



Flexible digital signal conditioning amplifier for multiple or single load cell applications, offering very easy one-pass calibration and fast set-up

Introduction

This versatile load cell weight indicator offers options of local or remote LCD displays, isolated 4-20 mA 0-10 V analogue outputs, relay outputs for control or alarm functions and in-flight compensation commonly used in silo bag filling applications and crane overload alarms. The RS232 or RS485 options provide for digital communications (including setup) and can support label or ticket printers.

A Fast LCA15F is also available with a 10 mS strain gauge input.

Specification at a Glance

- Auto tare and peak hold actioned by volt-free contacts
- RS485 and RS232 digital data output for communications and printing
- Fully isolated 4-20 mA and 0-10 V analogue outputs
- Excitation 10 V 160 mA for up to 6 load cells
- 6 wire input to compensate for barrier and cable losses
- 2 set points SPCO relay outputs
- Sensitivity from 0.5 to 200 mV/V
- Environmentally sealed to IP65 / NEMA 4 enclosure dimensions 200 x 120 x 75 mm



User Benefits

- Full digital set-up and calibration using keypad or PC
- Analogue and data output, set point and display capabilities AC or DC powered
- Simple one pass calibration
- Available with DIN Rail mounting or PCB module or a stainless steel case (as shown above)

Ideal Applications

- Civil Engineering
- Agriculture
- Industrial Processing



Related Product



LCB
Digital load cell amplifier with data & relay outputs



ADP15
Universal digital panel meter for measuring 4-20 mA, 0-10 V



SMW
Weighing indicator and weight controller

Related Software



Instrument Explorer
Quick set up software event monitoring, data logging, calibration and configuration

Case Study

The Application:

During processing, bacteria will grow on tobacco and decay the leaves if the product is left untreated.

A chemical called KABAT prevents such bacterial degeneration and is a widely used solution to this problem. For this to be effective, it is essential that the correct quantity of KABAT is administered.

The Solution:

The chemical spray rate is based on the tobacco flow rate, and a variable dose rate set in parts per million (ppm). The system developed comprises of five Mantracourt integrated ADP15 indicator displays and an LCA15 weighing amplifier/digitiser module unit, a chute mounted load cell, and Instrument Explorer software.

Tobacco flows over a chute which has a load cell mounted on a pivot. The load cell weighs the tobacco as it flows down the chute and transmits this to the LCA15. The LCA15 reads the tobacco flow rate from the load cell in kilograms per hour and transmits this as a 4-20 mA signal to the ADP15 instruments.



The PC link along with Mantracourt's free software enables the user to monitor all parameters in the system, providing clear display and information on dosing errors in the control room.

CE & Environmental

Storage temperature	- 20 to +70°C
Operating temperature	- 10 to +50°C
Relative humidity	95% maximum non condensing

CE Environmental Approvals

European EMC Directive	2004/108/EC
Low Voltage Directive	2006/95/EC

For more information contact us today...

www.mantracourt.co.uk
technical@mantracourt.co.uk
Mantracourt Electronics Ltd
The Drive, Farringdon, Exeter,
Devon, EX5 2JB, UK
T: +44 (0) 1395 232020
F: +44 (0) 1395 233190



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