

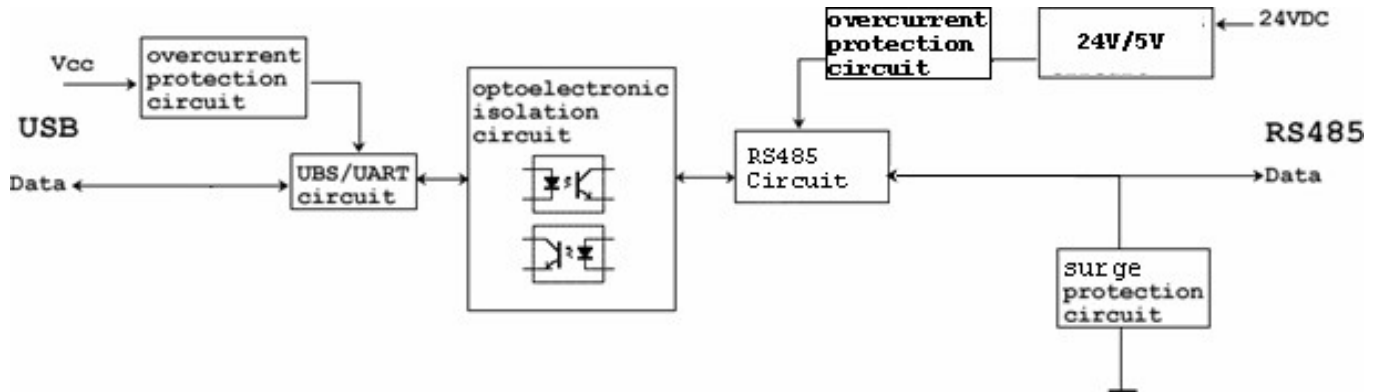
FEATURES

- **USB simulation as Virtual COM**
- **Fully compliant with USB V1.1 and USB CDC V1.1**
- **Power supply by both USB main line and PPI programming port**
- **High optoelectronic isolation voltage**
- **Supports STEP7 Micro / WIN V3.2 and higher**
- **Supports Windows2000 / Windows XP / Vista / Windows 7**



GENERAL DESCRIPTION

IC 3580-PPIVC is an isolated interface converter between USB port and asynchronous serial lines RS485 that guarantees a full isolation between USB and serial line RS-485, removing eventual ground-loop effects and allowing the use of the device even in the heavy environmental conditions. The device is protected by an anti-surfing and an anti-lightning circuit for USB and RS485 interface. IC 3580-PPIVC supports communication between Siemens S7-200 series PLC or other equipments with PPI interface and computer via USB port. It support hot plug connection. IC 3580-PPIVC programming cable simulates USB port as traditional serial port (usually COM3) allowing programming softwares or SCADA applications to communicate with PPI devices through simulated COM port.



USER INSTRUCTIONS

Before installing the device, please read the "Installation Instruction" section.
 IC 3580-PPIVC can be connected directly to the SCADA, HMI or OPC-server software, that implement the PPI protocol via PC serial port (COM) .
 N.B. One USB adapter only can be linked to a PC.

TECHNICAL SPECIFICATIONS (Typical @ 25 °C and in the nominal conditions)

In compliance with USB 1.1 / 2.0 , EIA RS485			
USB interface		Power Supply	
Baud-rate	300 bps ~ 1Mbps	by both USB main line and PPI programming port with overcurrent protection and surge protection	
Connection	USB connector type "A"		
PPI (RS485) Interface		Power consumption	
Baud-rate	300 bps ~ 1Mbps	1W	
Connection	DB9		
Internal terminator resistance (optional)	120 Ohm	Isolations	
		USB / PPI (RS485)	
		1000 Vdc	
		Temperature & Humidity	
		Operative temperature	
		-20 ÷ +75 °C	
		Storage temperature	
		-40 ÷ +85 °C	
		Relative humidity (not condensed)	
		0 ÷ 90 %	
		Connection	
		USB	
		USB type "A" connector	
		PPI (RS-485)	
		DB9 male connector	
		Housing	
		Material	
		Self-extinguishing plastic	
		Dimensions in mm.(W x H x T)	
		100 x 50 x 20	
		Weight	
		about 100 gr.	
(1) – The maximum distance depends on type of cabling, noises, etc...			

INSTALLATION INSTRUCTIONS

Before using IC 3580-PPIVC communication cable, USB device driver should be installed. After completing driver installation, the corresponding COM port for the IC 3580-PPIVC communication adapter will be displayed in the "Device Manager" of Window. Thenext step is just to select this COM port in programming or SCADA software and set other communication parameters settings (COM port baud rate and PPI port baud rate). Configuration is exactly the same as using traditional programming cables with RS232 interfaces.

If you meet problems using the virtual COM port, try to quit the software, to unplug the USB connector or re-install the USB driver.

STEP7 software settings:

Enter the main interface of STEP7 programming software (SIMATIC Manager), click on the "Set PG / PC Interface..." option under "Options" menu into the PG / PC interface settings.

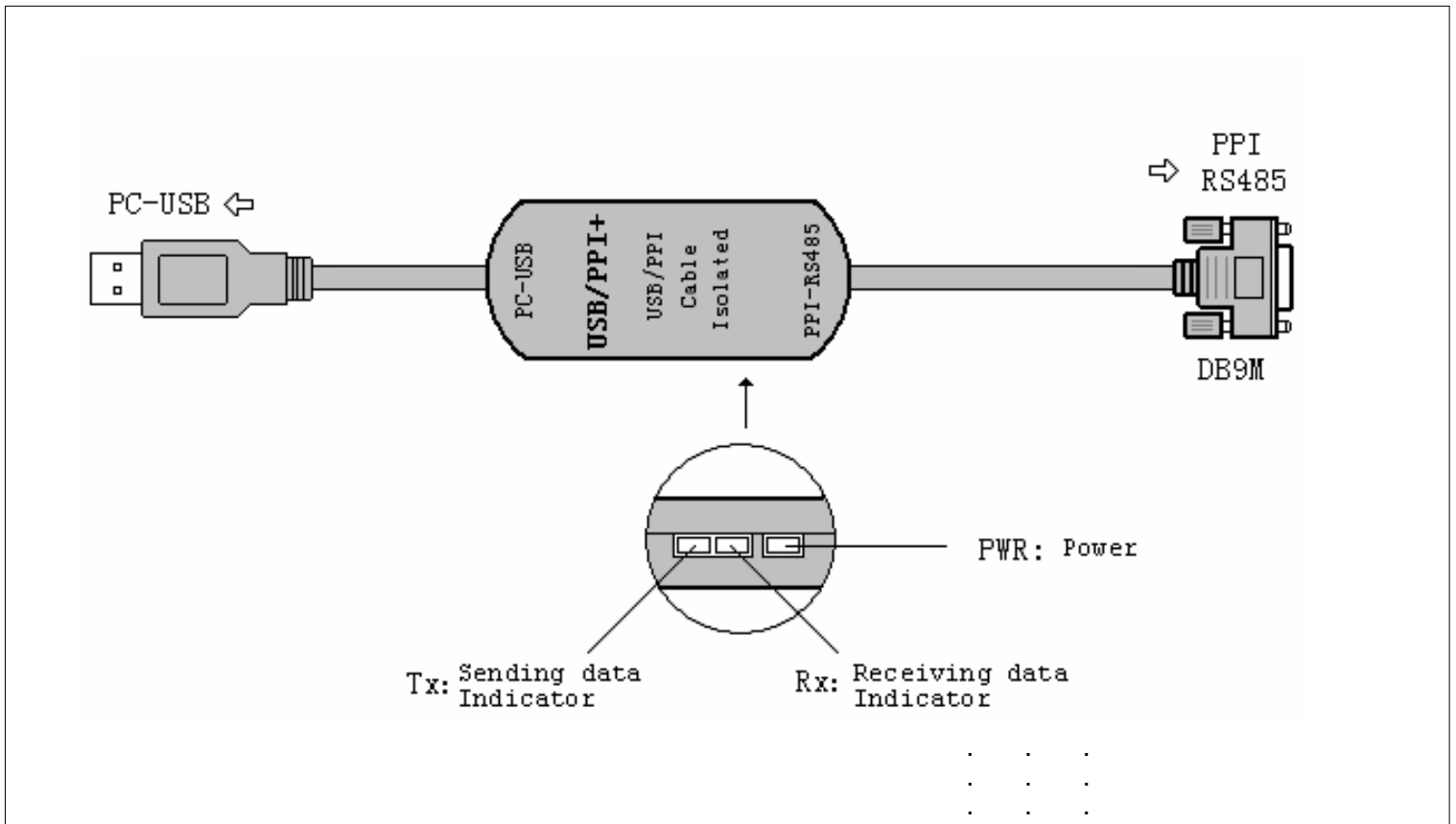
- 1) Double-click on "PC/PPI cable(PPI)" to set the parameters of COM port and PPI port.
- 2) Click on "Local Connection" section to set COM port parameters, choose the correct COM port in the equipment manager. IC 3580-PPIVC will automatically adapt to the baud rate choice.
- 3) Click on "PPI" section to set MPI adapter parameters and select 9.6 Kbps or 19.2 Kbps as PPI baud rate , IC 3580-PPIVC adapter will automatically adapt to the baud rate choice. Set the other parameters as default.

Long distance communications:

RS485 interface allows, using certified cables, to communicate up to a distance of 2000m at a communication speed of 9.6Kbps. To reach this distance, it is necessary to introduce 120ohm terminal resistance between pin 3 and 8 on the RS485 port (DB9 Male) to eliminate signal reflection and to connect 24VDC power between pin 7 and 2

Please Note: USB interface cable cannot be extended

CABLING



PPI / RS485 (DB9M) SIGNAL DEFINITION

PIN	SIGNAL	DESCRIPTION
1	NC	Not Used
2	M24V	24VDC Power Negative
3	B	RS485 Positive Signal
4	NC	Not Used
5	NC	Not Used
6	NC	Not Used
7	P24V	24VDC Power Positive
8	A	RS485 Negative Signal
9	NC	Not Used

LIGHT SIGNALLING

LED	ON	BLINK	OFF
Power	Power On	Error	Error Or Power Off
Active	Connected	Data Exchange	Not Connected
Tx	Error	Data Exchange	No Data Exchange