# LabVIEW driver history for the R&S® HMP Power Supplies Family

**Products:**

| R&S® HMP40xx / 20xx



Driver history for LabVIEW
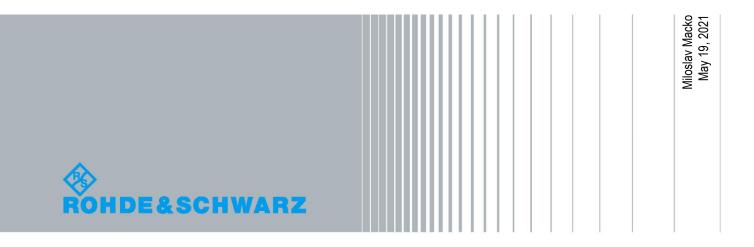
Miloslav Macko
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ROHDE & SCHWARZ

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# 1 Supported Instrument

In the following table, the supported R&S instruments and firmware versions are listed:

| Which instruments are supported? | | |
|---|---|---|
| Current revision of instrument driver supports these instruments and firmware versions: | | |
| **Instrument** | **Supported Firmware** | **Remarks** |
| HMP4030<br>HMP4040<br>HMP2020<br>HMP2030 | 2.70 | |

**Before you start the installer, please close your LabVIEW application.**

## 1.1 Installation on a Windows machine

The driver is distributed as a WinZip self-extracting executable file. Installer supported operation systems: WinXP, Win7, Win8, Win10.

Preconditions:
- LabVIEW 2010 or newer installed
- Any VISA installed – R&S VISA 5.5.4 or newer / NI VISA 5.4 or newer

When you start the driver WinZip installer, the following steps are being performed:

1.  Unpacking of the driver's **instr.lib** and **user.lib** directories content as well as the **Installer.vi** into a temporary folder: **C:\temp\hmp4000-lv-3.0.0**
    The driver is compiled in LabVIEW 2015 64-bit. From there you can copy to another location or run the **Installer.vi** manually later. The content of the temporary folder is not deleted after the installation is finished. Starting the same installation again will overwrite all the data in this temporary folder.

2.  After unpacking, the **Installer.vi** is automatically started in the last opened version of LabVIEW.
    In case you have more than one version of LabVIEW installed on your machine, make sure that the last opened LabVIEW version is the one in which you want to use the driver. If that is not the case, cancel the installation at this point, open and close your desired LabVIEW version and run the installer again. You can have the driver installed parallel for more LabVIEW versions by repeating the installation process for each desired version.

3.  On the installer options page you have a choice to uncheck the **Mass-compiling** option (**not recommended, because of the driver's performance penalty as well as VIs opening times**) and you can change the location of the **instr.lib** part of the driver. **user.lib** part must be placed in the default location, otherwise the Express VI configuration will not function.
    On this page you also see the actual LabVIEW version.
    Hitting **Next** button will first delete the old driver (if it existed), copy the new driver and mass-compile it.

4.  The LabVIEW is closed and after starting it again the driver is ready for use.

## 1.2  Installation on a non-Windows machine

In case you would like to install the driver on a non-Windows machine, use a Windows machine to start the driver's WinZip self-extracting executable file. **This machine does not need to have LabVIEW installed.**

After the **Step 1** from the previous chapter is finished, copy the content of the temporary folder to your target machine and start the **Installer.vi** manually.
From that point onwards, the installation process is the same as described in the previous chapter Steps 2, and 3.

# 2  LabVIEW driver history

| hmp4000 Instrument Driver | | |
|---|---|---|
| **Driver history for LabVIEW** | | |
| Revision | Date | Note |
| 3.0.0 | 05/2021 | Rework all Front Panels to LabVIEW 2015 Silver-Style<br><br>New Core 7.1.0 |
| 2.6.5 | 02/2020 | Changing repeated capability 'channel' to 'Channel', from lower case 'ch1,ch2,ch3,ch4' to upper case 'CH1,CH2,CH3,CH4'<br><br>New VIs:<br><br>hmp4000 Configure Over Voltage Protection Mode.vi<br><br>Updated VIs:<br><br>hmp4000 Configure Combined Voltage And Current.vi - using APPLy SCPI command |
| 2.6.2 | 11/2018 | Optimized performance for all interfaces<br><br>Fixed attributes:<br><br>HMP4000_ATTR_SYSTEM_LOCAL<br><br>HMP4000_ATTR_SYSTEM_REMOTE<br><br>HMP4000_ATTR_SYSTEM_REMOTE_LOCK<br><br>HMP4000_ATTR_SYSTEM_REMOTE_MIX |
| 2.6.0 | 04/2018 | Adjusted for HMP firmware 2.62<br><br>Added USB-TMC support<br><br>Optimized performance for all interfaces<br><br>Help file pages now contains **Open VI** button. |
| 2.4.0 | 12/2017 | * Reworked all VI icons and Palette icons<br><br>* VI Icon strip text changed from HMP4000 to HMP4k for better readability<br><br>* New Help file format<br><br>* Fixed data formatting in hmp4000 Configure Arbitrary Generator Waveform Data.vi<br><br>* New VI hmp4000 Range Checking.vi |
| 2.3.0 | 02/2017 | * Changed Palette Icon and ExpressVI icon<br><br>* All Express VI instances changed to new format with new context help<br><br>* Corrected Palettes |
| 2.2.0 | 02/2017 | * Exchanged Driver Core 6.3.1<br><br>* Corrected Timing problems on TCPIP and RS232<br><br>* All VISA resource name inputs are mandatory<br><br>* Changed Palette Icons<br><br>* Cleaned up all the Front Panels and Block Diagrams |
| 2.1.0 | 06/2016 | * Improved general error handling – all errors are shown with their call chain and more detailed error elaboration.<br><br>hmp4000 Error Query.vi – reads all the error entries in the query<br><br><br>New VIs:<br><br>hmp4000 Remote Mode.vi |

| hmp4000 Instrument Driver | | |
|---|---|---|
| **Driver history for LabVIEW** | | |
| Revision | Date | Note |
| | | hmp4000 Get Channel.vi |
| | | hmp4000 Configure General Output State.vi |
| | | hmp4000 Configure Output State Channel Only.vi |
| | | hmp4000 Bin Data From File To Instrument.vi |
| | | hmp4000 Bin Data To File From Instrument.vi |
| | | hmp4000 Clear Status.vi |
| | | hmp4000 ID Query Response.vi |
| | | hmp4000 Process All Previous Commands.vi |
| | | hmp4000 Query OPC.vi |
| 2.0.0 | 12/2015 | Added support for HMP4030, HMP4040, HMP2000, HMP2020, HMP2030 |
| | | Driver core updated |
| 1.0.0 | 03/2010 | Initial release |

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## Regional contact

Europe, Africa, Middle East
+49 89 4129 12345
customersupport@rohde-schwarz.com

North America
1-888-TEST-RSA (1-888-837-8772)
customer.support@rsa.rohde-schwarz.com

Latin America
+1-410-910-7988
customersupport.la@rohde-schwarz.com

Asia/Pacific
+65 65 13 04 88
customersupport.asia@rohde-schwarz.com