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HW4 Software version 3

Device Manager HygroClip DI

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1   ORGANIZATION OF THE HW4 MANUALS

The HW4 manuals are organized in separate books so as to limit the size of the individual documents. A list of the HW4 manuals is provided in document **E-M-HW4v3-DIR**

HW4 Manuals	Contents
HW4 Main Book	General software description Installation, start-up and settings Device connection methods Functions common to all devices used with HW4
Device Specific Functions 1 (separate book for each device type or model)	Legacy devices (original HygroClip technology): o HygroLog NT data logger o HygroFlex 2, HygroFlex 3 and M3 transmitters o HygroLab 2 and HygroLab 3 bench indicators o HygroPalm 2 and HygroPalm 3 portable indicators o HygroClip DI digital interface o HygroClip Alarm programmable logic o HygroStat MB Device Manager (device configuration) and other device specific functions
Probe Adjustment 1	Humidity and temperature adjustment function common to all legacy devices (original HygroClip technology)
Device Specific Functions 2 (separate book for each device type or model)	Devices based on the AirChip 3000 technology: o HygroClip 2 (HC2) probes o HF3 transmitters and thermo-hygrostats o HF4 transmitters o HF5 transmitters o HF6 transmitters o HF7 transmitters o HL20 and HL21 data loggers o HP21, HP22 and HP23 hand-held indicators o Custom designed OEM products Device Manager (device configuration) and AirChip 3000 functions
Probe Adjustment 2	Humidity and temperature adjustment function common to all devices based on the AirChip 3000 technology
Data Recording Function	Data recording function common to all devices based on the AirChip 3000 technology

Both the HW4 manuals (software) and device specific manuals (hardware) are available on the HW4 CD.
The manuals can also be downloaded from several of the ROTRONIC web sites.

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2 OVERVIEW

This section of the HW4 manual covers only the HW4 functions that are unique to the HygroClip DI digital interface. HW4 functions that are not device dependent are covered in document E-IN-HW4v3-Main.
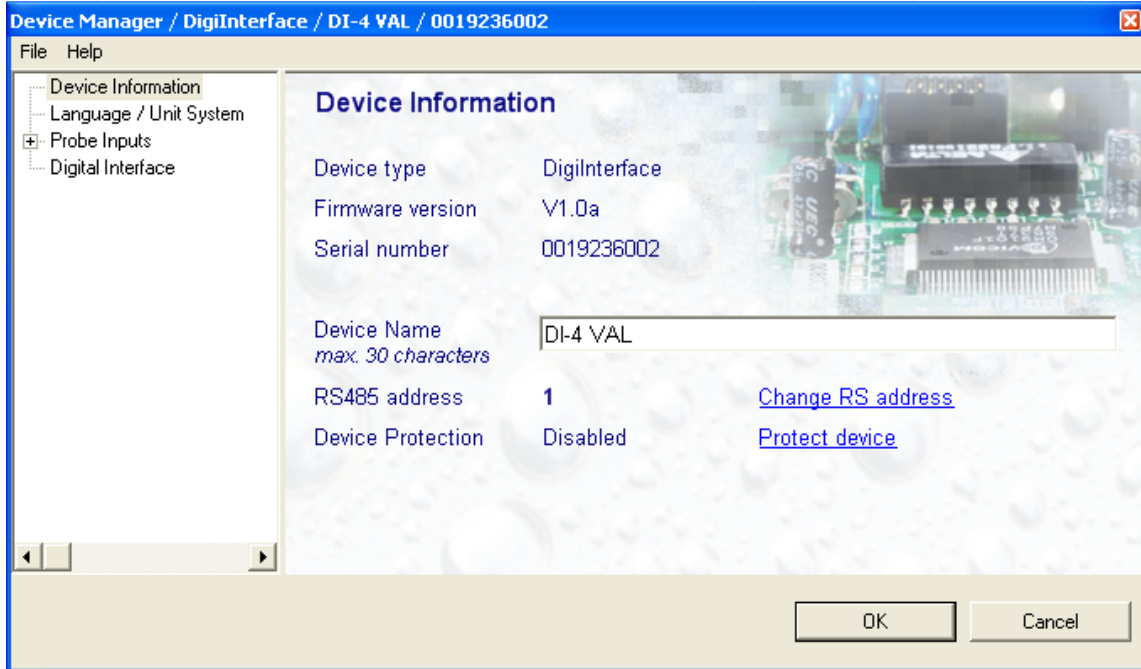
3 DEVICE MANAGER

The HW4 functions available for the HygroClip DI are illustrated below:
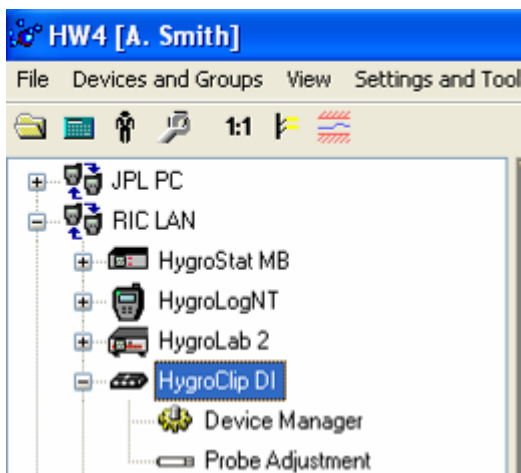
To open the Device manager form, click with the mouse on Device Manager. The Device Manager form is used to configure the HygroClip DI and to read device specific information.

When Device Manager is started, it automatically interrogates the device and downloads its current configuration.

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The forms that are available within the Device Manager form are listed in a tree located on the left pane of the form. To select a form, click on it with the left mouse button.

3.1 *Device Manager Menu Bar*

The Device manager menu bar is located at the top of the form.

File

- **Open:** opens the device configuration directory specified in the HW4 Settings Form - File Locations Tab - and displays all available device configuration files (extension .DAT). Any device configuration file that was previously saved can be opened to quickly configure an instrument. If so desired, any directory and any file type may be opened.

- **Save As:** saves the current configuration to a file (extension .DAT) in the device configuration directory specified in the HW4 Settings Form - File Locations Tab. If so desired, any directory and any file type may be specified.

- **Exit:** exits Device Manager

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3.2 *Device Information*
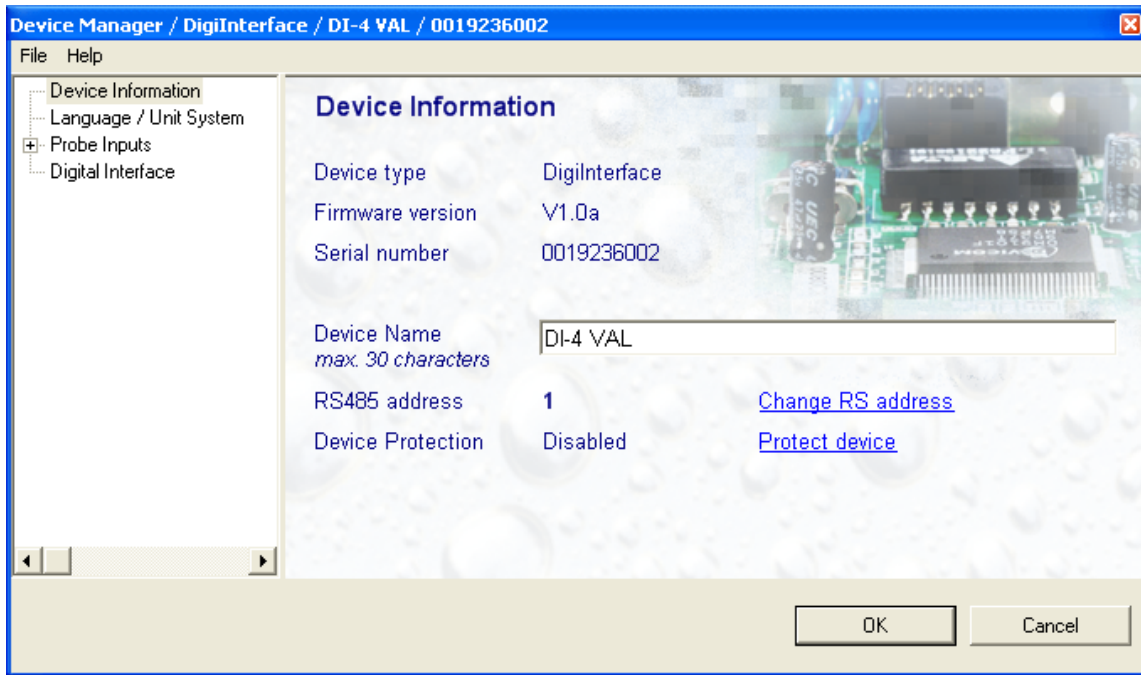
- **Device name**: this text will be displayed next to the instrument model information. As far as possible use a unique device name.

- **RS485 address**: click on the underlined link to change the instrument address to be used in conjunction with an RS-485 network (multi-drop). Each network address should be unique and within the values of 0 to 63. Note: the default factory RS-485 address is 0. Unless necessary, do not manually modify this address. HW4 will automatically change the RS-485 address of the device, if so required.

- **Device Protection**: for a description of this function, see document E-IN-HW4v2.1-Main

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3.3 *Language / Unit System*
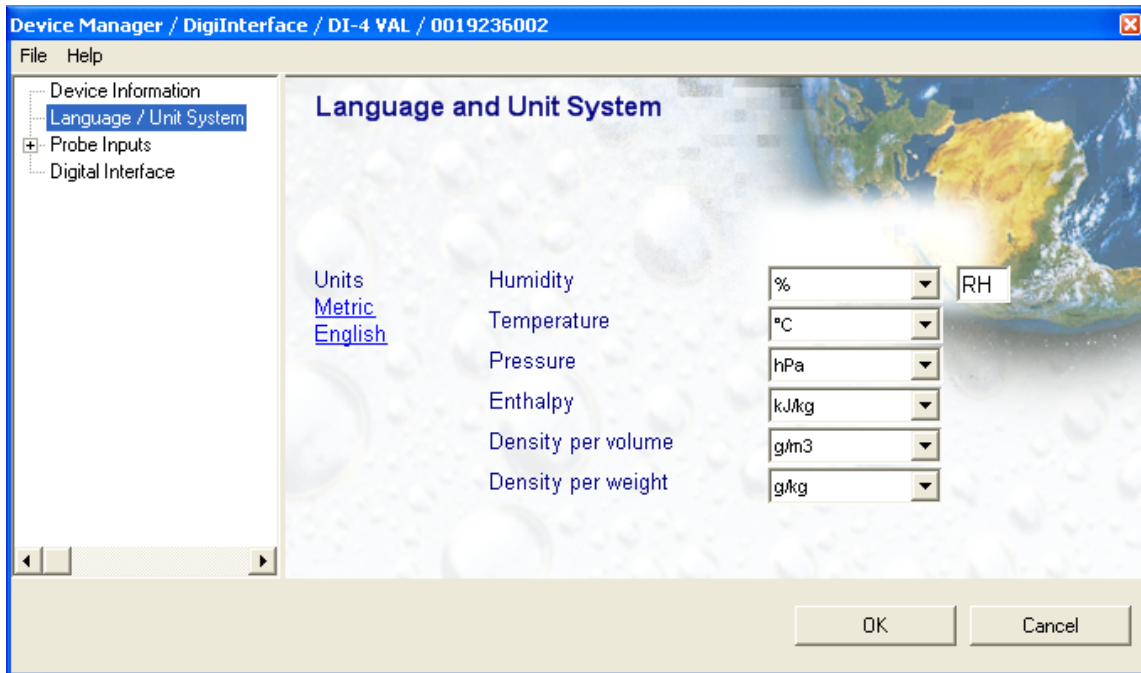
● **Units**: use the underlined links to the right of the form to globally change the unit system used by the instrument. If the unit system offers several choices such as In Hg or PSI for pressure, choose a unit by left clicking on the arrow to the right of each text box.

Humidity: the symbol to be used after the % symbol (RH) should be typed in the text box.

Note: the units selected for density per volume and density per weight also apply to vapor concentration and specific humidity.

IMPORTANT: Do not change the language / units settings while the PC is recording data.

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3.4   *Probe Inputs*

Clicking on the plus sign to the left of "Probe Inputs" expands the tree and displays probe inputs 1 and 2.
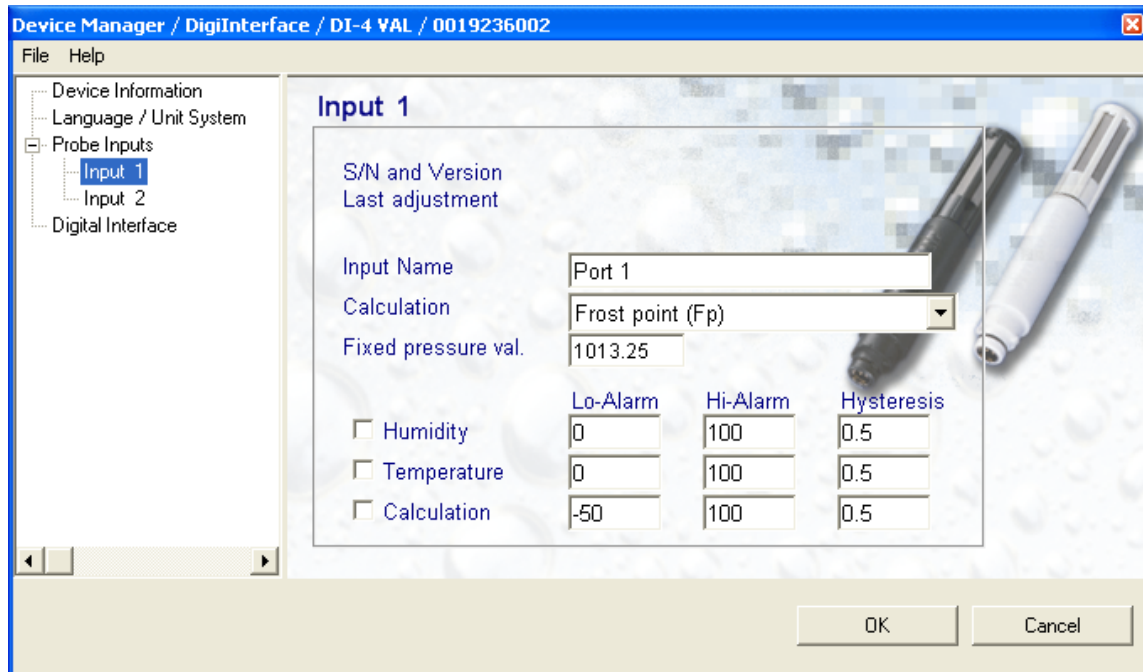
Note: the HygroClip DI accepts only HygroClip probes.

- **Input Name**: use a maximum of 12 characters

- **Calculation**: left click on the arrow to the right of the list box and select the parameter to be calculated by the HygroClip DI for this particular probe. This is also the calculated parameter that HW4 will display for this probe

  Dew point (Dp) or Frost point (Fp): depending on the selection made here, HW4 will display either the symbol Dp or the symbol Fp. The symbol Fp indicates that any value below freezing is a frost point as opposed to a dew point. When selected, the symbol Fp is also be displayed for values above freezing. This of course is to be understood as being the same as dew point.

- **Fixed pressure value**: enter here the fixed pressure value that will be used by the HygroClip DI. Note that this numerical value should be consistent with the pressure unit that was selected under Language / Unit System.

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● **Alarm**: alarm conditions can be defined for humidity, temperature and the calculated parameter. Values that are below the low alarm value or above the high alarm value will trigger an alarm. A value can be specified for the alarm function hysteresis. This value is used for both the low and the high alarm. To trigger an alarm only in the event that a probe is missing, disconnected or not transmitting data, simply enable the alarm for one of the parameters and set the Hi and Lo values to the range of the probe (for example 0 and 100 for humidity). All versions of HW4 will show an out-of-limits value alarm in red on the monitor screen. HW4 Professional can also be configured (HW4 global settings - Alarm settings tab) to display an alarm table and generate a report whenever an out-of-limits condition occurs.

3.5 *Digital Interface*
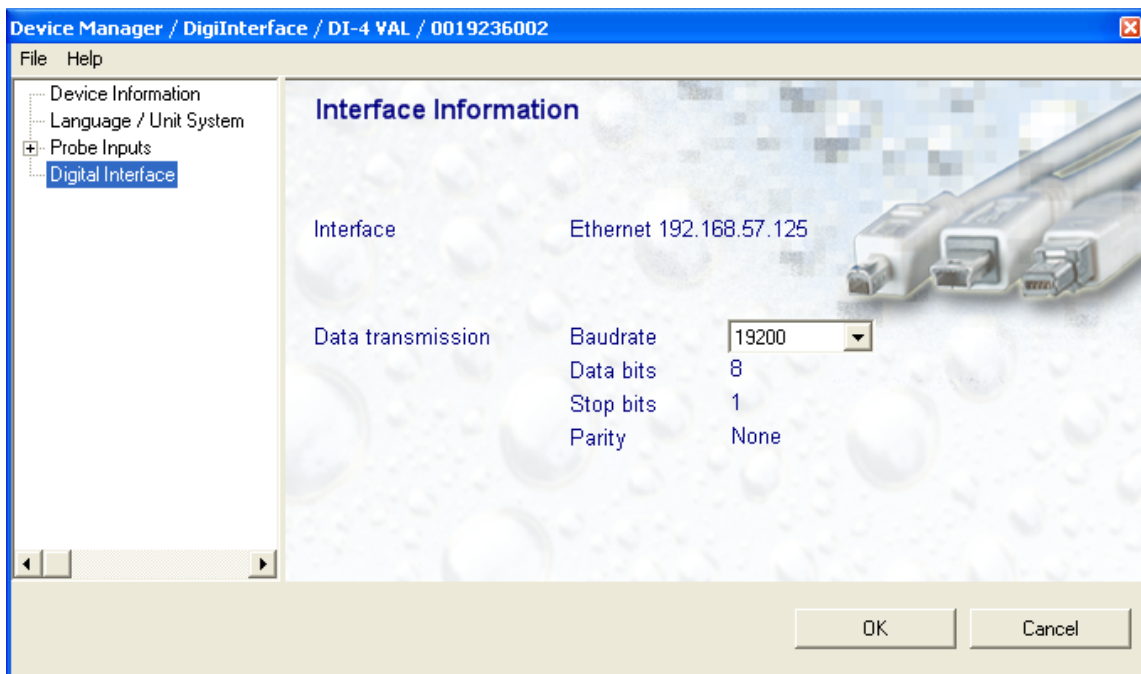
This form is used to select the RS-485 baud rate between 57600 and 19200. Other data cannot be changed from within the form. Select the Baud rate depending on which devices you plan to connect with the HygroClip DI. Devices such as the HygroFlex transmitter normally use 19200 bps.

IMPORTANT:

All devices within an RS-485 multi-drop should use the same baud rate. Communication within the RS-485 multi-drop will not work when the devices are configured with different baud rates.

Models with Ethernet (TCP/IP) interface: after changing the baud rate in Device Manager, you should also reflect the change in the configuration of the internal Digi International module used by the device to connect to the LAN. See: **Changing the baud rate of an Ethernet device** in document E-IN-HW4v2.1-Main.

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4   DOCUMENT RELEASES

Release	Software Ver.	Date	Notes
_10	3.0.0	Jun. 18, 2010	Original release