USB2.0 UI.Drive-Interface for HSEUIreg
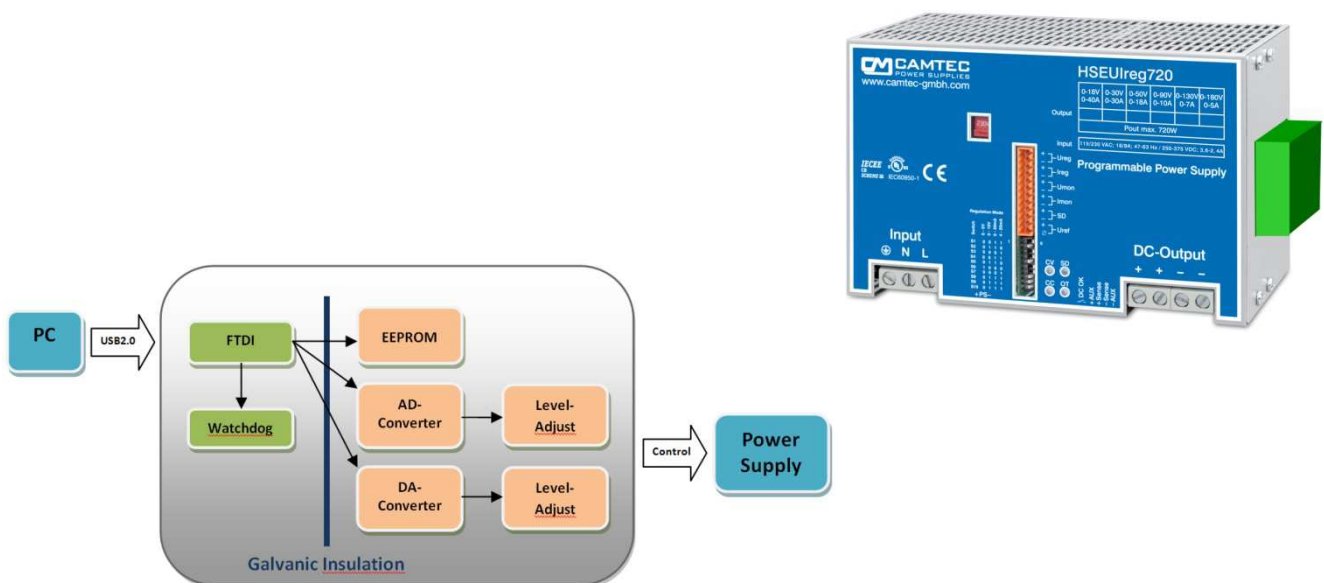
UI.Drive Software for UIreg Power Supply Series

General Description of UI.Drive Software Tool

The main sections of this document are the features and the programming. Descriptions of the individual modules of the software are available in the help-file under **Functions**. The header **Programming** lists the program features in a tabular format. **Interface**, documents how to access the **ToolMonitor**. The respective modules specify the valid transfer parameters of the functions. This software has been developed by **MCD Elektronik GmbH / Germany**. For further information how to use the UI.Drive software, e.g. with the **MCD TestManager CE**, and for information about MCD Elektronik, please visit www.mcd-elektronik.de and www.mcd-elektronik.com/kunden/camtec/CAMTEC_USB_Interface.zip

USB2.0 UI.Drive-Interface Technical Data

Supply Voltage	+5V provided by USB port from the connected computer
Current Consumption	115mA typical
Insulation USB-Interface to Power Supply Output	3000Vac / 4300Vdc
Insulation USB-Interface to PE	500Vdc
Insulation Power Supply Output to PE	2000Vac / 2900Vdc
AD/DA Converter resolution	12 Bit
AD Converter accuracy	± 0,05% 15ppm/°C
Monitor Output Accuracy	± 0,5% max.
Control Input Accuracy	± 0,8% max.
Data-Flow Control/Monitor	400ms interval, power supply remote on/off occurs immediately
LED Signal	Light = power on ——— Flash = send/receive data - - - - -
Required Space	22,1 mm (width assembled to power supply unit)

Technical Features of the Software

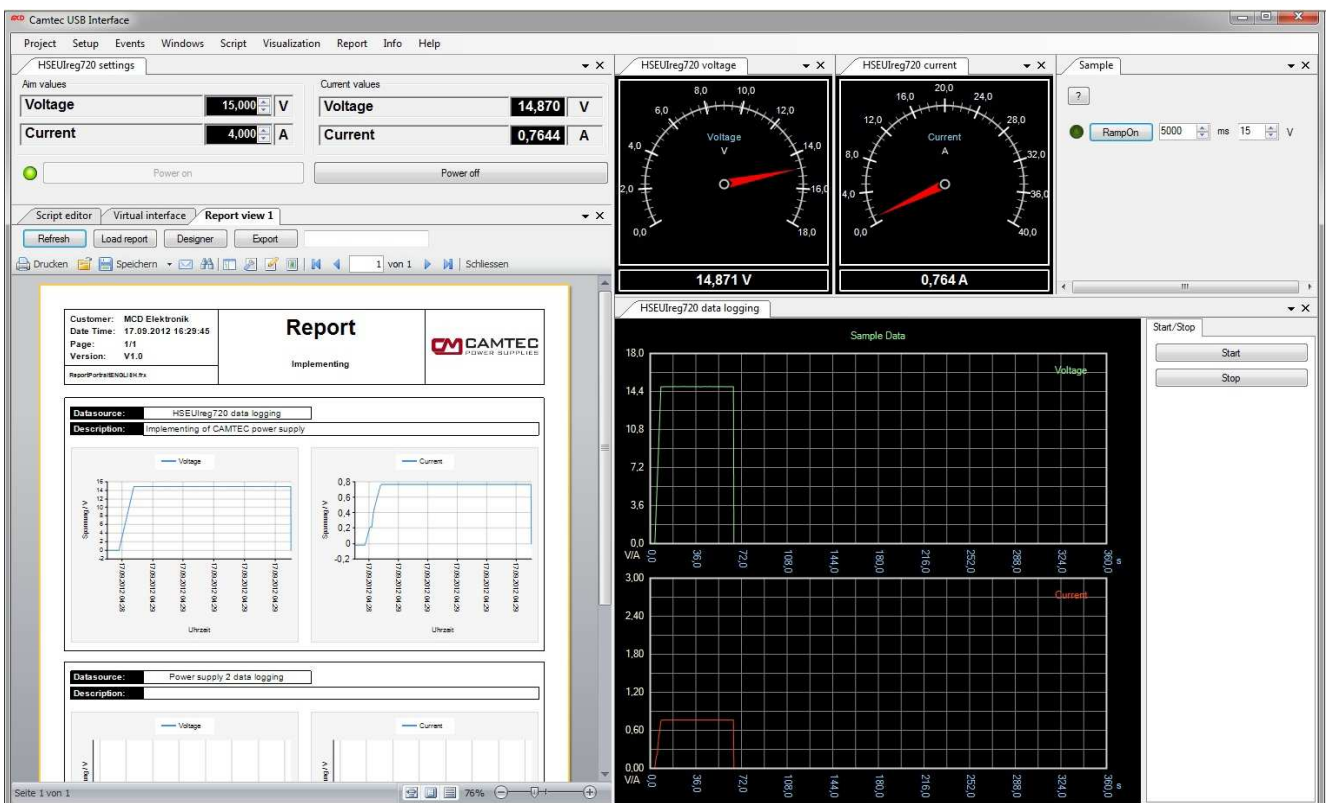|	
Quantity of independent controlled HSEUIreg	10
Control Voltage/Current/Monitoring/Shutdown	Yes, manual control and automation via ToolMonitor
Data Logger	Yes
Report Files from Data Records	Yes, user specific report data configurable
Script Engine	COM/DCOM or C# .NET Framework
Visualization Designer Tool	Yes, create your customized control windows
COM Server (DCOM, .NET)	Yes, to control software via external Software Tools (e.g. MCD TestManager CE, LabView, Microsoft Excel, Open Office, ...)
Export Log File Data Format	HTML, PDF, {mailto:Email}, Printer
User Program Speech	Visual Studio, C#, C++, Visual Basic

Characteristics of the Software

The CAMTEC power supply UI.Drive provides a PC interface to CAMTEC programmable power supplies. The power-supply connection to the PC will be provided via the **USB2.0 Interface** of CAMTEC. With this software, values for current and voltage (Ireg, Ureg) can be specified. Furthermore, the actual values of current and voltage (Imon, Umon) can be read. The actual values can be in graphical, digital or analog form.

The **UI.Drive program interface software** can be **widely adapted** and adjusted to the user requirements. Once created configurations can be saved in project files and be retrieved when needed. In the installation files sample projects are available in English and German.

Using an **integrated scripting engine**, all measurements and settings can automatically be performed. In conjunction with the **visualization module** for example, signal patterns can be specified. As an example, the power supply drive is predetermined with a ramp function. (Speech: C# .NET-framework)

With the use of **third-party software**, the USB power supply control can be **remote controlled**. For the **interface** the COM / DCOM or an .NET assembly is used. This allows for the Tool Monitor to be integrated into a variety of applications (Microsoft Visual Studio (C #, C + +, Visual Basic), Microsoft Office (**e.g. MCD TestManager CE, LabView, Excel, Open Office**).

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(Subject to alterations. This product is not designed to be used in applications such as life support systems wherein a failure or malfunction could result in injury or death)

Minimum System requirements:

- Operating system 32/64bit: Windows Server 2003®, Windows Server 2008®, Windows XP®, Windows 7®
- Microsoft .Net Framework: Version 3.5 or higher
- Hardware: Intel Pentium 1GHz / AMD x64, 1GB DDR RAM, USB2.0 Interface, 10GB free disc space
- Display: 1024x768 high color 24/32bit

Installation:

The following steps describe how to install the tool monitor and the USB2.0 UI.Drive-Interface.

Interface Hardware Installation:
Insert the plates into the break-outs on the right side of the HSEUIreg and fix the USB-module with the packed screw.
Note: It is essential to use the delivered M3x8 DIN6900-4Z7 screw with captive washer as it is required to connect the interface to PE.

Connect to Hardware:

Before installing the UI.Drive-Software it is recommended to connect the USB2.0 UI.Drive Interface to the UIreg Power Supply.
The USB-Interface analogue I/O works with 0-5V voltage control. Enable the 0-5V position of the UIreg Power Supply DIP-switch of both the control and the monitor signal. If the 0-10V control position is enabled the UIreg will supply only 50% of its maximum voltage.
The **USB2.0 UI.Drive-Interface** hardware shows two connections. Use the equipped 12-pin connector with the UI.Drive-cable to connect the interface to your CAMTEC HSEUIreg Power Supply. Plug the 5m B/A-USB cable into the interface and then into a free USB port of your Computer. The USB2.0 UI.Drive-Interface is powered by the USB-port of the Computer. The power LED of the interface will stay dark. Follow below install instructions for the UI.Drive Software.

Software Installation:

Installing the UI.Drive software requires up to date Microsoft™ Windows® Install Manager. Make sure that .NET-Framework 3.5 or higher is pre installed. Plug the delivered USB-Stick into the Computer. Access the provided installation program and follow the displayed instructions. Before installing an update of the UI.Drive-Software, please remove any previously existing version.

Software License:

Protecting the UI.Drive-Software from unauthorized use it is necessary (for some tool monitors), to register license after installation. A detailed description of registering is given at the end of this document. For testing purposes, the tool monitor can be operated for 30 minutes without a license. A limited license of eight hours can be registered, as well. However some program features are being disabled.
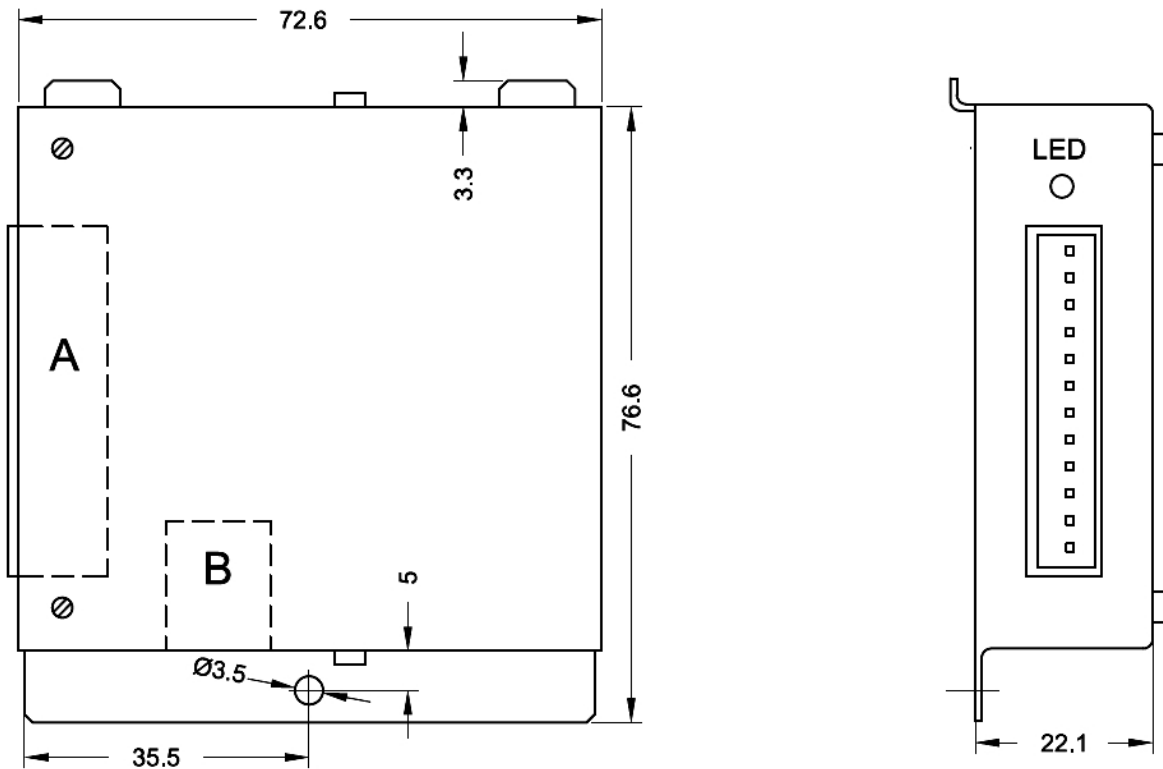
Deinstallation:
To deinstall the UI.Drive software use Windows™ Install Manager: Windows-> Control Panel-> Programs and Features

Ordering Information

Type	Part No.
USB2.0 UI.Drive Interface Hardware incl. UI.Drive-Software	304.1093.001

Spare Parts	Part No.
USB2.0 5 A/B Data Cable 5m	3520225
Interface Link Cable 12pole to UIreg	306.1066.001

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Mechanical Drawing USB2.0 Interface:

A = analogue I/O connector
B = USB2.0 connector

Purchased Package Content:

- ♦ **1x USB2.0 Interface Hardware Module**
- ♦ **1x UI.Drive Software License on USB2.0-Stick**
- ♦ **1x USB2.0 Cable 5m Type A/B (Art.No. 3520225)**
- ♦ **1x Interface Link Cable 12p. (Art.No. 306.1066.001)**
- ♦ **1x Mounting Screw DIN6900-4Z7 Pozidriv-Z M3x8mm (PE connection!)**
- ♦ **1x Short Manual**