

USB - RS232 converter

MICROMASTER 4 (MM4), SINAMICS G120 (CU2x0x)

[FAQ-DEE6B7DF](#) • February 2018

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USB - RS232 converter ; Entry-ID: 24072800

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1 Overview

More recent PGs/PCs no longer have an RS232 interface, but only USB interfaces. A USB<->RS232 adapter is recommended so that standard Siemens converters can be addressed using this PG/PC (e.g. PC COM port (USS protocol)).

NOTE

The baud rate should be set to a minimum of 38400 if problems are encountered with low baud rates

1.1 COM port number

If a USB<->RS232 adapter is inserted in an USB port for the first time, then the operating system assigns it a new COM port number, which had previously not been used. This COM port number depends on the number of USB interfaces that the computer has – as well as the devices that were previously used with this computer.

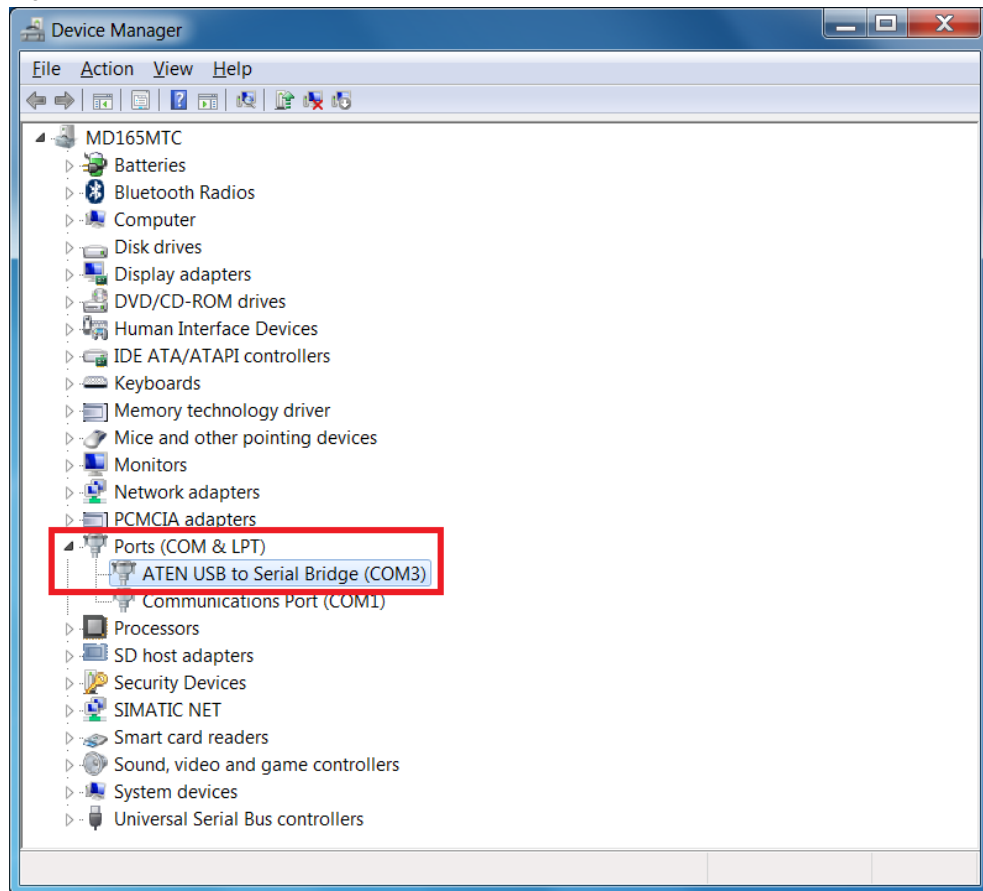
In order to select the correct COM port in STARTER or Drive Monitor to establish the online connection, the COM port number of the USB<->RS232 adapter must be known.

This COM port number can be checked in the device manager, and when required modified.

In this example, for the ATEN USB to Serial Bridge USB<->RS232 adapter, the COM port number COM3 is used.

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Fig. 1 COM port number



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1.1.1 Different behavior of STARTER and Drive Monitor when selecting the COM port number

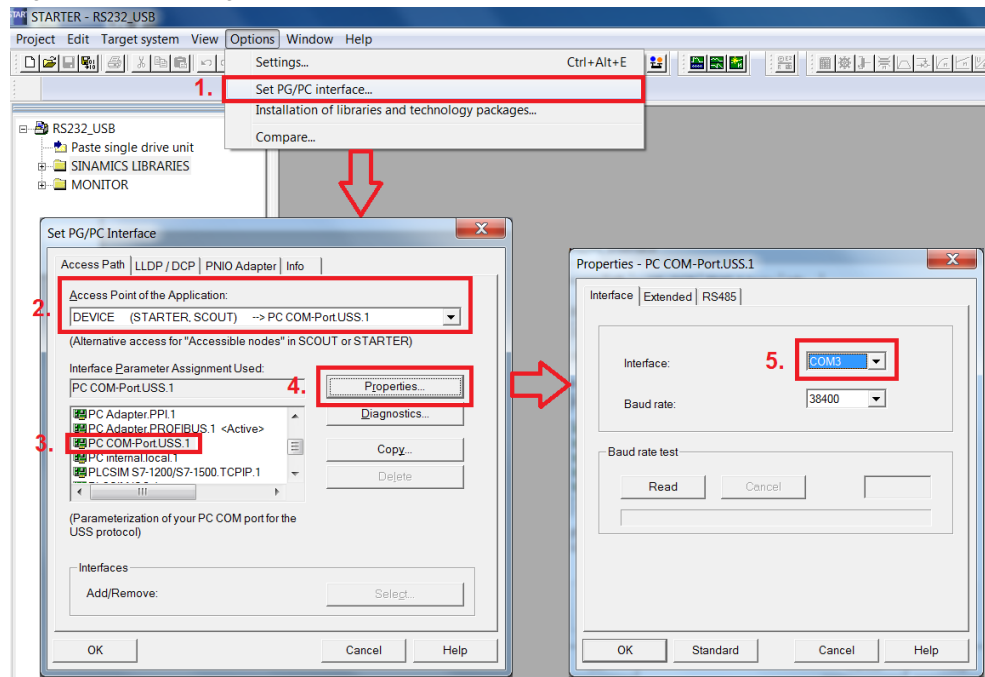
The different behavior of the STARTER and Drive Monitor tools regarding the selection of the COM port number is subsequently discussed.

Behavior for STARTER

New COM port numbers, if they are located in the COM1...COM7 range, are automatically added to the selection list under "**Options -> Set PG/PC interface**" in the **Properties** of the **PC COM port(USS)** under the "**Interface**", and can then be selected.

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Fig. 2 Setting the PG/PC interface



Setting the PG/PC interface

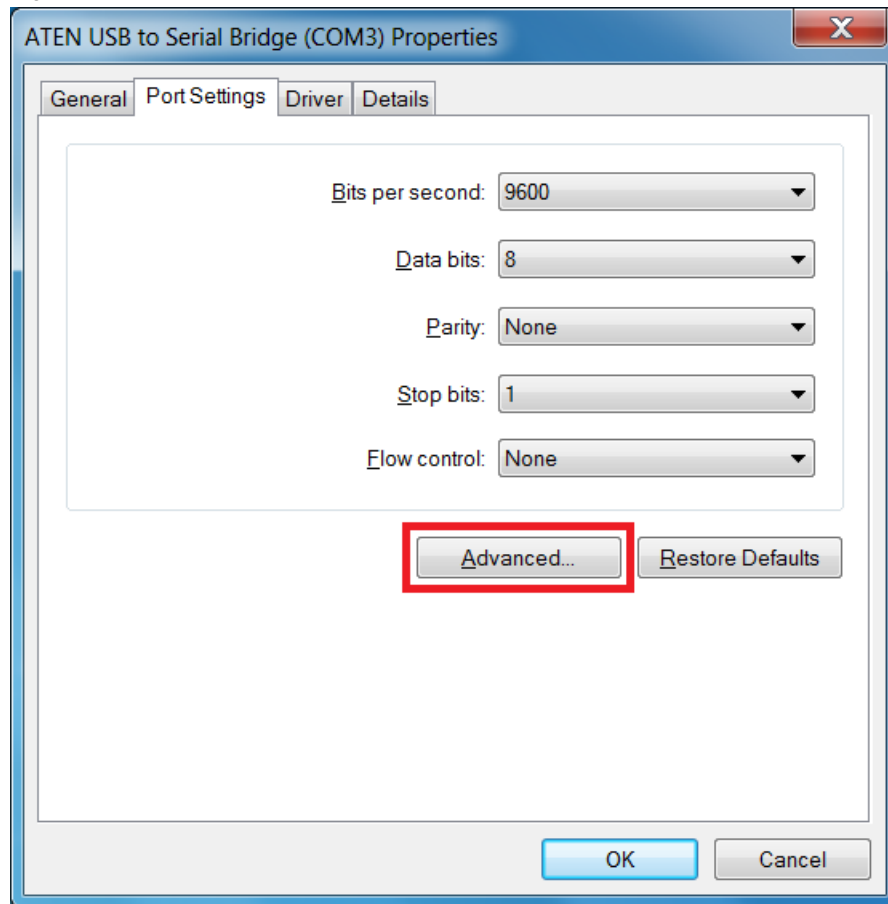
- In the device manager, under "**Ports (COM & LPT)**", select your USB<->RS232 adapter with a double-click
The "**Properties**" window of the USB<->RS232 adapter opens.
- Open the "**Port Settings**" tab

NOTE

In STARTER you can only select between COM1...COM7.
If, when initializing, the operating system assigns the USB<->RS232 adapter the COM port number 8 or higher, then this COM port number does not appear in the selection list.

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Fig. 3 Properties of the USB<->RS232 adapter



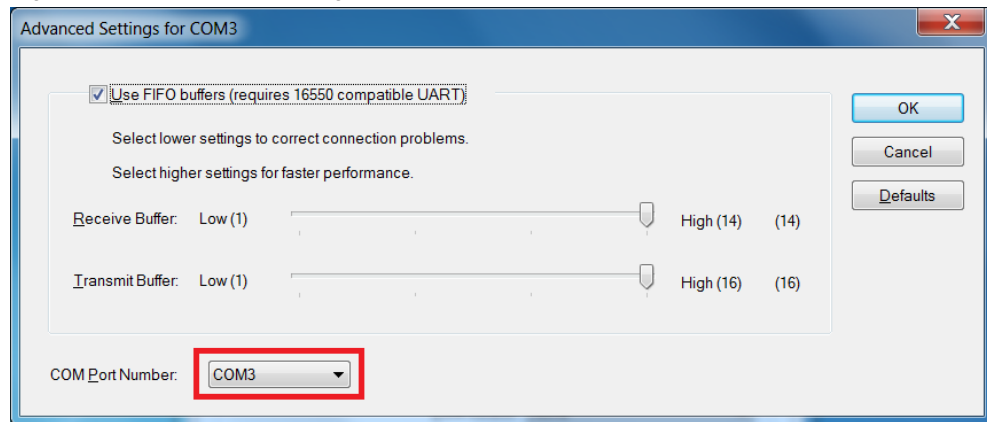
- Keep the default settings of all parameters, and press the **"Advanced..."** button.
The **"Advanced Settings"** window for the COM port is displayed.
- Select the COM port number from the list that opens, between 1...7.

Note

If all COM port numbers from 1 to 7 are pre-assigned, select an unused one and then exit the window with "OK".
A message is displayed that this particular COM port number is already being used by another device.
Acknowledge this message with "Yes".

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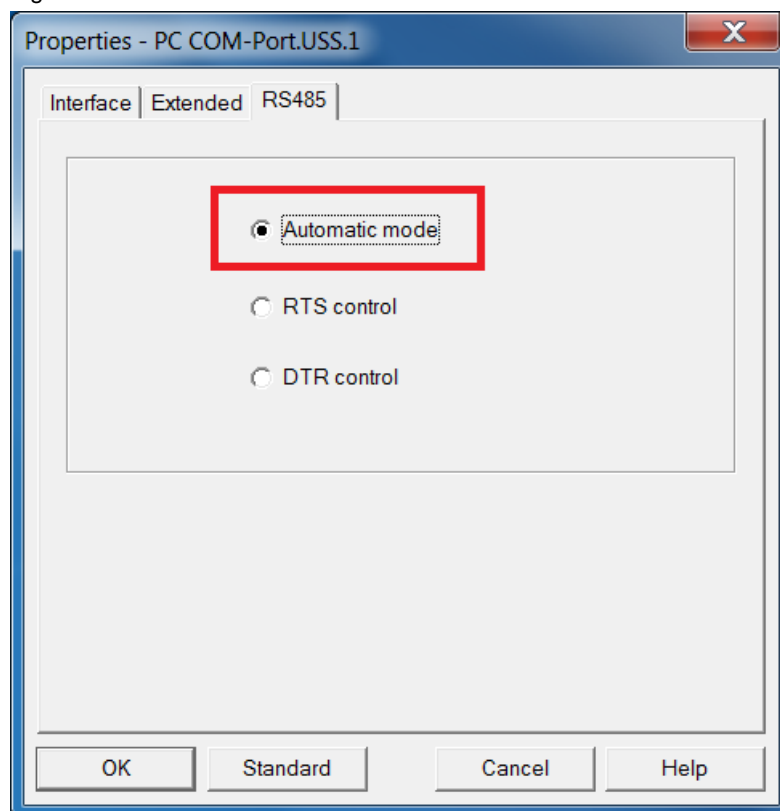
Fig. 4 Advanced settings



STARTER automatic mode

The "**Automatic mode**" should be selected in STARTER under "**Options -> Set PG/PC interface**" in the **Properties** of the **PC COM port(USS)** under the "**RS485**" tab. If this is not done, online operation with an USB adapter at RS232 is not possible.

Fig. 5 STARTER automatic mode



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Behavior in Drive Monitor

It is only possible to select between COM1...COM4 in the Drive Monitor.

The selection list is not supplemented by active and/or existing interfaces. The four selection options are permanently assigned.

The COM port number of the USB<->RS232 adapter should be modified so that it lies between 1...4. Only then is it possible to select the correct interface in Drive Monitor and establish an online connection.

If, when initializing, the operating system assigns the USB<->RS232 adapter the COM port number 5 or higher, then this COM port number must be changed (< 5).

To change the COM port number – see Section "**Behavior in STARTER**".

DriveES automatic mode

The "**Automatic mode**" should be selected in the Drive Monitor in the "**ONLINE settings**" for bus operation via RS485 under the "**Interface**" tab. If this is not done then online operation with an USB adapter at RS232 is not possible.

Fig. 6 DriveES automatic mode

