

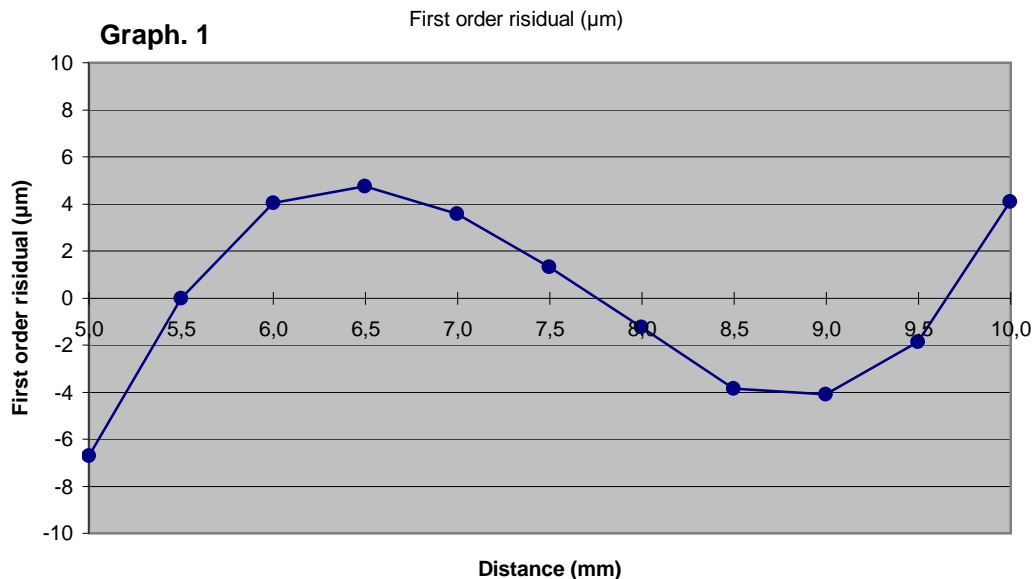
# H7DC-046

Date : 19/12/2012

## First order linearization

First order regression coefficients

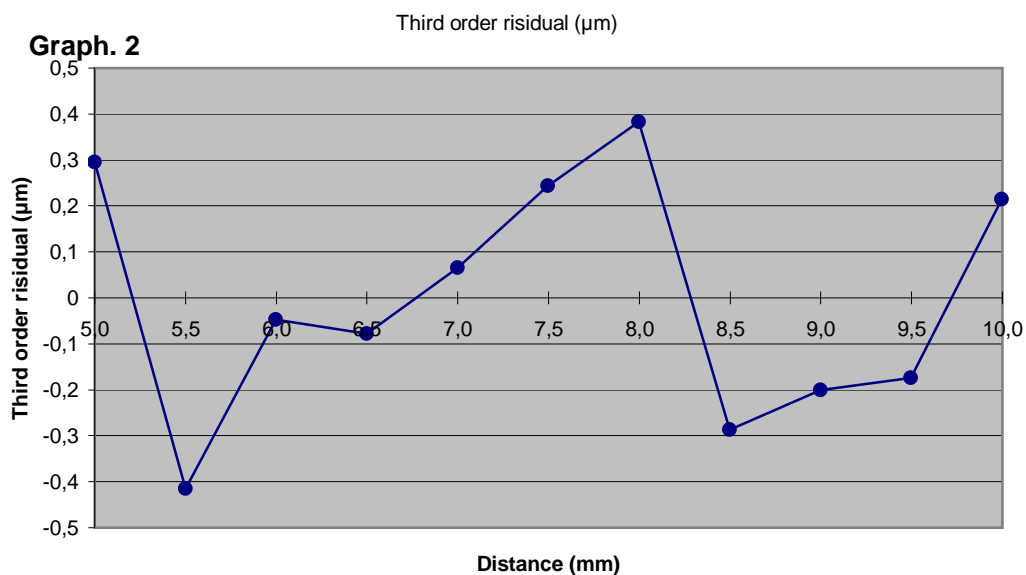
$$d = 5,0062 + 0,49880 V$$



## Third order linearization

Third order regression coefficients

$$d = 4,9992 + 0,50852 V - 0,002379 V^2 + 0,0001517 V^3$$



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

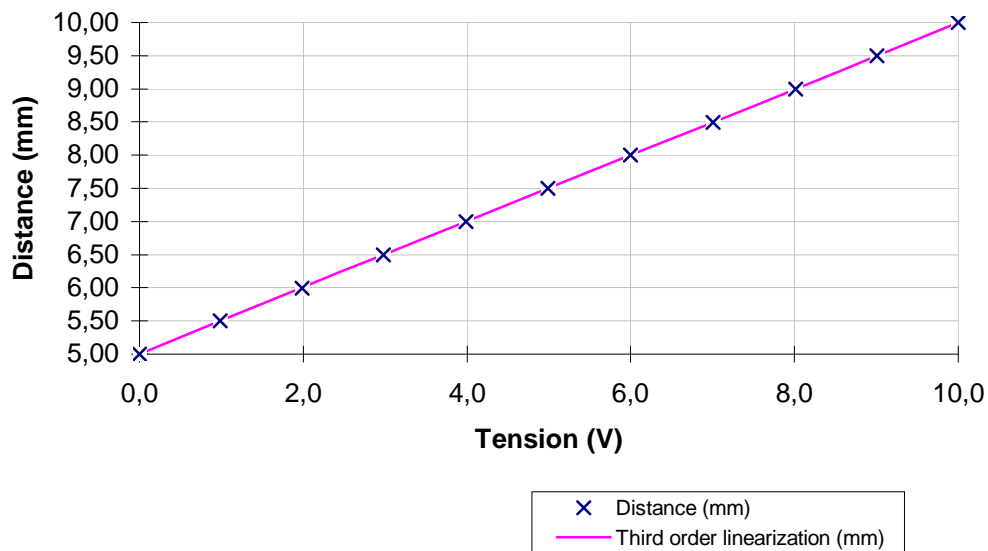
- Distance is in mm

- Voltage is in V

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## Sensor linearization



## Résults

Distance (mm)	Voltage (V)
4,9993	-0,0004
5,4991	0,9881
5,9990	1,9822
6,4974	2,9800
6,9980	3,9859
7,4973	4,9915
7,9981	6,0006
8,4971	7,0062
8,9981	8,0111
9,4974	9,0076
9,9980	9,9993