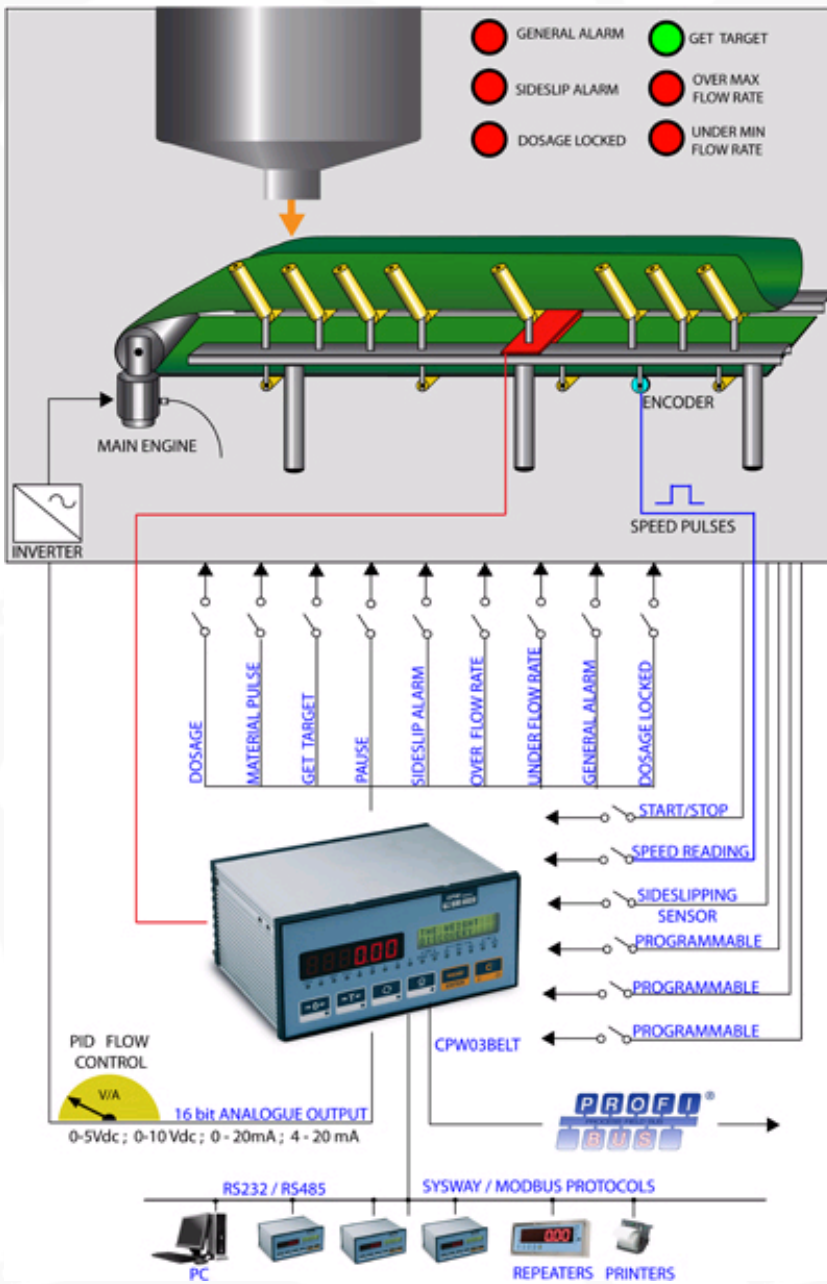


"CPW03BELT": CPW FOR MANAGEMENT OF CONTINUOUS DOSAGES ON BELT



CPW03BELT: reading and adjustment of the flow and registration of the dosed weight.

SYSWAY, MODBUS, PROFIBUS PROTOCOL' FUNCTIONS

- **READING THE DATA:**
 - net weight
 - instantaneous flow
 - value of the instantaneous pid
 - 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
 - status of the scale
- **AVAILABLE COMMANDS:**
 - dosage Start/Stop/Reset
 - flow target set

Software version for the measurement/integration of the flow of material transitioning on the weighing belt, with memorisation of the quantity of dosed material; possibility of adjusting the flow through the 16 bit analogue output and PID control. Possibility of remote management of the instrument, through Sysway or Modbus RTU protocols, or Profibus through optional interface.

FUNCTIONS

- **Instantaneous reading of the flow**, in kg/h or t/h, display of the status of the system and of the dosed total, with analogue output (optional) proportional to the flow.
- **Adjuster of the dosage hourly flow**, with adjustment of the belt speed or of the material flow through the programmable analogue output. Completely adjustable PID adjustment algorithm (proportional, integral, derivative).
- **4 selectable operation modes**, for completely manual or completely automatic dosages, managed by remote master through Sysway, Modbus (standard fitted) or Profibus (only with option) protocols.
- **Reading filter of the hourly flow with configurable incidence and speed** depending on the system.
- **Relay contacts dedicated for the complete management of the alarms** and the blocks for off weight, off flow and belt side-slipping.
- **Management of the dosage total under way** and general total of dosages, printable and clearable independently from each other.
- **Programmable dosage target** upon weight or upon time, with relative contact.
- **Management of the slow flow with programmable activation threshold**, for more precise dosages.
- **Calibration of the flow reading function**, for perfecting the dosage performances.
- **Impulse counter of the accumulated quantity through relay contact**, for direct communication with PLC or external devices.
- **Programmable delay at the start**, for synchronisation of various CPW03BELT systems in the dosage of material mixtures.
- **Completely programmable printouts**, for compatibility with any ASCII printer manageable through the serial port; printing of the dosage data, of the system statuses and of the totals.
- **Sysway, Modbus (standard fitted) or Profibus (only with option) communication protocols).**

FLOW READER FUNCTIONING

- The flow reader mode provides for the display of the hourly flow passing on the belt and the display of the status of the system and the accumulated total. By closing the dosage start input, the system waits for the eventual set synchronisation time and enables the dosage output; if the analogue output has been configured, it transmits a signal, in voltage or in current, proportional to the hourly flow; furthermore it is possible to interrogate the instrument through the serial line and configure the setpoints through the fitted Modbus and Sysway protocols or the optional Profibus one.
The dosage ends upon reaching the configured target,

set target to be dosed
set dosage time
print format
reset of accumulated totals
set setpoint

TO VIEW ALL THE TECHNICAL FEATURES, SEE THE CPW PRODUCT DATA SHEET

or by reopening the start input.
If a printer is connected, the data of the finished dosage is printed.

FLOW REGULATOR FUNCTIONING

- The flow adjuster mode foresees for the display of the hourly flow transitioning on the belt and the display of the status of the system and the accumulated total. Furthermore, during the dosage, the instrument adjusts the flow in order to keep it constant equal to the set flow target: if the flow increases, the instrument decreases the value of the analogue output in order to decrease the belt speed or the flow of material exiting the silo; on the other hand, if the flow decreases, the instrument increases the value of the analogue output in order to increase the belt speed or the flow of material.
The adjustment of the flow is obtained through the completely adjustable PID (proportional, integral, derivative) control.
By closing the dosage start input, the system waits for the eventual set synchronisation time and enables the dosage output; if the analogue output has been configured, this transmits a signal, in voltage or in current, proportional to the hourly flow; furthermore it's possible to interrogate the instrument through the serial line and configure the setpoints through the fitted Modbus and Sysway protocols or the Profibus one (only with option).
The dosage ends when the set target is reached, or by reopening the start input. Furthermore, it's possible to set a dosage slowing threshold: when this threshold is missing from the weight to be dosed, the instrument slows the system in order to maintain the "slow flow" set until the target is reached.
If a printer is connected, the data of the finished dosage is printed.