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Title – Hydrins sampling and smoothing	
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Explanation of Hydrins sampling and smoothing settings

The default sampling settings which are generally suitable for most applications are as follows–

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

These settings mean the Sensor will take 2 x 1 second duration samples readings every 30 seconds and applies a moving average - this is why Hydrins takes a long time for its readings to stabilise – the Sensor battery life will be three years.

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.
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.

Exponential smoothing is a technique that can be applied to time series data to produce smoothed data. You use this when the time series data is noisy i.e when you have irregular flow or large turbulence. Whereas in the simple moving average the past observations are weighted equally, exponential smoothing assigns exponentially decreasing weights over time.

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