Australian Government
Department of Industry, Science and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/10B/98

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

Dini Argeo Model DTW930A-9 Weighing Instrument

submitted by Dini Argeo S.r.l.
Via della Fisica 20
41042 Spezzano di Fiorano
Modena
Italy

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI R 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated October 2015.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – certificate issued	19/02/24

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/10B/98' and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate of Approval No S1/0B.

The pattern as approved herein or with substitute approved load cells and/or approved indicators and in other capacities, or with different platform sizes, shall comply with General Certificate of Approval No 6B/0.

Note:

New instruments manufactured under this approval shall only use load cells and/or indicators with current Supplementary Certificates of Approval; and

New instruments manufactured under this approval with analogue load cells connected parallel to each other in a junction box shall comply with 6-wire cable connection requirements between the junction box and the indicator as shown in Figures 3a and 3b; and

Instruments manufactured or converted under this approval shall only use approved indicators with reference to document NMI R 76 dated October 2015 or later.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.

Darryl Hines
Manager
Policy and Regulatory
Services

TECHNICAL SCHEDULE No 6/10B/98

1. Description of Pattern approved on 19/02/24

A Dini Argeo model DTW930A-9 class (III) non-automatic self-indicating weighing instrument (Figure 1a) of 30 000 kg maximum capacity and approved for use with up to 3000 verification scale intervals.

1.1 Basework

The model DTW930A-9 (Figure 1a) consists of a platform (with two wheel tracks and a gap between) comprised of a number of metal modules, with the modules designed to be connected together, with the platform to be supported by a number of weigh bars. Each weigh bar is fitted with a pair of load cells.

The platform is fully supported by 12 load cells. Each wheel track is comprised of two (2) 4.5 m x 1 m modules which are connected together.

1.2 Load Cells

Twelve Dini Argeo model STU8000-1KD load cells of 8 000 kg capacity are used.

The load cells are also described in the documentation of approval NMI S840.

1.2.1 Load Cell connection

The load cells are connected parallel to each other in a junction box; and a 6-wire cable connection is used between the junction box and the indicator as shown in Figures 3a and 3b.

1.3 Indicator

A Dini Argeo model 3590EGT digital indicator is used.

The indicator is also described in the documentation of approval NMI S788.

1.4 Special Features – Facility for transport of platform

The instrument may be designed to facilitate transport of the instrument platform by provision for each module of the platform to be disconnected facilitating its transport.

However verification of the instrument is required following any re-location of the instrument.

Notes:

1. Wheel tracks shall not be verified individually.
2. Instruments shall only be verified as complete instruments.

1.5 Weighbridge Requirements

Where the instrument is intended to be installed as a weighbridge, it shall be ensured that all relevant weighbridge requirements of the National Measurement Legislation are met (e.g. in relation to weighbridge approaches, clearance, visibility and the location of the weighbridge indicator and platform).

This approval does not certify that such requirements have (or can be) met.

The requirements of the National Measurement Legislation regarding the ground or floor under the platform vary according to whether the instrument is installed as a portable weighbridge (i.e. with special features as per 1.4 above), weighbridge without a pit or a weighbridge with a pit. However, bolting of the load cell support

pads to suitable concrete piers is considered essential to provide a suitable stable base, irrespective of other aspects of instrument installation.

Note that it is important that suitable provision be made for the loading of test masses. For example, clear access for a forklift may be necessary at both sides of the platform.

1.6 Verification Provision

Provision is made for the application of a verification mark.

1.7 Descriptive Markings and Notices

Instruments are marked with the following data, in the form shown at right:

Manufacturer's mark, or name written in full	Dini Argeo
Indication of accuracy class	(III)
Pattern approval mark for the instrument	NMI 6/10B/98
Pattern approval mark for the indicator	NMI S…
Pattern approval mark for the load cells	NMI S…
Maximum capacity	*Max* ..... t or kg #1
Minimum capacity	*Min* ..... t or kg #1
Verification scale interval	*e* = ... t or kg #1
Tare capacity	*T* = - ..... *kg* *#2*
Serial number of the instrument	.....

#1 These markings shall be shown near the display of the result.

#2 This marking is required if *T* is not equal to *Max*.

1.8 Sealing Provision

Provision is made for the calibration adjustments in the indicator to be sealed as described in the approval documentation for the indicator used.

1.9 Software

The legally relevant software version and number are described in the approval documentation of the indicator.

2. Description of Variant 1 **approved on 19/02/24**

Other model Dini Argeo DTW series instruments, as single interval or multiple range instruments similar to the pattern (designed to facilitate transport of the platform), of other capacities subject to approval parameters of the load cells and indicator, and compliance with General Certificate of Approval No 6B/0.

These models may be of a design similar to the pattern (designed to facilitate transport of the platform), or may be constructed without the features designed to facilitate transport of the platform.

Instruments may have wheel track platforms with a gap between.

The model number may contain suffixes indicating aspects of the particular model version (e.g. 'DTW1860A-9' indicates an 18 m length instrument of 60 t maximum capacity.).

The platform is fully supported by no less than 8 and with up to 24 NMI approved load cells. Instruments may be in capacities of 30 000 kg up to 80 000 kg using approved load cells and an approved digital indicator (in accordance with General Certificate of Approval No 6B/0).

Instruments are approved for use with up to 3000 verification scale intervals (subject to the approval parameters of the load cells and indicator).

TEST PROCEDURE No 6/10B/98

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

The instrument shall not be adjusted to anything other than as close as practical to zero error, even when these values are within the maximum permissible errors.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

Tests

For multi-interval and multiple range instruments with verification scale intervals of e1, e2 ..., apply e1 for zero adjustment, and maximum permissible errors apply e1, e2 ..., as applicable for the load.

Note regarding eccentricity test

Where present, special features of the instruments (e.g. the gap between wheel tracks rather than a full platform) may result in difficulty with the application of the eccentricity test specified in the National Instrument Test Procedures. It is important to note when conducting the eccentricity test, that the load(s) for the eccentricity test shall be placed toward the centre of the loading area, and shall not be concentrated at the extreme edge of the area. See diagram below.

(#) Each weigh bar is considered to be a single load bearing point. The number of support points for eccentricity test is the number of weigh bars.

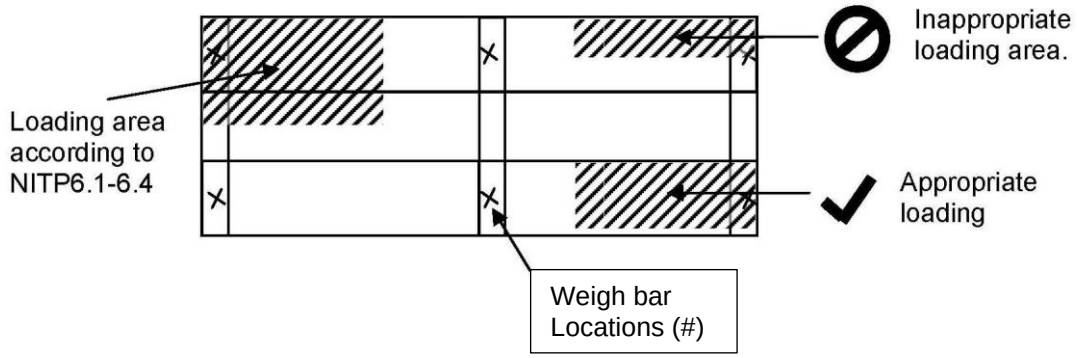


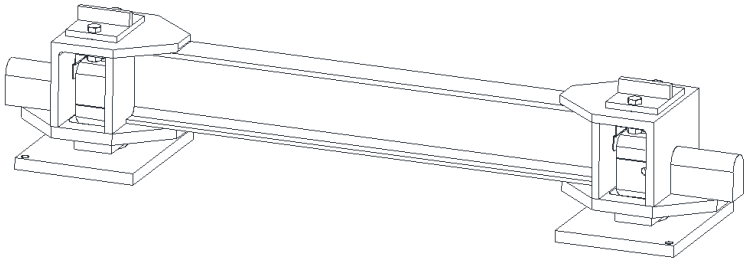
FIGURE 6/10B/98 – 1

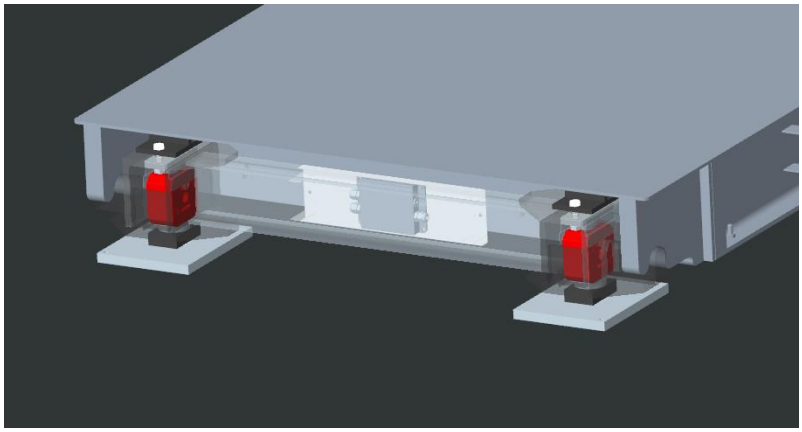
(a) Dini Argeo Model DTW Weighing Instrument

(b) Dini Argeo Model DTW Weighing Instrument Floor Mount

(c) Dini Argeo Model DTW Weighing Instrument Pit Mount

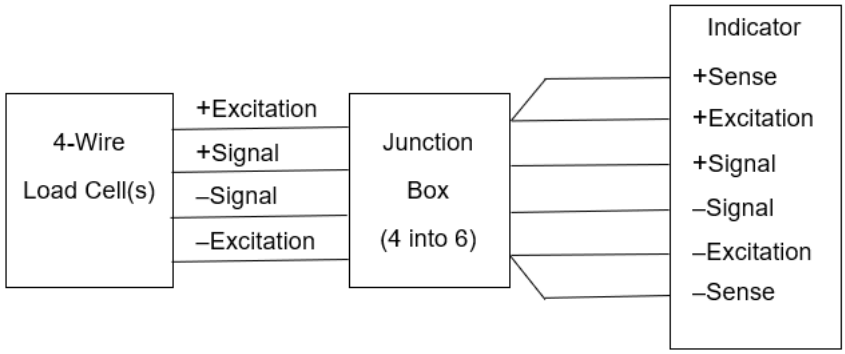
FIGURE 6/10B/98 – 2



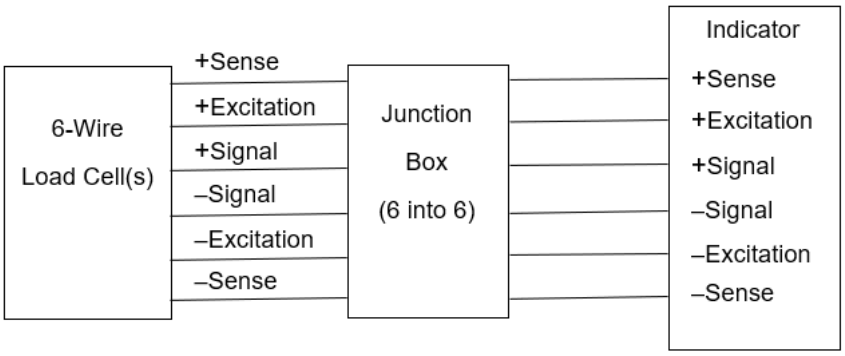


Weigh Bar

FIGURE 6/10B/98 – 3



a) 4-Wire Analogue Load Cell Connection Using Junction Box



b) 6-Wire Analogue Load Cell Connection Using Junction Box

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