



Leaf Bin Rate/Hour KS 98 application



KEY WORDS

Loss of weight, average of measurements, stabilization of measurements, material consumption, pharmaceutical reactors, hopper monitoring.

DESCRIPTION

A pharmaceutical manufacturer wanted to monitor the usage rate of a raw product from a hopper.

The hopper weighs just over 3ton and the product is used at about 20kg per hour. There can be up to 6.5ton of product in the hopper. The current indication system was sensitive to the point of being unstable (a reading could be noted and then 10 minuets later a higher reading would be displayed rather than less)

The production manager wanted details of the production use over 1, 3 and 24 hours and then graphical representation of the last 100 readings of each of the periods.

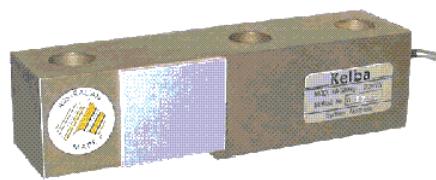
IMPLEMENTATION

The following previous method has been used:

there has been a jittery digital indicator with no record or graphical trend. An instrumentation company tried to install a printing system to print every hour, however the system was never installed successfully and no refund was ever given.

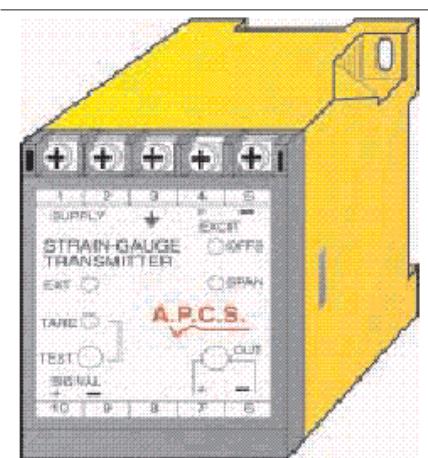
EQUIPMENT USED

There are 4x existing Kelba load cells.



We installed an APCS WT127. This device provides the strain gauge (load cell) excitation and converts the returned signal to 4-20mA.

All 4 load cells are connected in parallel to the 1 strain gauge transmitter (APCS WT127). The 4-20mA signal is then fed into a PMA-KS98 (PM-KS98-965-B2C1 - this unit has the optional clock function).



The input is scaled, averaged, (there is a live display at this point) then stored. The stored value is shuffled through a

Stable Measurement of Loss of Weight

Hopper monitoring

Averaging of Measurements

Calculation of Material Consumption

Graphical Representation of Consumption

25 point register every hour. The 2nd, 4th and 25th readings are used to calculate the mass used over the corresponding time frame.

All these values are displayed on 1 page of the KS98 and then other pages are selectable which show the graph of the last 100 readings of each of the values.

System Settings and Precautions

Set-up parameters and programming code are available from Rick Whatson of ECEFast Queensland, ph 07 3395 8888 with a reasonable project



Deutschland

PMA Prozess- und Maschinen- Automation GmbH
Miramstraße 87, D-34123 Kassel

Tel./Fax: (0561) 505 - 1307/1710
E-mail: mailbox@pma-online.de
Internet: <http://www.pma-online.de>

Your local representative