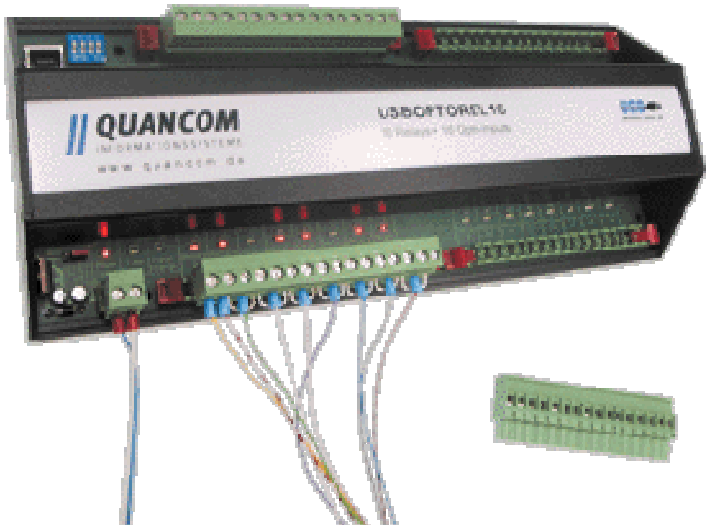
USBOPTOREL16 - QUANCOM® USB Relay Module with 16 opto inputs + 16 relays

- **USB 16 Opto In + 16 Relay Card**
- **Special Features: Input edge detection (16 Flipflops through software readable), Timeout detection (switches all outputs off if software hangs), IRQ on change of input signal**
- **Fast and precise recording and processing of switching events**
- **32 LED´s for optical function control of all in- and output signals**
- **Simple assembly in a rack, as a standalone equipment in the laboratory area or as a mobile equipment for a notebook**
- **External power supply of 12 V possible**
- **Up to 16 USBOPTOREL supported**
- **CD contains drivers for Windows XP / 2000 / ME / 98 / 95 / Linux**
- **Samples for .NET, Visual Basic, Visual-C/C++, Borland Delphi, Borland Builder, Labview, Sun Java, Agilent VEE, LabWindows/CVI and Linux 2.4.x & 2.6.x Kernel**



The QUANCOM® USBOPTOREL16 board has 16 opto inputs and 16 relays and is designed for industrial purposes. The relays are able to switch up to 1A / 15W. To switch higher capacity and voltage exernal relays are necessary. This is for example our QUANCOM® **MODSSR230** for 230V.

Optocouplers protecting all inputs up to 500 Volts
Your personal computer is protected against damage in case of overvoltage by galvanic isolation. These optocouplers are designed as alternating current optocouplers which means that you can choose the polarity of input signals optionally . You can also accommodate the

Input edge detection
The 16 inputs are equiped with input flip flops which detect quick input state changes or remove switch bounce. This allows the detection of fast input changes. It is also possible to generate an interrupt if an input changes.

Timeout control
The board has a configurable onboard timeout control which detects all writes to the USBOPTOREL16 USB module. If the software hangs and the board isn't controlled by the personal computer the outputs are switched off. Think about a heating which overheats because the PC is "to busy" to switch the heating off. You may setup the timeout period from 1ms to 16 hours in different steps. This feature can be switched off by a software command.

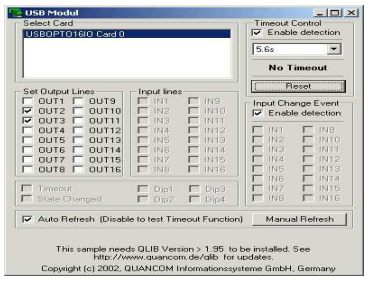
Additional Features

As all USB Optocoupler Relaymodules each channel has its own optical indicator through a LED. Through 4 additional Status-LEDs the state of the module is allways readable.

By mounting the module on to a top-hat rail the installation is very simple. You may order the needed **rail** in our shop, too.
An external 12V to 30V power supply is not needed to operate this module, but recommended. Also these power supplies may be ordered at our house. You may choose between our **12V/3A** or **24V/2A**.

By using the dip switch located on the mainboard the address of the module is configureable from 0 to 7. This address is used to identify the module in our QLIB if more than one module of the same type is used. You also have the possibility to configure this address by using our software tool which is downloadable on our website. Please note that the firmware installed on the module has to be above version 1.30 in order let the softwrae configure the address.

Software library



You don't need any knowledge in driver development. We implemented a command set which is usable for all operating systems. An application that controls the USBOPTOREL16, and which is generated for Windows 98 can be used directly on a Windows XP PC.

With QLIB it is easy to create applications with Visual-Studio .NET, Visual-Basic, Borland Delphi or other modern compilers. Even an interface to MS Excel, MS Access or Sun Java is available. We included the VB PCIOPTOREL16 example which shows how to program and test the card and it also includes the source code. This is a good starting point for your own applications.

The **QLIB** is an API which provides its functions through a Windows DLL, so it is possible to use QLIB with all applications that allow access to external DLL functions.

The USBOPTOREL16 is also available with optocoupler outputs as **PCIOPTO16IO** , or as USB module **USBOPTO16IO** .

Technical Data

•Inputs	inputs: 16 opto-isolated (24V) optional: 5 V / 12 V / 18 V / 30 V
•Outputs	relay type: 16 switch-on relays (SIL reed) (max. 1 A / 15W) relay switching time: 1 ms
•Bus	USB
•Temperature Range	0...50 °C