

E1005

indicator

Description

General

This specification describes the E1005 indicator, capable of stand-alone operation, or of integration into a larger system via serial interface.

It is a microprocessor-based industrial weighing system with up to 100,000 displayed increments for analysing, displaying, storing and transmitting gross and net weight information.

Up to four analogue load cells to be connected with the indicator. The E1005 can be matched to almost any load cell system to achieve optimum accuracy, stability and repeatability.

The indicator can control its surrounding process using configurable outputs.

Configurable Features

The E1005 features a keyboard which allows any of the following functions to be configured during commissioning:

- Sensitivity to weight signal
- Scale capacity
- Number of divisions and increment size
- Weighing Unit
- Zero / back balance
- Decimal marker type - point or comma
- Position of decimal marker
- Filtering parameters



- Five points for linearity correction to ensure maximum accuracy
- Tare availability
- Time and date
- User-definable serial output strings
- Grand total information
- Scale ID number
- I/O operation

All these characteristics are stored in non-volatile memory so that once the ideal parameters for any given weighing system are established they can be retained with certainty for the future.

Once the scale is set up as required, a calibration report can be printed showing weighing details (useful for the installation engineer). This allows the state of the system to be monitored.

One PLU is provided for simple totalising and storage of user-defined parameters.

Applications

Parts Counting

Simple counting mode.

Static Checkweighing

Set limits, manually or by sample mode.

Peak Hold

Records maximum weight measured. Clear button resets memory.

Totalising

Single totals channel.

Remote Display Mode

Connect to, or use as a remote display.

Specification

Electrical

Display

Type

LCD, reflective, 20 mm
Displays up to seven digits

Decimal Points

Configurable to any of six positions.

Units Displayed

kg, lb, custom.

Annunciators

Balance (Gross Zero)
Motion
Gross
Tare
Net
lb, kg, custom
Under/Target/Over
Print
Three Trip Outputs
Peak
Battery Status

Keypad

7 keys, addressing:
Function Key
Dedicated Function Keys:
Zero, Tare, Select, Print, Units,
On/Off

Load Cell Input

Maximum Load Cells if 350 Ω

Four

Connection of Input

Via 9-way, D-type connector.

Excitation

Direct current

Voltage

5 V dc

Current

Up to 115 mA

Remote Sense

Obtained from excitation, or linked directly to reference input connectors at the indicator

μ V/ per Division

0.5

Resolution

Non- Approved 100,000.
Approved 6,000.

Calibration

Full digital multi-point (five point) calibration.

Theoretical calibration possible if parameters known.

Increment Multiplier

1, 2, 5, 10, 20, 50

Analogue to Digital Converter

Display Update Rate

1, 2, 5, 10 per second.

A to D Rate

100 per second.

A to D Type

Delta Sigma.

Filter

Selectable averaging: fast, medium and slow.

Balance/Zero

Setting

Keyboard push button.

Size of Balance Range

Normally 10%, up to 100%.

Zero Indication

Within 2% of maximum capacity.

Under Range Indication

Displays "-----"

Zero Tracking

Configurable.

Motion Detection

Configurable.

Range/Span

Range of Adjustment

0 - 100,000 divisions

Over Range Indication

Displays "-----"

Tares

Push-Button (Semi Auto) Tare

Push-button operated, semi-automatic, with selectable negative weight display. Cumulative taring is possible.

Initialisation and Operation

When the item to tare on is applied, press the 'Tare' push-button.

Indication

'Net' annunciator is illuminated.

Trips

The indicator has three internal non-sequencing trips as standard, logic level rated.

Using the external TIU3, these will switch mains voltage (240 V 10 A). Internal inputs are rated at logic levels.

The trips can be set to activate an output based on a given weight target:

All configuration information is retained when power is off.

Product Look Ups (PLUs) & Totals

Information Stored per PLU
Grand Totals.

Maximum Capacity of PLU
9,999,999.

Real Time Clock

The E1005 is fitted with a real time clock which allows the user to display and print the time and date. This clock is battery-backed and will remain functional in the absence of mains power.

Communications

Serial Interface

One bi-directional asynchronous serial interface (RS232/485/422 and RS232/20mA current loop) as standard.

For comms to PC or printer, requires standard straight-through cable.

Electrical Power Input

Voltage

100 VAC - 230 VAC nominal, 50/60 Hz.

Tolerance

Voltage -15 to +10%
Frequency $\pm 10\%$.

Power Consumption

20 VA maximum when used with full configuration of load cells

Cable length

2 m.

Power Supply

External linear plug type.

Battery Operation

Internal battery provides on a single charge:

- 25 hours on single load cell.
- 15 hours on four load cells.

Isolation Protection

None. Mains earth lead must be connected to safety earth.

Environment

Resistance to Dirt and Moisture

Protected to IP54, in moulded ABS enclosure.

Electrical Disturbance

Immune to electrical disturbance, including RFI as detailed in EN 45501:1992.

Operating Temperature

-10° C to + 40° C

Service Temperature

-10° C to + 55° C

Storage Temperature

-40° C to +70° C

Finish

Enclosed in moulded ABS plastic case.

Mounting Options

The indicator will desk, wall or pole mount.

Pole mounting requires optional adapter.

Performance

Internal Resolution

16,777,216

Self Diagnostics

Display
Keys
A2D
Serial Test (1)
Internal I/O
External I/O

Approvals

All data relating to the performance of the machine meets and exceeds requirements of EN 45501:1992 European Approval ('E' Approval) Accuracy Class III Machines and OIML 76-1. The type approval certificate numbers being:

EU	-UK2723
South Africa	-
New Zealand	-
Australia	-
OIML	-R76/1992-GB1-04.09
NTEP	-04-029

Factory Options

Choice of mains power connector: UK, Euro, Australian, South African, American.

Kits

The following kit is available to enable local configuration when required.

1. Load Cell Connector with Internal Loom

When fitted, provides ability to disconnect loadcell inputs from indicator without opening the unit.
70735-247

Accessories

1. Trips Interface Unit (TIU3)

Provides three external mains rated outputs in place of three internal logic level I/O included as standard. Requires Analogue Output/Pulse Input/TIU Comms Card.

E10100E00000000

2. 300 mm Pole

Stainless steel mounting pole with top mounting plate for indicator.

E11100U00000000

3. 1000 mm Pole

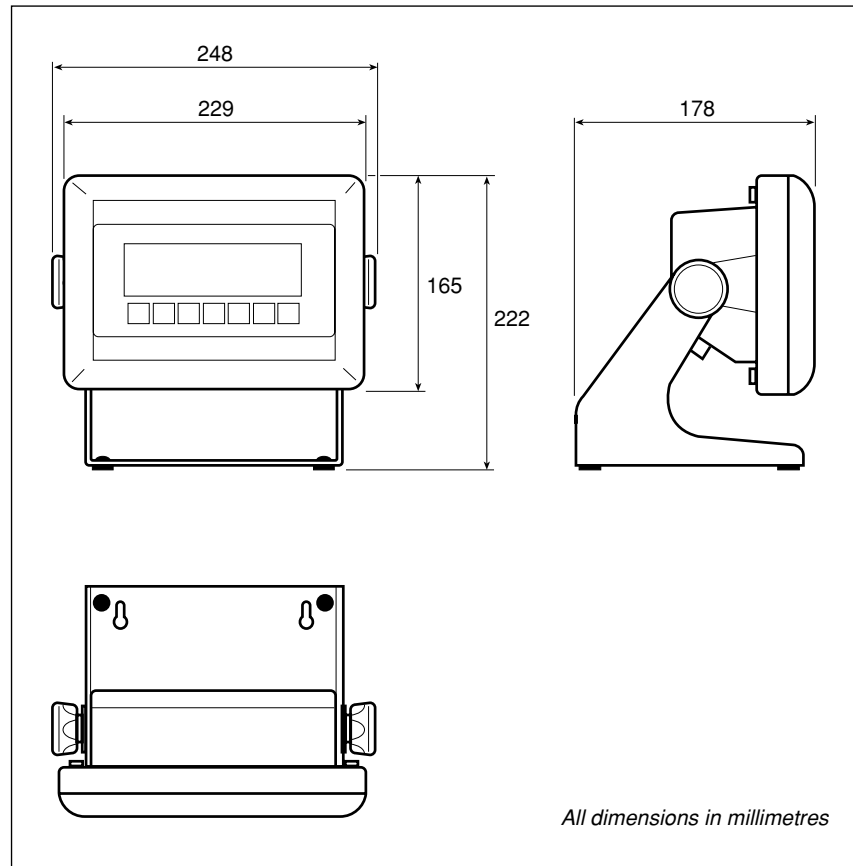
Stainless steel mounting pole with top mounting plate for indicator.

E11100V00000000

4. Interface Leads for Platform to Indicator

See price list.

Dimensions



Weight

2.1 kg

Shipping Specification

Net

2.1 kg

Gross

3.6 kg

Measurement

375 mm x 280 mm x 235 mm

Harmonised Commodity Code

842390 00 0.

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