GV-I/O Box 4 Ports

A small but a capable device, the GV-I/O Box 4 Ports provides 4 inputs and 4 relay outputs. It supports both DC and AC output voltages, and provides a USB port for PC connection.

Key Features

- 4 inputs and 4 outputs are provided.
- Up to 9 pieces of GV-I/O Box 4 Ports can be chained together.
- A USB port is provided for PC connection, and it is only used for 30 DC output voltage.

System Requirements

If the GV-I/O Box is listed as **Prolific USB-to-Serial Comm Port** under Windows Device Manager, GV-System version 8.2 or above is required. If the GV-I/O Box is listed as **GeoVision USB UART** under Windows Device Manager, GV-System version 8.5.7.0 or above is required.

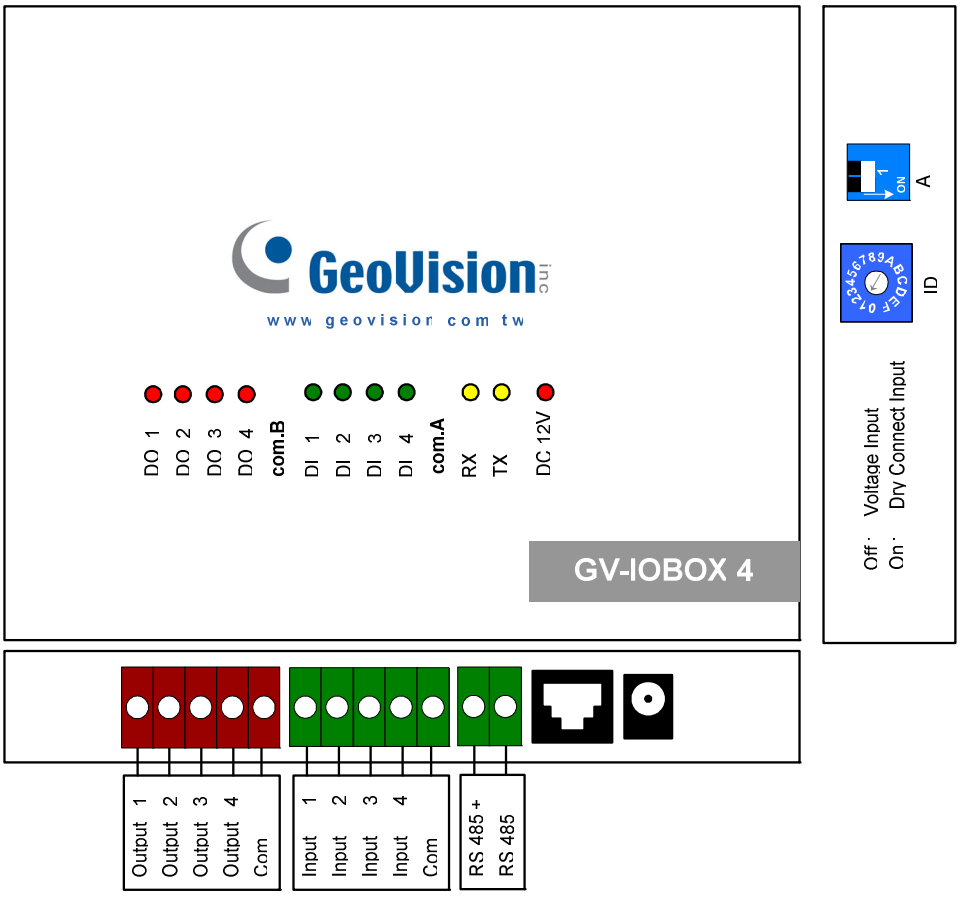
To see how to check the device name under Windows Device Manager, refer to *Installing USB Driver* later in this Installation Guide.

Packing List

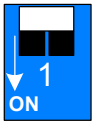
1. GV-I/O Box 4 Ports x 1
2. RJ-11 to DB9 Cable x 1
3. RJ-11 to USB Cable x 1
4. Terminal Resistor x 1
5. Power Adapter DC 12V x 1
6. Software DVD x 1

Note: The GV-I/O Box 4 Ports does not provide the option of an Ethernet module.

Overview

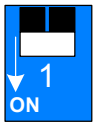


DIP Switch



A
Wet Contact

To change the inputs to different kind of contact, push the switch upward.



A
Dry Contact

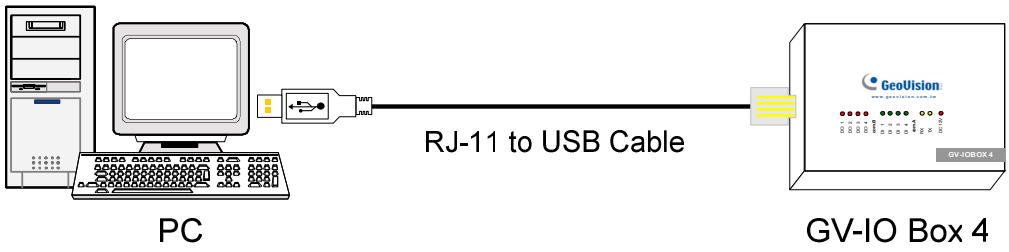
To change the inputs to different kind of contact, push the switch downward.

Note: The RS-485 connectors do not have the conversion function from RS-485 to RS-232. It will not work if you connect RS-485 devices, such as PTZ camera, to the connectors.

Connections to PC

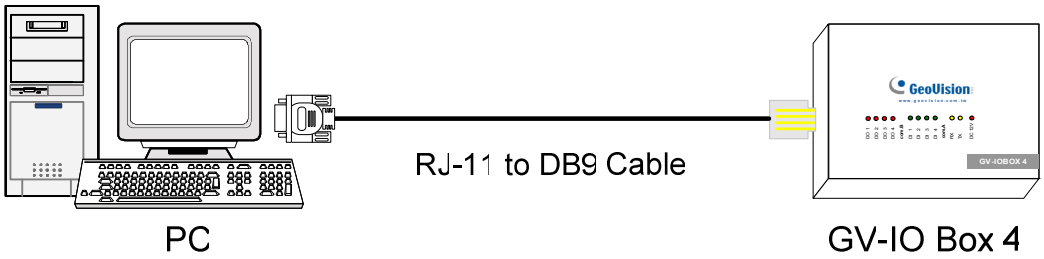
There are two ways to connect a GV-I/O Box 4 Ports to the PC:

1. Use the RJ-11 to USB cable to connect a GV-I/O Box 4 Ports to the PC. **(Allowed for DC Output Voltage only)**



Note: It is required to install the USB driver. See *Installing USB Driver* later in this Installation Guide.

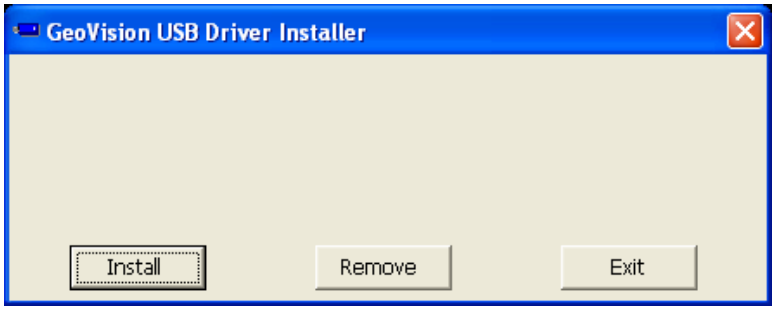
2. Use the RJ-11 to DB9 cable to connect a GV-I/O Box 4 Ports to the PC. **(Allowed for AC/DC Output Voltage)**



Installing USB Driver

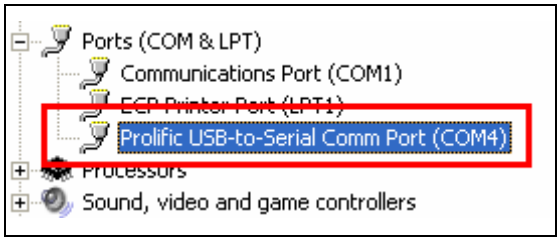
To use the USB function, it is required to install the driver on the PC. Follow these steps to install the driver:

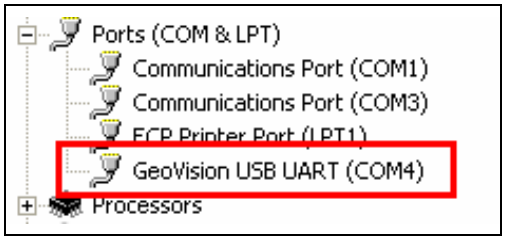
1. Insert the software DVD. It will run automatically and pop up a window.
2. Select **Install or Remove GeoVision GV-Series Driver**, and then click **Install GeoVision USB Devices Driver**. This dialog box appears.



3. Click **Install** to install the drivers. When the installation is complete, this message will appear: *Install done!*
4. Click **Exit** to close the dialog box and restart the PC.

To verify the drivers are installed correctly, go to Windows **Device Manager** after restarting the PC. Expanding the **Ports** field, you should see **Prolific USB-to-Serial Comm Port** or **GeoVision USB UART** depending on the version of the driver. The COM number in the parenthesis indicates the COM port currently in use.

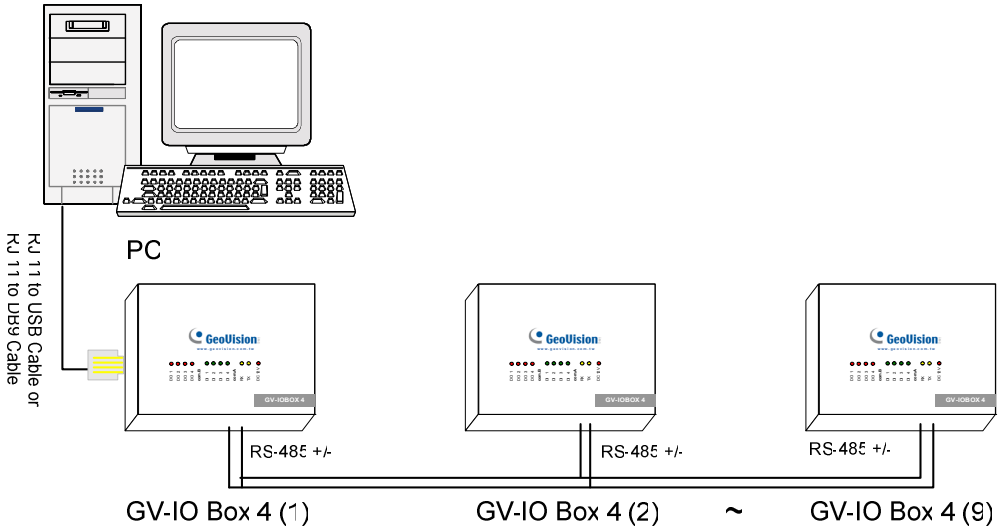




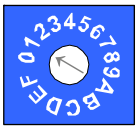
Note: If you unplug the GV-I/O Box 4 Ports from the PC and connect another GV-I/O Box to the same USB port, the COM port may still be changed. Access the Windows **Device Manager** again to look up the new COM port number.

Assigning Addresses to GV-I/O Box 4 Ports

Up to 9 pieces of GV-I/O Box 4 Ports can be chained together to expand the I/O capacity. Use the ID switch to assign addresses 1~ 9 to the connected pieces of GV-I/O Box 4 Ports.



ID Switch



ID

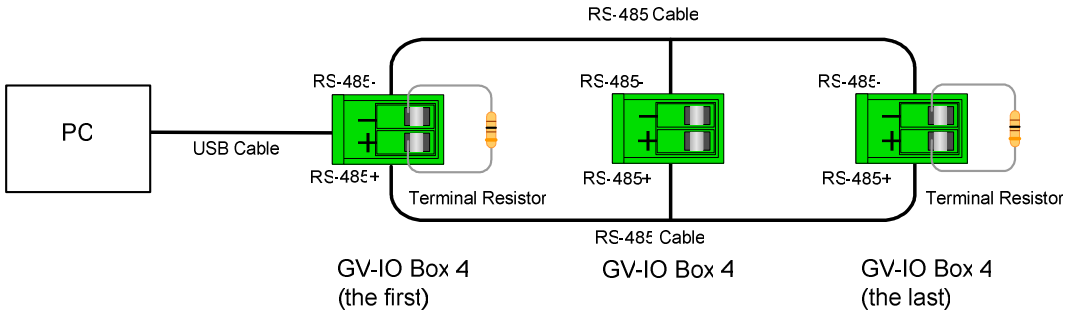
1. Address 0 and A to F are NOT functional.
2. Assign the addresses when the power is off.
3. If you want to change the assigned address of the connected GV-I/O Box 4 Ports, set the switch to the new address, and then re-plug the power adaptor.

Extending Transmission over the Distance

When the transmission signals between the RS-485 communications become weak over the distance, use the supplied Terminal Resistor to maintain the signals. Three conditions below illustrate how the Terminal Resistors should be inserted.

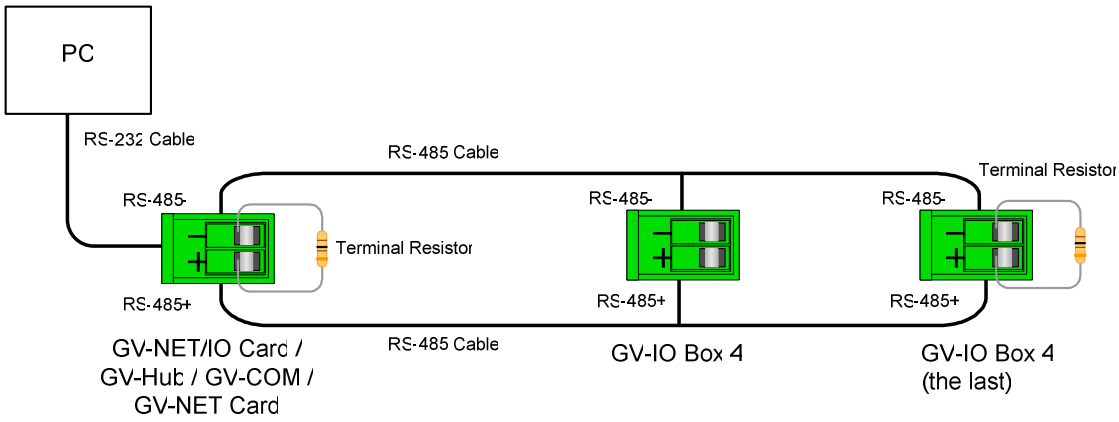
1. **Multiple pieces of GV-I/O Box 4 Ports are connected with the PC through one single RS-485 cable.**

   When you connect one GV-I/O Box 4 Ports to another GV-I/O Box 4 Ports or more, only insert the Terminal Resistors in the first and last connected pieces of GV-I/O Box 4 Ports.



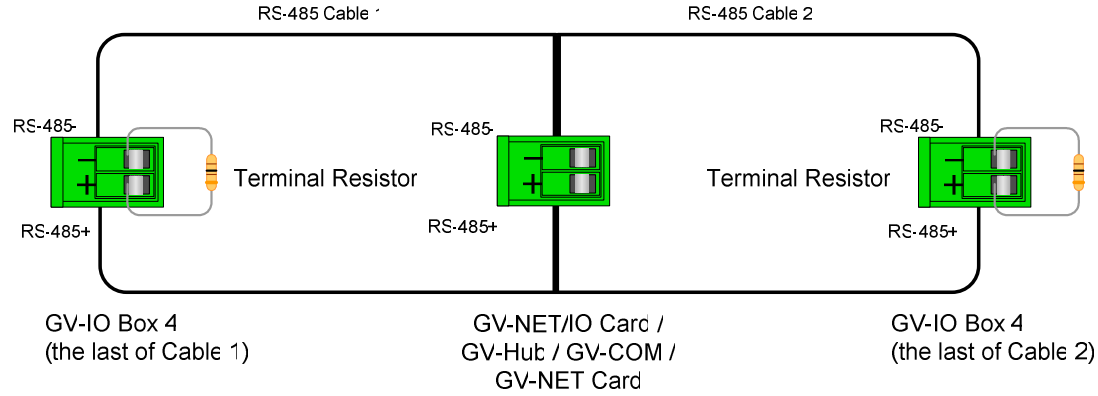
2. **Multiple pieces of GV-I/O Box 4 Ports are connected with the PC through a RS-485 / RS-232 conversion device.**

   After you connect multiple pieces of GV-I/O Box 4 Ports with the PC through RS-485 / RS-232 conversion device, such as GV-NET/IO Card and GV-Hub, insert the Terminal Resistors in the conversion device and the last connected GV-I/O Box 4 Ports.



3. **Multiple pieces of GV-I/O Box 4 Ports are connected with the PC through separate RS-485 cables.**

   After you connect multiple pieces of GV-I/O Box 4 Ports with the PC through separate RS-485 cables, insert the Terminal Resistors in the connected piece of GV-I/O Box 4 Ports at the end of each cable.



Specifications

OS	**32-bit**	Windows XP / Vista / 7 / 8 / Server 2008	
	64-bit	Windows 7 / 8 / Server 2008 R2 / Server 2012	
Input	**Input**	4	
	Input Signal	Dry Contact	
		Wet Contact, 9-30V AC / DC	
Output	**Relay Output**	4	
	Relay Status	Normal Open	
	Relay Capacitance	USB Connection	30V DC, 3A
		RS-232 / RS-485 Connection	125 / 250V AC, 3A 30V DC, 3A
DC IN		DC 12V, 1A	
Address		0-9, A-F	
Terminal Resistance		120Ω	
Operating Temperature		0˚ C ~50˚ C / 32˚F ~122 ˚F	
Humidity		5% ~ 95% (Non-Condensing)	
Dimensions (W x H x D)		111.4 x 27.5 x 101 mm / 4.39 x 1.08 x 3.98 in	

Ordering Information

84-IOB04-100