filled in (=activated shift key) and further functions are possible, in this example you can move up and down via the now displayed arrows.



The configuration can be saved via "Save". The message "Configuration saved!" then appears.

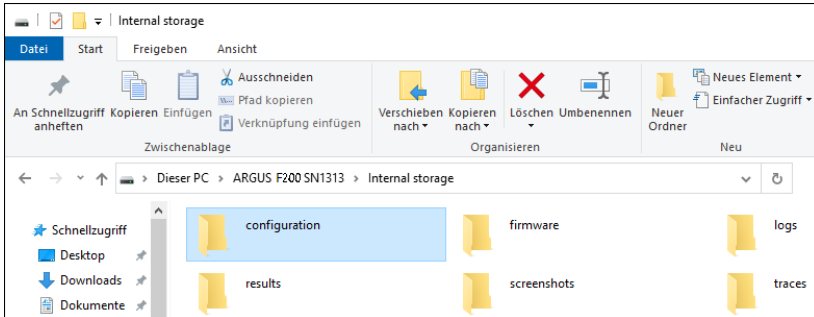


With "Create mapping file" the selection of the configuration points can be saved in a mapping file.

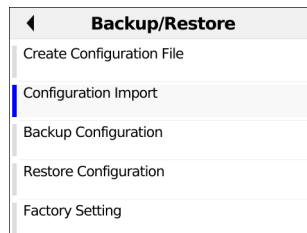
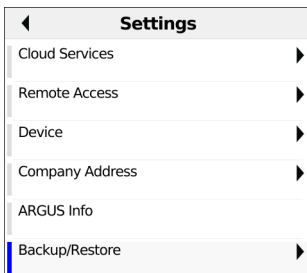
If you click on "Export", you can select or deselect the configurations in the "Config."

Selection" to select or deselect the configurations that are to be exported. This is possible either by clicking on the "Select" or "Deselect" softkey, or by clicking on the box where the check mark is removed or added.

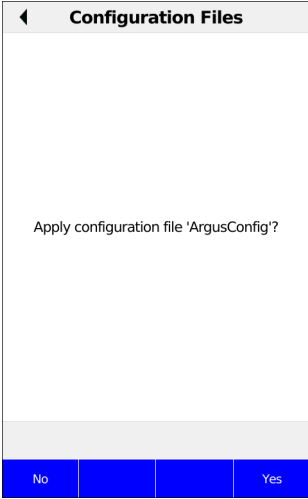
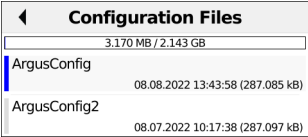
By clicking on "Export config file" you can select the location where the file should be saved.



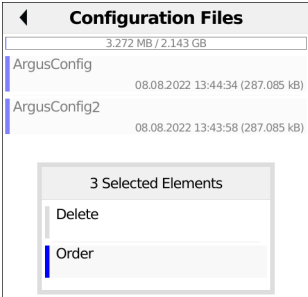
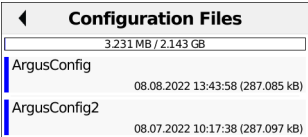
It can then be imported back into the ARGUS® by connecting it to the computer via USB and copying the configuration file into the "configurations" folder.



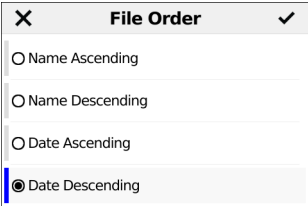
In the ARGUS®, press the wheel key to access the settings. There, select "Backup/Restore" and then "Configuration Import".



The available configuration files are now displayed. After selecting the "Apply" softkey, it must be confirmed that the configuration file is to be applied. The ARGUS® is then restarted and the configuration is applied.



If you select the "Select all" softkey, both configuration files are marked with a blue bar. Using the "Menu" softkey, you can now either delete or sort the files.



The files can be sorted in ascending or descending order by name or date.

11.3 Remote access

The ARGUS® offers a wide variety of remote control functions. For instance, it can connect to a mobile end-user device (smart phone or tablet) via the WLAN interface, and can be remotely controlled from the mobile device.

The following test parameters can be configured for remote access:

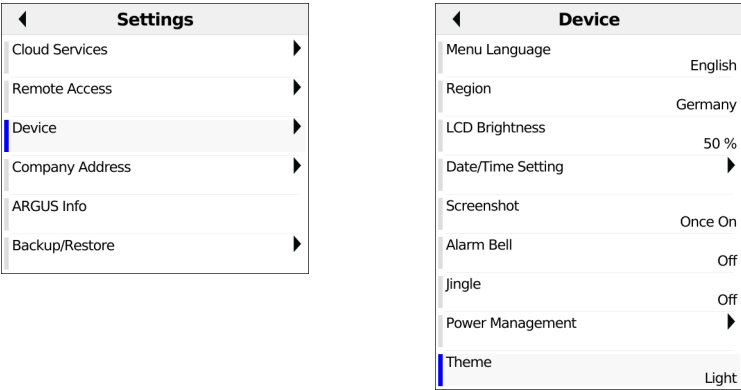
- Management interface
 - Start management interface
 - Select interface
 - WLAN
 - SSID
 - Password
 - Channel
 - DHCP server
- IP settings
 - IP address
 - Netmask
 - Gateway
- Webserver
 - Start webserver
 - Password protection
- VNC server
 - Start VNC
 - Password protection
 - VNC scaling



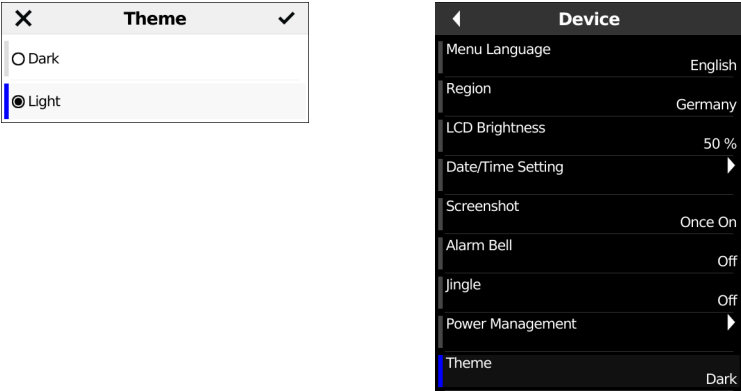
You can obtain further information on settings in the ARGUSpedia on the instrument.

11.4 Device settings

Changing a device setting is described using the setting "Theme" as an example:



After pressing the gear button, you reach the instrument settings. After selecting Device, select e.g. Theme.



The default is indicated with a ● in the display.

Mark the desired setting. The marked setting is highlighted in blue in the display.

-  Return to next-higher level menu without saving setting change.
-  Saves the setting change.

The following device parameters can be configured:

- Menu Language
- Region
- Date and Time
- Device Start
- Alarm Bell
- Brightness
- Theme
- Touch Sensitivity
- Automatic Shutdown
- Lighting



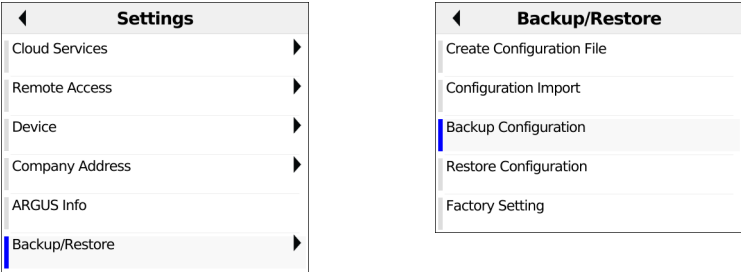
You can obtain further information on settings in the ARGUSpedia on the instrument.

11.5 Backing up and restoring settings

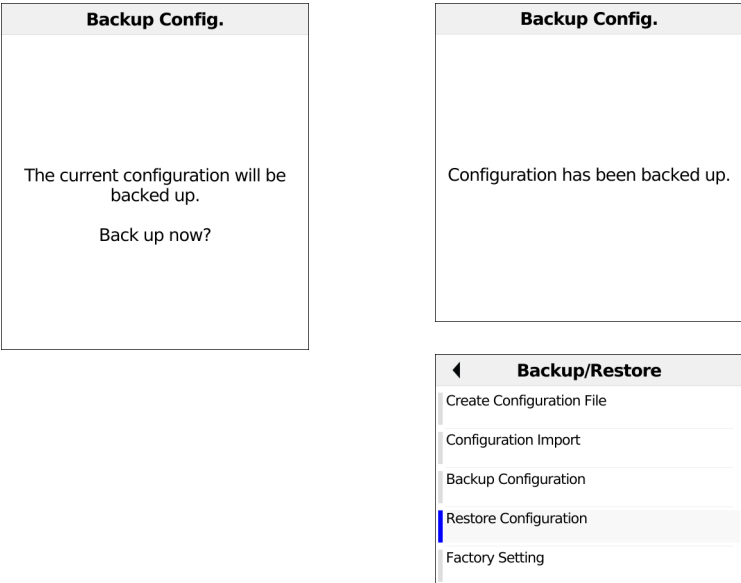
The ARGUS® offers multiple functions for backing up and restoring settings. In addition to the actual backup/recovery of the settings configured in the ARGUS®, these also include the options of restoring the factory defaults and importing configurations to overwrite the current one.

11.5.1 Backup/restore

With the ARGUS®, you can back up all settings (call numbers, PPP user name, PPP password, IP addresses, profile names and more) and restore them if needed.



All settings made in the ARGUS® are backed up unchanged and can thus be restored later.



The settings are now backed up and can be restored as necessary.

Select "Restore Configuration".



If no settings have been backed up, this function has the same effect as "Restore factory defaults". A security password is not required.

11.5.2 Restoring the factory settings

The ARGUS® resets all settings to the factory defaults.



The call numbers, PPP user name, PPP password, IP addresses, profile names and all test results stored in the ARGUS® are deleted.

◀

Backup/Restore

Create Configuration File

Configuration Import

Backup Configuration

Restore Configuration

Factory Setting

Factory Setting

All settings are reset to factory settings!
All data will be deleted completely!
Reset now?

All parameters are reset to the factory defaults.



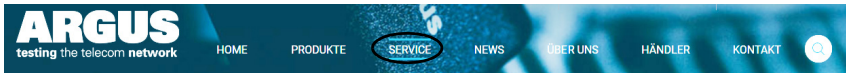
If no settings have been backed up, this function has the same effect as "Restore factory defaults".

12 Update via PC

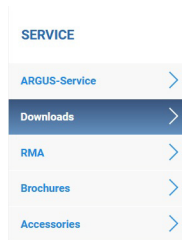
You can download firmware files online free of charge at www.argus.info/service and then upload them to the ARGUS®.

Go to the web page www.argus.info.

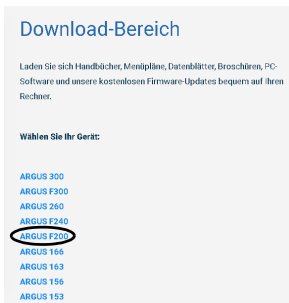
Click the menu option "Service" (highlighted in blue here) in the navigation bar.



In the drop-down Service menu, click the option "Downloads".



This opens up a product overview.



Select your ARGUS® instrument.

Once you select your device, you are automatically taken to the firmware updates.

ARGUS® F200

Overview

Technical Details

Accessories

ARGUS® F200 Enhancements

Datasheet

ARGUS Config. Tool

Firmware

Professional articles

Please download only the version in your device, which is exclusively provided for your model. Otherwise you can cause damage, that will lead to a repairing with costs. The firmware must be unpacked beforehand when updating via the mass storage.

Please use only the version of the ARGUS Configuration Tool that is identical to your firmware version. Other versions are not compatible. You can find the third-party components and license informations in the [PDF](#) for the ARGUS F200.

ARGUS F200 FIRMWARE (4.81 /)

DTG-ARGUS F200-Firmware_V4.81.zip (278.5 MB)

The ARGUS® F200 functions as a mass storage device and is connected to the PC via a USB cable. After downloading the firmware, load it onto your ARGUS® F200 using Windows Explorer.

Quick Menu

Status

Save Test Result

Test Results

Firmware Update

Battery (Status, Charge)

Open Manual

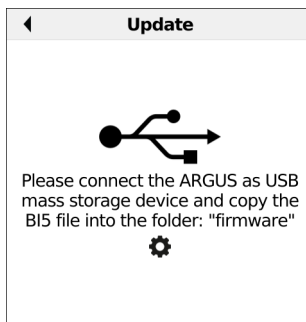
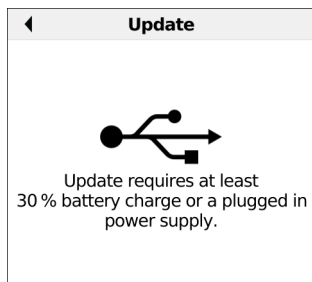
Licences

Firmware Update

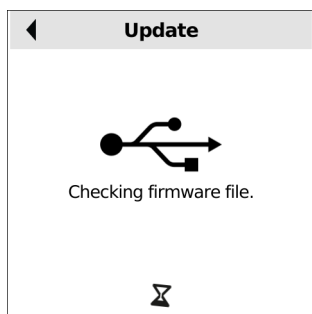
Cloud Update

ARGUS Mass Storage

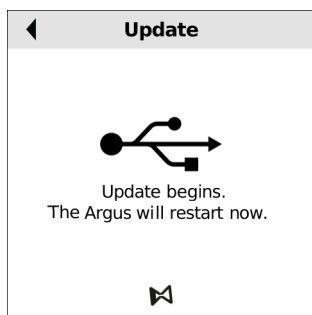
Next, select “Firmware update” in the quick menu (illustration at left). Then select ARGUS® Mass Storage (see image at right).



When updating the firmware the ARGUS[®] instrument must be charged to at least 30 % capacity or connected to a power adapter. You are prompted to confirm the ARGUS[®] connecting to the PC as a USB mass storage device (see image at right).



Once the ARGUS[®] is connected to the PC, the firmware file is displayed when you press Start.



The update is now started. This requires a restart of the ARGUS[®].

Important information on updating your ARGUS® firmware:



- An ARGUS® USB cable is required for updating (USB cable with USB-C plug).
- You should back up the configuration and measurement logs to a PC before performing an update.
- Do not switch off the ARGUS® during the update.
- Be sure to observe the messages in the ARGUS® display.



If problems occur because of a failure to follow these safety instructions, repeat the update process up to three times.

Each repetition makes it possible to overwrite further faulty software components.

13 Using the battery pack

Changing the battery pack

Power down the ARGUS® and disconnect the power adapter. Then release the two screws securing the battery pack.

Handling the battery pack



The ARGUS® may only be operated using the battery pack supplied with the device; connecting other power supply units to the contacts of the device will damage the ARGUS®.

- Only charge the supplied battery pack in the ARGUS®.
- Do not use the ARGUS® battery pack in other devices.
- Power adapters from other ARGUS® instruments are not compatible with the ARGUS® F200. Attempting to connect the power adapter of another device to the ARGUS® F200 can damage the socket.
- Active charging of the battery pack and automatic charging (on by default) may only be carried out in a temperature range of 0 °C to +40 °C.
- Charge the battery pack completely at least once a month (even if the device has not been used for a longer period!).
- The lithium ion battery pack should be stored with a charge of 40 to 60 %. When storing the device for longer periods, you should refresh this charge level every six months. To prevent full discharge, remove the battery pack from the device for longterm storage.
To maximise battery life, do not store the battery long-term at temperatures above +50 °C.
- See the chapter Safety information (see p. 7) for detailed information on using and transporting the lithium ion battery pack safely.

Status

The ARGUS® indicates the current state of the battery graphically in the display when no power adapter is connected. A battery symbol flashes in the display when it is down to a power reserve of approx. 8 minutes (depending not the operating mode). Tone errors, and in extreme cases malfunctions, can occur in this period. Connect the power adapter. The ARGUS® can recharge the battery completely when the power adapter is connected. The ARGUS® power pack does not require manual discharge. A complete charging cycle can take up to approx. 6 hours.

Quick Menu
Status
Save Test Result
Test Results
Firmware Update
Battery (Status, Charge)
Open Manual
Licences

Battery Status	
State	Charging
Remaining Capacity	90 %
Power Supply Plugged In	Yes
Actual Voltage	7994 mV
Actual Current	1754 mA
Average Current	-579 mA
Temperature	21,5 °C
Device should be turned off	No
Learning actual battery capacity	No

Battery
Status
Automatic Charging
On

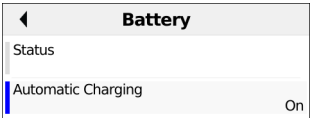
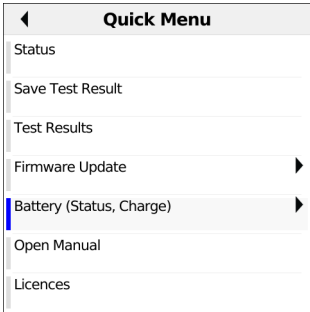
When the power adapter is connected, you can view the battery status in the quick menu. This displays the voltage, current level, temperature and other parameters during the charging process.

Automatic battery charging in the background

ARGUS Manager			
		Management Profile (Profil WLAN Client)	Management (On)
Web Server Start (Off)	VNC Server Start (On)	LCD Brightness (50 %)	Automatic Shutdown (After 15 Minutes)
Automatic Charging (Off)	Theme (Light)		

Automatic Charging (Off)

In the ARGUS® Manager, you can toggle “Automatic charging (on)” to “Automatic charging (off)” and back by tapping this option. When automatic charging is on, the ARGUS® charges the battery automatically in the background when the mains adapter is connected as soon as the battery status falls below a threshold value (battery symbol in display).



You can also toggle automatic charging on and off in the quick menu.

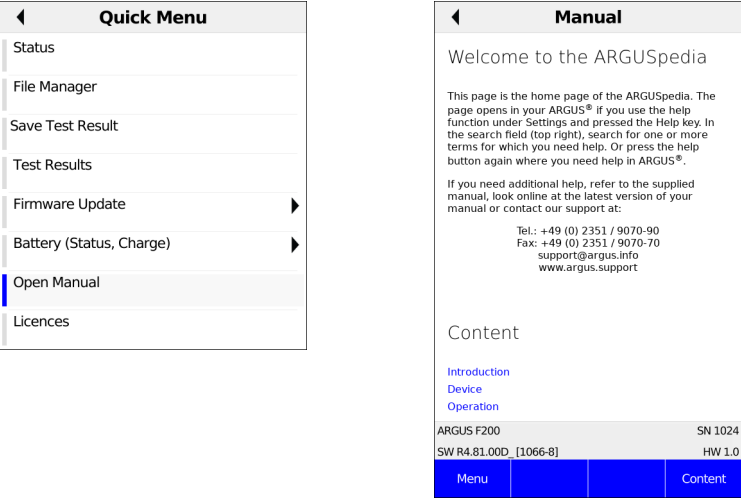


When the ARGUS® is disconnected from the power adapter before that battery is completely charged, the ARGUS® does not automatically continue charging when it is subsequently reconnected because the charge is no longer below the threshold.

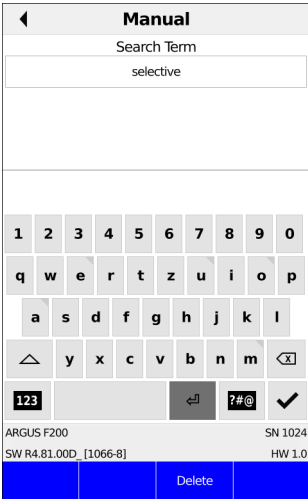
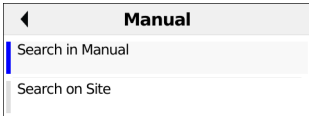
14 ARGUSpedia

The ARGUSpedia is an internal help function with lots of information about the device and settings. It is an important supplement to this manual.

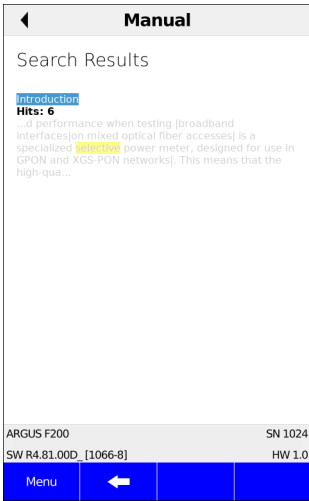
Select “Open Manual” in the Quick Menu to open the ARGUSpedia.



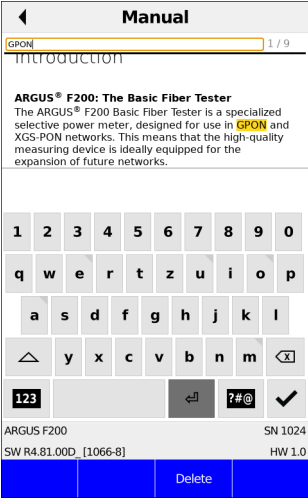
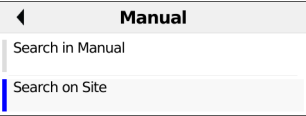
Now you can either navigate via the links in the content menu or search in the Manual or on the site that you are actually on by selecting the Softkey „Menu“.



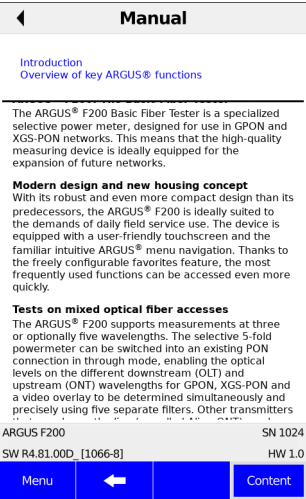
After selecting „Search in Manual“, you can enter a search term.



Now you get a list of search results. The search term is highlighted in yellow. In addition, it is indicated how many hits there are on the respective pages.



After selecting „Search on Site“, you can enter a search term. All results on this page are highlighted in yellow.



On many pages, you can jump to specific sections. These sections are shown on the top of the page after using the softkey „Content“. Just tap on them to jump to one of these sections.

15 ARGUS® Mobile App

The ARGUS® Mobile app enables quick and easy transfer of measurement logs from the ARGUS® to the app via Bluetooth.

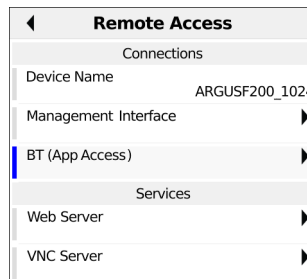
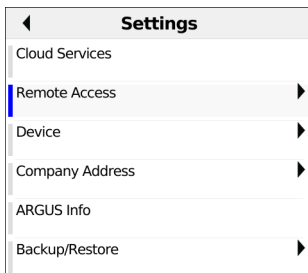


The ARGUS® Mobile App can be downloaded here for free:

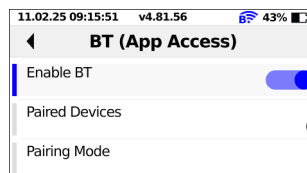
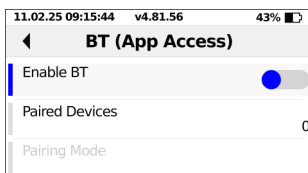
<https://play.google.com/store/apps/details?id=info.argus.argusmobile&hl=en-us>



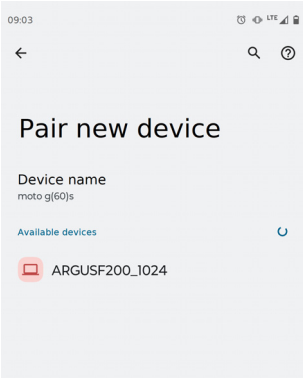
Apple App Store: <https://apps.apple.com/de/app/argus-mobile-app/id6480200403?l=en-GB>



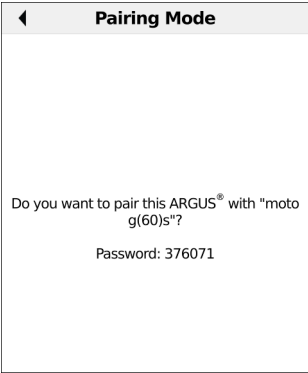
Press the wheel key to access the device settings. First select Remote access, then BT (App Access).



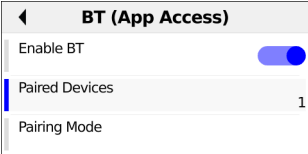
Bluetooth can now be activated there. If Bluetooth is switched on, you can recognize this by the blue symbol in the status bar: . The pairing mode can only be selected when Bluetooth is switched on.



The pairing mode in the ARGUS® must be open so that it can pair with the ARGUS® Mobile app. Bluetooth must also be activated on the smartphone or tablet. Then select “Pair new device” and select the corresponding ARGUS® (here: ARGUSF200_1024).

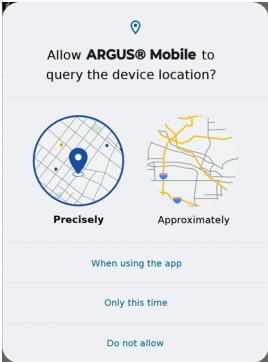
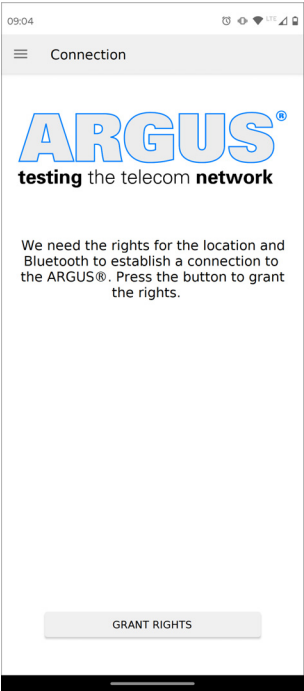


A pairing code appears on both devices, which must be confirmed on both devices.

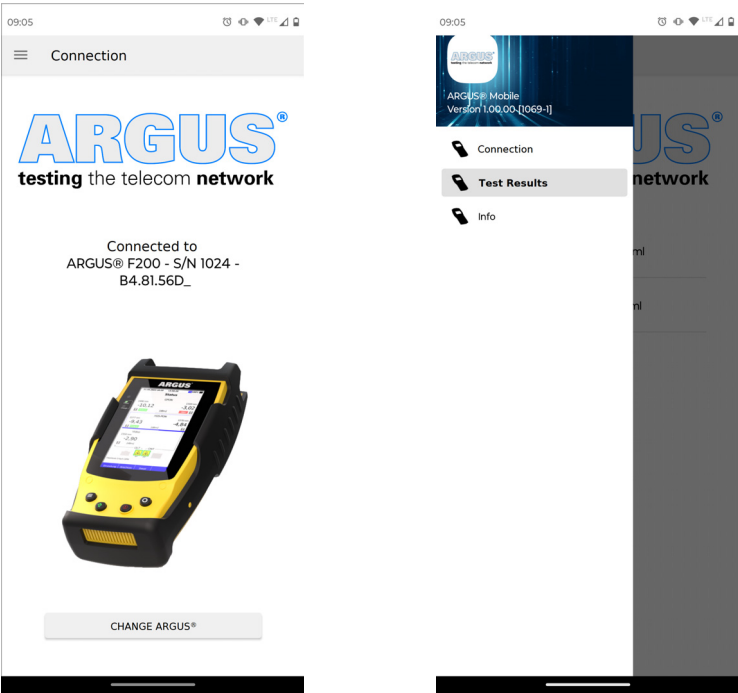


The paired device is now also visible on the ARGUS®.

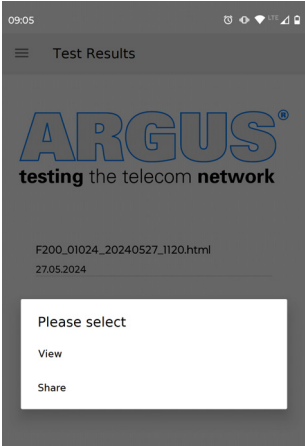
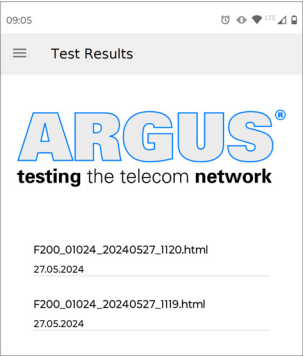
<Delete> Delete paired device.



When using the ARGUS® Mobile app for the first time, you must grant it rights to the device location and to connect to nearby devices.



The ARGUS® Mobile app displays the ARGUS® to which it is currently connected. Another ARGUS® in the nearby area can be selected via “Change ARGUS®”. After selecting the menu icon, you can display the test results that are on the ARGUS®.



Display of the available test results. After selecting one of the test results, the data will be downloaded from the ARGUS®. They can then either be viewed or shared.



Display of a test result.

16 Appendix

A) ARGUS® Info

ARGUS Info	
Type:	ARGUS F200
SW Version:	R4.81.00D_ [1066-8]
Date:	13.11.24
Serial Number:	1024
SSID:	ARGUSF200_1024
SW Options:	
PON Installation Test	
PON Installation	
xPON Optical Power Meter	
PON ID	
PLOAM Monitor	
Fiber Inspection Tool (USB)	

X

Option Key

✓

0

-

-

-

Serial Number: 1024

1	2	3	A	B	C
4	5	6	D	E	F
7	8	9	:	-	X
*	0	#	.	ABC	✓

The ARGUS® info displays the ARGUS® type, the software version, the software options set and the serial number, among other things.

If you select Option, you can enter the Option Key (see image on the right).

B) Symbols



The following symbols can be displayed in the ARGUS[®] status line.

Symbol	Colour	Purpose	Description
	black	Battery pack	This symbol shows the current battery status.
	blue	Cloud update	The firmware can now be updated.
	grey	Cloud update	The update function is active but no update can be found. For example, due to an incorrect server path.
	blue	Configuration import	A configuration file has been found.
	grey	Configuration import	The configuration check is active but no configuration can be found. For example, due to an incorrect server path.
	black	Variable	Importing a configuration or executing a test.
	green	WLAN	WLAN is active. ARGUS [®] is now in access-point mode.
	grey	WLAN	WLAN is not active.



The following symbols can appear in the ARGUS[®] main display area.

Symbol	Colour	Description
	green	Synchronisation achieved (physical layer) or a VL or service was activated successfully.
	green	A test is currently running in this service.
	red	An error has occurred.
	black	Preparing activation of physical layer, VL or service.
	green	Test running.
	red	Test stopped.
	blue	Access, access filter or menu entry has been added as a favorite.
	blue	Autostart: Selected access starts immediately.

C) Software licenses

The ARGUS® firmware contains code from open-source packages published under a variety of licenses (GPL, LGPL, MIT, BSD, etc.).

Additional information can be found on the internet at: <http://www.argus.info/en/service/downloads>. After selecting your device type, you can download a PDF with the software licenses.

If you are interested in the sources listed under GPL/LGPL, please contact support@argus.info. intec Gesellschaft für Informationstechnik mbH will provide you with a machine-readable copy of the source texts for a nominal fee to defray the costs of the physical copying process. This offer is valid for 3 years.

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