

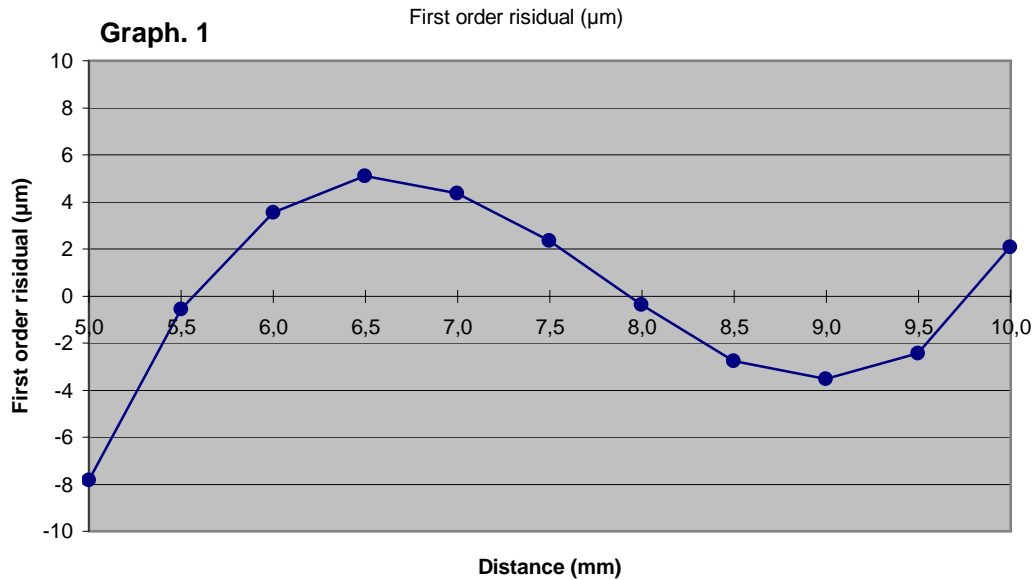
# H7DC-055

Date : 19/12/2012

## First order linearization

First order regression coefficients

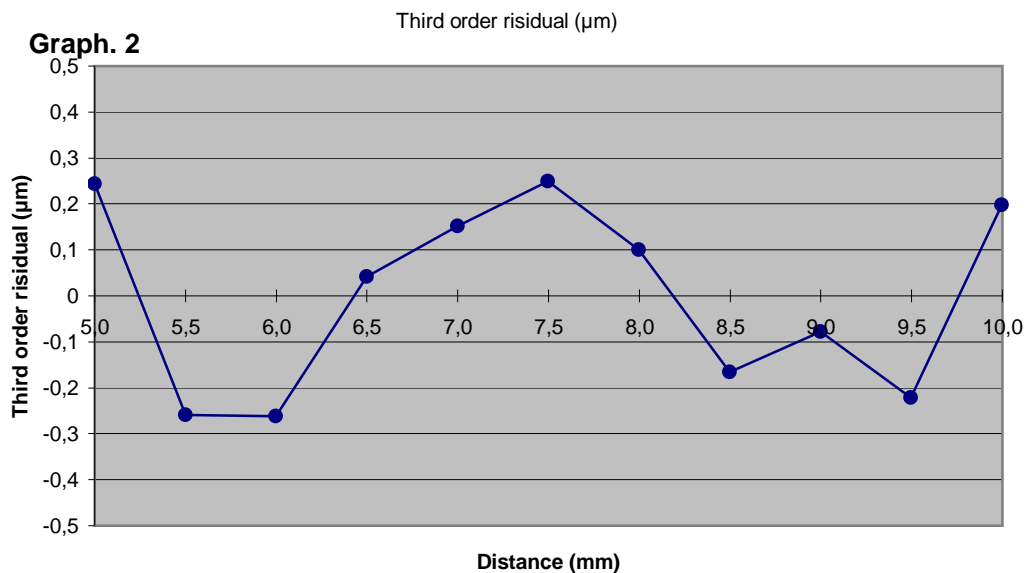
$$d = 5,0073 + 0,49880 V$$



## Third order linearization

Third order regression coefficients

$$d = 4,9992 + 0,50877 V - 0,002282 V^2 + 0,0001384 V^3$$



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

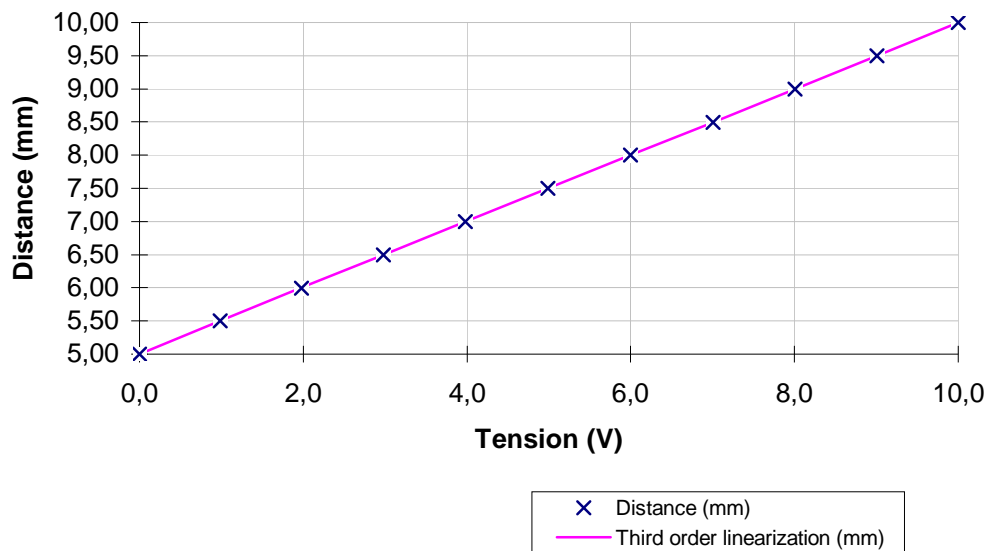
- Distance is in mm

- Voltage is in V

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## Sensor linearization



## Résults

Distance (mm)	Voltage (V)
4,9993	-0,0003
5,4991	0,9872
5,9989	1,9809
6,4973	2,9770
6,9979	3,9821
7,4971	4,9870
7,9980	5,9966
8,4970	7,0018
8,9979	8,0076
9,4973	9,0066
9,9979	10,0011