

Data sheet:

## USB-Isolator Industry, 4kV



Article no.: 33204

**EUR 218.00**\*Net price for  
commercial users

### Galvanic isolation for USB devices

The USB Isolator 33204 galvanically isolates Low-Speed and Full-Speed connections from the USB host and protects the background hardware.

### Properties

#### Interfaces:

- 1 x USB socket, type A
  - Downstream port
- 1 x USB plug, type B
  - Upstream port
- **Galvanic isolation between the ports**
  - Isolation voltage min. 4kV DC

#### Management and connectivity:

- Multi-stage filtered output voltage allows low-current galvanic decoupling of USB audio equipment
- Supports low-speed and full-speed USB devices
  - Full Speed (12 MBit/s), Low Speed (1,5 MBit/s)
- No additional software drivers necessary
- Housing suitable for installation on top hat rails
- Solution integrated into USB cable for plug-in

#### Power supply:

- Supply voltage for Isolator and terminal device provided by USB
  - Optional external voltage supply on the upstream side. This option allows connecting of power-hungry USB devices with a load current of up to 1A without affecting the isolation voltage

#### Standards & more

- Conforms to standards both in office and industrial environments:
  - High noise resistance per EN 61000-6-2
  - Low noise emission per EN 55032:2015 + A1 Cl. B, EN 61000-3-2 & EN 61000-3-3
- 5 year guarantee



Wish for something!

Your suggestions for improvement and additions

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### Worth knowing

#### USB interface:

USB interfaces in stationary computers unfortunately have the basic drawback of having no galvanic isolation for the signal lines.

In many applications in the consumer world this limitation is irrelevant, since the USB devices connected to the PC are generally supplied through the bus and do not have any reference to a second ground or to the ground conductor.

In the areas of measurement reading, process control or for example medical technology, galvanic isolation of the connected devices is mandatory in order to prevent ground loops on the USB line.

To this end W&T offers a family of USB isolators which differ in their mechanical configuration and in their supply voltage and amount of isolation voltage.

The output voltage from the 4kV Isolator is routed on the galvanically isolated side through a multi-stage L-C filter. The filtered output voltage means the Isolator is also ideal for isolating high-quality USB audio equipment.

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## Technical data

### Connections and displays:

USB Port 1:	Upstream connection Type B female
USB Port 2:	Downstream connection Type A - female
Galvanic isolation:	Isolation voltage min. 4kV DC (both for power from USB and for external supply)
Supply voltage:	+5V DC
Air and leakage paths:	> 8mm
Max. output current:	with USB supply typ. 300mA with included power supply typ. 500mA with corresponding power supply max. 1000mA
Current consumption:	typ. 200mA @5V DC
Displays:	2x LED Full Speed 2x LED Power
Supply connection:	5V - jack connector-female

### Housing and other data:

Enclosure:	Plastic housing for top hat rail installation 105 x 45 x 75mm (L x W x H)
Enclosure rating:	IP20
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Weight:	approx. 200g
Ambient temperature:	Isolator: Storage: -40..+70°C Operating: 0..+70°C
	Power supply: Storage: -40..+70°C Operating: 0..+40°C
Permissible relative humidity:	5..90% relative humidity, non-condensing
Scope of delivery:	USB-Isolator Industry, 4kV USB cable USB-A / USB-B USB power supply 5V / 0.7A (only with Euro plug) Power cable USB-A / barrel connector

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\* Our offering is intended only for commercial users. We will be happy to refer private end customers to trading partners through whom our products can be purchased.

[We are available to you in person:](#)

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