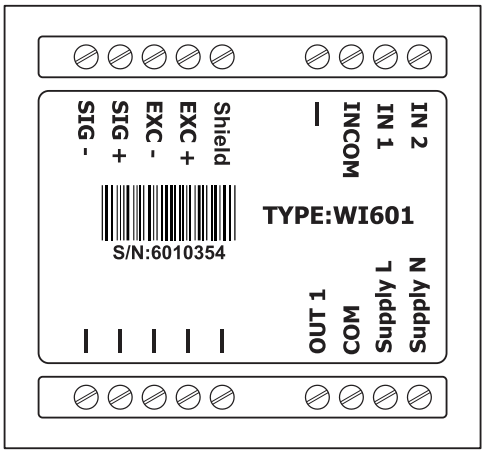
TENDER Weight Indicator and Controller with One Programmable Output

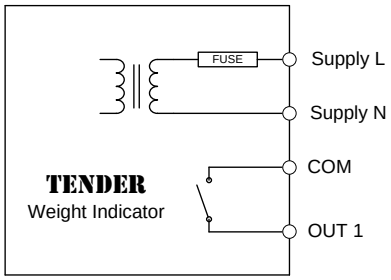
Model WI601

Specifications

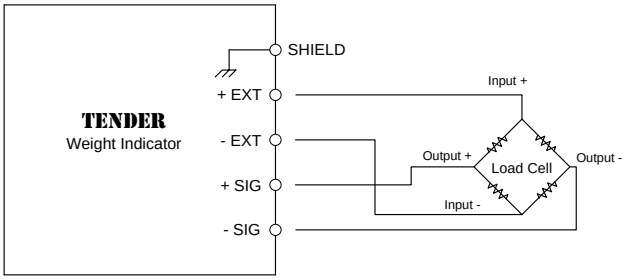
Operating Voltage	230VAC,50Hz
Power Consumption	Approx. 3VA
Operating Temperature	-20° C ~ 50° C
Load Cell Excitation	DC 5V , 120mA
Relay Output	5 A, <250 VAC
Digital Inputs	< 230 VAC
A/D Sampling speed	50 times/sec
Display	5 Digit LED 7-segment
Analog Input range	±40mV
Input impedance	10MΩ
Size	96 X 96 X 72 mm

Pin Configuration

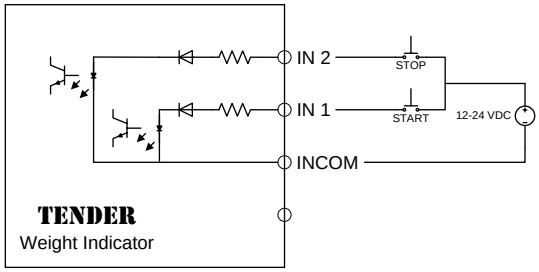




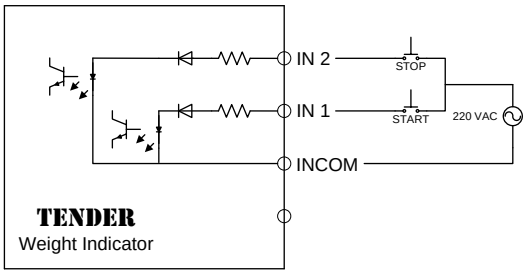
Supply and relay connection



Load cells connection



DC digital input connection



AC digital input connection

1) Load cell error messages

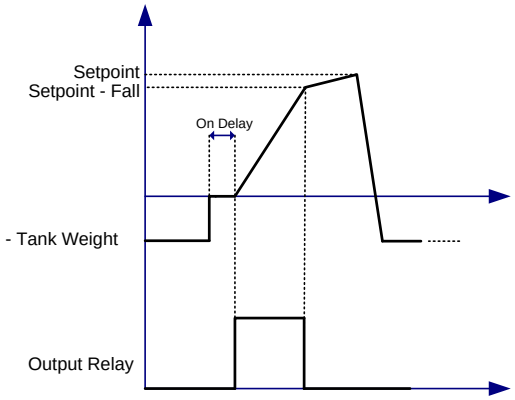
- n.CELL Error message: It indicates the disconnection or translocation of load cell wires or load cell failure.
- S.CELL Error message: It indicates the short circuit of load cell wires.

2) Function modes of device relays output (FUnCt menu)

FUn=0 **Simple mode:** This mode which is the most simple and usable mode, relay's state will change when the weight blow over the set point, and it will return to its normal state when it's lower than setpoint. We can set the relay's normal state from no-nC menu. In this mode IN1 digital input operates as an external tare and IN2 will be inactive.

FUn= 1 **Start/Stop mode:** In this mode, in normal state, relay is inactive. IN1 digital input starts or actives relay, till weight is under the set point. When weight blow over the setpoint, relay will be inactive and will remain inactive till the next start command. The digital input IN2 stops or inactivates the relay.

FUn=2 **Automatic filler mode:** In this mode when weight is less than zero, relay is inactive. With putting tank on scale and achieving zero point, relay will active. When weight blow over the set point, relay will be inactive, and will remain inactive till taking tank and weight will fall down to less than zero, with putting next tank this circle will repeat again. In this mode IN1 digital input operates as an external tare and IN2 will be inactive.

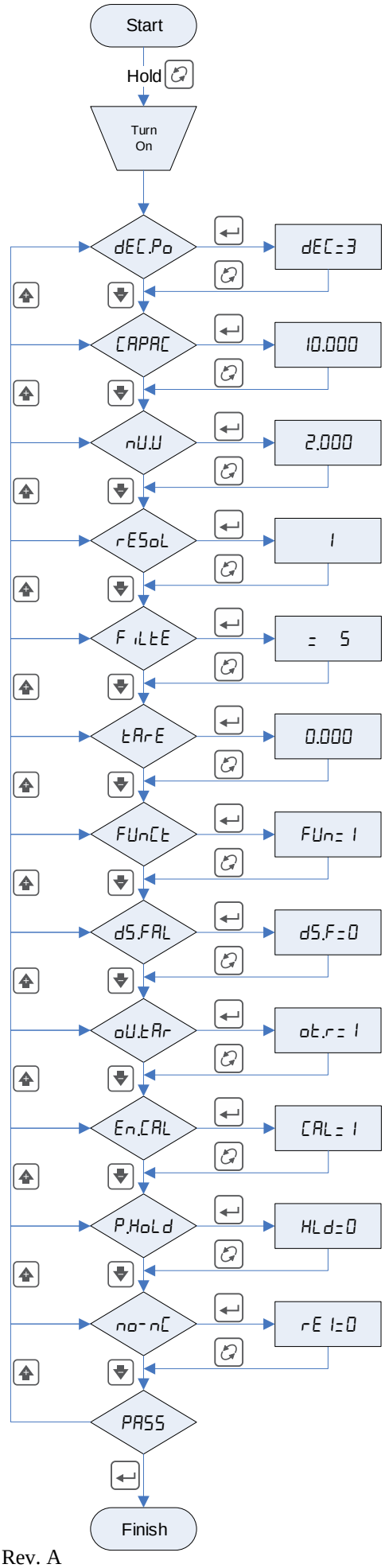


3) The Timers

This device has two programmable timers; they operate as below:

On.dLY **Delay in start:** In all modes, it's using to delay start of the output. (Per second)

_on.t_ **Minimum loading time:** In some filling systems, Due to the pressure drop of materials at the start of loading, the weight exceeds the setpoint limit instantly, and causing unwanted stop. With using this timer, we can specify the minimum loading time even if it pass the setpoint. (Per second)



4) Main setting menu of the device

In order to enter this section, hold ↻ while the device is off, and turn it on.

Enter the desired float number.

Enter the maximum capacity of load cells.

Enter the mV/V value or load cells sensitivity.

Select the resolution value from 1, 2, 5 … and 100.

Enter the filter value or updating time from 5 to 50.

Enter the tare value or dead weight, if required.

Select the device mode from 0 to 2, considering the aforementioned explanations.

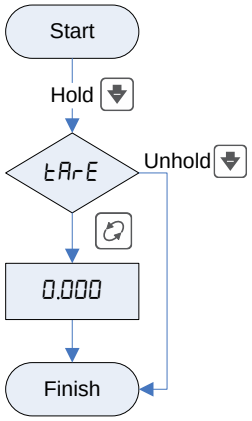
In order to display the “load in air” or infusion menu, enter 1 and to hide it, enter 0.

For the activation of automatic resetting at the loading initiation, enter 1.

In order to activate the manual calibration, enter 1 and to inactivate it, enter 0

In order to activate the hold peak function, enter 1 and to inactivate it, enter 0

For the normally close state of output relay, enter 0 and for the normally open state, enter 1.



5) Manual Tare

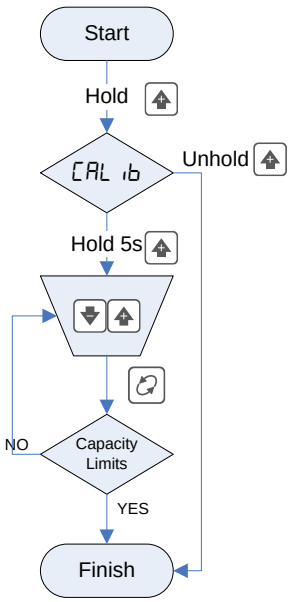
Hold , the term tArE is displayed, while holding

Push . The display will show zero.

6) Manual calibration

If the indicated weight is not equal to the real load value, it can calibrate manually the indicator as following. It is obvious that after performing the manual calibration, the Capacity parameter value (in the main setting section) will change automatically.

After resetting, put the weight with the determined value on the balance, and start the calibration.



Hold for 5 seconds.

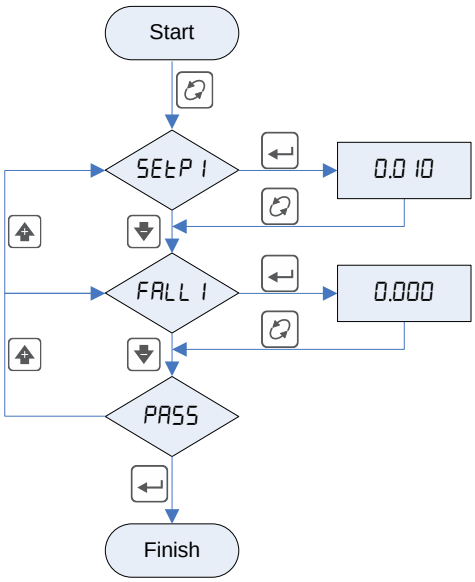
The display starts to blink.

By using and , enter the desired weight and push

<u>If the calculated new load cell capacity is not in the admissible range, the system will return to the previous step and will not quit the blinking state.</u>

7) Formula selection

Push and hold it. The term Prog= is displayed, while holding . By using and select the desired formula.



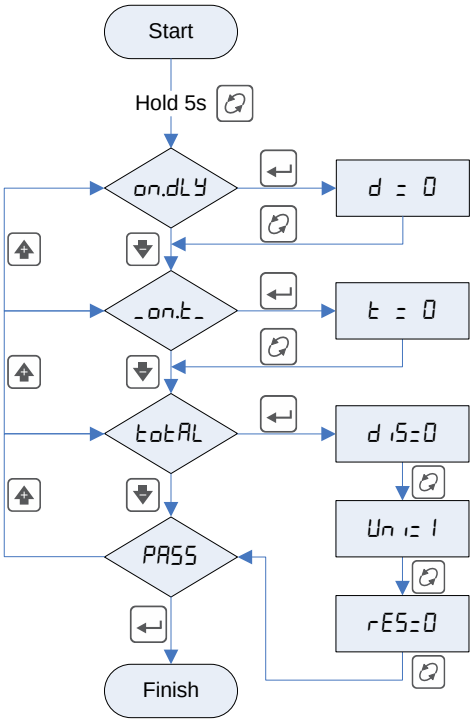
8) Set point tuning

In order to enter the menu while the device is on, push

Enter the desired final weight in order to load from the relay.

Enter the leakage value after the stop command for the output.

- If dS.F=0 , then redirect to PASS and the FALL menu will not be displayed.



9) Accessory setting

In order to enter the menu hold for 5 seconds.

Enter the delay time at the beginning of loading.

Enter the minimum loading time.

Enter *1* in order to activate the display of total loaded weight at the turning on the device.

If the total loaded weight display unit is in tone, enter *1*, and otherwise, enter *0*.

For resetting all the total loaded weight display values, enter *1*.

10) Reset factory

Hold for 12 seconds to display FCrSt (blinker), then press button.