

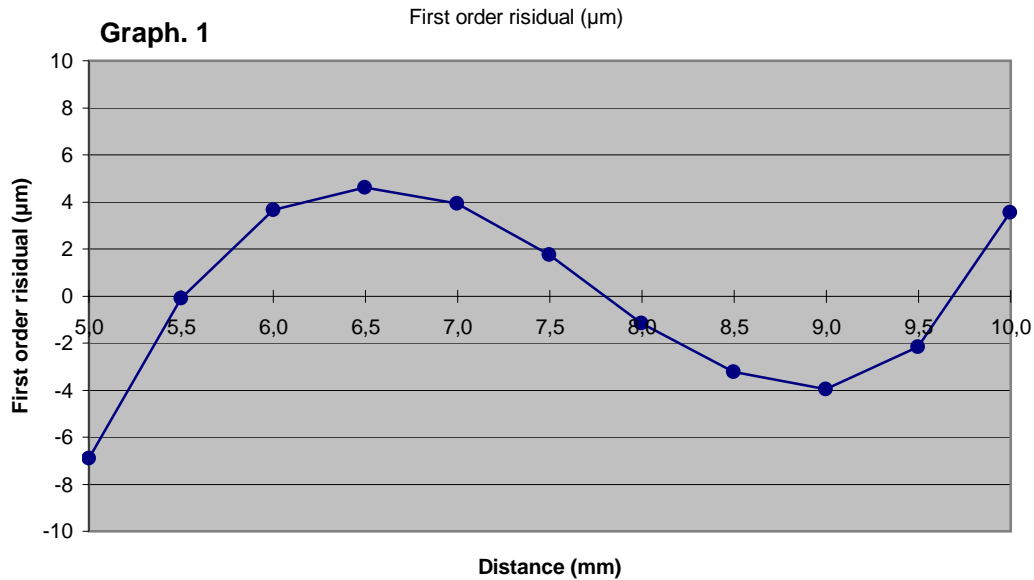
# H7DC-051

Date : 19/12/2012

## First order linearization

First order regression coefficients

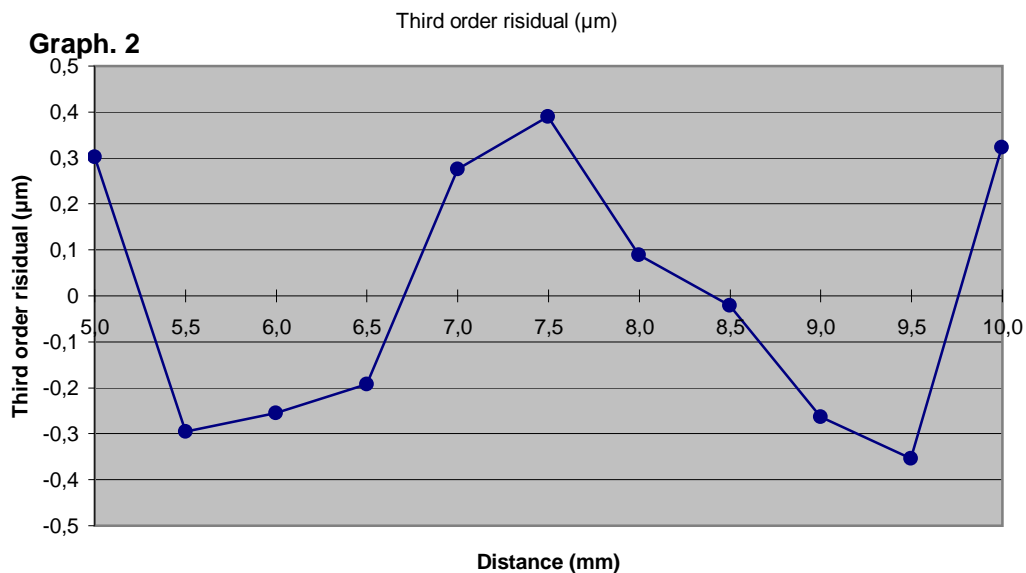
$$d = 5,0067 + 0,49879 V$$



## Third order linearization

Third order regression coefficients

$$d = 4,9995 + 0,50841 V - 0,002307 V^2 + 0,0001450 V^3$$



Legend : Linearization polynoms express distance  $d$  as a fonction of voltage  $V$

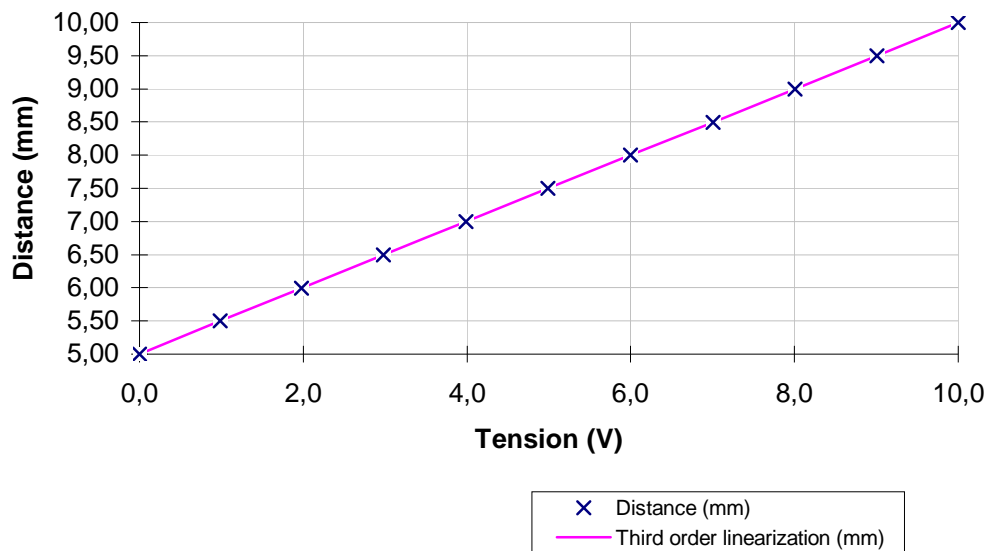
- Distance is in mm

- Voltage is in V

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## Sensor linearization



## Résults

Distance (mm)	Voltage (V)
4,9993	-0,0010
5,4991	0,9874
5,9987	1,9815
6,4973	2,9792
6,9979	3,9842
7,4972	4,9896
7,9980	5,9994
8,4970	7,0040
8,9979	8,0097
9,4973	9,0073
9,9979	9,9995