USB-UART Converter

P/N 5417-1251 or P/N WIC1PC3

- Easy Connection of Woodward Control or Protection Device to PC or Laptop
- Interfaces with RJ45 Connector and Standard USB Port
- For use with:
  - WI Family
  - easYgen 2000 Series
  - easYgen 1000 Series
  - easYgen 300 Series
  - DTSC 200
  - MFR 300
  - MFR 500
  - IKD
  - GCP20
  - GCP30
  - MFR 1 Series
  - MFR 2 Series
  - MFR 3 Series
  - SPM-D Series

Woodward reserves the right to update any portion of this publication at any time. Information provided by Woodward is believed to be correct and reliable. However, no responsibility is assumed by Woodward unless otherwise expressly undertaken.

Copyright © Woodward 2010
All Rights Reserved
USB-UART Converter

Introduction
The USB-UART Converter is used to connect a Woodward control or protection unit with a PC or laptop for configuration and monitoring purposes. The PC/laptop side is separated from the Woodward unit side through galvanic isolation. Part number 5417-1251 is dedicated for use with easYgen* family devices, while P/N WIC1PC3 is dedicated for use with WI family devices.

* Trademark of Woodward, Inc

Please download and install the latest VCP driver from: www.ftdichip.com/Drivers/VCP.htm

The appropriate PC software for P/N 5417-1251 can be downloaded and installed from the Woodward website: www.woodward.com/software.

Software for P/N WIC1PC3 can be downloaded from the Woodward website: www.woodward.com/software. Search for “WI-SOFT2” with Software Type set to “Service Tool” and Product Category set to “Protection Relays”.

The tool configuration files needed to communicate with Woodward units can be found on: http://eps.woodward.com.

Usage of the USB-UART Converter
Two connection cables are delivered with the USB-UART Converter. Use standard 1.1 or 2.0 USB cable (P/N 5417-1262) for the connection between the PC/laptop and the USB-UART Converter. For the connection between the USB-UART Converter and the Woodward unit, use easYgen Standard Ethernet Cat5 cable 1:1 (P/N LR04144) or WI line dedicated cable (P/N 5417-1263), as appropriate. Maximum length for the EG cable must not exceed 0.5 m (0.5 m cable supplied with device). Maximum length for the WI cable must not exceed 1.5 m (1.5 m cable supplied with device).

An extension or utilization of different cable types for the connection between the Woodward unit and the USB-UART Converter may result in a malfunction of the unit. This may result in damage to system components. Woodward does not guarantee proper USB-UART Converter operation for cable length more than specified. If an extension of the data connection line is required, only the USB cable between the PC or laptop and USB-UART Converter may be extended. Woodward recommends using an industry standard cable for this. Maximum length for the USB cable must not exceed 5 m (1.8 m cable supplied with device).

Connection Diagram

Approvals
Standards:
- EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-6
- EN 61000-6-2, EN 61000-6-3
Technical Specifications

Dimensions: approximately 85 mm x 50 mm x 22 mm (L x W x H)
Weight: approximately 60 g (without cables)
Transmission: Maximum transmission speed on UART side: 115200 baud
  Maximum transmission speed on USB side: 12 Mbit/s (according to USB 2.0 standard)
Temperature: Ambient operating temperature: (–20 to +70) °C
  Storage temperature: (–40 to +85) °C
Power supply: 5 V via USB connector (on host PC side)
  5 V via RJ45 connector (Woodward unit side—only for P/N 5417-1251)
Interfaces: RJ45 connector to Woodward units, which support USB-UART connectivity
  USB connector to PC or laptop using a standard USB cable

Connector Pinouts

<table>
<thead>
<tr>
<th>RJ45 Jack Pinout</th>
<th>USB Type B Socket Pinout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin #</td>
<td>Signal (WI)</td>
</tr>
<tr>
<td>1</td>
<td>12 V</td>
</tr>
<tr>
<td>2</td>
<td>Not connected</td>
</tr>
<tr>
<td>3</td>
<td>RxD–</td>
</tr>
<tr>
<td>4</td>
<td>Not connected</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
</tr>
<tr>
<td>6</td>
<td>RxD+</td>
</tr>
<tr>
<td>7</td>
<td>TxD+</td>
</tr>
<tr>
<td>8</td>
<td>TxD–</td>
</tr>
<tr>
<td>M1</td>
<td>SHIELD</td>
</tr>
</tbody>
</table>

**NOTICE**

This device may be susceptible to EFT (Electrical Fast Transient) and to ESD (Electrostatic Discharge), especially around noisy and high-power devices and machinery. If events like EFT or ESD affect the device, a software reset procedure is required.