



## EC type-approval certificate UK 2746 Revision 2

Issued by:

**The National Measurement Office  
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 EC type-approval certificate has been issued to:

**Electronic Weighing Services  
Lytton Street  
Stoke-on-Trent  
Staffordshire  
ST4 2AG  
United Kingdom**

In respect of a non-automatic weighing instrument, with single interval, utilising the Electronic Weighing Services Apex Junior indicating device (Test certificate GB-1190) connected to a platform.

		Class III	Class IIII
Maximum capacity	Max	$\leq 6,000 e$	$\leq 1,000 e$
Minimum capacity	Min	$\geq 20 e$	$\geq 20 e$
Verification scale interval:	$e =$	$\geq 0.001 g$	$\geq 0.001 g$

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.

**Issue Date: 14 August 2014**  
**Valid Until: 13 August 2024**  
**Reference No: TS1201/0115**

**Signatory: G Stones  
for Chief Executive**

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**National  
Measurement  
Office**

# Descriptive Annex

## 1 INTRODUCTION

This instrument utilises the digital indicating device designated the Apex Junior or Apex Excelsior indicator connected to a weighing platform to form a Class III or IIII, mains or battery powered self-indicating non-automatic weighing instrument.

## 2 FUNCTIONAL DESCRIPTION

### 2.1 Devices

The Electronic Weighing Services Apex Junior or Apex Excelsior digital weight indicator is fully described in Test Certificate No. GB-1190 and has the following devices:

- Semi-automatic zero setting device
- Zero tracking device
- Zero indicator
- Semi-automatic tare balancing device
- Pre-set tare device
- Net indicator

Apex Excelsior has the following extra devices:

- Gross indicator
- Motion indicator
- Relay pattern indication
- Optional Under Pass Over indication

### 2.2 Loadcells

The indicator can be connected to a weigh platform to form a complete weighing system. Any compatible loadcell(s) may be used providing the following conditions are met:

- There is a respective OIML Certificate of Conformity (R60) or a test certificate (EN45501) issued for the loadcell by a Notified Body responsible for type examination under Directive 2009/23/EC.
- The certificate contains the loadcell types and the necessary loadcell data required for the manufacturer's declaration of compatibility of modules (WELMEC 2, Issue 6, 2014, section 10), and any particular installation requirements. A loadcell marked NH is allowed only if humidity testing to EN45501 has been conducted on this loadcell.
- The compatibility of the loadcells and indicator is established by the manufacturer by means of the compatibility of modules calculation, contained in the above WELMEC 2 document, at the time of verification or declaration of EC conformity of type.
- The loadcell transmission must conform to one of the examples shown in the WELMEC Guide 2.4, "Guide for Loadcells".

### **3 TECHNICAL DATA**

**3.1** Technical data for the indicator is provided in Test Certificate No. GB-1190.

### **4 PERIPHERAL DEVICES AND INTERFACES**

#### **4.1 Interfaces**

The instrument has the following protected interfaces:

- Load cell connection
- RS232C
- Trip/control I/O

**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.

### **5 APPROVAL CONDITIONS**

The certificate is issued subject to the following conditions:

#### **5.1 Legends and inscriptions**

**5.1.1** The instrument shall bear the following legends near the display of the weighing result:

Max  
Min  
e =

**5.1.2** The instrument shall bear the following legends

CE marking  
Verification mark  
Green M  
Class  
Serial number  
Manufacturers mark or name  
Certificate number

**5.2** The Apex Junior or Apex Excelsior is not to be used for direct sales to the public.

### **6 LOCATION OF SEALS AND VERIFICATION MARKS**

**6.1** The CE marking, Green M and Certificate number are located on the right hand side of the indicator housing. The data plate will be mounted in such a manner that it is easily accessible and clearly visible in its regular operating position. The CE mark shall be impossible to remove without damaging it. The data plate shall be impossible to remove without it being destroyed.

The markings and inscriptions shall fulfil the requirements of Paragraph 1 of Annex IV of the Directive 2009/23/EC.

**6.2** Components that may not be dismantled or adjusted by the user (e.g. load cell connections) will be secured by either a wire and lead seal or tamper evident label and securing mark. 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 ALTERNATIVES**

### **7.1 The MICRO 500 Digital Indicator**

This is identical to the Apex Junior, except that:

- it has a different front membrane bearing the logo “MICRO 500” (Figure 4),
- it has a pocket to the left of the display into which the Max, Min and division legends are inserted,
- it has a second pocket below the legends pocket, into which an agent’s name or logo may be inserted,
- the led display may be red, green or blue.

### **7.2 Internal electronic tally record data storage device**

The indicator may be fitted with an internal electronic tally record (ETR), data storage device (DSD). The ETR is implemented using FRAM memory fitted to the main PCB. The capacity of the storage is adapted to meet national requirements and the needs of the user.

When the indicator is connected to a PC, weight data for Article 1.2(a) applications is stored in the DSD alibi memory, and is assigned a unique identification number. This unique identification number is transmitted with the weight data to the PC. The ETR stores all of the necessary information against the unique identification number to enable the weighing to be reconstructed. The integrity of stored data is maintained by check-sum. Stored data can be viewed/read from memory. The integrity of transmitted data is ensured by using a parity check and/or check-sum.

## **8 ILLUSTRATIONS**

- Figure 1 Indicator general view AJ02  
Figure 2 Indicator general view AJ03  
Figure 3 Apex Excelsior Digital Indicator  
Figure 4 MICRO 500 front membrane

## **9 CERTIFICATE HISTORY**

ISSUE NO.	DATE	DESCRIPTION
UK 2746	16 November 2004	Type approval first issued.
UK 2746 Revision 1	18 May 2005	Addition of MICRO 500, and of internal tally record data storage.
UK 2746 Revision 2	14 August 2014	Certificate renewed for 10 years. Reference to Directive 90/384/EEC updated to 2009/23/EC.



Figure 1 Apex Junior AJ02 LED Display



Figure 2 Apex Junior AJ03 LCD Display



Figure 3 Apex Excelsior Display Unit

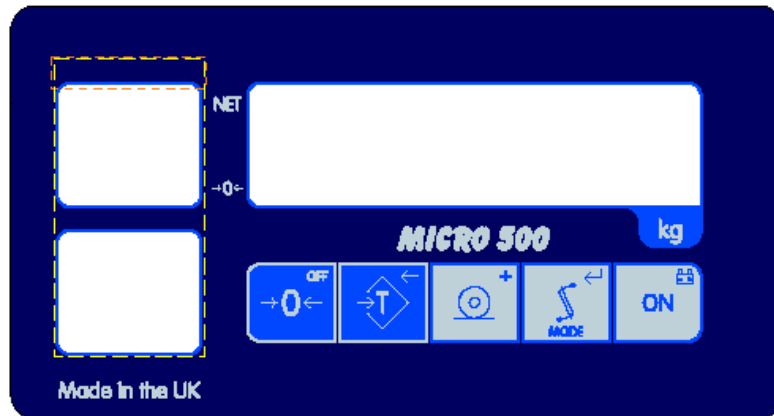


Figure 4 MICRO 500 front membrane