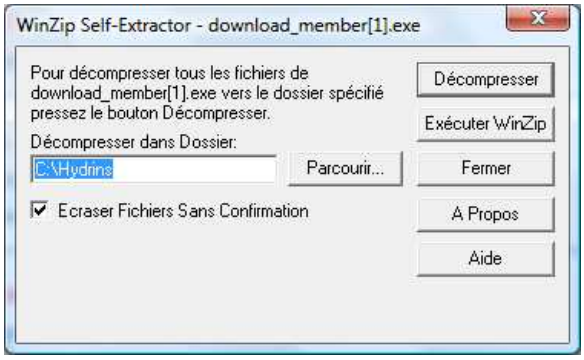
Ref: FAQ0132	Version: 1.0
Title – Hydrins quick start guide	
Made By: AB 15/09/15	(Issue 2)

Quick start guide for configuring Hydrins insertion probes

Initial software installation and set up

Download Hydrins from the HWM or FCS website and 'Run'.
At the following screen shot –
Note – 'Decompresser dans dossier' – it is going to put the software in the 'C' Drive in a folder called 'Hydrins'

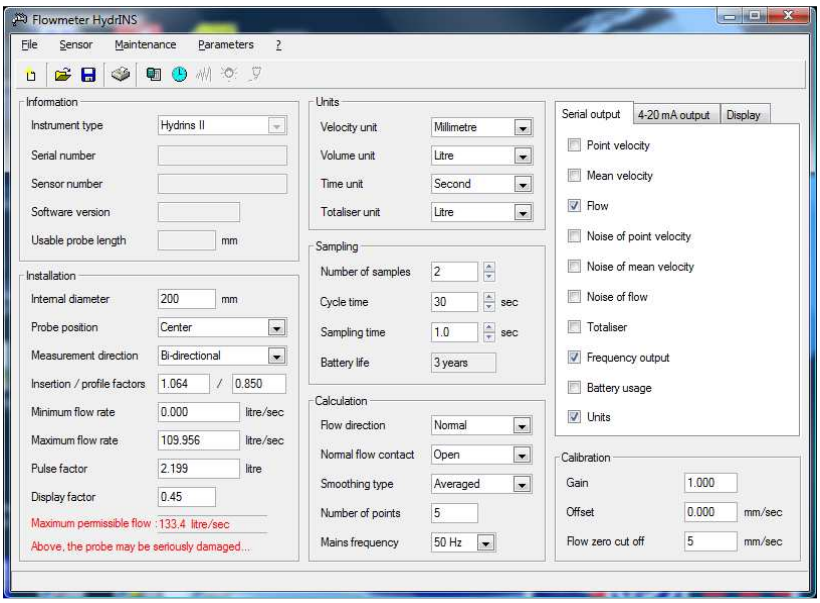


Select the 'Decompresser' button to Unzip the software into the folder.

Once it is complete return to this screenshot and exit (hit the 'red cross').

Then using your PC 'Explore' find the Hydrins software folder and open it.
Right click on the .exe file (Tap Icon) and 'Send' a shortcut to the Desktop.

At Desktop open the software (Tap Icon) to reveal the opening screen as per this screen shot -



From the drop down box select the correct instrument type - Hydrins II ? or I?

Now select Parameters (top middle of screen) and open -

You should see this screen shot -

At the 'Level' drop down select 'Expert' and apply the access code *hydrins*
Then 'OK'. (also note you may need to select the Serial COM port number from the dropdown for the one that the sensor or display will be connected to on your PC)

You should now be back to the opening screen.

If you are using a Sensor only **with no display** then connect the Sensor to your PC using the CC_Hyda Comms lead provided.

If you are using a Sensor **with a Display** connect the Sensor to the display using the CNT120 8 way cable. Then connect your PC to the milspec connector **on the Display** using the CC_HYDA Comms cable.

Now back on the Opening screen in the 'Information' area select 'Hydrins II' from the Instrument type drop down.

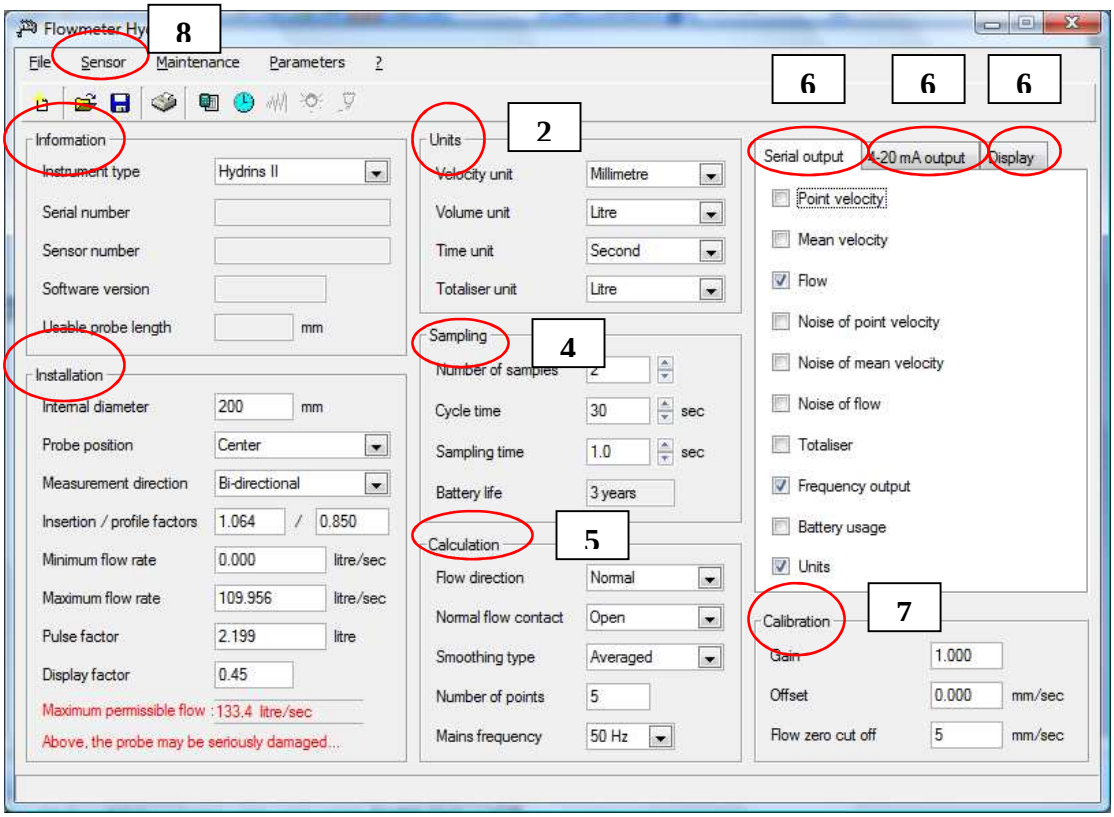
Then select 'Sensor' and from the drop down select 'Read'
This will now download the Sensor details. (and will fill in the greyed out details in the 'Information' area)

You can now select your configuration details (see explanation below).

Once you have completed the configuration details select 'Sensor' and 'Programme' from the drop down.
Your configuration will now be uploaded to the Sensor and you are then ready to connect it to the Display or the Logger.

Explanation of Configuration details

Taking each box on the Hydrins opening screen in turn –



1 Information

Once you 'Read' the sensor the installation details are automatically generated.
You do not need to do anything more here.

2. Units

Select the units you want to use from the dropdowns available – many different units are available to cover most world wide requirements.

3. Installation

a) Internal diameter – manually edit the internal diameter into this box (If you want this in imperial units go to 'Parameters' and select Diameter unit from the dropdown)
b) Probe position – initially select 'Center.' Now look at the red text at the bottom of the box – this will tell you the maximum flow rate the sensor will stand without damage – if this figure is much higher than your installation will see you can carry on. If this is less than your installation will see you will need to install the sensor at 1/8th diameter of the pipe (select this from the drop down) This is important because the sensor can be 'bent' by excessive flow forces.

c) Measurement direction – select 'Bidirectional' for positive and negative flow or 'Unidirectional' for positive flow only.
d) All the other boxes in the installation block are automatically generated.
Note - If you are using a data logger make a note of the 'Pulse Factor' You use this to configure the transducer setting in the logger flow channel

4. Sampling

The default sampling settings which are generally suitable for most applications are as follows – we would advise you use these until you have viewed early data –

Number of samples = 2
Cycle time = 30 seconds
Sampling time = 1 second
Battery life = 3 years

These settings mean the Sensor will take 2 sample readings, 1 second apart every 30 seconds – the Sensor battery life will be three years.

5. Calculation

a) Flow direction – Normal – this means positive flow in the direction of the arrow on the top of the sensor head. Reverse – this means negative flow in the direction of the arrow on top of the sensor head.
b) Normal flow contact – Open
c) Smoothing type – Averaged – this is the most usual setting as it applies a moving average to the samples which has the effect of smoothing the results which helps to reduce the effect of turbulence in the flow.
d) Number of points – default is 5 but you can change this. This means the Smoothing type averages the results over 5 points. Start with the default setting until you view the early data.
e) Mains Frequency – select from the drop down the mains frequency at your installation.

6 Tabs

Serial Output

a) Default settings are Flow, Frequency output and units which are all that are generally required for a Data logger. If you are using Winfluid software the other selections are available for you to use.

4-20mA Output (Only available if you are using a Display)

a) Output format – select data type Flow or Velocity. If 'None' is selected the 4-20mA ouput is disabled.

b) Velocity unit – select this if you have selected velocity data in a) above.
c) Volume unit – select this if you have selected volume data in a) above.
d) The normal and reverse flow settings will be preselected by the software.

Display

a) Display on time can be selected to suit – the longer the on time the less the battery life. However if your display is externally powered you may select longer on times up to permanently on if you require.
b) Language is selectable to suit if required.

7. Calibration

In normal circumstances the settings for Gain and should not be altered.
The flow zero cut off can be adjusted to suit – the default 5mm/sec means that any flow detected at less than 5mm/sec will be treated as zero flow.

8. Uploading the Sensor

Having completed your configuration remember to upload it to the sensor by selecting 'Sensor' from the main Hydrins screen and then select 'Program'

Once upload is complete, disconnect the PC comms lead from the sensor and connect either the logger or the display to the Hydrins Sensor.

Hydrins set up notes – problem solving

1. **Problem – Display will only show 'vpav' and 'smv' on the screen.**

   Solution – check the Hydrins Sensor settings are in Mode 2 (set up for use with display) If the Hydrins is in Mode 1 the display will only show vpav and smv no matter what you do!!

2. **Problem – Display will not show anything at all.**

   Solution - if you programme the Hydrins through the display but forget to 'disconnect' then the display freezes and can only be recovered by closing down Hydrins software and rebooting it on your PC After Programming Hydrins sensor you must always safely close down by selecting 'Disconnect' from the Sensor Drop down menu.

3. Problem – how can I check the 4-20mA output is working.

Solution - the 4-20mA display shows all the selected Serial outputs (selected on the Serial output tab of the Hydrins software) – the single Flow or Velocity 4-20mA output (selected on the 4-20mA tab) is not shown on the display – you can check it with 2 methods –

1. using a logger and looking at the output in Radwin, or –
2. using an ammeter to check output 4mA = zero; anything over 4mA will be the flow or the velocity reading.

Document History:

Edition	Date of Issue	Modification	Notes
1st	03/09/12	Release	
2nd	15/09/15	Format update	