



**Member State of OIML
United Kingdom of Great Britain
and Northern Ireland**

**OIML Certificate No
R76/1992-GB1-09.05**

OIML CERTIFICATE OF CONFORMITY

Issuing authority

Name: **National Weights and Measures Laboratory**
Address: **Stanton Avenue
Teddington
Middlesex
TW11 0JZ
United Kingdom**

Person responsible: **Paul Dixon
Product Certification Manager**

Applicant

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

Manufacturer of the certified pattern is the Applicant.

Identification of the certified pattern:

**Non-automatic weighing instruments comprising the GSE
350-Series electronic weight indicators connected to a
compatible R60 load cell
Further characteristics see page 2**

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML:	R76
Edition:	1992 (E)
Accuracy class:	III or IIII

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation.

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This certificate does not bestow any form of legal international approval.

The conformity was established by tests described in the associated:

Test reports:	TR 538 (562 Standard Model)	having 29 pages
	SN 1077 (355 Stainless Steel Model)	having 13 pages
	SN 1078 (350 Zinc Die Cast Model)	having 13 pages
Pattern evaluation checklist:	P00090	having 12 pages

The issuing authority



Mr P R Dixon
for NWML

The CIML member



Mr P Mason

Date: 19 March 2009
Ref: T1138/0010

Characteristics:

This family of instruments utilises the digital indicating devices, designated the GSE 350-Series indicators, connected to a weighing platform to form single or multi-range, Class III or IIII, self-indicating, non-automatic weighing instruments.

Construction:

The GSE 350-Series family of controllers comprises the GSE 350 Stainless Steel, 355 Stainless Steel, 350 Zinc Die Cast models (Figure 1), and the 350IS and 355IS models. The IS suffix denotes the intrinsically safe versions designed for hazardous area applications which are only available in stainless steel enclosures.

The front panel has an LED, LCD or backlit LCD display and a keypad. The front panel displays the weight and user information. The GSE 355 SS enclosure is larger than the GSE 350 SS enclosure to accommodate a larger keypad.

The standard SS versions have an integrated power circuit to enable them to be powered via mains or dc input whereas the Zinc Die Cast version has an external mains adaptor and can only operate off low ac or dc voltage. The IS models have external power supplies; either rechargeable batteries or mains adaptors.

Devices:

The instruments have the following devices:

- Semi-automatic zero setting
- Zero tracking
- Semi-automatic subtractive tare weighing/balancing
- Preset tare (GSE 355 SS only)
- Indication of stability of equilibrium
- Zero indicator
- Printing key
- Counting mode

Load cell:

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

Model	Load cell E _{max}	Max capacity	e ≥	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

Any compatible load cell(s) may be used providing the following conditions are met:

- There is a respective OIML Certificate of Conformity (R60) issued for the load cell.
- The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to R76 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.

Technical data:

Power supply (std stainless steel models)	10-36 VDC or 90-250 VAC
Power supply (zinc die-cast models)	12-36 VDC or 12-26 VAC
Power supply (IS models)	5.2-12 VDC (external battery or mains adaptor)
Maximum tare (gross weigher only)	-100% Max
Maximum number of scale intervals	6000
Load cell excitation voltage - std models	± 5 VDC (10 VDC)
- IS 5V	± 2.5 VDC (5 VDC)
- IS 8V	± 4 VDC (8 VDC)
Minimum load cell impedance	43 Ω
Maximum load cell impedance	1100 Ω
Minimum input voltage per scale interval - std models	0.83 μV
- IS 5V	1.66 μV
- IS 8V	1.04 μV
Measuring range minimum voltage	0 mV
Measuring range maximum voltage	200 mV
Fraction of maximum permissible error	$P_{ind} = 0.5$
Operating temperature range	-10°C to +40°C
Load cell connection	4-wire or 6-wire shielded

Interfaces:

The instrument may be fitted with the following protected interfaces:

- RS232/RS485
- Ethernet (as a module connected to above port)
- Fibre optic module
- Digital inputs and outputs for interfacing with external equipment as follows:
 - 1 control input for initiating zero, print and/or tare from a remote switch
 - Additional 3-channel output module
 - 1 additional analogue output (0/4-20mA or 0-10V)

Important note: Apart from the mention of the certificate's reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated test report is not permitted, though they may be reproduced in full.