

PHx20 Transmitters Connection Manual

1. Connecting to a PC

Install the included device driver from the FTDI directory or download the driver from www.ftdichip.com. Connect the device to a PC using the K12U cable. Launch the terminal application.

The connection with the Comeco transmitter can be established via a PC's COM or USB port using the cable listed in the user's manual. To establish a connection, a terminal application should be used such as HyperTerminal or CommTest made by Comeco.

2. Instructions for using HyperTerminal

After launching HyperTerminal, open the menu File->Property. In the "Connect To" tab, set the port to which the transmitter is connected in the "Connect using" dropdown. Click on the "Configure" button and set the following settings:

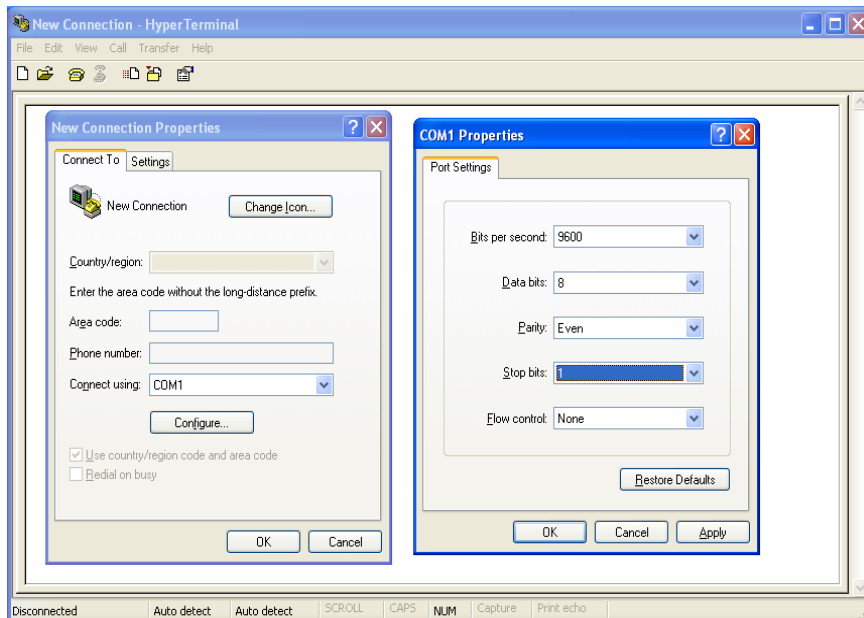
Bits per second: 9600

Data bits: 8

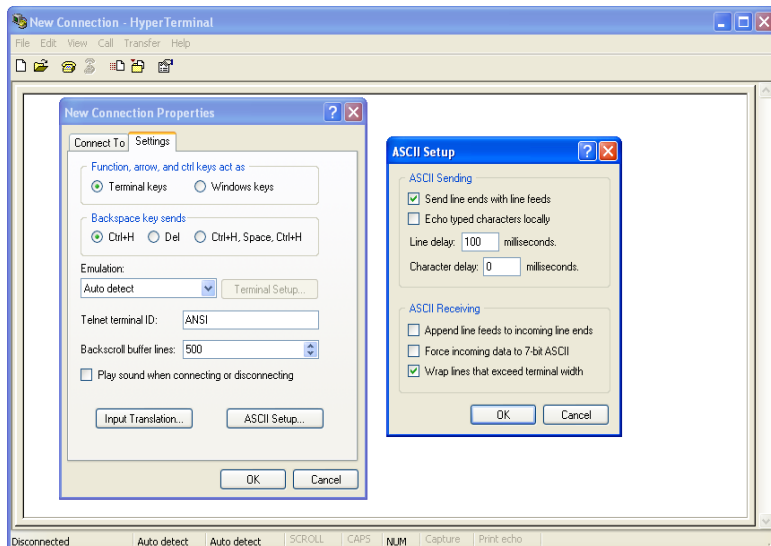
Parity: Even

Stop bits: 1

Flow control: None



In the "Settings" tab, click on the "ASCII Setup" button and tick the "Send line ends with line feeds" checkbox. Set "Line delay" to 100 milliseconds.



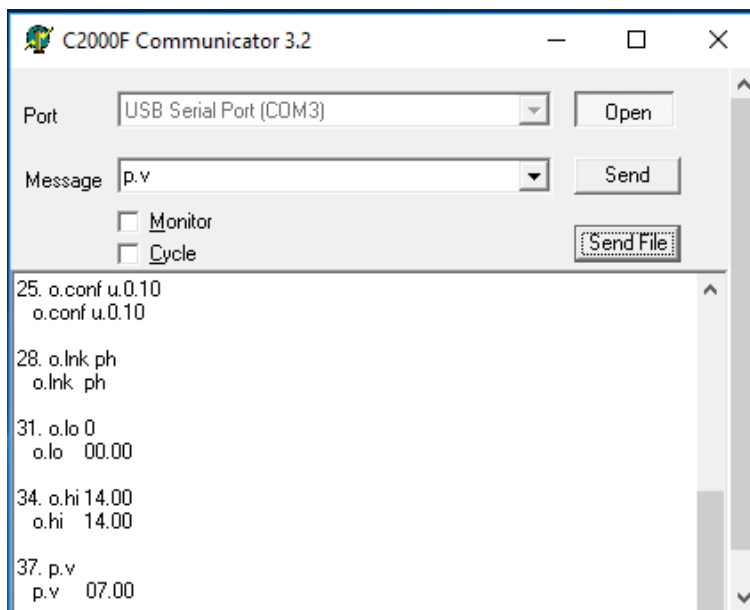
The configuration can be saved by selecting File->Save As and loaded on subsequent startups.

Start the connection. Enter single commands, one per line, in the application's text field followed by hitting Enter. Note that **#13#10** will be automatically appended.

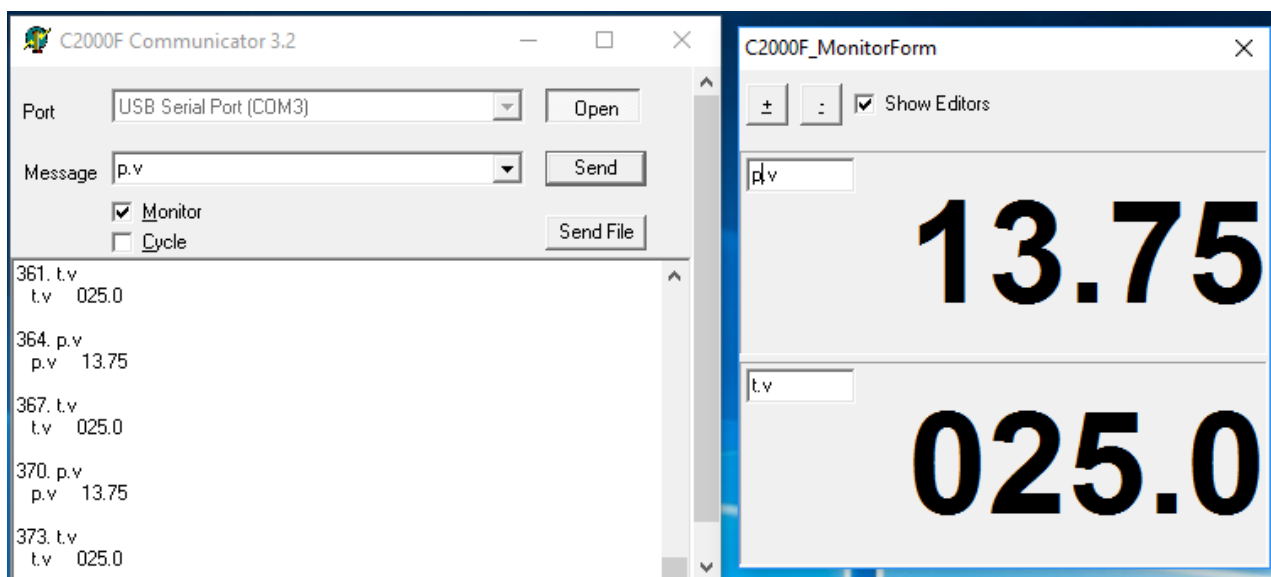
To enter a batch of commands, use a text file, which lists all commands separated by a newline character (including the last command) – check the examples below. The symbols **#13#10** get appended automatically upon sending. To send the file, use Transfer->Send Text File...

3. Instructions for using C2000F CommTest

After launching C2000FCommTest, in the “Port” drop down, select the connection port to which the transmitter is connected. Click the “Open” button to open the connection. Enter single commands in the “Message” text field. Send the command by clicking the “Send” button or hitting Enter. The symbols **#13#10** get appended automatically. If the “Cycle” checkbox is selected, the entered command gets sent automatically and repeatedly in 1 second intervals.



If the “Monitor” checkbox is selected, one or more values can be monitored in real-time in a separate window (MonitorForm) for the respective commands entered in the text fields. The text fields can be shown/hidden using the “Show Editors” checkbox. A new field can be added or the last one removed using the “+” and “-” buttons respectively.



To enter a batch of commands, use a text file, which lists all commands separated by a newline character (including the last command) – check the examples below. To select and send the file, use the “Send File” button.

4. Examples for initializing the transmitter using a text file.
When creating the text file, omit the comments preceded by //. After last command type the ENTER.

Example of command text file for **PHC20** initialization.

// Commands	Comments
t.comp sens	// select sensor temperature compensation
t.sens ntc1k	// select NTC 1k as compensation sensor
c.unit mS.cm	// set measured unit to mS/cm
cal c.set	// unlock to change CELL constant as entered value
const 1.03	// set CELL constant to 1.03000
c.pnt 2	// set decimal point position to xx.xx
f.b 1.50	// set Filter Band to 1.5 mS/cm
f.t 10	// set Filter Time to 10
error	// check for errors
c.v	// view Conductivity value
const	// view CELL constant value
	// new line for end

Example of command text file for **PHT20** initialization as ORP transmitter.

// Commands	Comments
p.inp orp	// set input as ORP
cal p.fact	// get factory settings for ORP
o.lnk ph	// link output to PH/ORP
o.lo -1000	// input value for 4mA output
o.hi 1000	// input value for 20mA output
p.pnt 0	// set decimal point position to xxxx
f.b 50	// set Filter Band to 50 mV
f.t 10	// set Filter Time to 10
error	// check for errors
p.v	// view ORP value
	// new line for end

Example of command text file for **PHT20** initialization as PH transmitter.

// Commands	Comments
error	// check for error
p.inp ph	//select PH input
cal p.fact	// set to factory calibration -460...460 mV, 14...0
p.pnt 2	// set decimal point xx.xx
t.unit c	// set temperature unit to C
t.comp fixed	// set temperature compensation fixed
t.def 20	// set compensation temperature to 20 C
o.conf u.0.10	// set output to 0...10V
o.lnk ph	// link output to PH/ORP value
o.lo 0	// set value for 0V
o.hi 14.00	// set value for 10V
p.v	// read current value
	// new line for end