

USB isolator - galvanic isolation between PC and USB devices

USB-GT



This module gives you more reliability for your USB transmission. It isolates your USB lines up to 4000 V. It is the ideal solution for professional USB applications in labs and industry. And the best: The USB-GT is fully transparent - no changes in software and no drivers are required!

- Galvanic isolation of the USB connection between PC and USB devices with opto-couplers.
- Isolation voltage up to **4000 V**.
- IP 40 protection, classe 2, models with **EN 60601-1-2¹⁾**.
- **Fully transparent**, can be inserted into USB without changes in software and without additional drivers.
- Data transmission with low and full-speed protocol (USB 1.1).
- Size (mm, L x W x D) 158 x 95 x 46.
- **Model with x4 hub available**.
- **Power supply from PC via USB** or models with **external power supply**.

--- Specifications ---

Isolator and USB	
Isolation voltage	Opto-coupler up to 4 kV _{eff}
Data transmission	Bi-directional, half-duplex, master-slave. Low-speed 1.5 Mbit/s, full-speed: 12 Mbit/s
Signal	Through-put time ~50 ns, distortion ~5 ns, skew ~1...3 ns
Hub	Model "H": x4 USB hub
General	
Power supply	Model "USB-GT N" and "H": External power supply. Max. current load 1 A. Model "USB-GT": From PC via USB (+5 V, max. 100 mA). Secondary via internal DC/DC converter.
Indicators	LED green - operation/host connected. LED yellow - DC/DC converter active; flashing: communication between host and device
Connectors	Host: USB B. Device/secondary: USB A
Size (mm)	158 (L) x 95 (W) x 46 (H)
Protection	IP40, class 2, optional EMV 60601-1-2

--- Software: ---

The USB-GT is **fully transparent** and **doesn't require any special driver or application software**.

--- Ordering code and features

Model	Description	USB-GT ---
USB-GT	USB isolator for USB 1.1	
USB-GT N	USB isolator for USB 1.1. External power supply	
USB-GT H	USB isolator for USB 1.1. x4 USB hub. External power supply	

Scope of delivery: Module, instructions for use, USB cable. For the models "N" and "H": External power supply.

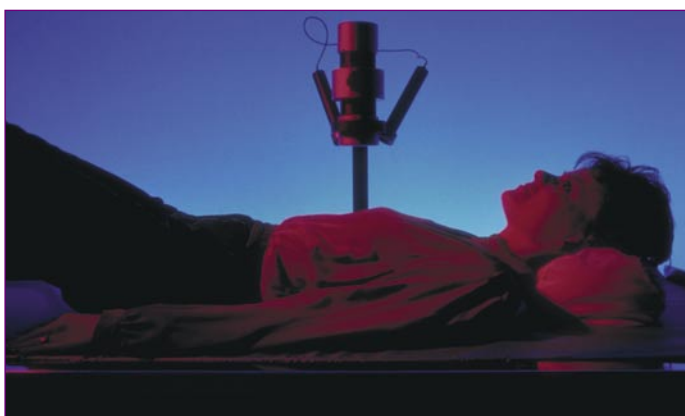
1) Models with EN 60601-1-2 on request.



Applications:

Using USB under highest safety requirements...

In various security relevant data communication applications, like for example in medical environments, a galvanic isolation is required. The USB-GT implements such a full galvanic isolation for the Universal Serial Bus. This allows you to connect PCs and peripheral devices to medical equipment. For example, a standard office PC or a workstation with peripheral devices like printers can be connected to medical devices like X-ray, ultrasonic, endoscope or laser systems using the USB-GT. The USB-GT creates a complete and safe galvanic isolation between both "worlds".

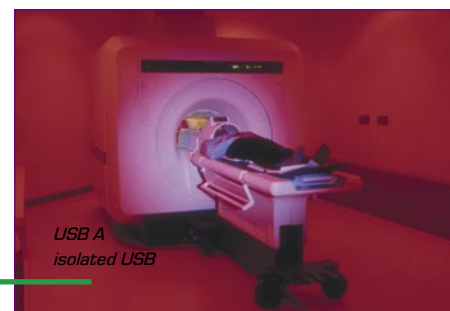


USB B to host/PC

Peripheral device, eg. office PC/workstation with printers



Interface isolator USB-GT: Full galvanic isolation up to 4 kV



USB A isolated USB

Medical devices like X-ray, ultrasonic, endoscope, laser systems