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WA-806 Discharge Scale Controller

for Automatic Discharge Scale Applications

- Dosing functions
 - Full and fine discharging
 - Tolerance check, make up operation, optimization
 - Automatic refilling
 - Multi-part dosing
- Legal-for-trade, MID, Automatic gravimetric filling instrument
- Integrated Ethernet
- 3 serial interfaces
- 4 digital inputs, 4 relay outputs
- Analog output 0(4)-20 mA
- Fieldbus Modules (option)
- LFT Memory (option)

APPLICATION

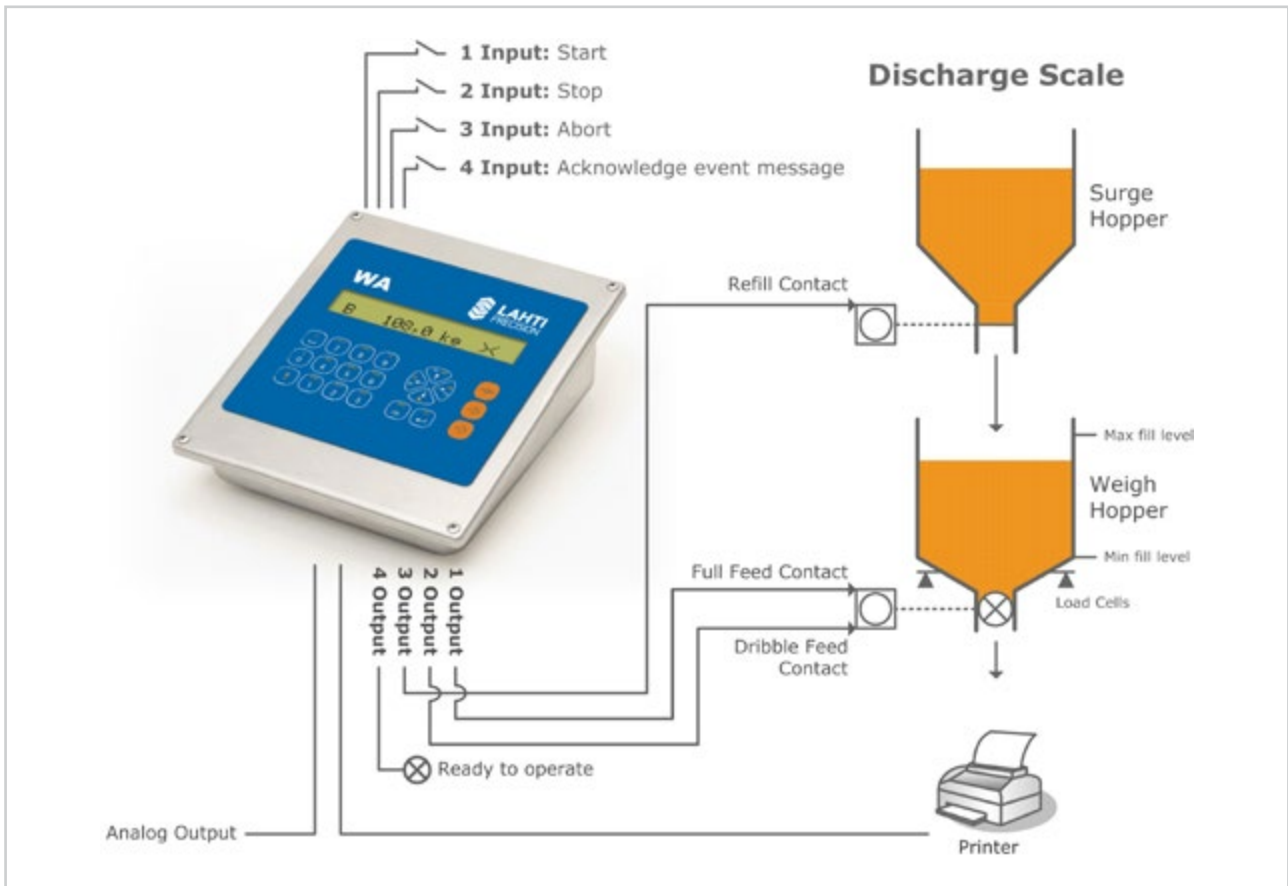
The WA-806 Discharge Scale Controller is designed to fast and accurate control of dosing and weighing in industrial batch processes. The WA-806 controls independently dosing and filling equipment. Also multiple refilling operation is possible if dosing setpoint is higher than capacity of weigh hopper.

When dosing is started, the controller sets the full feed discharging on, switches to a

fine feed discharging at the fine feed limit, and cuts off the dosing at target value minus preact. The full/fine feed can be controlled with a digital outputs. Also it is possible to use an analog output for e.g. frequency converter control. When the dosing is completed the controller adjusts the preact to the optimum value according to the dosed net weight. If the dosed amount is below the preset tolerance, dosing is restarted automatically using

fine feed pulses. During the dosing, the operating mode of the controller as well as possible alarms are shown on the display.

Additionally dosing can be started smoothly using the fine feed operation. The controller provides automatic dosing optimization based to preact amount correction. The optimization improves essentially the accuracy of dosing.



EQUIPMENT

WA-806 Discharge Scale Controller has a standard stainless steel console shaped case in protection class IP65 that is suited for table-top and wall mounting (cable outlet downward with wall mounting).

WA-806 has an easily readable back lighting LCD display for showing weight with clear text operator guidance. Data is keyed in via flexible membrane keyboard with 21 keys.

WA-806 can be conveniently configured and calibrated via the WA-plan PC program.

For materials with varying properties, 2 selectable parameter records (material data sets) are available.

COMMUNICATION

With as many as three serial interfaces, WA-806 is excellently equipped for exchanging data with its environment. For example, printer, large display and data processing can be connected

at the same time. Two of the interfaces are designed as RS 232. The third (RS 485 2/4 wire) is especially suited to communication on the bus and at greater distances.

The Ethernet connector (10/100 MBaud) is operated in the control systems via the MODBUS/TCP protocol.

The controller can also be configured via the Ethernet connector. Beyond this, the standard fieldbus system

- Profibus DP-V0 and
 - DeviceNet
- can be connected via matching optional coupling modules.

PARALLEL SIGNAL INTERCHANGE

For control jobs, WA-806 has the following parallel inputs and outputs:

- 4 optocoupler inputs 24 Volt
- 4 relay outputs

Beyond this, WA-806 has a 12-bit analog output that can transfer e.g. weight or material flow to a PLC or display.

Also it is possible to use an analog output for e.g. frequency converter control.

OPERATION AND SETTINGS

All operator guidance is carried out and data is entered in clear text.

Standard operation languages are:

- Finnish
- English.

You can easily load other operating languages into the instrument via the PC-assisted WA-plan configuration program (WINDOWS program).

WA-plan program also allows:

- setting all instrument parameters
- calibrating the instrument
- conveniently configuring the print pattern
- read-out and display of weight signals
- reading out the complete instrument configuration (backup)
- restoring stored data into a WA weight indicator. This means a substitute can be prepared at short notice.

All parameter and calibration data are stored power failure safe in the instrument. The real-time clock runs at least 7 days without a power supply.

FUNCTIONS

The discharge scale is designed to feed liquids or bulk solids out of hoppers into containers. Discharge is in two speeds, by full feed and dribble feed, to setpoint. The amount feed is checked for tolerance and made up, if necessary. Overfill is reported by a message. For optimization of feed process, pre-act and main contacts are tracked.

After each aborted or completed feed operation, weigh data are automatically printed and balanced. The balance contains the cumulative total of NET weights and the total number of NET weighings performed. The balance can be displayed and printed.



LEGAL FOR TRADE MEMORY

The additional built-in legal-for-trade (LFT) memory releases the user from the necessity of creating and archiving legal for trade vouchers on paper. Integrated LFT memory module provides paperless printing, and traceability of legal-for-trade measurement values.

COMPUTING POWER

In spite of its low price, WA-800 Series weight controller has enormous processing performance. The 32-bit ARM controller also has sufficient power reserves for fast weighing processes, simultaneous operation of various interfaces and also for future applications.

DONGLE STRATEGY

All of the scale's relevant setting and calibration data are stored in the dongle. Since all of our instruments are calibrated at the factory for identical sensitivity, you can interchange the electronic equipment at any time if there is a defect. After attaching the dongle, the scale is correctly configured and calibrated again. This means that even legal for trade scales do not have to be recalibrated or reverified.



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