

This manual explains how to set up the communication between the computer and the SSI absolute encoder to be programmed. Ensure that the supply voltage of the encoder is switched off.

- > The communication between SSI absolute encoders and the computer will use a RS232 serial port.
- > The encoder can be programmed with Windows 9X or higher, using **HyperTerminal** Windows program.
- > In the communication through HyperTerminal, the computer will act only as a line of communication. This means that the user of the programmable encoder does not depend on any external program, only the operating system is required.

### HYPERTERMINAL CONFIGURATION

#### Step 1. Open HyperTerminal

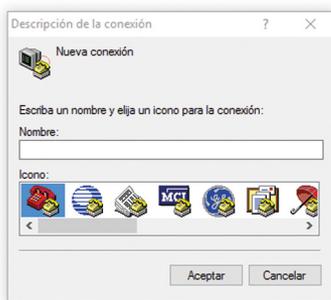
Open the Windows program *HyperTerminal*, which is included with most versions of Microsoft Windows OS (Windows 95/98, Windows ME, Windows 2000 and Windows XP).

From Windows Vista, HyperTerminal is no longer included with the Windows OS installation default.

**i** If your version of Windows OS requires the installation of HyperTerminal software, you can download it from the *Hohner Automáticos* website.

#### Step 2. New connection

Click to activate a *New connection* by choosing an icon and assigning a name (For example: CSP10).



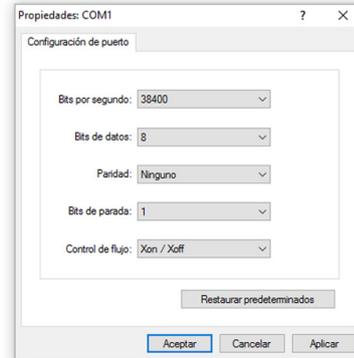
#### Step 3. Select the COM-port

At the *Connect using* combo box from the connect screen appeared, chose direct to COM1.



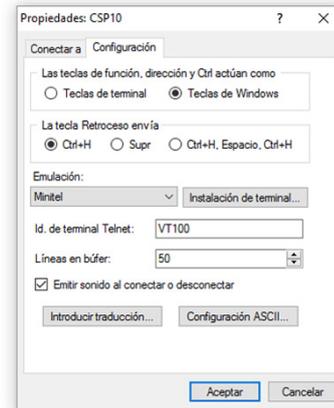
#### Step 4. Properties: COM1

The screen of COM1 serial port properties appears, which should be configured as shown below.



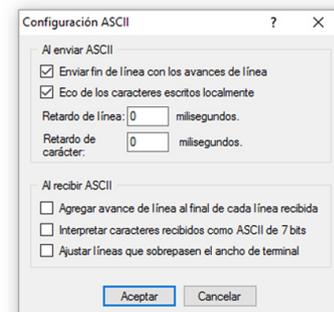
#### Step 5. Properties: CSP10

Once the serial port has been configured, open the menu **File / Properties / Settings** where the properties of CSP10 appear or the general configuration of the HyperTerminal that should be configured as shown below.



#### Step 6. ASCII configuration

Enter in the ASCII configuration where we should leave the same as the image below.



## ENCODER PROGRAMMING

Before starting the encoder programming, we should start the HyperTerminal (previously configured) and connect the supplied communication serial cable.

- > Once the HyperTerminal is open, we will supply the encoder and a programming screen will appear in text mode.
- > The user should fill out the section USER CONFIGURATION using the keyboard in descending order: first the resolution, then the direction...

To validate each parameter press the  key.

- ⚠ *If we press other keys, we could make a mistake in the entering of parameters.*
- ⓘ *If you do not fill out one of the parameters, the encoder will not modify its value.*

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HOHNER AUTOMATICOS S.L.
ENCODER SSI PROGRAMABLE Ver 0

CONFIGURACION ACTUAL
>Resolucion mono(2.8192):8192
>Resolucion multi (2n) :4096
>Direccion :HORARIO
>Codigo :BINARIO
>Preset monovuelta : 0
>Preset multivuelta : 0
>Bit de Paridad :No
>Formato SSI :NORMAL
>Posicion actual(mul_mo):3905_2484

CONFIGURACION DEL USUARIO
>Resolucion mono(2.8192):
>Resolucion multi (2n) :
>Direccion (Hor/Antihor):
>Codigo (Bin/Gra) :
>Preset monovuelta :
>Preset multivuelta :
>Paridad (No/Par) :
>Formato SSI (Tree/Norm):
  
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- > Once we have entered all the parameters, the encoder will be programmed and the screen will refresh updating the ENCODER CONFIGURATION.

To refresh the screen directly, use the  key.

Besides the resolution and the preset, which need a numeric value, the rest of the configurable parameters only need to write the initial to select the desired option (in bold below Configurable Parameters section).

## CONFIGURABLE PARAMETERS (PC)

### + Preset (X)

Allows the preset configuration from the PC, giving the value of multiturn and singleturn parts separately.

It is activated by connecting the cable to GND. The preset can also be activated from the PC by pressing (X).

### + Reset (Z)

The position of the encoder is reset by connecting the external cable to GND. The reset can also be activated from the PC by pressing (Z).

### + Singleturn resolution

Singleturn resolution parameter defines the points per turn of the encoder. The range can go from 1 to 8192 points in one turn.

### + Multiturn resolution

Multiturn resolution parameter defines the total turns for the encoder. The range can go from 1 to 4096 always choosing a value that is 2n (1,2,4,8,16...).

If the resolution is 1 the encoder works as if it were a singleturn.

### + Direction: Clockwise (H) | Counterclockwise (A)

Counterclockwise direction can be defined by connecting the external cable to GND. To set up direction from the PC, the cable must be connected to Vcc or in the air.

Clockwise (H), or counterclockwise (A).

### + Code: Binary (H) | Gray (A)

### + Parity: Parity bit (P) | No parity bit (N)