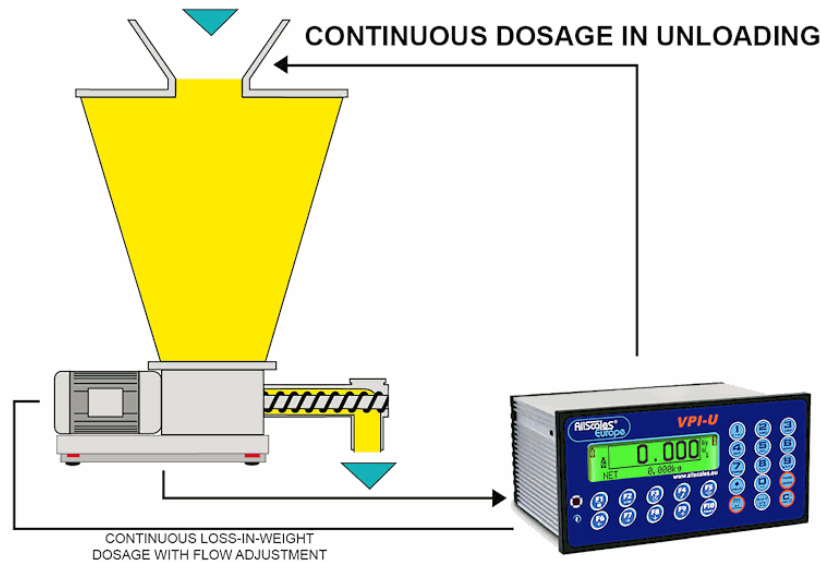




# Firmware for Conveyor Belt Weighing (unload) FW-BN

*Special firmware for checkweighing in unload mode.*

Static or Dynamic Checkweighing of products on a conveyor belt,  
fed from a silo, hopper, etc. Fully programmable printout layouts.



## Features

### Dosage functions

- 2 selectable operation modes:
  - instantaneous reading of the flow, in g/h, kg/h or t/h with displaying of the status of the system and of the dosed total
  - adjustment of the dosage hourly flow, with adjustment of the belt speed or of the material flow through the analogue
- output with completely adjustable PID adjustment algorithm (proportional, integral, derivative)
- visualisation of the hourly flow graph and wide range of data displayed on the display
- calibration of the flow reading function, for perfecting the dosage performances
- reading filter of the hourly flow with configurable incidence and speed depending on the system
- programmable dosage target upon weight or upon time, with relative contact
- programmable delay at the start, for synchronisation of various systems in the dosage of material mixtures
- management of the slow flow with programmable activation threshold, for more precise dosages
- management of the dosage total under way and general total of dosages, printable and clearable independently from each other
- management of the automatic dosage from remote master or through serial protocol
- printing of the dosage data and the total
- completely programmable printouts, for compatibility with any ASCII printer manageable through the serial port

### Databases

- database of 100 products with: 5 lines of alphanumeric description, hourly flow target, weight dosage target and initial value analog output
- manual programming of the products or through PC software

### I/O- functions

- activation cycle, start / restart dosage, pause / reset cycle and unloading of the belt out of the cycle, through external inputs
- impulse counter of the accumulated quantity through relay contact, for direct communication with PLC or external devices
- relay contacts dedicated for the complete management of the alarms and the blocks for off weight, off flow and belt side-slipping
- input and output with programmable functions
- 16 bit analog input (optional) for programming the hourly flow target
- 16 bit analog output (optional) proportional to the hourly flow (reading mode) or programmable for regulating the dosage speed (regulator mode)
- serial communication protocol for programming the products and reading the cycle status
- Sysway and Modbus communication protocol for programming the dosage data and managing the cycle

### Sysway, Modbus, Profibus functions

- data reading: net weight, instantaneous capacity, instantaneous PID value, partial total, general total, status of the optoisolated inputs, status of the optoisolated outputs, flow target (for the controller modes), minimum flow, maximum flow, dosage time, target to be dosed, set point enabling/disabling value, scale status
- available commands: dosage start/stop/reset, programming of flow target, target to be dosed, dosage time, print format, reset of the totals accumulated, programming of setpoint

This firmware applies to our weight indicators of the types **HP(R)-Ultra**, **HP-Touch**, **HPR-Touch**, **VPI-U** and **VPI-U-Advanced**. See also the details of the respective weighing indicator.





# Firmware for Conveyor Belt Weighing (unload) FW-BN

Principle diagram

