# Optimation WST5

System Calibration


BLH NOBEL
A VPG Brand

# Theoretical calibration

**1 Maximum weight**

- (Maximum weight) is capacity of loadcell(s), number of load cell (for example four load cell with capacity 1500kg become 6000kg)
- If system consist of one loadcell then insert the capacity of that loadcell.

**2 Sensitivity mV/V**

- If system consist of multiple loadcells, insert average mV/V of all load.
- If System consist of one loadcell, insert mV/V of that load cell.

**3 Full Scale:**

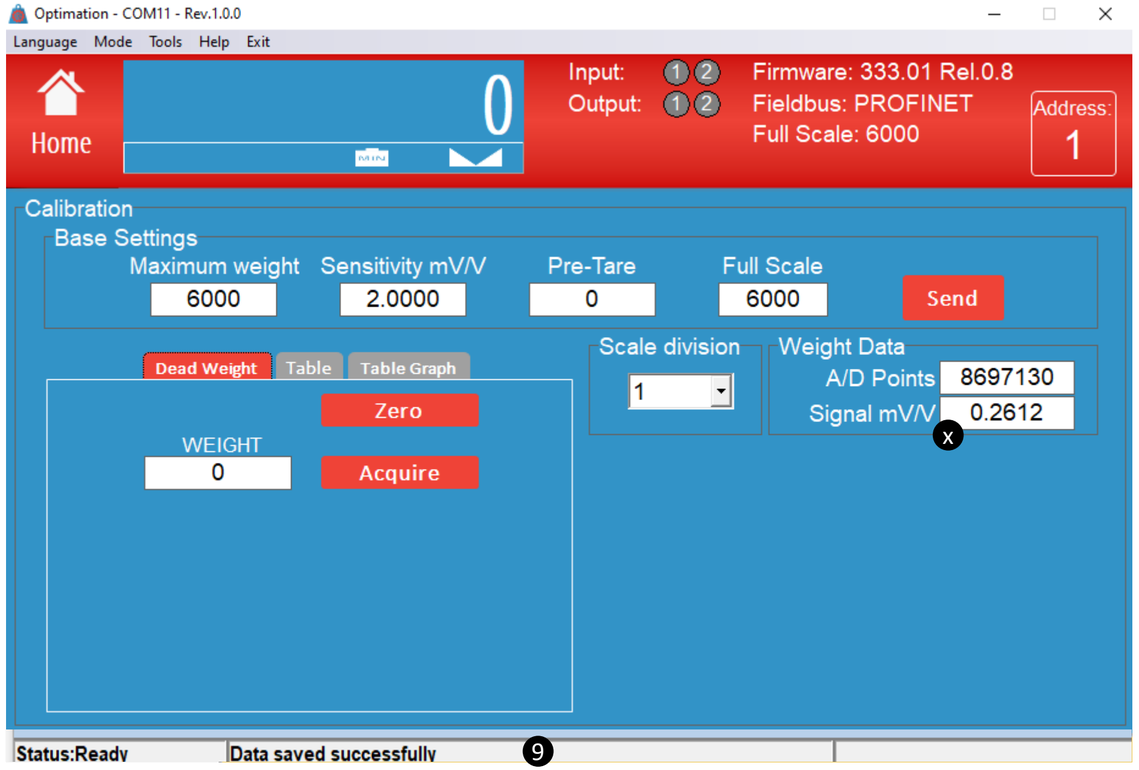
- This is the capacity of the system, insert slightly above capacity.
  (For example, if tank is 3000kg insert 3100kg. Otherwise overload error will activate immediately after 3000kg).

**4 Set division**

**5 Click SEND key**

**6 Click SAVE key**

# Theoretical calibration


**7 Value measured by scale:**

- Weight of empty tank
- You can either Zero away the weight of the tank or use the Pre-Tare function, insert the weight of the tank, (in this example 500kg) into the Pre-Tare box.

**8 Click SEND key**

**9 Click SAVE key**

**DONE**

**x Structure value signal = TARE**

# Calibration with real weight

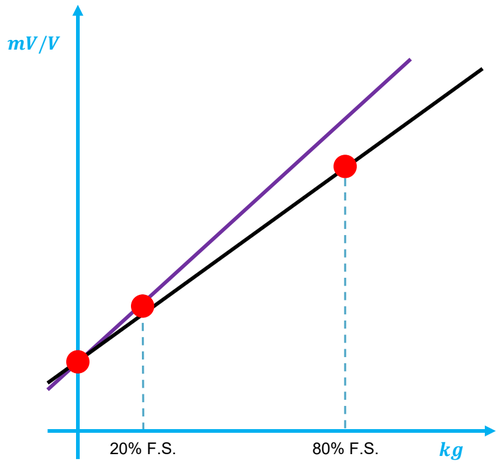
After you have done the Theoretical calibration it is possible to refine the response with know weights (only if it is necessary).

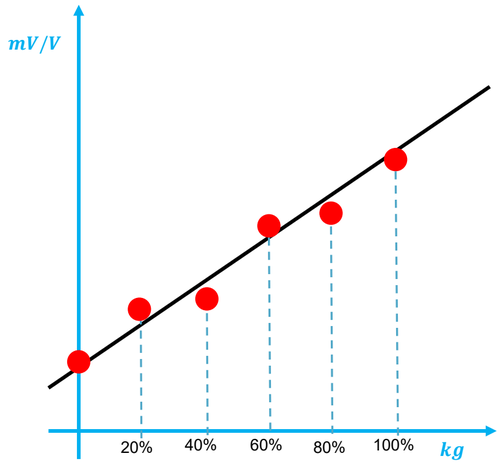
It is a linear corrispondation between WEIGHT and mV/V.

**Procedure:**

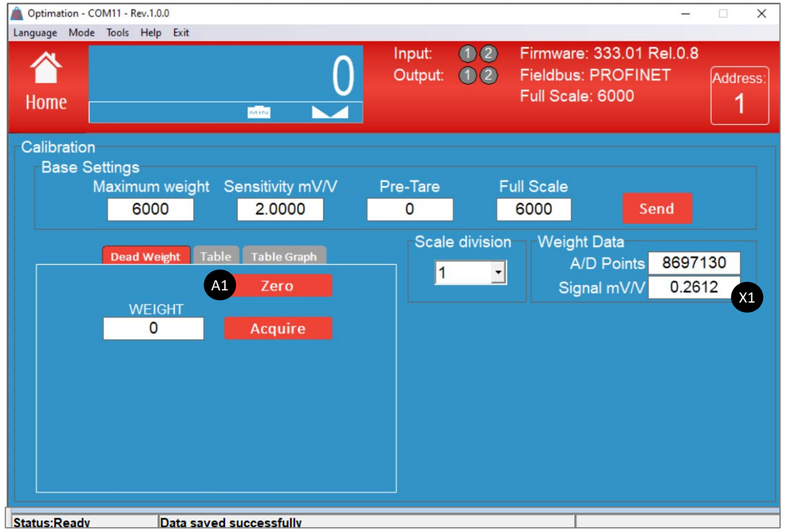
A. Linearization in 1 point
   I. It is recommended to use a weight of at least *80%* of Full Scale.
   II. If you use a weight < *80% it will not be a very accurate scale.*

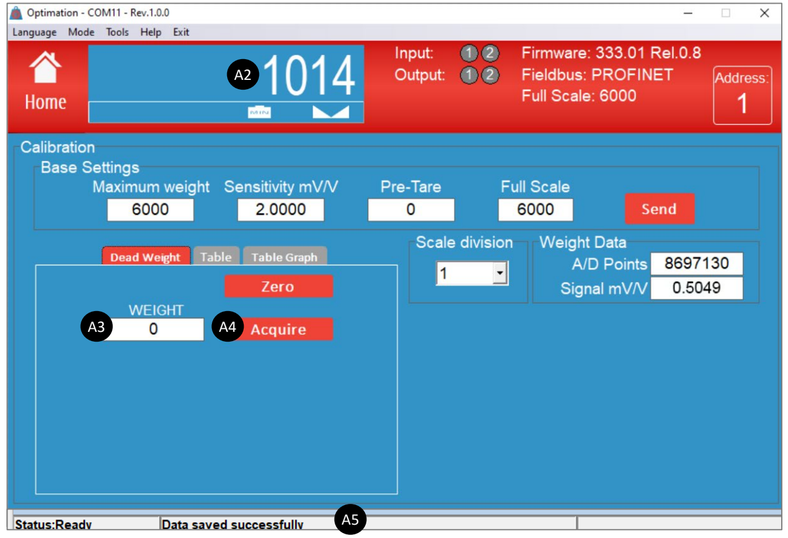
B. Linearization in 5 points
   I. Same principal is used in this exampel, except that you use five weights up to 80% of Full scale.

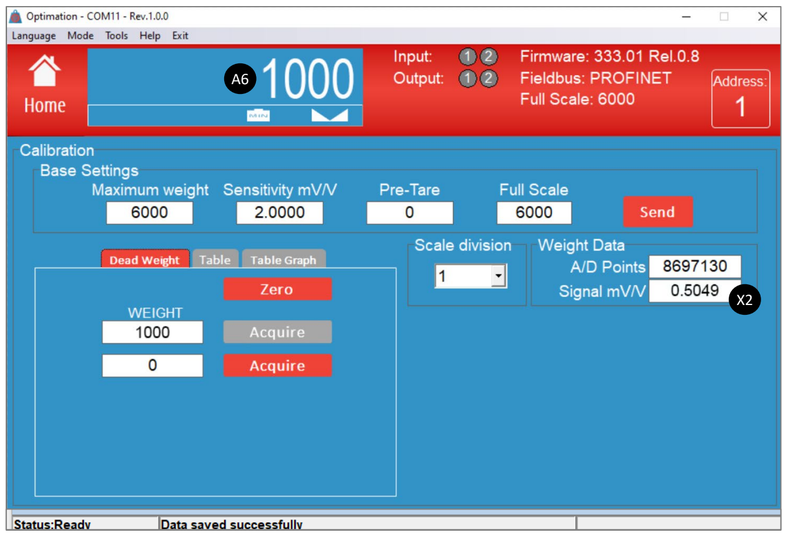


# Calibration 1 point




A1 Click on *Zero* key to do Zero of system

X1 Signal at Zero

**Apply known weight, example *1000kg***

A2 Weight read by instrument example *1014kg*

A3 Write real weight 1000kg

A4 Click on **ACQUIRE** key

A5 Click on **SAVE** key

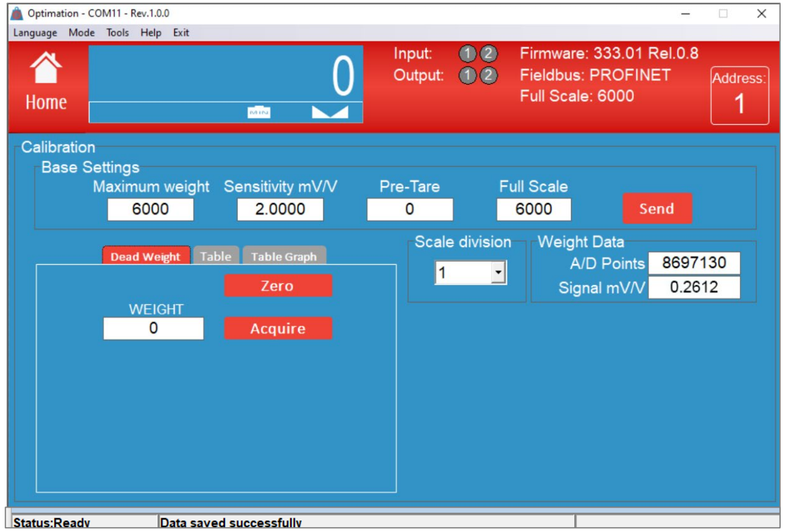
**DONE**

With this linearization procedure you inform the instrument that the mV/V value in X2 is 1000kg as shown in A6 instead of 1014kg as shown in A2

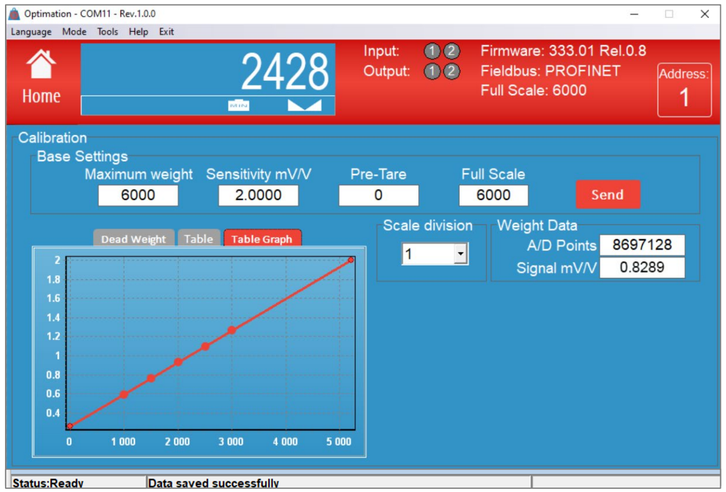
This linearization is useful for correct little imperfection.

# Calibration 5 points

**Same procedure as for points 1 → repeat 5 times**



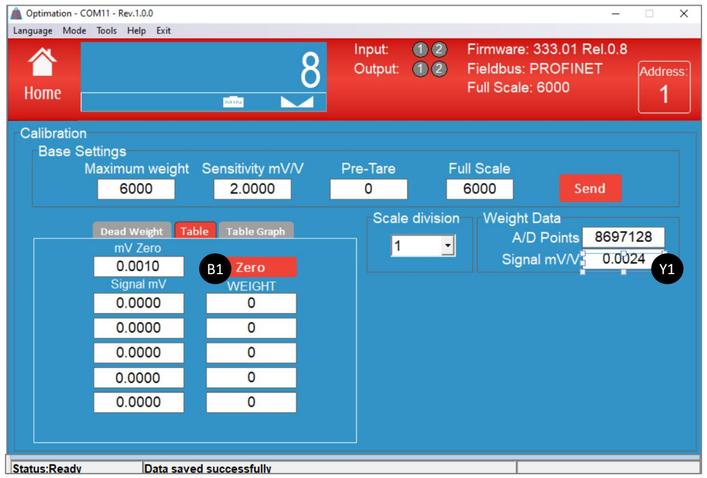



In the Table Graph tab it is possible to watch the points of the calibration

# Table calibration

**With table Calibration is possible keep a record of value**



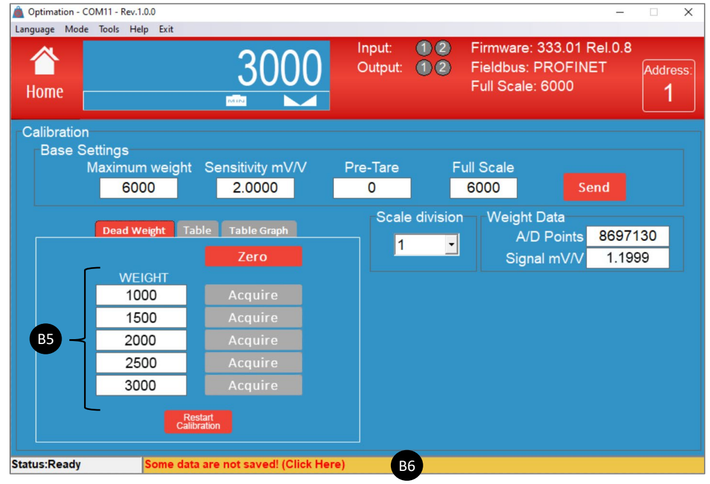

**After theoretical calibration**

B1 Click on **ZERO** key to do Zero of system

Y1 Signal at Zero

B3 Due B1, weight change to zero

B4 Due B1, signal change

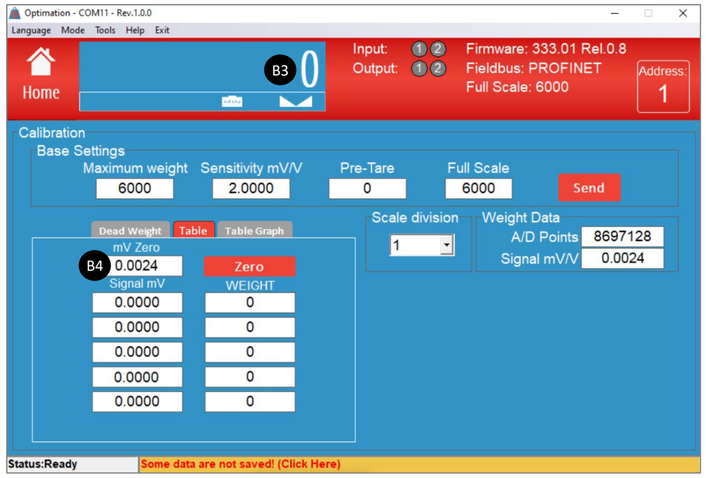



**Add know weight step by step to the scale and save the signal Value.**

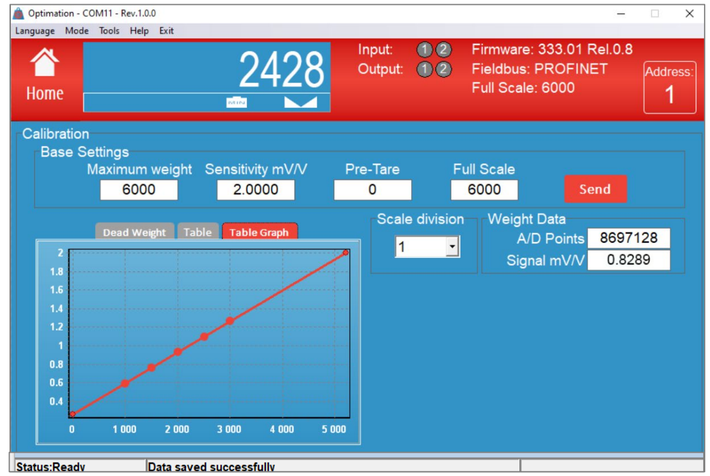
B5 Fill table, with signal for related know weight

B6 Click **SAVE** key

**DONE**




**In Table Graph it is possible watch the points of calibration.**



Measurement · Weighing · Control

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