Spreadsheet manipulation for Sensor tests

Time Seconds	CH1 VR10051 mV	CH2 VR10065 mV	Pressure mV
898	45.04	53.96	0.08
0	45.03	53.94	0.07
1	45.03	53.94	0.07
2	45.03	53.93	0.07
3	45.03	53.93	0.07
4	45.03	53.93	0.07
5	45.03	53.93	0.07
6	45.03	53.93	0.07
7	45.03	53.93	0.07
8	45.03	53.93	0.07
9	45.03	53.93	0.07
10	45.03	53.93	0.07
41	57.71	69.64	0.8
42	66.83	80.17	1.2
43	66.85	80.17	1.2
44	66.86	80.17	1.2
45	66.87	80.17	1.2
46	66.88	80.18	1.2
47	66.88	80.18	1.2
48	66.89	80.18	1.2
49	66.89	80.18	1.2
104	86.95	104.54	2.29
105	88.97	106.69	2.34
106	88.97	106.69	2.34
107	88.97	106.69	2.34
108	88.96	106.7	2.34

1. The original data is collected in 10 second bursts 10 samples per burst.
2. The first sample in every section e.g. 41 & 104 is always incorrect and should be ignored.
3. As a rule there is very little change during the 10 samples unless the pressure is very high,there is a small leak, or the sensor id slow reacting

Pressure mV	Pressure Bar	CH1 VR100515 mV	Ideal Bar	Real o/p	Ideal o/p	%error
0.07	1.03	45.03	1	43.69	43.69	0
1.2	1.52	66.87	1.5	65.91	65.54	0.56
2.34	2.02	88.96	2	87.93	87.38	0.62
3.48	2.52	110.46	2.5	109.57	109.23	0.32
4.65	3.03	132.23	3	130.99	131.07	-0.06
5.81	3.54	153.55	3.5	151.99	152.92	-0.61
6.9	4.01	173.06	4	172.49	174.77	-1.32

4.

5. In this second chart One value from each 10 second burst is used

   i.e. Pressure mV and CC VR100515
6. The mV output of the transducer is 2.29 mV /Bar so if the Pressure mV is dived by 2.29 and 1Bar is added we have the pressure as displayed on the mobbulator as the Gas is at 1 Bar but the pressure transducer reads atmospheric pressure as 0.