

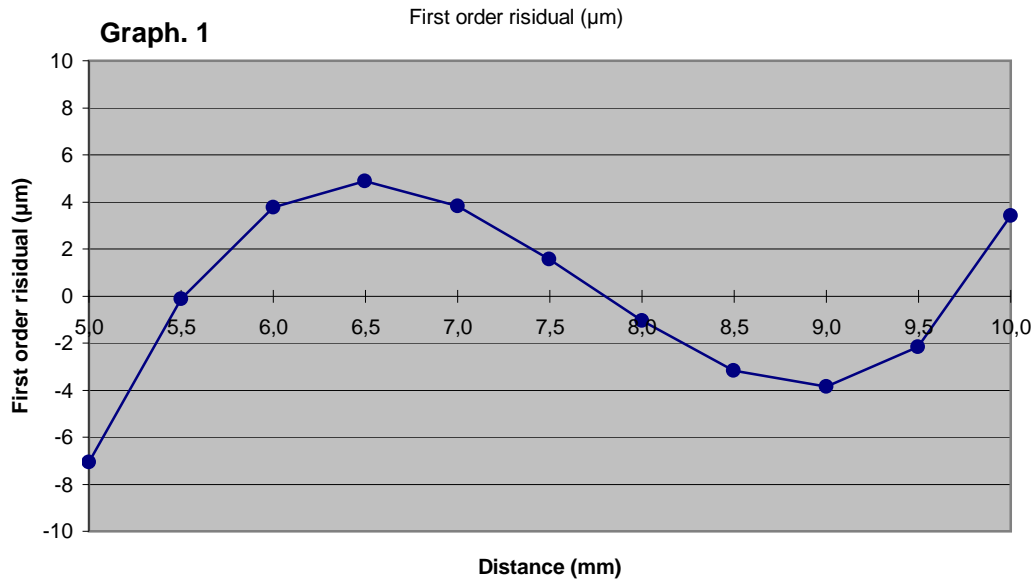
# H7DC-061

Date : 19/12/2012

## First order linearization

First order regression coefficients

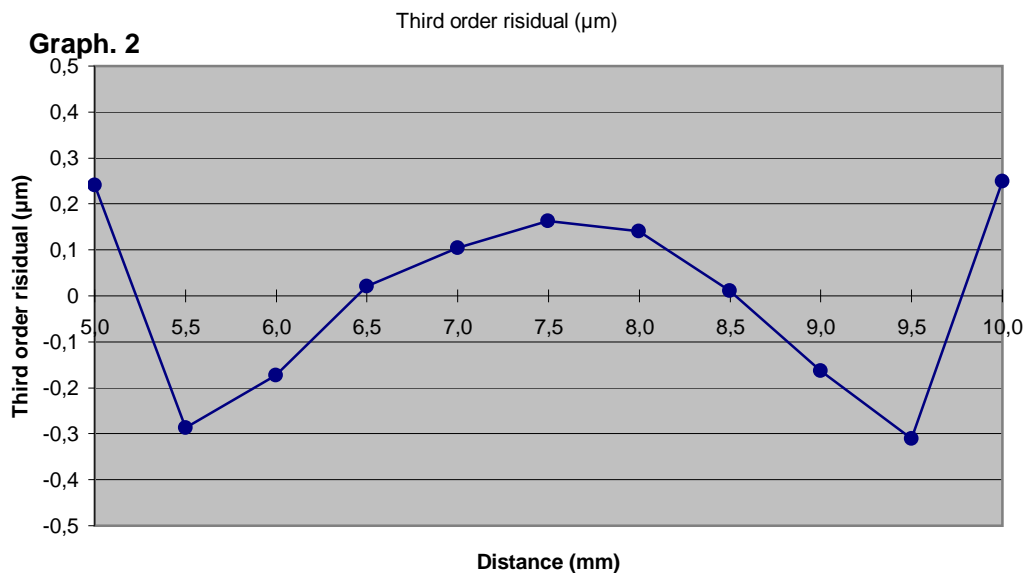
$$d = 5,0073 + 0,49883 V$$



## Third order linearization

Third order regression coefficients

$$d = 5,0001 + 0,50852 V - 0,002317 V^2 + 0,0001453 V^3$$



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

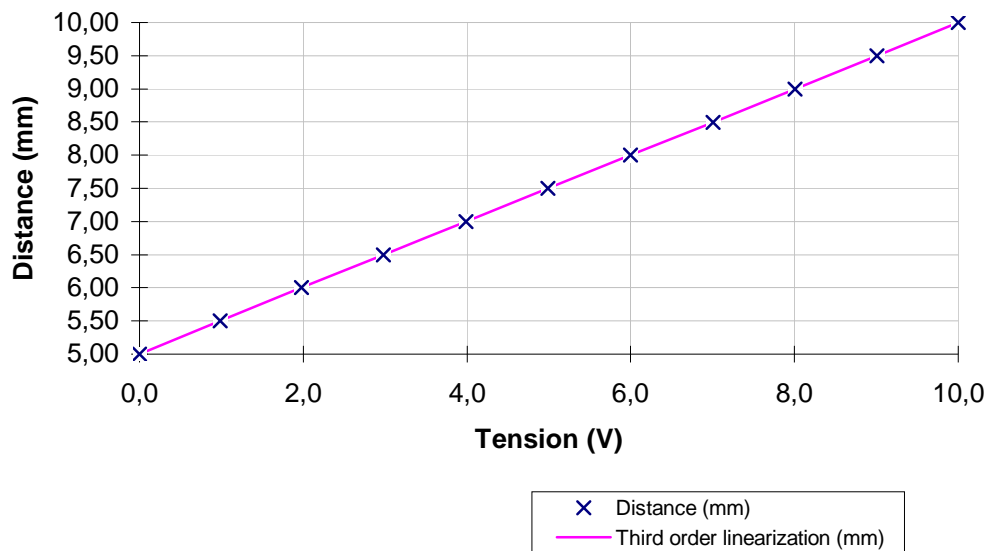
- Distance is in mm

- Voltage is in V

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## Sensor linearization



## Résults

Distance (mm)	Voltage (V)
4,9995	-0,0016
5,4994	0,9867
5,9994	1,9812
6,4978	2,9782
6,9985	3,9840
7,4976	4,9891
7,9986	5,9987
8,4975	7,0031
8,9985	8,0088
9,4977	9,0061
9,9984	9,9987