# HAAKE VT iQ and HAAKE VT iQ Air Firmware

This document describes the Thermo Scientific™ HAAKE™ VT™ iQ and HAAKE VT iQ Air firmware versions (for the redesigned VT iQ) release history in chronological order.

The latest firmware version can be found at the end of the list.

#### Release date: 21 september 2022

	VT iQ Air firmware version	VT iQ firmware version
μΡ1	01.02.001	01.02.000
μΡ2	01.01.001	01.01.002
HMI	01.01.03	01.01.03

These are the first release versions.

## Release date: 30 january 2023

	VT iQ Air firmware version	VT iQ firmware version
μΡ1	01.04.001	01.04.000
μΡ2	01.01.001	01.02.002
HMI	01.01.03	01.01.03

Below is a list of things that are new and/or changed in this version compared with the previous firmware version.

### μP1 firmware

- 1. The temperature offsets for the TM-PE-C in combination with a cylinder measuring geometry were not working correctly. This has been solved.
- 2. The (optional) notification beep at the end of a Job was not always terminated correctly. This has been solved.
- 3. The numerical results of the evaluation elements are now displayed in floating point format (that is not in scientific format anymore).
- 4. During a firmware update a message is now displayed on the instruments touch screen.

#### Release date: 06 april 2023

	VT iQ Air firmware version	VT iQ firmware version
μΡ1	01.06.001	01.06.000
μΡ2	01.01.001	01.01.002
μΡ3	01.01.03	01.01.03

Below is a list of things that are new and/or changed in this version compared with the previous firmware version.

## μP1 firmware

1. When the gap setting for a parallel plate geometry was different from the default value the M-factor and thus the shear-rate was not calculated correctly. This only applies to measurement started from the instruments touch screen, that is, NOT to measurements started from RheoWin. This has been solved.



#### Release date: 14 april 2023

	VT iQ Air firmware version	VT iQ firmware version
μΡ1	01.08.001	01.08.000
μΡ2	01.01.001	01.01.002
μΡ3	01.01.03	01.01.03

Below is a list of things that are new and/or changed in this version compared with the previous firmware version.

## μP1 firmware

1. The VT iQ (Air) firmware now includes two operation-hour counters. One for counting the power-on time and one for counting the actual measurement time. The counter values are displayed in the **Configuration > Device info** menu on the instruments touch screen. Starting from RheoWin 4.91.0010 these values are stored in every RheoWin \*.rwd data file.

**Note** Of course both counters start with zero hours from the moment this new firmware is installed.

#### Release date: 26 june 2023

	VT iQ Air firmware version	VT iQ firmware version
μΡ1	01.09.001	01.09.000
μΡ2	01.02.001	01.02.002
μΡ3	01.01.03	01.01.03

Below is a list of things that are new and/or changed in this version compared with the previous firmware version.

## μP1 and μP2 firmware

- 1. Sending temperature offset tables from RheoWin to VT iQ (Air) did not work correctly. This has been solved.
- 2. The external Pt100 sensor was not correctly recognized. This has been solved.
- 3. The PC170 (pressure cell) was not correctly recognized. This has been solved.
- 4. The acquisition of OSC data has been improved. The relation between the number of waiting periods and number of measurement periods was changed, the sum of these two numbers stays the same.
- 5. The VT iQ Air (only) can now control an external gas valve for the air-bearing air/gas supply. This is meant for use in a glove box when using inert gas for the air-bearing.

#### Release date: 16 october 2023

	VT iQ Air firmware version	VT iQ firmware version
μΡ1	01.10.005	01.10.004
μΡ2	01.02.001	01.02.002
μР3	01.01.03	01.01.03

Below is a list of things that are new and/or changed in this version compared with the previous firmware version.

#### μP1 firmware

1. The firmware now monitors the counter cooling of the Peltier element in the TM-PE-x modules and displays a warning message when the cooling is not sufficient (most likely because of problems with the hoses between the TM-PE-x module and the HX iQ).

- 2. There was a problem with the maximum number of Job elements (10 elements for an intermal job only). This has been solved.
- 3. The display of the range bars during a measurement has been improved.

#### Release date: 06 june 2024

	VT iQ Air firmware version	VT iQ firmware version
μΡ1	01.11.005	01.11.004
μΡ2	01.11.001	01.11.000
μΡ3	01.01.03	01.01.03

Below is a list of things that are new and/or changed in this version compared with the previous firmware version.

## μP1 and μP2 firmware

- 1. Some bugs regarding running internal jobs have been solved.
- 2. The firmware now also supports the latest version of the instruments hardware.

#### Release date: 15 october 2024

	VT iQ Air firmware version	VT iQ firmware version
μP1	01.12.011	01.12.012
μP2	01.11.001	01.11.000
HMI	01.01.03	01.01.03

Below is a list of things that are new and/or changed in this version compared with the previous firmware version.

## μP1firmware

- 1. There were problems with the transfer from files and settings for the third and following users from the RheoApp flashdrive to the instrument. This has been solved.
- 2. When a ConnectAssist rotor was not recognized, the M-factor of the rotor that was selected in RheoWin was not used correctly. This has been solved.
- 3. The RheoWin reset time functionality in ROT elements did not work correctly. This has been corrected.

**Note** RheoWin version 4.93.0041 or higher is needed for this to work correctly.

4. Under certain circumstances the viscosity value was not correctly displayed on the instruments touchscreen when the viscosity unit was set to P (=Poise) or cP (centiPoise). This has been corrected.

**Note** The viscosity value displayed in RheoWin was always correct.

#### Release date: 14 februar 2025

	VT iQ Air firmware version	VT iQ firmware version
μP1	01.13.003	01.13.002
μP2	01.11.001	01.11.000
HMI	01.01.03	01.01.03

Below is a list of things that are new and/or changed in this version compared with the previous firmware version.

#### μP1 firmware

- 1. The date change in the touch screen menu did not work correctly. This has been solved.
- 2. The date value was not correctly written into the saved data file. This has been solved.

3. Reading files from the RheoApp USB flash drive into the VTiQ memory did not always work correctly. This has been solved.

## Release date: 15 july 2025 (this is the latest version)

	VT iQ Air firmware version	VT iQ firmware version
μP1	01.14.001	01.14.000
μP2	01.11.001	01.11.000
HMI	01.01.03	01.01.03

Below is a list of things that are new and/or changed in this version compared with the previous firmware version.

#### μP1 firmware

- 1. The measured torque can now be displayed on the VT iQ touchscreen with a new unit with the name "Skt" (Skt is short for Skalenteile, or Scale units) which corresponds to the value read from the scale of the (long discontinued) HAAKE VT24 viscometer.
- 2. In RheoWin the properties of a ConnectAssist adapter rotor connected to the VT iQ can now be edited.

**Note** RheoWin 4.95.0000 or newer is needed for this to work.

3. In rare occasions, when the VT iQ was in idle mode (that is not while running a RheoWin Job or while being controlled from the RheoWin Monitor dialog), the communication between the VT iQ and RheoWin was interrupted. This has been solved.

## **Updating the firmware**

How to update the HAAKE VT iQ or HAAKE VT iQ Air firmware is described in Appendix A Firmware Update in the HAAKE VT iQ (Air) Rheometer Reference Manual (part no. 006-2452). This manual is included in the RheoWin download ZIP file.

## **Contacting Thermo Fisher Scientific**

If you have any questions and or suggestions regarding the HAAKE VT iQ (firmware) please send an e-mail to:

support.mc.de@thermofisher.com