(UK 2489) V(0)a

NATIONAL WEIGHTS AND MEASURES LABORATORY

United Kingdom of Great Britain and Northern Ireland

Certificate of EC type-approval of a measuring instrument
Number: UK 2489 Revision 4

issued by the Secretary of State for Business, Innovation & Skills
Notified Body Number 0126

In accordance with the requirements of the Non-automatic Weighing Instruments Regulations 2000 (SI 2000/3236) which implement, in the United Kingdom, Council Directive 2009/23/EC, this certificate of EC type-approval has been issued to:

Ian Fellows Ltd
The Old Tannery
Lower Keyford
Frome
Somerset, BA11 4AR
United Kingdom

in respect of a class III non-automatic weighing instrument utilising the LUCID or X-Type indicating device connected to a platform incorporating Avery 8701 load cells.

$n \leq 3000$ for Class III instruments with single interval
maximum capacity ≤ 60000 kg

The necessary data (principal characteristics, alterations, securing, functioning etc) for identification purposes and conditions (when applicable) are set out in the descriptive annex to this certificate.

This Revision replaces earlier versions of the certificate.

Signatory: G. Glas
for Chief Executive
National Weights & Measures Laboratory
(Part of National Measurement office)
Department for Business, Innovation & Skills
Stanton Avenue
Teddington
Middlesex TW11 0JZ
United Kingdom

Date: 16 December 2009
Valid Until: 25 May 2018
Reference No: T1128/0161

Descriptive Annex

1 INTRODUCTION

This mains or battery operated class III non-automatic weighing instrument utilises the Ian Fellows digital indicating devices designated the Lucid (Figure 1) or X-Type (2X, 3X, and 4X) (Figure 3) connected to a weigh platform incorporating Avery 8701 load cells.

2 FUNCTIONAL DESCRIPTION

2.1 The Ian Fellows digital weight indicators types Lucid and X- Types are fully described in Test Cert. No. TC2489 and has the following devices:

- self test sequence and display check during power-up;
- determination stability of equilibrium;
- calibration / set-up access control via push-button on main board;
- initial zero-setting, overall effect ≤ 20%;
- semi-automatic zero-setting;
- automatic zero-setting;
- zero-tracking;
- zero indicator;
- indication of stable equilibrium via motion indicator;
- semi-automatic tare balancing;
- automatic tare balancing;
- preset tare;
- gross indicator;
- net indicator;
- weighing of unstable samples;
- extended indicating, resolution 1/10 e during pressing a key or activated via an interface (ET1), the maximum duration after software activation will be 5 seconds;
- indication of 0.1 e function active (X-type indicators);
- memory storage device.

2.2 Load cells

The indicator can be connected to a weighbridge platform incorporating up to eight Avery 8701 load cells. The load transmission arrangements must conform to one of the common types as described in WELMEC 2.4, "Guide for Load Cells".

The load cell output is linearised digitally at only one variable point within the span. This point is determined at final calibration.

2.3 Any simple recipient printer may be used if:

(i) it bears the CE marking for conformity to the EMC Directive;

(ii) it is not capable of transmitting any data or instruction into the weighing instrument, other than to release a printout, checking for correct data transmission or validation;

(iii) it prints weighing results and other data as received from the weighing instrument without any modification or further processing;

(iv) it complies with the applicable requirements of EN45501, i.e. 4.2, 4.4, 4.6 and 4.7.

3 TECHNICAL DATA

3.1 Power supply of 110 – 120 V or 220 - 240 V ac 50/60 Hz. A special version of the LUCID indicator is powered by 12 – 28 V dc.

3.2 Other technical data for the indicator is provided in Test Certificate Number TC2489.

4 PERIPHERAL DEVICES AND INTERFACES

4.1 Interfaces

The instrument may have the following protected interfaces:

- RS232 communications port
- RS422 communications port
- RS485 communications port
- RS232 printer port
- Analogue Output (optional)
- ARCNET local area network port (on X-Types)
- Control I/O interface

4.2 The weighing system may be connected to any non-intelligent recipient peripheral which is technically compatible, has a test certificate issued by a notified body for EC Type Examination to the directive 2009/23/EC in any member state and bears the CE marking of conformity to the relevant directives.

4.3 Having a computer or other logical device(s) connected to the indicator for controlling the zero setting devices and optional devices used to control the position of vehicles on a weighbridge for the purpose of providing driver operated weighbridge facilities.

In which case:

(i) A ticket is issued to the driver.
(ii) A weight indicating device is available to the driver.

Adequate instructions are clearly visible to the driver together with a contact point in the event of problems. Where the weight is below the minimum load or above the maximum capacity of the instrument, a ticket indicating "Invalid Weight", or equivalent wording, is issued or printed is inhibited with alternative instructions available to the driver.

Interlocks may be provided so that when a vehicle is not correctly positioned on the weighbridge no ticket is issued.

5 APPROVAL CONDITIONS

This certificate is issued subject to the following conditions:

5.1 Legends

5.1.1 The instrument bears the following legends:

Max
Min
e =
Class III

6 LOCATION OF SEALS AND VERIFICATION MARKS

6.1 The data plate is secured either by a sealing arrangement or by being destroyed when removed (Figures 2 and 4).

6.2 Components that may not be dismantled or adjusted by the user must be secured by a suitable mark placed over the securing screws of the cabinet or by the use of tamper evident labels. The securing mark may be either:

- A mark of the manufacturer and/or manufacturer's representative, or
- An official mark of a verification officer.

7 LOCATION OF CE MARKING

7.1 The CE marking and metrological “M” mark are applied to the front of the instrument.

7.2 The data plate is located on the side of the indicator (Figure 2 and Figure 4).

8 ALTERNATIVES

8.1 Having the alternative Avery T302 load cell.

The Avery 8701 1oad cell approved under this pattern approval certificate is technically compatible and freely interchangeable with the Avery T302 load cell.

Any weighing instrument verified under this approval may incorporate a mix of both the 8701 and T302 1oad cells.

8.2 Having alternative load cells as listed in Table 1 below. Where a reduced operating temperature range is specified, this shall be included in the descriptive markings.

Table 1

Manufacturer	Type	Capacity	No. of scale intervals	Max. no. of load cells	Temperature range
Revere	5223	50,000 & 65,000 lb	3000	6	-10 to +40 °C
Revere	C92	50,000 & 100,000 lb	3000	6	-10 to +40 °C
Revere	5102	1,000 & 2,500 lb	3000	1	-10 to +40 °C
Revere	363	2,000 & 3,000 lb	3000	1	-10 to +40 °C
Revere	CP1	50,000 & 100,000 lb	3000	6	0 to +30 °C
Sensortronics	60001	1,000 & 2,000 lb	3000	1	0 to +30 °C
Sensortronics	65023	500 & 1,000 lb	3000	1	-10 to +40 °C
Phillips	PR6222	Not specified	3000	6	0 to +30 °C
Toledo	CS Capcheck	50,000 lb	3000	6	0 to +30 °C
Solidate	SB2	35,000 & 45,000 lb	3000	6	0 to +30 °C
BLH/Toledo	C2PI	50,000 lb	2500	4	0 to +30 °C
HBM	CISF	50,000 & 100,000 lb	2500	4	0 to +30 °C
Shering	SBL30A	50,000 lb	3000	6	-10 to +40 °C
Revere	CSPM	40,000 & 60,000 kg	2500	4	-10 to +40 °C
HBM	C3H2	30,000 kg	3000	6	-10 to +40 °C

8.3 Having the manufacturer designated as “Marco” and the System 2X model designation changed to “Linemaster”, in which case the front panel is as shown in Figure 5.

8.4 The Avery 8701 load cell approved under this type approval certificate is technically compatible and freely interchangeable with the Avery T302, T302i and T302x load cells. Any weighing instrument verified under this approval may incorporate a mix of 8701, T302, T302i and T302x load cells.

9 ILLUSTRATIONS

Figure 1 LUCID indicator front panel
Figure 2 LUCID seals and labels
Figure 3 X-Type indicator front panel
Figure 4 X-Type seals and labels
Figure 5 Marco Linemaster front panel

CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
UK 2489	26 May 1998	Type approval first issued
UK 2489 Revision 1	31 March 2003	Revision 1 issued consolidating Additions 1 & 2, creation of section 8.2.
UK 2489 Revision 2	17 October 2003	Revision 2 issued, creation of section 8.3.
UK 2489 Revision 3	26 May 2008	Revision 3 issued, extension of validity for 10 years.
UK 2489 Revision 4	16 December 2009	Alternative 8.4 added.

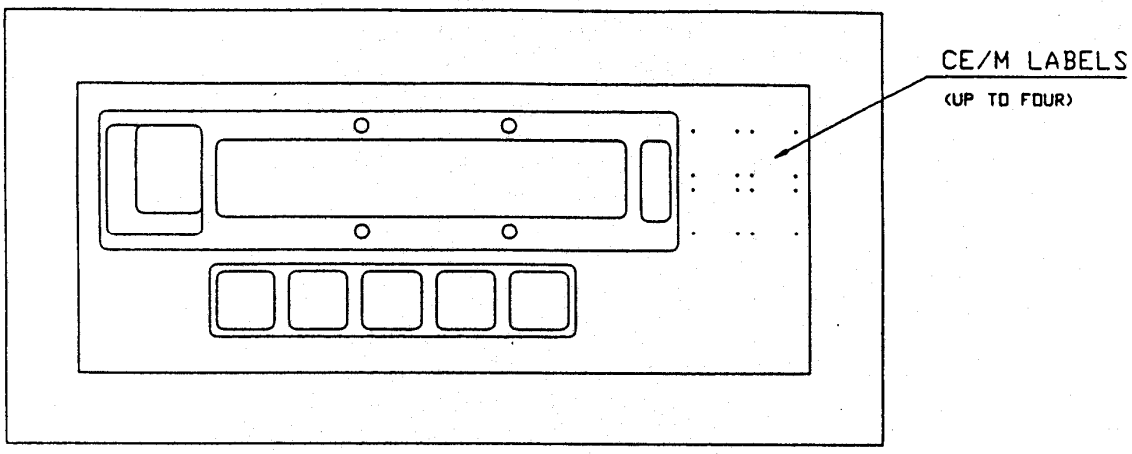
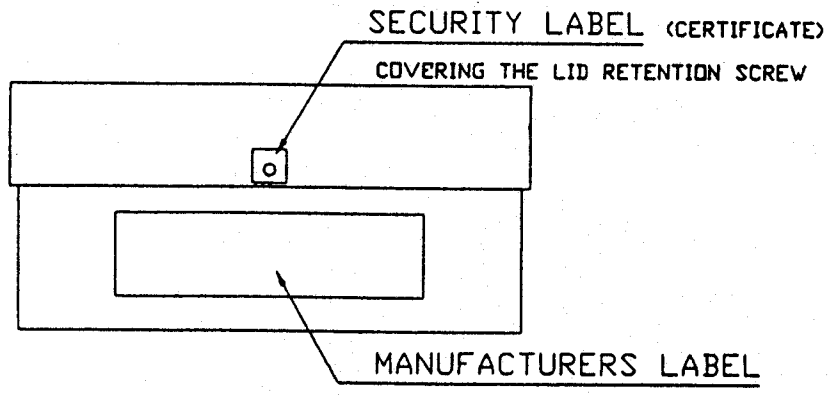


Figure 1 LUCID indicator front panel



Note:- The Manufacturers Label and\or the Security Label may be attached to either side of the instrument

MANUFACTURERS PLATE.

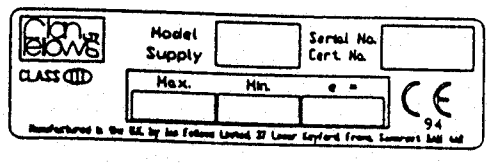


Figure 2 LUCID seals and labels

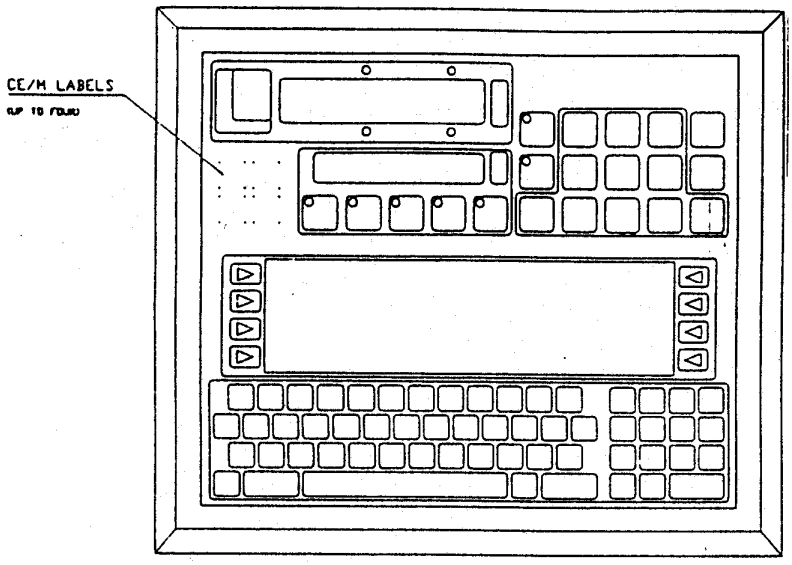
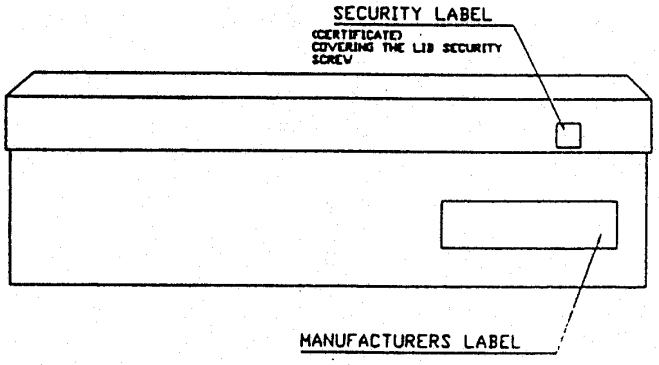
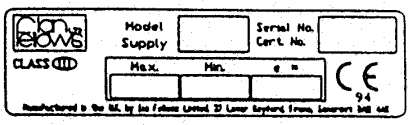


Figure 3 X-Type indicator front panel



NOTE:- THE MANUFACTURERS LABEL AND/OR THE SECURITY LABEL MAY BE ATTACHED TO EITHER END OF THE INSTRUMENT.



MANUFACTURERS LABEL.

Figure 4 X-Type seals and labels

Figure 5 Marco Linemaster front panel