

The Model LCT3 / Model 6004 is a self-contained, easy-to-use precision programmable digital transmitter and indicator for load cell applications. All the features of more expensive systems are included in one unit.

The unit features a full 20mm high 5½ digit bright red LED display (-199999 to 199999). Inputs to the instrument include load cell input (6 wire plus earth screen) and a number of digital inputs for functions such as remote tare, peak hold reset etc. The unit includes excitation for load cells and is user selectable for normal or barriered applications. The excitation includes sense feedback to compensate for cable loss. The precision front end circuitry ensures high stability and accuracy for millivolt input from the load cells. The precision analogue output circuitry (0-20mA / 4-20mA / 0-10V) is fully isolated from the load cells and the power supply. An isolated RS232 serial interface is included as standard. Four alarms / trips with electro-mechanical relays is fitted as standard.

A feature of this programmable indicator / controller is the calibration method. Pre-calibrated ranges can be allocated zero and full scale values and these can be adjusted on site to allow for deadweight / back-balance offset and single point span calibration (test weight trim). The instrument meets European Community EMC directive 89/336/EEC and Low Voltage directive 73/23/EEC.

FEATURES

- -199999 to 199999 counts display
- 20mm high bright red LED display
- Low cost - high performance design
- Rugged and compact IP 65 / NEMA 4 / UL Type 4 housing
- Fully programmable from the front keypad
- 10 V, 5V & 3.3V load cell excitation with sense feedback included as standard
- Isolated programmable analogue output as standard
- Isolated RS232 serial interface as standard
- 4 electro-mechanical relays as standard

OPTIONS

3002F RS 485 serial interface (Digibus or Ascibus protocol) instead of RS232

SPECIFICATIONS

DISPLAY

Display	5½ digit (-199999 to 199999) bright red LED, 20mm high
Display resolution	Up to 200,000 divisions

OPERATION

Setup and calibration	Full digital with visual prompting in plain messages
Memory retention	Full non-volatile operation
Digital filter	Low pass with 10 user selectable ranges
Back-balance range	Adjustable 100% of full capacity

INPUT FILTER

Sensitivity adjustment	Up to 3.00 mV/V full scale (2.00 mV/V default)
Zero drift	0.1µV / °C typically
Span drift	20 ppm / °C typically
Accuracy & linearity	0.05% of full scale, ± 1 display count
Warm up time	15 minutes
Noise	< 0.5 µV p-p

EXCITATION

10V	Up to 4 x 350Ω load cells (default for most applications)
10V	Up to 8 x 1000Ω load cells
5V	Up to 8 x 350Ω load cells
5V	For barriered applications up to 2 load cells
3.3V	For barriered applications up to 4 load cells
Load cell connection	6 wire + shields (sense included)

ANALOG / DIGITAL CONVERTER

A/D Type	20 bit sigma delta
Resolution	1 000 000 internal counts
A/D conversion rate	Approximately 5 per second

DIGITAL INPUTS

Digital input no. 2	Remote input for display gross/net toggle
Digital input no. 3	Remote input for peak / valley reset
Digital input no. 4	Remote input for tare

ANALOGUE OUTPUT

Analog output isolation	Yes, to 1000V
Analog output accuracy	0.1% of full scale
Analog output resolution	12 bits
Analog output temp. coefficient	20 ppm / °C typically
Current analog output load	500 Ω maximum (current is source, not sink)
Voltage analog output load	1 kΩ minimum

RELAYS

Type	Electro-mechanical
Rating	250V AC, 30V DC, 2A, power factor 1
Form	Form C: Normally open & normally closed contact with a common contact (if the common contacts are joined)

SERIAL INTERFACE

Serial interface	RS-232, with optional RS-485
Isolation to input	Yes, to 1000V
Capabilities - Digibus protocol	Full remote control, except for field setup
Capabilities - Ascibus protocol	- continuous output approximately 5 x second - output on demand via print button - output on demand via serial request

ENVIRONMENTAL

Operating temperature range	-10 to +50°C
Service temperature range	-15 to +60°C
Storage temperature range	-40 to +80°C
Humidity	< 85% non-condensing

POWER SUPPLY

Standard	95-265V AC / DC, 10VA typically
Optional	12/24V DC supply, 10VA typically

MECHANICAL SPECIFICATIONS

Dimensions	250 mm wide x 160 mm high x 58 mm deep
Glands	5 glands, 8 mm hole diameter
Housing rating	IP 65 / NEMA 4 / UL Type 4, flame retardant plastic

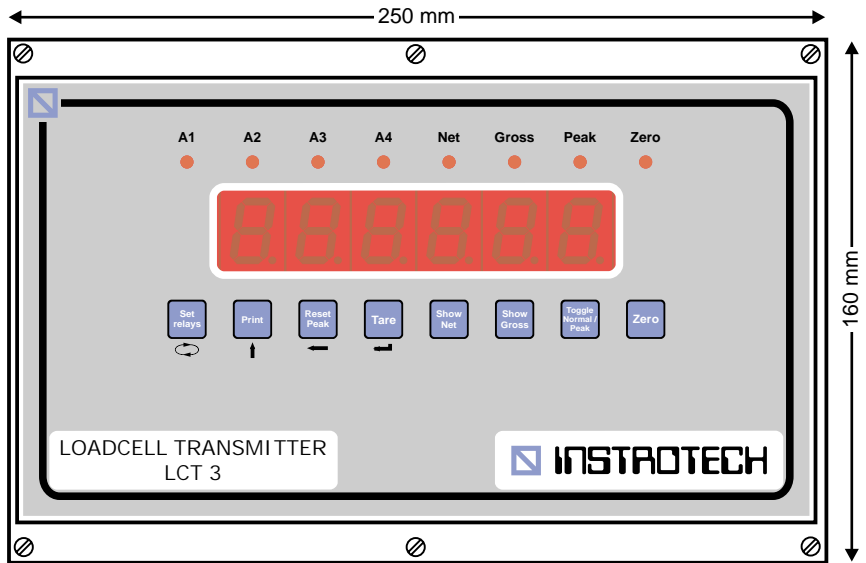
REGULATORY COMPLIANCE

Regulatory requirements	Complies with EC Directives 89/336/EEC & 73/23/EEC
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INSTALLATION DIMENSIONS & MOUNTING HOLES

Overall dimensions

- Not to scale.
- Height of 160mm excludes cable glands
- Depth is 58 mm



Mounting holes

- Dimensions are also available underneath the housing.
- The housing cover (display) needs to be removed to gain access to the mounting holes.
- When removing the housing cover, observe safety precautions.

