User Manual

EasySampler Connectivity Kit

For EasyMax, OptiMax, RX-10, and RC1mx

METTLER TOLEDO

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1 Introduction

The EasySampler Connectivity Kit integrates EasySampler function with EasyMax™ Advanced, OptiMax™, RX-10™, and RC1mx™ 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 102/102 LT/402, OptiMax 1001, RX-10 or RC1mx 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:

1	User Manual EasySampler Connectivity Kit
2	USB dongle, mini-format
3	CAN cable (1 m)

2 Safety Information

All safety information from the documentation of the main device are also valid when using the EasySampler with other devices. So here only the additional ones are mentioned.

NOTICE

Exceeding temperature range

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

Make sure that the firmware of the EasyMax Advanced, OptiMax, RX-10 and RC1mx are compatible with the Connectivity kit, check the Release Notes for more information.

3 Installation

– Insert the USB dongle into one of the rear USB ports of the EasySampler system.

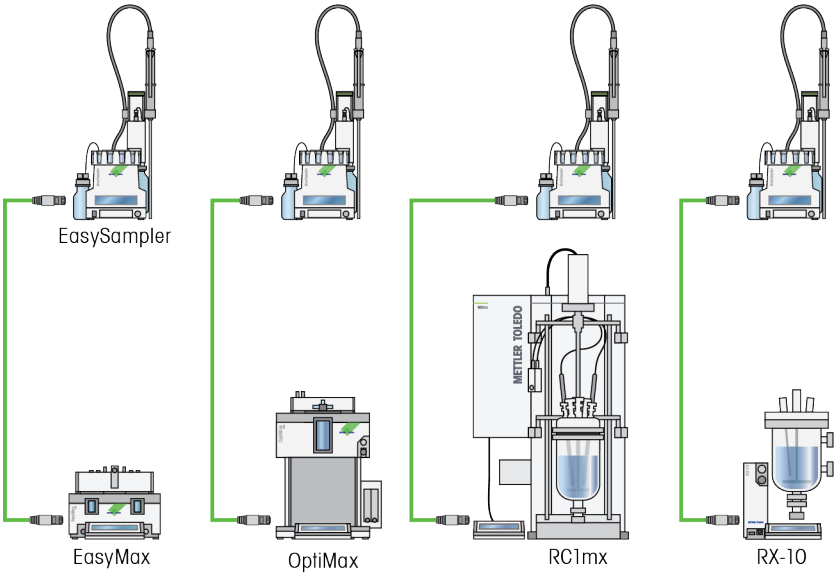
4 Connect EasySampler to EasyMax, OptiMax, RX-10 or RC1mx

1 Connect the EasySampler to EasyMax Advanced, OptiMax, RX-10 or RC1mx via a CAN cable.

2 Use the CAN IN connection at the back of the EasySampler for the connection from EasyMax Advanced, OptiMax, RX-10 or RC1mx. 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 EasySamplers can be connected to EasyMax Advanced (1 for each reactor) and one EasySampler to OptiMax, RX-10, RC1mx.

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, RX-10 or RC1mx to iControl or iC Data Center. Direct connection of EasySampler to iControl is not supported.

NOTICE

CAN power limits

Power in peripherals through the CAN connection requires some minimal power. Therefore, we recommend as of three CAN devices to add an additional power supply.

The CAN connection is used for power and communication transmission between the main device and other CAN devices like the ECB, DU SP-50 or EasySampler.

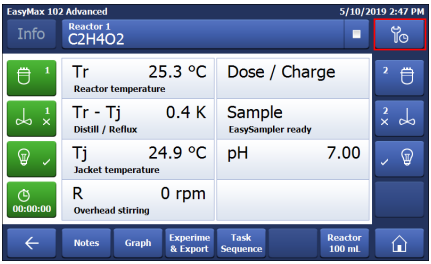
The power transmission through a CAN connection is limited to a certain amount. This means certain configurations need an additional AC power adapter.

5 EasyMax reactor assignment

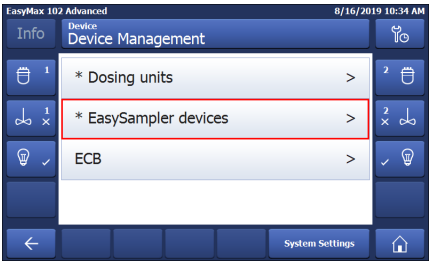
When using EasySampler with EasyMax Advanced, the EasySampler has to be assigned to one of the reactors. For OptiMax, RX-10, and RC1mx reactor assignment is not required; continue with [Take 1 sample from EasyMax Advanced, OptiMax, RX-10 or RC1mx ▸ Page 7].

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

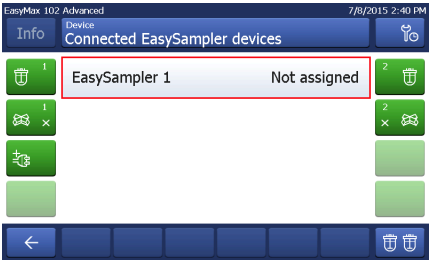
1 Select button.



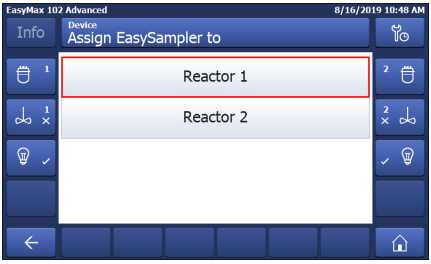
2 Select **EasySampler devices**.



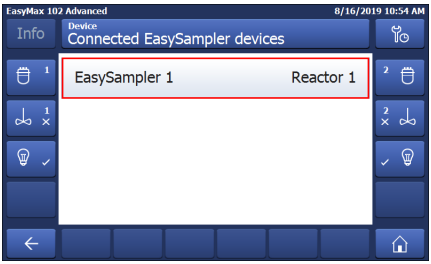
3 Select **EasySampler 1**.



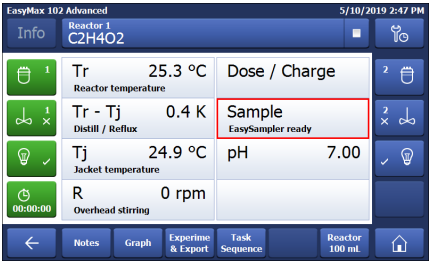
4 Select **Reactor 1** to assign EasySampler to reactor 1.



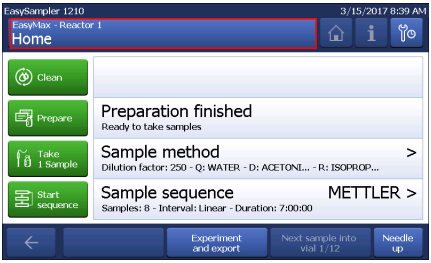
5 The EasySampler is assigned to reactor 1. Select the **Back** button to get to the home screen of reactor 1.



The EasyMax touchscreen shows that EasySampler is ready.



The EasySampler touchscreen shows the reactor assignment.



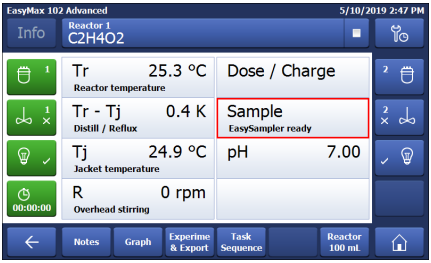
6 Use EasySampler from Touchscreen

6.1 Take 1 sample from EasyMax Advanced, OptiMax, RX-10 or RC1mx

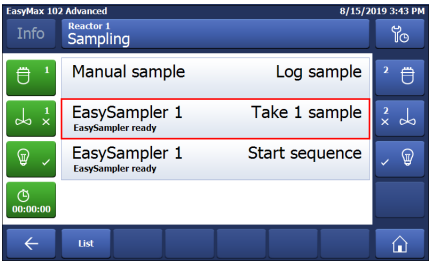
Note Refer to the EasySampler User Manual (30091776) to prepare EasySampler.

- The EasySampler must be ready (**Preparation finished** on EasySampler screen) before **Take 1 Sample** can be started on the EasyMax Advanced, OptiMax ,RX-10 or RC1mx.

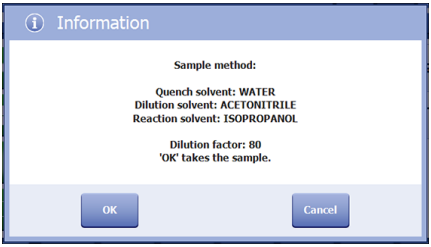
1 Select **Sample**.



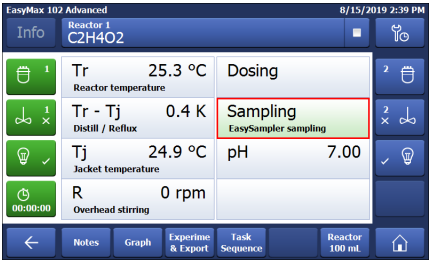
2 Select **Take 1 Sample**.



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



The EasyMax Advanced, OptiMax, RX-10 or RC1mx touchscreen shows that EasySampler is in the process of taking a sample.



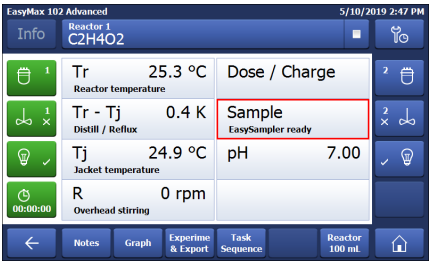
The EasySampler touchscreen shows the active sampling process.

6.2 Start a Sampling Sequence from EasyMax, OptiMax, RX-10 or RC1mx

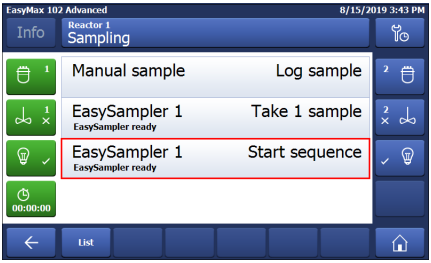
Note Refer to the EasySampler User Manual (30091776) to prepare EasySampler.

- Sequences must be set up on the EasySampler before they can be started from the EasyMax, OptiMax, RX-10 or RC1mx.
- The EasySampler must be ready (**Preparation finished** on EasySampler screen) before the **Sample sequence** can be started on the EasyMax, OptiMax, RX-10 or RC1mx.

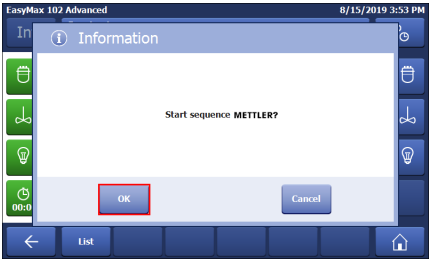
1 Select **Sample**.



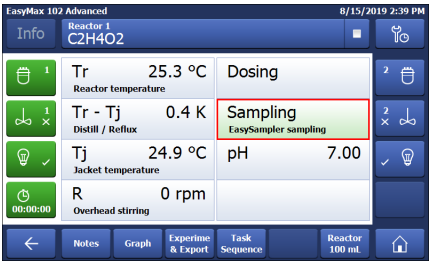
2 Select **Start sequence**.



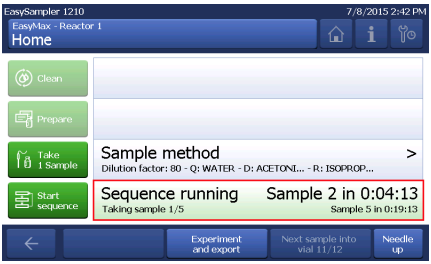
3 Select **OK** to confirm and start sampling sequence.



The EasyMax, OptiMax, RX-10 or RC1mx touchscreen shows that the EasySampler is running the sample sequence.



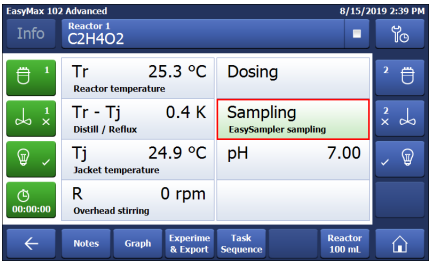
The EasySampler touchscreen shows the sampling sequence that is active.



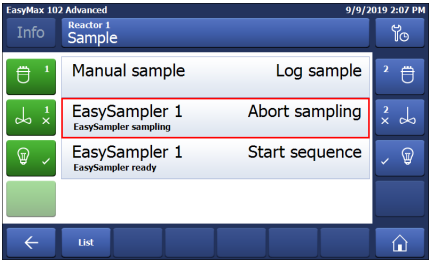
6.3 Abort Sampling from EasyMax Advanced, OptiMax, RX-10 or RC1mx

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

1 Select **Sampling**.



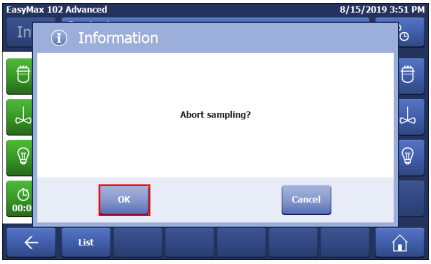
2 Select **Abort sampling**.



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

➡ The EasyMax Advanced, OptiMax, RX-10 or RC1mx touchscreen shows that EasySampler needs to be prepared before taking another sample.

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



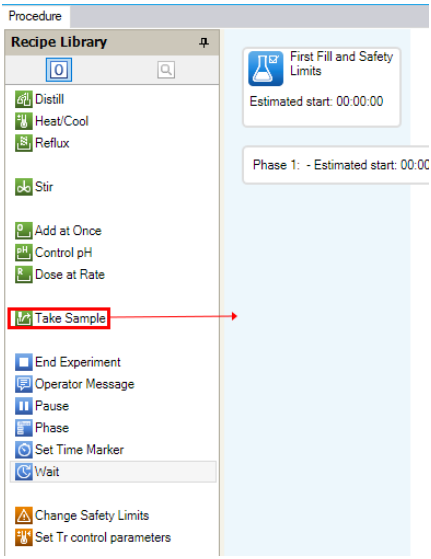
7 Use EasySampler together with iControl

7.1 Take 1 sample using iControl

The EasySampler can be used without any further configuration of the equipment by simply dragging and dropping the **Take Sample** operation in the recipe panel.

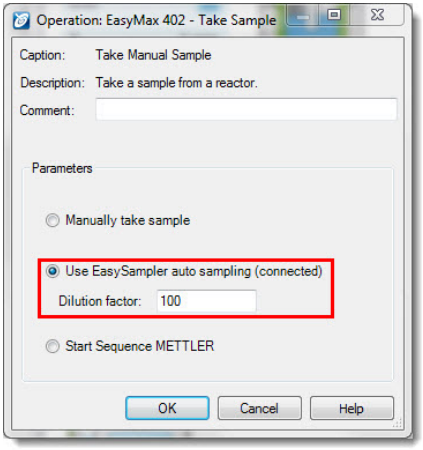
- EasySampler must be ready (Preparation finished on screen) and connected to EasyMax Advanced, OptiMax, RX-10 or RC1mx. In order to **Take 1 Sample** in a running experiment in iControl, follow the steps below:

1 Drag and drop to the recipe.

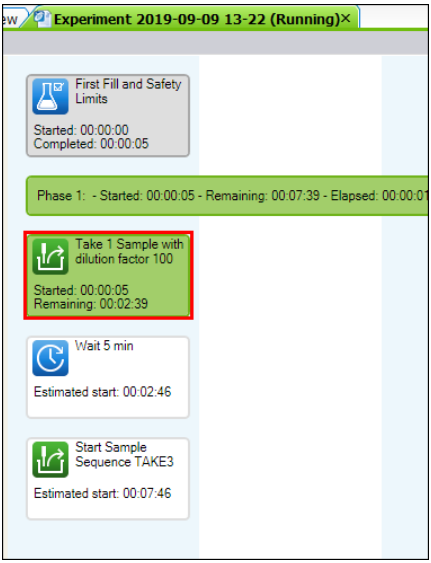


2 On the opening dialog, choose **Use EasySampler auto sampling**

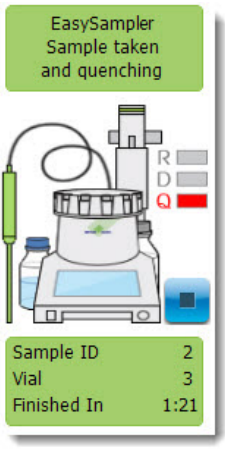
3 Enter a Dilution factor between 80 and 450 and confirm with **OK**.



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



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

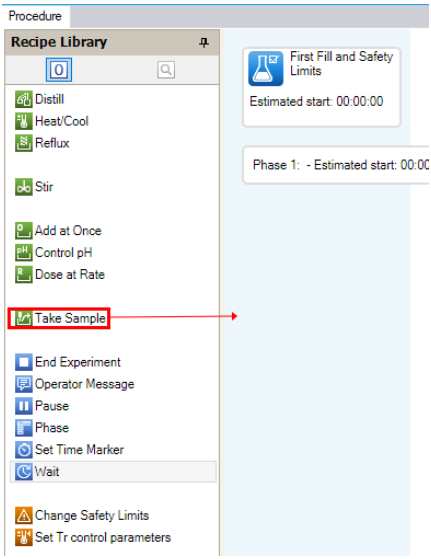


7.2 Start Sampling Sequence from iControl

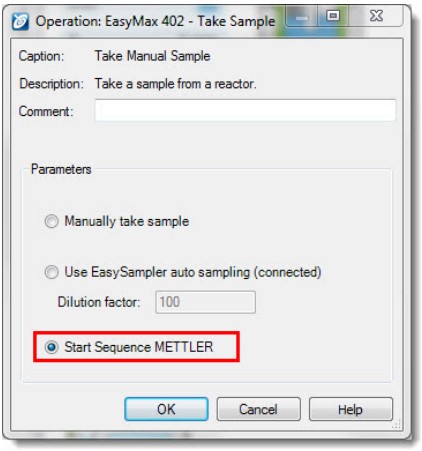
Note Refer to the EasySampler User Manual (30091776) to prepare EasySampler.

- EasySampler must be ready (Preparation finished on screen) and connected to EasyMax Advanced, OptiMax , RX-10 or RC1mx in order to start the Sampling Sequence in iControl.
- Sequences must be set up on the EasySampler before they can be started from iControl.

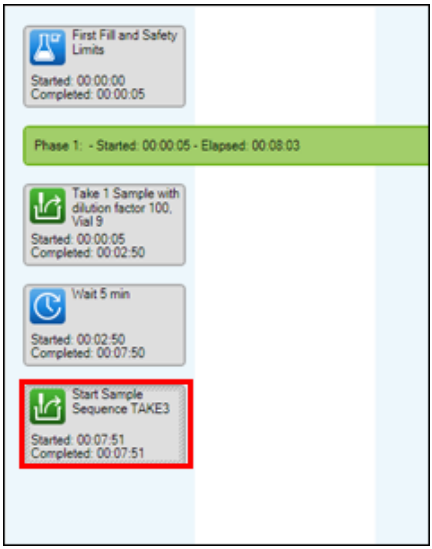
1 Drag and drop a **Take sample** operation to the recipe.



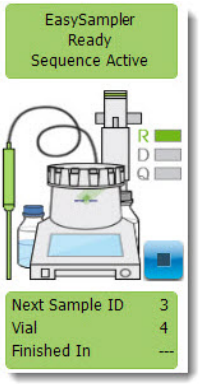
2 On the opening dialog, choose **Start Sequence xxx** (example METTLER) and confirm with **OK**.



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**.

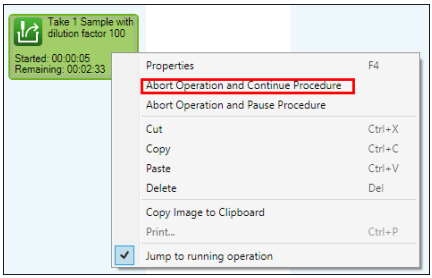


7.3 Abort Sampling from iControl

Abort an active Sampling Process

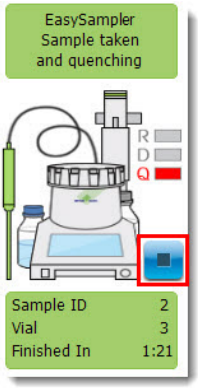
- Abort a **Take 1 Sample** by either aborting the Take 1 Sample operation in the procedure screen.

or



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

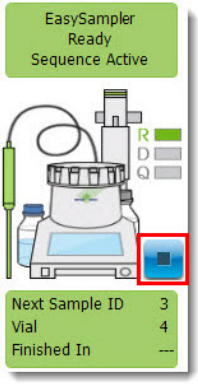
Note When aborting an active sampling process, the sample is lost and EasySampler has to be prepared before a new sampling process can be started again.



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 active sample is finished and EasySampler is ready to take new samples.



8 Export Data

Using the EasySampler with Connectivity Kit and EasyMax Advanced, OptiMax , RX-10 or RC1mx all sampling data is reported in the:

- EasySampler experiment report
- EasyMax Advanced, OptiMax, RX-10 or RC1mx experiment report

A USB stick is needed to export the experiment report. In case EasyMax Advanced, OptiMax,RX-10 or RC1mx 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.

9 Technical Data

Certifications regarding this product can be found at ▶ www.mt.com/DoC

The product name of your device is the model number.

Ambient conditions

Humidity	Max. relative humidity 80 % for temperatures up to 31 °C decreasing linearly to 50 % relative humidity at 40 °C, non-condensing
Altitude	Up to 2000 m
Overvoltage category	II
Pollution degree	2
Ambient temperature	5 °C…40 °C
Usage	For indoor use only

Supported Firmware and Software for Connectivity kit	**Touchscreen to Touchscreen Control:** EasySampler: Firmware Version 1.1.0.0 or higher EasyMax Advanced, OptiMax, RX-10 and RC1mx: Firmware Version 5.4.0.0 or higher **Compatibility with iControl Software:** EasySampler: Firmware Version 5.5.0.0 or higher EasyMax Advanced, OptiMax, RX-10 and RC1mx: 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.

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