DataHog2 digital inputs

Most DataHogs are fitted with a standard type of digital input, the sockets are usually labelled "Wind Speed", "Raingauge" or "Digital". These are low speed digital inputs which accept a switch closure, 5V negative going pulse or open collector sensor. The maximum counting rate is 300 Hz.

On request, a High Speed Digital input can fitted. This input will accept negative going, clean pulses at a minimum pulse width of 50 microseconds, and a pulse repetition rate of 5000 Hz. The socket will be labelled "High Speed Digital". Please add the suffix "/HS" to the DataHog part number when ordering.

For all digital inputs, the logger's counter will rollover at 32768 counts and this must be taken into account when choosing the logger's sampling interval (see DataHog manual Chapter 3.2.9)
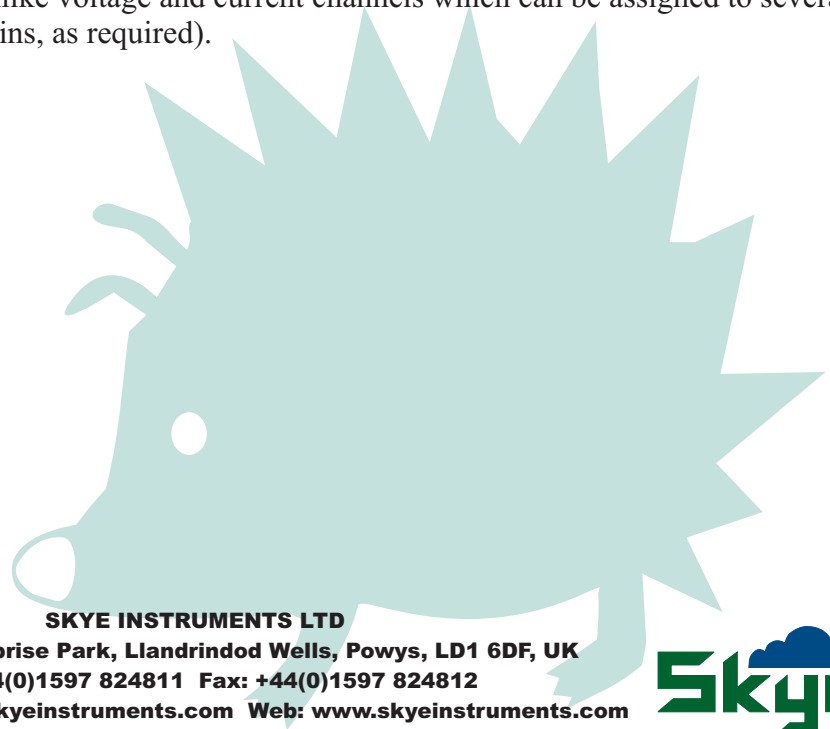
e.g. HIGH SPEED DIGITAL INPUT
For a 10 second sample time - the maximum number of pulses that may occur in the total sampling period before rollover is 32768, so if the pulse rate is fixed this would be 3276 per second.
For a 1 minute sample time- the maximum number of pulses that may occur in the total sampling period before rollover is 32768, so if the pulse rate is fixed this would be 546 per second.

For any digital input, if the total number of pulses are required (e.g. total rainfall), the sample time and logging time should be set to identical intervals. If the logging time is greater than the sample time then the average counts per sample time is stored.

Digital channels should only be assigned to one software channel, as the counter is cleared after recording at each sample interval. (Unlike voltage and current channels which can be assigned to several software channels, e.g. on different gains, as required).