

# NIYANCELL WEIGHING CONTROLLER



## WB400 Totalizing Belt Scale Indicator for Stand Alone Belt Weighers

- Functions
  - Totalizing counter
  - Mass flow display
- Modbus RTU (RS485)
- 1 serial port
- 4 relay outputs
- Pulse output for external counter
- Analog in put (4)-20 mA
- Analog output (4)-20 mA
- Modbus RTU Modul

### APPLICATIONS

The WB400 Totalizing Belt Scale Indicator is designed for accurate and reliable measuring of material amount driven through a belt conveyer. Material weight and belt speed are used to count the mass flow. Total amount of material is seen in the totalizing counter.

### HARDWARE

WB400 stainless steel case has IP65 protection class. The device can be mounted on table or on wall. The device can also be mounted on control cabinet door.

WB400 has an easily readable illuminated LCD-display. The membrane keyboard has 16 keys.

Parameters can be entered and calibration can be done easily with the display and the keyboard.



# main menu

## Z (Flow Rate / Total)

Shows the total load of data passing through the bar.

## Q (Load)

Specifies the amount of active load on the weighing area that is felt by the load cells.

## I (Feed Rate)

The pass rate of the bar is displayed according to the amount of load and its passing speed.

## V (Speed)

calculates and displays the speed of movement of the bar according to the type of operation. This speed is read through the encoder and then calculated. In some cases, a constant speed mode can also be used.



## MEASURING

The WB400 Totalizing Belt Scale Indicator continuously measures the material on the conveyor on the basis of weight and belt speed. A load cell measures the weight on the weighing roll and a speed transducer measures belt speed.

The mass flow value can be seen in display and it can be read through Analog output or **Modbus RTU**.

The amount of transferred material is continuously added to the totalizing counter. The counter value can be seen in display and it can also be read through the **Modbus RTU**.

The totalizing counter can be cleared by keyboard or by **Modbus RTU**

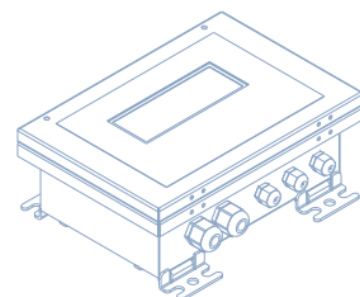
## FIELDBUS INTERFACES

Serial port can be used to connect the device to a control system with Modbus/RTU protocol. The serial port type is RS-485.

## INPUTS AND OUTPUTS

WB400 has the following inputs and outputs:

- 4 opto-isolated inputs, 12 V DC
- 1 Namur input for belt speed tachometer
- 4 relay outputs, 12 V DC
- 1 opto-isolated pulse output for external counter
- (4)-20 mA Analog output,12-bit.



Analog output can be used to transfer mass flow information to control systems or secondary displays.

Totalizing counter value is transferred to pulse output.



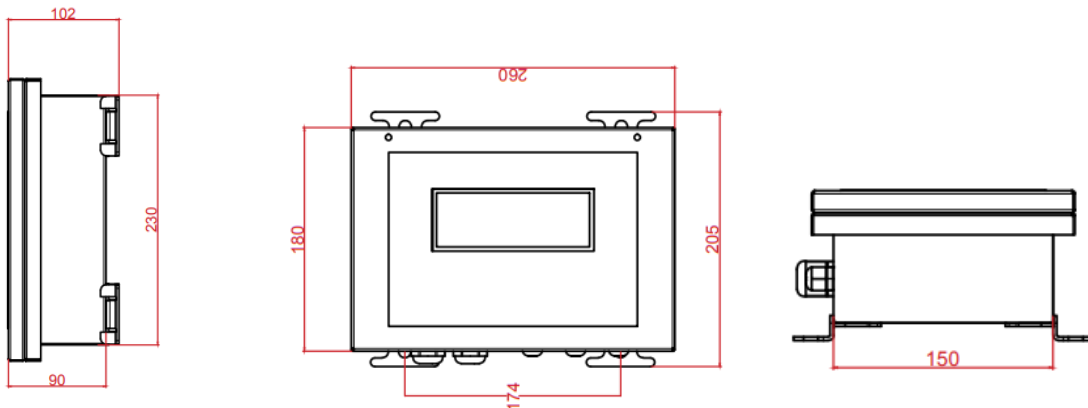
## FUNCTIONS AND PARAMETERS

All parameters can be viewed and modified in display. Parameter codes, values and also names are displayed.

All parameters and the calibration data are stored in non-volatile memory and remain unchanged in case of power failure.

belt scale design and manufacture results in greater accuracy. To help the user maintain the accuracy and performance of the belt scale, this guideline provides recommendations for the proper application of belt scales under specific conveyor and environmental conditions. The guide is meant to be read chronologically to both teach and build on the knowledge of how certain aspects of the application can compound with others to create create performance from the scale.

## NIYANCELL WF 400 / WB 400 Dimension



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