DAT, CONFIGURATION & CALIBRATION IN mV EXAMPLE

In the following AppManual we are going to explain how we must configure and calibrate theoretically our DAT weight transmitter, using an mV calibration, without need any test mass.

Using the following example to configure the transmitter:
CAPAC: 60.000 Kg (Sum of the loadcells capacities)
SENSIT: 2,047mV/V (Loadcells average sensibility)
NET: 30.000 Kg (Product weight)
DEADL: 2.000 Kg (Structure weight)
DSPDIV: 10 Kg (Display division)
OPMODE: GROSS (Operating mode)

First of all, we should configure those parameters located in CONFIG, so from the main screen press **PRG + SET** (keeping pressed PRG at the same time press SET) and we go into the complete configuration menu.

CONFIG

Press PRG

CAPAC……..Press PRG, with the arrows (↑ y ↓) changes the parameter value and with →0← button the digit jump. Here we have to set the sum of all loadcells capacity.

60.000

Press PRG and then↑

SENSIT…….. Press PRG, with the arrows (↑ y ↓) changes the parameter value and with →0← button the digit jump. Here we have to set the loadcells average sensibility.

2,0470

Press PRG and then↑

NET……. Press PRG, with the arrows (↑ y ↓) changes the parameter value and with →0← button the digit jump. Here we have to set the product weight.

30.000

Press PRG and then↑

DEAD L…….. Press PRG, with the arrows (↑ y ↓) changes the parameter value and with →0← button the digit jump. Here we have to set the structure weight.

2.000

Press PRG and then↑

DSPDIV……..(continues in the next page)

DSPDIV……. Press PRG, with the arrows (↑ y ↓) changes the parameter value and with →0← button the digit jump. Here we have to set the display division.

d 10

Press PRG and then↑

SIGNAL……. Press PRG the display will show us the mV signal given by the loadcells with the actual weight. That value can be worthy to chech the loadcells signal. The loadcells give us 0mV/V at 0Kg and 2mV/V at nominal capacity.
Press →0← to come back to SIGNAL.
Press ↑

COUNTS……. Press PRG the display will show us hte value in counts of the ADC(Analogue Digital Converter).
Press →0← to come back to COUNTS.
Press ↑

OPMODE……. Press PRG, with the arrows (↑ y ↓) changes the working mode. Here we should set the working mode we want use. We can choose between GROSS, NET y PEAK-H.

GROSS

Press PRG and →0← to come back to CONFIG menu

CONFIG…….Press →0← , the display will show us STORE?, press PRG to go out of the menu, now we are in weight mode, main screen.

Now we have configured the transmitter parameters, also the transmitter internally has made a theoretically calibration in mV, knowing CAPAC and SENSIT values.

From now, we can weight correctly, after being done the theoretically calibration. However to get a higher accuracy, we recommend to do a mass calibration.

NOTE: In many cases we do not know excactly the DEAD L (weight structure) value, but we know the quantity of product inside the tank, then what we should do is set the DEAD L value to 0. Once configured the transmitter, we have to see the showing value on the display.
To that value, we have to subtract the quantity of product inside the tank and we will get the DEAD L value to set into the transmitter.

Display value – Quantity of product (inside the tank) = Structure weight (DEAD L)