

EC Type-Approval Certificate UK2853 Revision 4

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:

**Avery Weigh-Tronix Ltd
Foundry Lane
Smethwick
West Midlands
B66 2LP
United Kingdom**

in respect of an non-automatic weighing instrument designated Avery Weigh-Tronix 60-Series (comprising the GSE 60-Series indicating device (Test certificate GB-1302) connected to a 675 bench scale and having the following characteristics:

$n \leq 6000$ for Class III or IIII instruments with single range

$n \leq 6000$ for Class III or IIII instruments per weighing range, with a maximum of three weighing ranges

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 previous versions of the certificate.

Issue Date: 15 July 2011
Valid Until: 18 March 2019
Reference No: T1128/0271



**Signatory: P R Dixon
for Chief Executive**

Descriptive Annex

1 INTRODUCTION

This family of instruments utilises the digital indicating devices designated the GSE 60-Series indicators connected to a weighing platform to form single or multi-range, Class III or IIII, self-indicating, non-automatic weighing instruments (Figure 1).

2 FUNCTIONAL DESCRIPTION

2.1 Devices

The GSE 60-Series digital weight indicator is fully described in Test Certificate GB-1302.

2.2 Load cells

2.2.1 The following load cells may be used, in single-range applications only:

Model	Load cell E_{max}	Max capacity	$e \geq$	Max n
HBM PW2 C3	7.2 kg	5 kg	0.001 kg	3000
	12 kg	10 kg	0.002 kg	3000
	18 kg	16 kg	0.005 kg	3000
	36 kg	34 kg	0.01 kg	3000
	72 kg	70 kg	0.02 kg	3000
Vishay / Tede 1040 C3	5 kg	3 kg	0.001 kg	3000
	7 kg	5 kg	0.001 kg	3000
	10 kg	8 kg	0.001 kg	3000
	15 kg	13 kg	0.002 kg	3000
	20 kg	18 kg	0.002 kg	3000
	30 kg	28 kg	0.005 kg	3000
	50 kg	48 kg	0.005 kg	3000
	75 kg	73 kg	0.01 kg	3000
Vishay / Tede 1042 C4	5 kg	3 kg	0.0005 kg	4000
	7 kg	5 kg	0.001 kg	4000
	10 kg	8 kg	0.001 kg	4000
	15 kg	13 kg	0.002 kg	4000
Vishay / Tede 1042SYM C6	20 kg	18 kg	0.002 kg	6000
	30 kg	28 kg	0.005 kg	6000
	50 kg	48 kg	0.005 kg	6000
	75 kg	73 kg	0.01 kg	6000

2.2.2 Any compatible load cell(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 load cell by a Notified Body responsible for type examination under Directive 2009/23/EC.
- The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules (WELMEC 2, Issue 5, May 2009, No 11), and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to EN45501 has been conducted on this load cell.

- The compatibility of the load cells 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 load cell transmission must conform to one of the examples shown in the WELMEC Guide 2.4, “Guide for Load cells”.

3 TECHNICAL DATA

3.1 Technical data for the indicator is provided in the Test Certificate (GB-1302).

4 PERIPHERAL DEVICES AND INTERFACES

4.1 Interfaces

The instrument has the following protected interfaces:

- RS232/RS485
- Profibus, DeviceNet and Ethernet (as modules connected to above port)
- Digital inputs and outputs for interfacing with external equipment and initiating macro commands; as follows:
 - 2 control inputs (all models)
 - 8 TTL inputs/outputs (66x models only)
 - Additional 4-channel I/O modules (46x up to 8 channels, 56x up to 32 channels, 66x/675 up to 128 channels)
- Analogue outputs (0/4-20mA or 0-10V), with a maximum of 8 outputs

4.2 The weighing system may be connected to any peripheral device that has been issued with a test certificate by a Notified Body responsible for type approval under Directive 90/384/EEC in any Member State and bear the CE marking of conformity to the relevant directives; or

A peripheral device without a test certificate under the following conditions:

- it bears the CE marking for conformity to the EMC Directive;
- 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;
- it prints weighing results and other data as received from the weighing instrument without any modification or further processing; and
- it complies with the applicable requirements of EN45501, i.e. 4.2, 4.4, 4.6 and 4.7.

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 =
T (if ≠ - Max)

5.1.2 The instrument shall bear the following legends

CE mark
Green M
Accuracy class
Serial number
Manufacturer's mark or name
Certificate number

6 LOCATION OF SEALS AND VERIFICATION MARKS

6.1 The rating plate should be located on the indicator so 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 There are two methods of securing the instrument on verification, either by recording the audit trail counter or by setting the "PROG" switch on the main board to "NO" and applying a wire and seal as described in the technical manual. If the audit trail counter on the instrument increases above that recorded or if the recorded value is removed then this has to be considered as a broken seal. The two methods of securing are equivalent in the context of this approval.

6.3 Components that may not be dismantled or adjusted by the user (load cell connection, junction box) are secured by either a wire and seal, or by a tamper evident label and securing mark. The securing mark consists of a mark of the manufacturer and/or manufacturer's representative.

7 ALTERNATIVES

7.1 Having the GSE 675 Bench Scale, comprising the same electronics and software as the GSE 60-Series, with a different construction: the indicator has an integrated load cell platform and a different enclosure (Figure 1). The instrument is fully described in Technical Reference Manual (Model 672 & Model 675) Version 1.0. The version number for the NAWI mode of operation is displayed by keying in 60101 and pressing the Select/Mode key; the last three digits must show the current version of 589.

7.2 As in Section 7.1, but having a new installation firmware version number with the last three digits ending in 594.

7.3 Having the GSE 562, 662 and 665 indicators utilised to provide a driver operated weighbridge facility. The instrument must be configured to allow its operation by the driver (control of indicator devices and vehicle position), a ticket must be issued to the driver (with printing below Min and above Max inhibited or bearing "Invalid weight" or equivalent wording, an interlock may be present to inhibit printing when the vehicle is not correctly positioned) and a weight indication must be provided to the driver as well as any instruction to operate the facility.

7.4 As in Section 7.1, but having a new installation firmware version number with the last three digits ending in 595.

8 ILLUSTRATIONS

Figure 1 GSE 675 Model

9 CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
UK 2853	19 March 2009	Type approval first issued.
UK 2853 Revision 1	10 November 2009	Certificate number corrected to UK 2853 in certificate history table.
UK 2853 Revision 2	17 August 2010	New firmware version number added to section 7.2
UK 2853 Revision 3	22 March 2011	Section 7.3 added.
UK 2853 Revision 4	15 July 2011	Section 7.4 added.



Figure 1 GSE 675 Model