USB Galvanic Isolator

User's Manual

12.02.1091

1. Introduction

USB Galvanic Isolator protects PC or Laptop while connecting USB peripherals which is wired to high voltage. This small, industrial - grade isolator is very easy to use and provides a high-voltage barrier protection against surges, noise and ground loop errors. It is suitable for use in sensitive applications like automotive measurements.

USB isolator provides a high - voltage isolation barrier between computer and it's connected USB device. The isolation protects equipment from electrical over-voltages and transient voltage spikes, by eliminating ground loop currents flowing between the PC and USB device which can cause damage and inaccurate measurements. Additionally, isolation minimizes conducted noise from static discharge, magnetic fields and radio frequency interference.

USB isolator is USB bus powered and can provide 5V 300mA to your USB device with built-in isolated DC-DC converter. This is possible only when the isolator is connected to a high power USB host port.

2. Features

- USB isolation 5000V DC between USB host and USB device.
- USB 2.0 compatible, 1.5Mbps low speed and 12Mbps full speed Bi-directional communication.
- Short circuit protected for x D+ and x D- lines.
- Isolated power supply in device through a DC-to-DC converter
- Class 3A contact ESD performance per ANSI / ESD STM5.1-2007
- High common-mode transient immunity :>25 kV/us
- Supports Windows 98SE / ME / 2000 / XP / Vista / 7 / 8 / 8.1 / 10, Mac OS 8.6 or higher; no driver installation required

3. Specifications

Model No.		12.02.1091
Isolation	D+ & D-	5000V DC
	Power	3000V DC
Transfer Rate		1.5 / 12 Mbps
Connector	Host	USB Type A Male
	Device	USB Type A Female
Cable Length		0.15 m
Operating Temperature		0°C to 50°C
LED		1
Downstream Power		Up to 300mA
Power Mode		Bus powered
Housing		Plastic
Dimension (L x W x H)		66 x 39 x 20 mm

4. Connecting

Typical Application

USB Cable

USB Device

USB AM/AF Cable

PC

Power LED (Orange)

The USB Isolator unit is installed in-line between the PC and a connected USB device.

5. **Installation**

1. Plug the unit's molded USB A male cable into the host computer or USB hub

2. The Power LED will light on, indicating power is being received from the host and the isolator is ready.

3. Plug the downstream device into the unit (Type A female connector). This USB cable is not included.

4. The USB Isolator is transparent to the host operating system and does not require configuration or software installation.
Note: The isolators are USB bus powered. When the USB Isolator is connected to a high power USB host port, it can provide power current up to 300mA to the attached downstream device.

Regulatory Compliance

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