



Operating Instructions
for
Software MEDIATOR Tool

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The document may contain technical inaccuracies and typographical errors. The content will be revised on a regular basis. These changes will be implemented in later versions. The described products can be improved and changed at any time without prior notice.

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2. Note

2.1 General

Before unpacking and commissioning the device, the operating instructions and the “General Safety Instructions” document must be read and followed carefully. The general safety instructions, the operating instructions, the data sheet as well as approvals and further information can be downloaded via the QR code on the device or under the respective product on www.kobold.com.

Operating instructions, data sheet, approvals and further information via the QR code on the device or via www.kobold.com

The devices are only to be used, maintained and serviced by persons familiar with these operating instructions and in accordance with local regulations applying to Health & Safety and prevention of accidents.



When used in machines, the device should be used only when the entire machine fulfils the EU machinery directive.





2.2 Validity and version of the operating instructions

Due to technical changes, the device documentation available online may not always correspond to the product version you have purchased. If you need an instruction manual that corresponds to the purchased product version, you can request it from us free of charge by email (info.de@kobold.com) in PDF format, specifying the relevant invoice number and serial number. If you wish, the operating instructions can also be sent to you by post in paper form.

2.3 Hazard warnings

The following instructions are intended to ensure your personal safety and to prevent damage to the product described or connected devices. Safety instructions and warnings to prevent danger to the life and health of users or maintenance personnel, or to prevent damage to property, are highlighted in this documentation using the symbols defined here. *The symbols and terms used have the following meaning in the documentation itself:*

| Symbol | Explanation | Symbol | Explanation |
|---|--|--|--|
|  Note | Is important information about the product, the handling of the product or the respective part of the documentation to which particular attention should be drawn. |  Caution | Means that minor personal injury or minor property damage may occur if proper precautions are not taken. |

| Symbol | Explanation | Symbol | Explanation |
|--|--|--|---|
|  Warning | Indicates that serious personal injury or substantial property damage may occur if proper precautions are not taken. |  Danger | Means that death can occur if proper precautions are not taken. |
|  Warning | Attention: Hot surface! |  Warning | Warning: Dangerous electrical voltage |

2.4 Safety relevant information

Read and carefully observe these operating instructions before unpacking and before use. The DUK-...C3T0 devices may only be parameterised by persons who are familiar with these operating instructions and the operating instructions for the ultrasonic flowmeter model DUK-...C3T0 as well as with the applicable regulations on occupational safety and accident prevention.

3. Introduction

These operating instructions provide the customer of Kobold Messring GmbH with assistance and instructions for the parameterization of the flowmeter type DUK-...C3T0 for the use of different measuring media. These operating instructions are a supplement to existing documents such as drawings, data sheets and operating instructions for the ultrasonic flow meter of type DUK-.... We reserve the right to make changes due to technical improvements. This version supersedes all previous editions of this document.

4. Intended use

The Mediator Tool software may only be operated together with the optionally available PC-Interface Set KOFICOM-IFMU. The Mediator Tool software package is used exclusively for the customer's parameterization of the DUK-...C3T0 and is an accessory for the ultrasonic flowmeter type DUK-...C3T0. The customer can use the user interface of the Mediator Tool to independently replace the factory set of parameters for the medium water in order to measure other media with the DUK-...C3T0 and at the same time save his individually set user interface as a factory data set. There is always the option of uploading the parameter set of the delivery status (water) to the DUK-...C3T0 again using the mediator tool. The calibration set may only be used for this purpose. Trouble-free operation of the device can only be guaranteed if all points in these operating instructions are observed. No liability can be accepted for damage caused by non-observance of these instructions.

5. Installation

The following components are required to exchange media data:

a. Mediator Tool Package

This software package includes:

- The executable program "DUK-Mediator.exe"
- Windows driver for PC-Interface Set KOFICOM-IFMU

b. PC-Interface Set KOFICOM-IFMU

Minimum hardware requirement:

100 megabytes of hard disk space and ideally a processor with more than 2 GHz clock frequency and 1 gigabyte of RAM, 1 free USB port

System requirements:

The following operating systems are supported: Windows 10 and 11.

5.1 Installation of the PC-Interface Set KOFICOM-IFMU

Before installing the KOFICOM-IFMU PC-Interface Set, switch off the power to the structure.

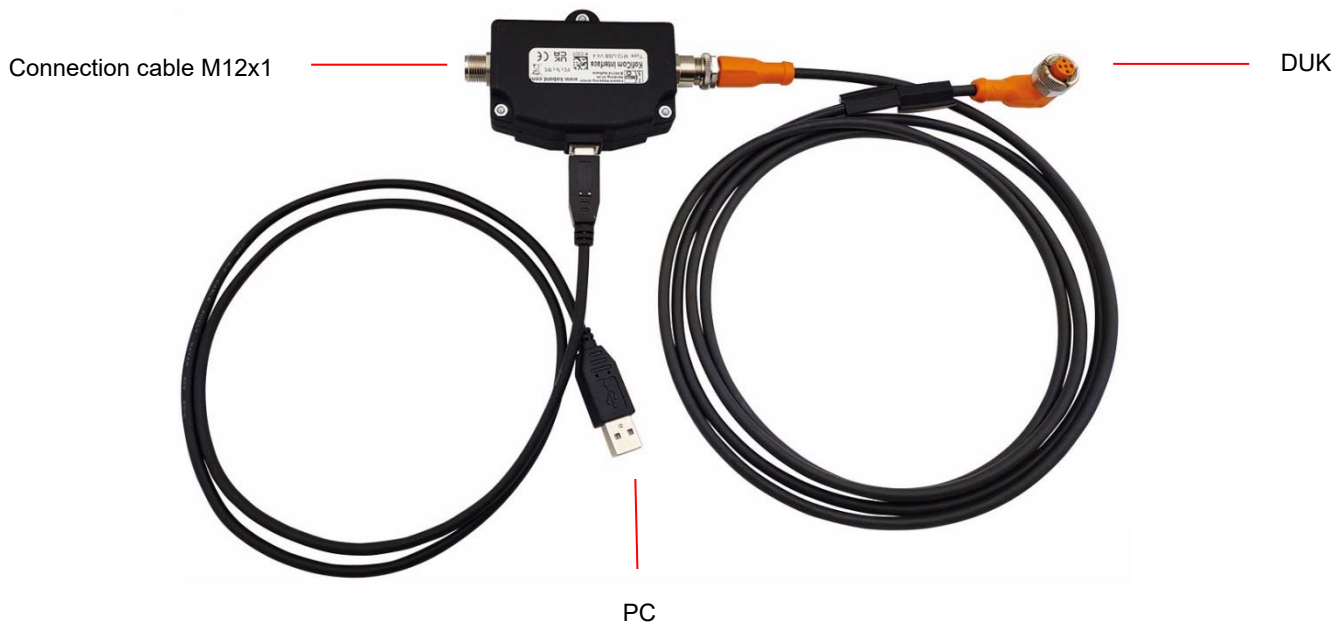


Figure 1: Connection

Dismantle the existing M12x1 connection cable of your DUK-...C3T0 and connect the removed cable to the M12x1 input plug of the PC-Interface Set (image 1 left connection). Now connect the M12x1 cable socket of the PC-Interface Set (picture 1 right connection) with the M12x1 housing plug of the DUK-...C3T0.

Finally, connect the USB port on the PC-Interface Set to a free USB port on your PC using the supplied USB cable.

The 24 VDC supply of the DUK-...C3T0 can now be switched on again.

If the PC-Interface Set is connected to the PC via the USB cable, the hardware is usually recognized automatically and the necessary drivers are installed.

If the hardware is not recognized automatically, the necessary drivers must be installed manually using the driver package contained in the software package.


The executable installation package is located in the "Windows USB Driver" directory.

After installing the driver, check in the Windows device manager which COM port number was assigned to the configuration adapter:

To access Device Manager, the following steps must be performed:

- Right-click the Windows Start menu icon and select the "Device Manager" entry.
- A window opens in which all devices connected to the computer are displayed in a tree structure.
- Your PC-Interface Set with a specific port number is now also located under the "Ports (COM&LPT)" label. To check this, disconnect it from the PC and make sure that the associated Com port is no longer displayed.

- Please note the COM port number of the PC-Interface Set, as this number must be set when configuring the user interface in order to establish communication with the DUK-...C3T0.
- The automatically assigned COM port number will remain the same each time it is reconnected for that device.

| | |
|---|--|
|  <p>Note</p> | If the PC interface set is installed and active, only OUT2 can be used |
|---|--|

5.2 Use of the configuration software Mediator

DUK Mediator Tool is an open-source program that includes a graphical user interface and enables communication with the DUK-...C3T0.

To use the program, follow these steps:

- Download the current Mediator Tool Package as a ZIP file from the KOBOLD homepage www.kobold.com/qr/DUK
- Unpack the ZIP file in a local directory of your choice
- The software can be started directly without any further installation. To do this, run the "DUK-Mediator.exe" file directly

If this does not work, it is necessary to run the "VC_redist.x64.exe" file. After this process, you can launch the tool by running "DUK-Mediator.exe".

6. User interface and exchange of media tables

6.1 User Interface

The user interface is divided into an information area and a workspace:

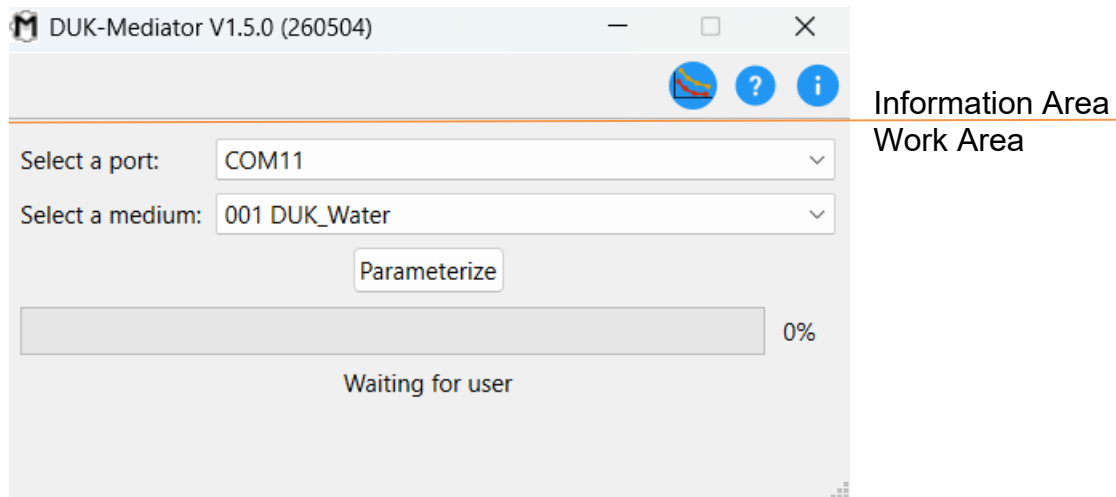





Figure 2: Information/Work Area

For information on using the workspace, see Chapter 6.2, "Exchanging Media Tables."

By clicking on the icons, the information area provides the following content:

-  : General Software Information
-  : opens this user manual
-  : Opens an Excel file containing information on the kinematic viscosity values of the individual media files offered.

This file provides an overview page with all available media:

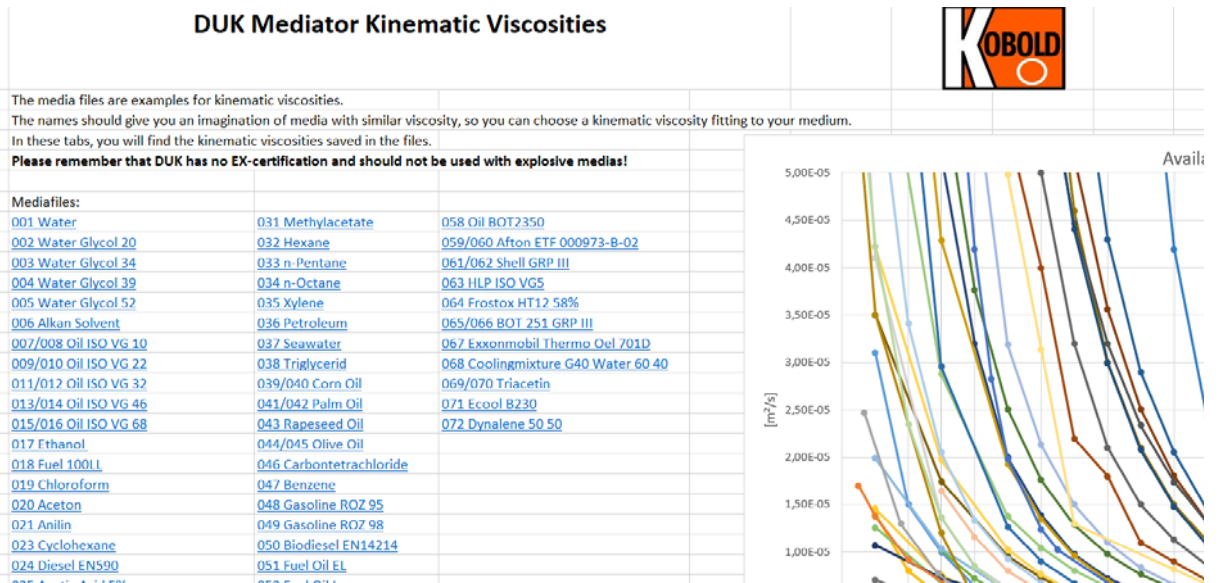


Figure 3: Available Media

Clicking on the desired medium jumps the view to the corresponding, specific media page within this file:

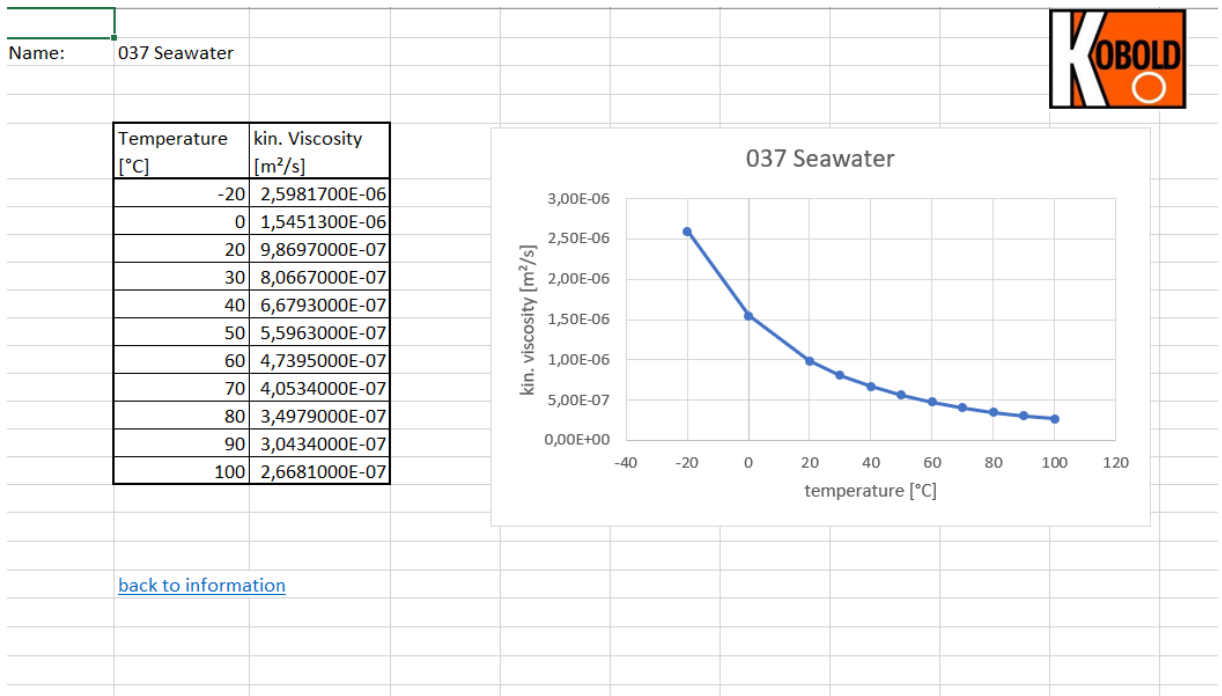


Figure 4: Specific Media Page

Clicking "back to information" returns the view to the overview page.

The specific media pages display the stored viscosity values for the medium in both tabular and graphical formats.

Based on these values, a file suitable for your specific medium can be selected.

6.2 Exchange of Media Tables

Start the "DUK-Mediator" by double-clicking on "DUK-Mediator.exe". A user interface will open.

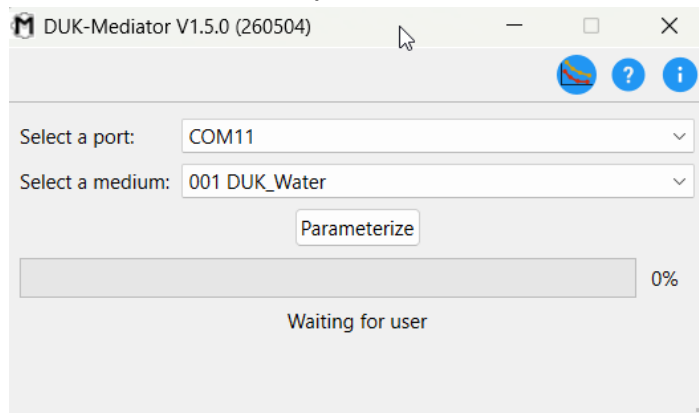


Figure 5: User interface

From the drop-down list, select the PC-Interface Set COM port number found in chapter 5.1.

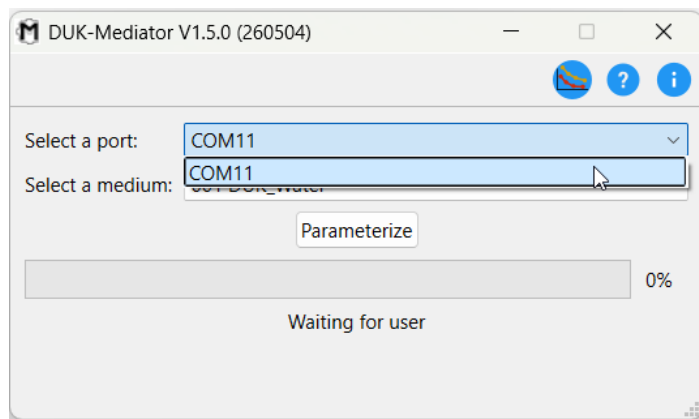


Figure 6: Selection of the COM port

Select the desired medium from the drop-down list.

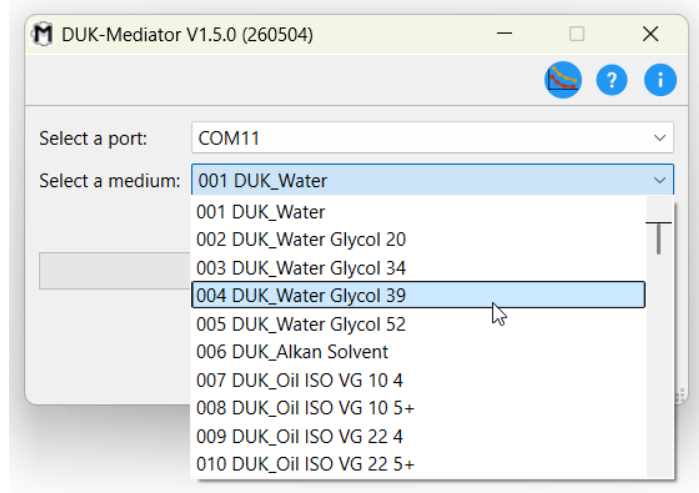


Figure 7: Selection of the medium

Click on "Parameterize"

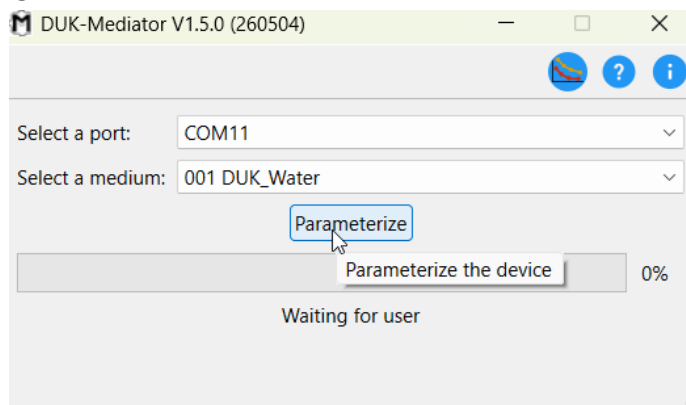


Figure 8: Parameterize

The PC-Interface Set clicks once audibly, the DUK-...C3T0 switches off and on again. Now the connection is established and the device is recorded.

Meanwhile, the file you selected is displayed next to the "Upload Media file..." button.

The progress bar runs through the loading bar several times while the new parameters are being imported.

After the upload is complete, the info text "Success" appears.

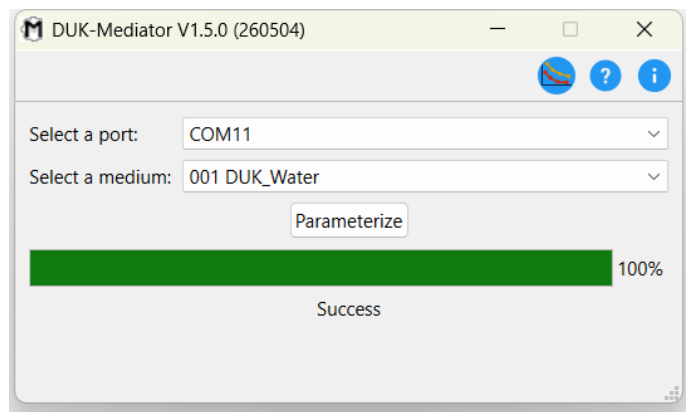


Figure 9: Confirmation

The media file has been loaded; the device settings have been saved as new factory settings.

Disconnect the power supply and switch it on again. Now the unit is ready for use.

7. Error Handling

Problems with the communication interface

If the communication connection between PC and DUK-...C3T0 fails, you must use the WINDOWS device manager to check whether the correct COM port number is set in the calibration program (see chapter 5.1).

If the connection still fails, you can try the following:

- close the calibration program and open it again.
- Unplug the calibration adapter and plug it back in

Then try again to establish the connection with the DUK-...C3T0.

Problems opening the program

If the tool cannot be opened via "DUK-Mediator.exe", it is necessary to run the "VC_redist.x64.exe" file.

After this process, you can easily open the tool from the "DUK-Mediator.exe" application.

8. Disposal

See "General Safety Instructions" - via the QR code on the device or via www.kobold.com