What is the specification for the digital input channel of a LoLog, LX or Multilog?

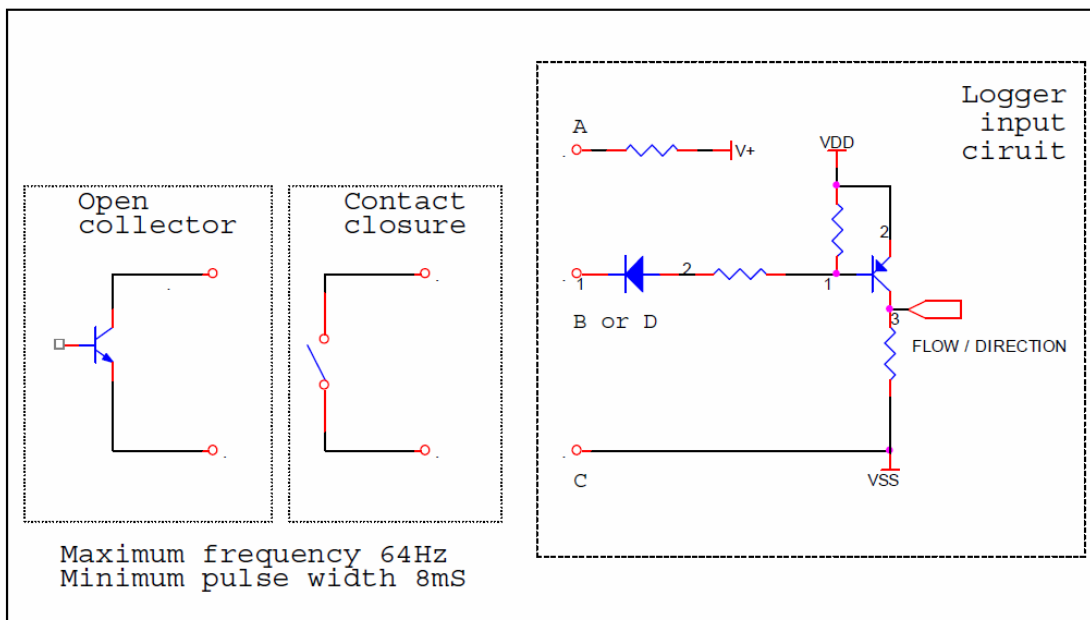The maximum input frequency for the digital input is limited to 64Hz. (see table below)

The minimum pulse width of the input pulses must be more than 8-10 milliseconds.

The max voltage should not exceed 25V with respect to ground

The max impedance is 1K

The max capacitance is 10nf

The max voltage drop is 1V

Ref: FAQ0093		Version: 1.0
Title – Data logger digital channel spec		
Made By: 29/08/17 AB		**(Issue 2)**

Sample Rate	1 sec	5 sec	10 sec	15 sec	30 sec	1 min	5 min	10 min	15 min	30 min	60 min
COUNT logging											
Max frequency	64	64	64	64	64	64	64	54	36	18	9
Frequency = 32,767 / sample rate (sec)											
EVENT logging											
Max frequency	64	51	25	17	8	8	3	3	2	2	1
No of shifts	1	1	1	1	1	2	3	4	4	5	5
Resolution	1/128	1/128	1/128	1/128	1/128	1/64	1/32	1/16	1/16	1/8	1/8
Frequency = $2^{7 + \text{no of shifts}}$ / sample rate (sec) Resolution = $1 / 2^{8 - \text{no of shifts}}$											

For Unilog based products (LX2; ML2 COMLOG 2 etc) there are 2 restrictions, the frequency can be selected but there is a hardware limitation and the limit to the size of the logged data: -

Hardware limitation is 64Hz.

Logged data is restricted to +32767 and – 32768 pulses in any sample period.

Document History:

Edition	Date of Issue	Modification	Notes
1st	15/06/15	Release	
2nd	29/08/17	Table added	