User Manual

EasySampler Connectivity Kit

For EasyMax Advanced, OptiMax, and RX-10

METTLER TOLEDO

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1 Introduction

The EasySampler Connectivity Kit integrates EasySampler function with EasyMax™ Advanced, OptiMax™, and RX-10™ touchscreen or iControl software experiment. Sampling information is automatically combined and reported with the reactor experiment conditions via the touchscreen and iControl experiment report file.

This User Manual provides step-by-step instructions to connect EasySampler to EasyMax Advanced 102/402, OptiMax 1001, or RX-10 using the EasySampler Connectivity Kit and how to operate EasySampler 1210 from the touchscreen or iControl experiment.

The EasySampler Connectivity Kit contains the following items:

	Part
1	User manual EasySampler Connectivity Kit
2	USB stick (2GB)
3	USB dongle, mini-format
4	CAN cable (1 m)

2 Safety Information

⚠ WARNING

Risk of electric shock - Grounding of the power supply outlet

Make sure to plug the power cable supplied into a power supply outlet that is grounded! A technical fault could otherwise result in serious injury or death.

⚠ CAUTION

Potentially explosive environment

- Never work in an environment subject to explosion hazards! The device is not gas tight (explosion hazard due to spark formation, explosion caused by ingress of gases).
- Avoid electrostatic charge formation.

⚠ CAUTION

Usage

- In case of damage, please contact METTLER TOLEDO.
- The product is intended for indoor usage only.
- Never open the instrument! Have it serviced only by METTLER TOLEDO.
- Operate the product only with standard and optional equipment provided by METTLER TOLEDO.
- This document must be read and understood. If the product is not used according to this document, protection of the instrument may be impaired and METTLER TOLEDO assumes no liability.
- The electrical connectors are not resistant to corrosive gases. Take appropriate measures and/or place the product in a suitable place in the lab or outside of the fume hood.

NOTICE

General conditions

Exclude the following environmental influences:

- Powerful vibration
- Direct sunlight
- Atmospheric humidity greater than 80%
- Temperature below 5 °C or above 40 °C
- Powerful electric or magnetic field

NOTICE

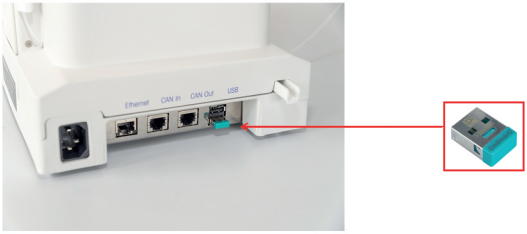
Exceeding temperature range

In combination with the reactors it is possible to exceed the temperature range of the EasySampler. This causes damage to the PTFE sleeve potentially leading to a leak of Quench solution into the reaction.

3 Installation

We recommend to use one of the rear USB ports to have the front USB port accessible for data export.

Insert the USB dongle into one of the USB ports located on the rear side of the EasySampler system.



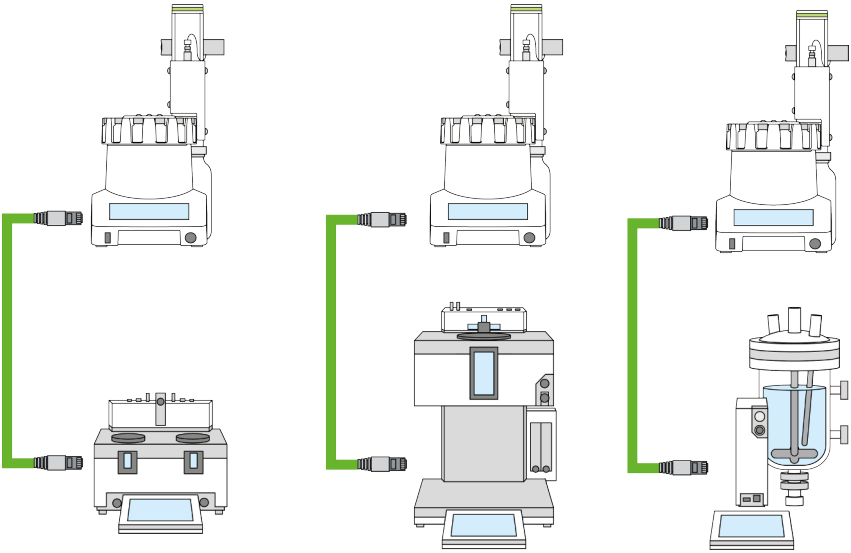
4 Connect EasySampler to EasyMax Advanced, OptiMax or RX-10

1 Connect the EasySampler to EasyMax Advanced, OptiMax, or RX-10 via a CAN cable.

2 Use the CAN IN connection at the back of the EasySampler for the connection from EasyMax Advanced, OptiMax and RX-10. The connection can be direct or via 1 or more CAN devices.

3 Use the CAN OUT connection for further CAN devices.

A possible installation setup is shown below:



Note Two EasySampler can be connected to EasyMax Advanced (1 for each reactor) and one EasySampler to OptiMax or RX-10.

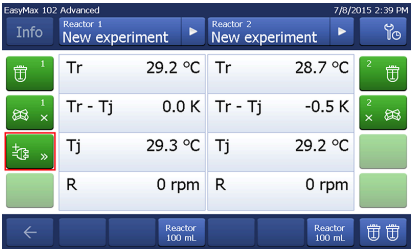
Note To operate EasySampler from iControl and report sampling information in the iControl or iC Data Center experiment file, EasySampler must be connected via EasyMax Advanced, OptiMax or RX-10 to iControl or iC Data Center. Please refer to the iControl Quick Start Guide (51710672) or iC DataCenter Quick Install Guide. Direct connection of EasySampler to iControl is not supported.

5 EasyMax Advanced reactor assignment

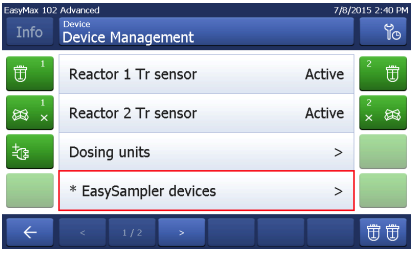
When using EasySampler with EasyMax Advanced, the EasySampler has to be assigned to one of the reactors. For OptiMax and RX-10, reactor assignment is not required; continue with [Take 1 sample from EasyMax Advanced, OptiMax or RX-10 ▸ Page 9].

The following sequence describes how to assign an EasyMax Advanced reactor to the referring EasySampler.

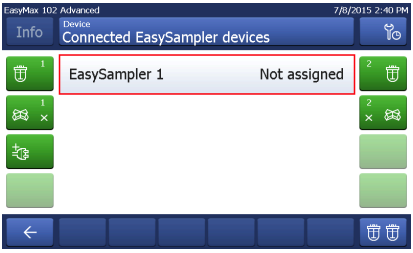
1 Select **Add Device** button.



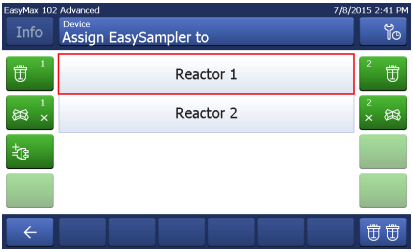
2 Select **EasySampler devices**.



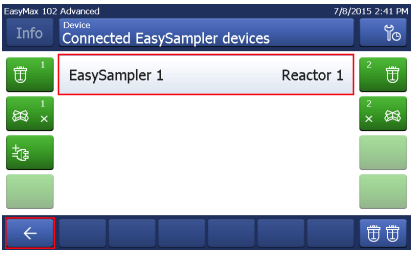
3 Select **EasySampler 1**.



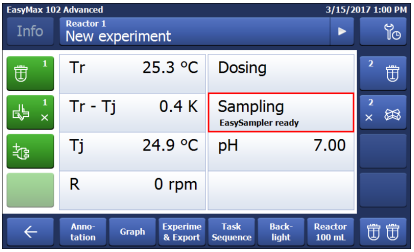
4 Select **Reactor 1** to assign EasySampler to reactor 1.



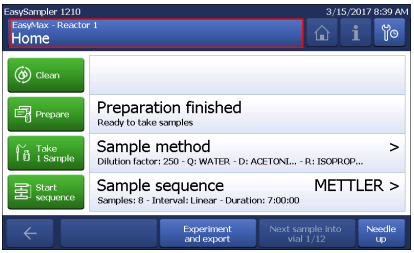
5 The EasySampler is assigned to reactor 1. Select the **Back** button to get to the home screen of reactor 1.



The EasyMax Advanced touchscreen shows that EasySampler is ready.



The EasySampler touchscreen shows the reactor assignment.



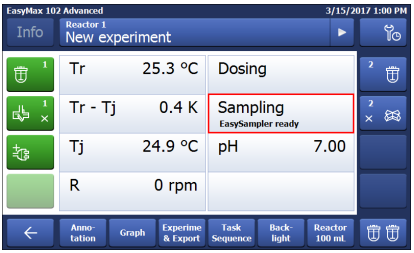
6 Take 1 sample

6.1 Take 1 sample from EasyMax Advanced, OptiMax or RX-10

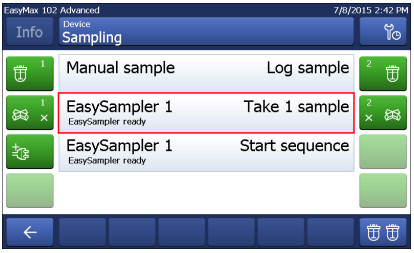
Note Refer to the EasySampler User Manual (30091776) to prepare EasySampler.

- The EasySampler must be ready (**Preparation finished** on EasySampler screen) before **Take 1 Sample** can be started on the EasyMax Advanced, OptiMax or RX-10.

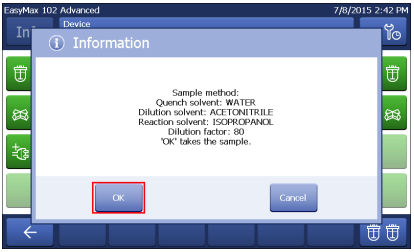
1 Select **Sampling**.



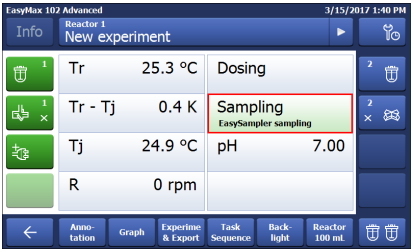
2 Select **Take 1 Sample**.



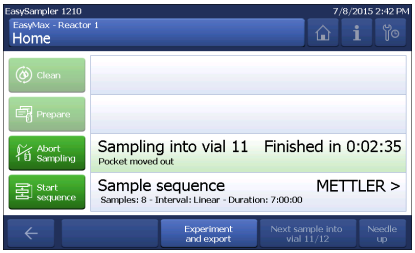
3 Select **OK** to confirm and start sampling.



The EasyMax Advanced, OptiMax or RX-10 touch-screen shows that EasySampler is in the process of taking a sample.



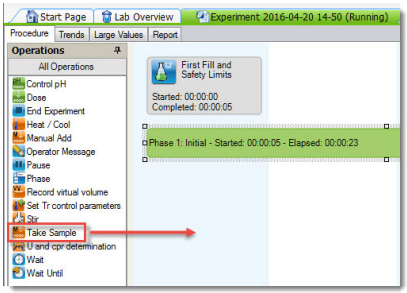
The EasySampler touchscreen shows the active sampling process.



6.2 Take 1 sample using iControl

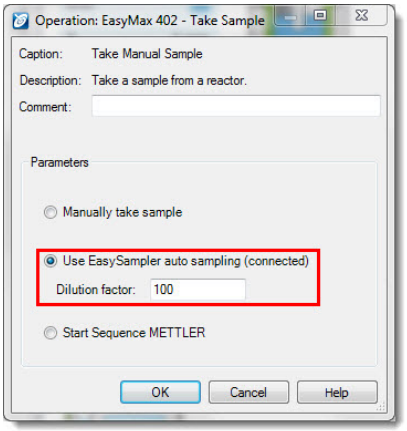
- EasySampler must be ready (Preparation finished on screen) and connected to EasyMax Advanced, OptiMax or RX-10. In order to **Take 1 Sample** in a running experiment in iControl, follow the steps below:

1 Drag and drop a **Take Sample** operation to the recipe.

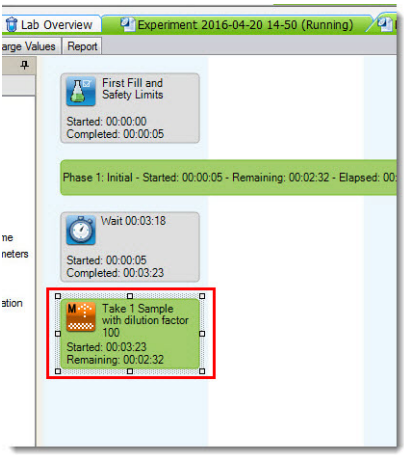


2 On the opening dialog, choose **Use EasySampler auto sampling**

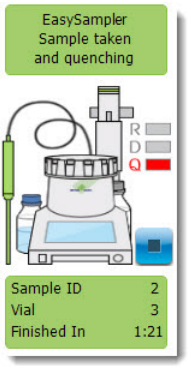
3 Enter a Dilution factor between 80 and 450 and confirm with **OK**.



4 The operation will run in iControl as long as the sampling process is active.



5 In the equipment screen, the state of the EasySampler will be displayed and updated continuously.



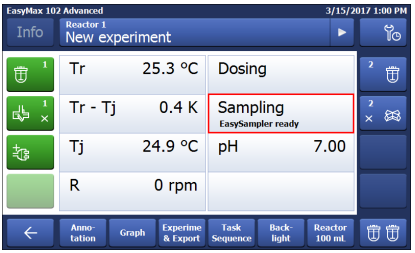
7 Start a Sampling Sequence

7.1 Start a Sampling Sequence from EasyMax Advanced, OptiMax or RX-10

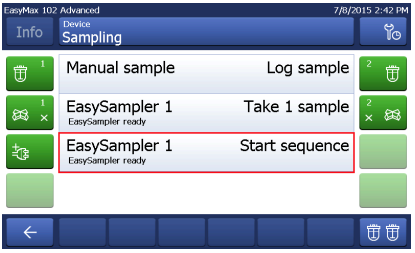
Note Refer to the EasySampler User Manual (30091776) to prepare EasySampler.

- Sequences must be set up on the EasySampler before they can be started from the EasyMax Advanced, OptiMax or RX-10
- The EasySampler must be ready (**Preparation finished** on EasySampler screen) before the **Sample sequence** can be started on the EasyMax Advanced, OptiMax or RX-10.

1 Select **Sampling**.

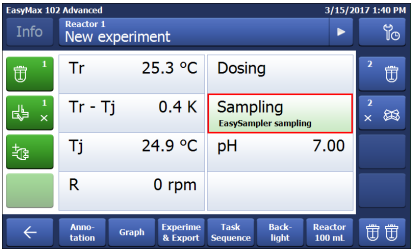


2 Select **Start sequence** to start the sample sequence.

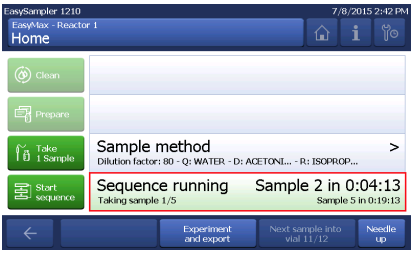


3 Select **OK** to confirm and start sampling sequence.

The EasyMax Advanced, OptiMax or RX-10 touch-screen shows that the EasySampler is running the sample sequence.



The EasySampler touchscreen shows the sampling sequence that is active.

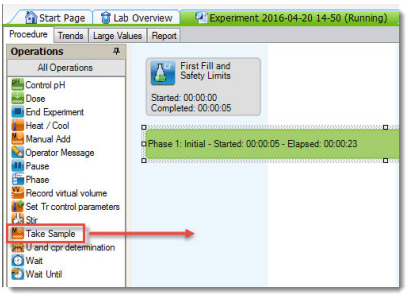


7.2 Start Sampling Sequence from iControl

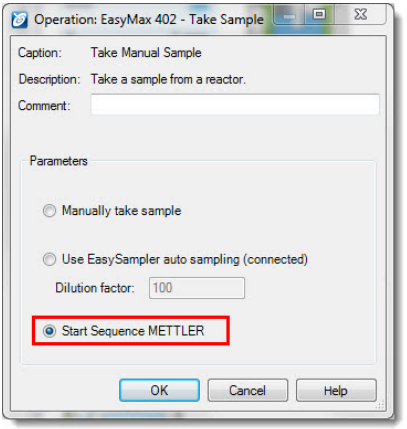
Note Refer to the EasySampler User Manual (30091776) to prepare EasySampler.

- EasySampler must be ready (Preparation finished on screen) and connected to EasyMax Advanced, OptiMax or RX-10 in order to start the Sampling Sequence in iControl.
- Sequences must be set up on the EasySampler before they can be started from iControl.

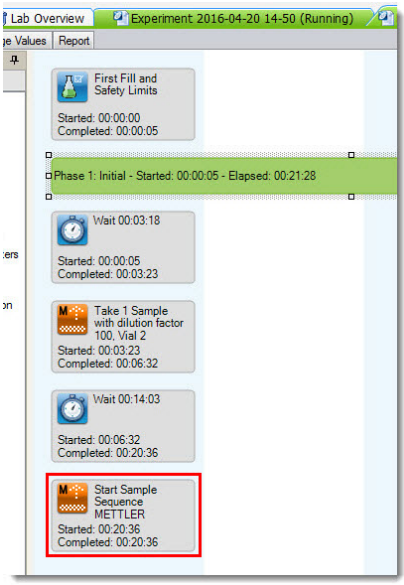
1 Drag and drop a **Take sample** operation to the recipe.



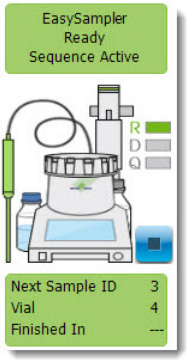
2 On the opening dialog, choose **Start Sequence xxx** (example METTLER) and confirm with **OK**.



3 In contrast to a **Take 1 Sample** operation that runs as long as the sampling process is active, the Start Sampling Sequence operation will start the sampling sequence and then be finished. The sampling sequence will run entirely on the EasySampler and iControl will log all samples.



4 In the equipment screen, the state of the EasySampler will be displayed. If no sampling process is active, the state of the EasySampler is **Sequence Active**.

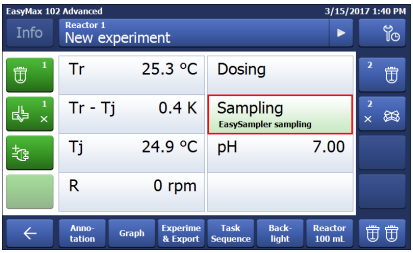


8 Abort Sampling

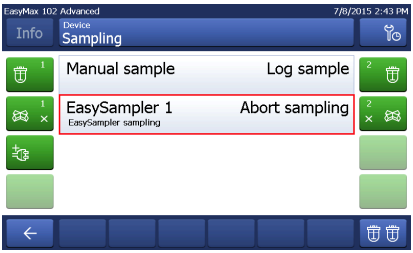
8.1 Abort Sampling from EasyMax Advanced, OptiMax or RX-10

Note Refer to the EasySampler User Manual (30091776) to prepare EasySampler.

1 Select **Sampling**.



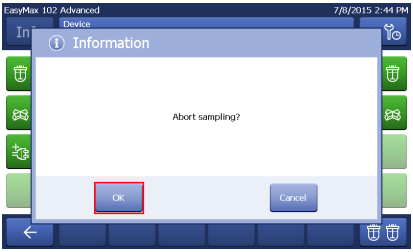
2 Select **Abort sampling**.



3 Select **OK** to confirm to abort the sampling process (EasySampler needs to be prepared when aborting a running sample.)

⇨ The EasyMax Advanced, OptiMax or RX-10 touchscreen shows that EasySampler needs to be prepared before taking another sample.

⇨ The EasySampler touchscreen shows that the sampling process has been aborted.

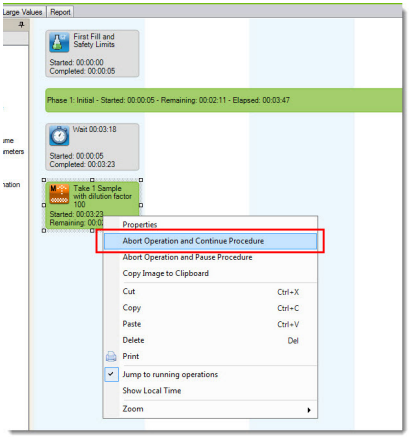


8.2 Abort Sampling from iControl

Abort an active Sampling Process

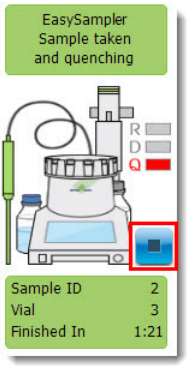
- Abort a **Take 1 Sample** by either aborting the Take 1 Sample operation in the procedure screen.

or



- Selecting the stop button next to the EasySampler in the equipment screen.

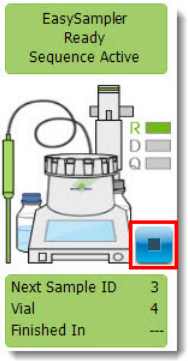
Note When aborting an active sampling process, the sample is lost and EasySampler has to be prepared before a new sampling process can be started again.



Abort an active Sampling Sequence

– An active sampling sequence can be aborted by selecting the stop button next the EasySampler in the equipment screen.

Note When aborting an active sampling process, the sample is lost and EasySampler has to be prepared before a new sampling process can be started again.



9 Export Data

Using the EasySampler with Connectivity Kit and EasyMax Advanced, OptiMax or RX-10, all sampling data is reported in the:

- EasySampler experiment report
- EasyMax Advanced, OptiMax or RX-10 experiment report

A USB stick is needed to export the experiment report. In case EasyMax Advanced, OptiMax or RX-10 are connected to iControl or iC Data Center, sampling data is additionally reported in the:

- iControl experiment report
- iC DataCenter experiment report

Please refer to the corresponding User Manual and Operating Instructions for details.

10 Technical Data

Supported Firmware and Software for Connectivity kit	**Touchscreen to Touchscreen Control:** EasySampler: Firmware Version 1.1.0.0 or higher EasyMax, OptiMax and RX-10: Firmware Version 5.4.0.0 or higher **Compatibility with iControl Software:** EasySampler: Firmware Version 5.5.0.0 or higher EasyMax, OptiMax and RX-10: Firmware Version 5.5.0.0 or higher iControl: Software Version 5.5 or higher

To protect your product's future:
METTLER TOLEDO Service assures the quality, measuring accuracy and preservation of value of this product for years to come.

Please request full details about our attractive terms of service.

www.mt.com/EasySampler

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