Australian Government
National Measurement Institute
Bradfield Road, West Lindfield NSW 2070

Supplementary Certificate of Approval

NMI S481

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.

Nuweigh Model JAC9000-C3-40t-15B Load Cell

submitted by Newcastle Weighing Services Pty Ltd
104-114 Hannell Street
WICKHAM NSW 2293

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 60, *Metrological Regulation for Load Cells*, dated July 2004.

This approval becomes subject to review on **1/11/16**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – certificate issued	31/10/06
1	Pattern & variant 1 reviewed & updated – certificate issued	22/03/12

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number ‘NMI S481’ and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked ‘NMI S481’ in addition to the approval number of the instrument, 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.

The values of the performance criteria (maximum number of scale intervals etc.) applicable to an instrument incorporating the pattern approved herein shall be within the limits specified herein and in any approval documentation for the other components.

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

TECHNICAL SCHEDULE No S481

1. Description of Pattern **approved on 31/10/06**

A Nuweigh model JAC9000-C3-40t-15B load cell of 40 000 kg maximum capacity (Figure 1 and Table 1).

1.1 Method of Mounting

Mounting is to be in accordance with the manufacturer's instructions and as shown in Figure 2.

1.2 Markings

Each load cell is marked with the following:

Manufacturer's mark, or name written in full	Nuweigh
Model number	……..
Maximum capacity, .Emax	Emax = …….. kg
Relative v_{min} value, Y	Y = ……
Pattern approval mark	NMI S481

Note: v_{min} is the minimum value of verification interval

The minimum value of verification interval (v_{min}) shall be calculated from the Y value according to the formula v_{min} = Emax / Y.

1.3 Table of Specifications

Specifications for the pattern are given in Table 1.

2. Description of Variant 1 **approved on 31/10/06**

Certain other models and with characteristics as listed in Table 1.

TABLE 1

Nuweigh JAC9000-C3-##t-xxB load cells as listed below, where ## in the model number represents the capacity (*Emax)* in tonnes, and xx in the model number represents the cable length in metres, e.g. the pattern model JAC9000-C3-40t-15B is of 40 t (40 000 kg) capacity, with a 15 m long cable.

Model number: JAC9000-C3-##t-xxB	##t = 30t	##t = 40t	##t = 50t
Emax (kg)	30 000	40 000	50 000
Class	C3	C3	C3
nLC	3000	3000	3000
v_{min} (kg)	Calculate from Y value, see note below		
Y	5000, 6000, 7500, 9000, 10 000 or 12 000		
mV/V	2	2	2
Input imp. (ohms)	700	700	700
Supply voltage (V DC)	18	18	18
Cable length (m)	xx metres, according to –xxB in model number		
Number of leads (plus shield)	4	4	4

Note: Each load cell is marked with a value of Y (relative v_{min}) in the form Y = …… , according to the above table.

The minimum value of verification interval (v_{min}) shall be calculated from this value according to the formula v_{min} = Emax / Y.

Where:

Emax	=	Load cell Maximum capacity
nLC	=	Maximum number of verification intervals
v_{min}	=	Minimum value of verification interval
Y	=	Relative v_{min}
mV/V	=	Output rating (nominal)
Input imp.	=	Input impedance (nominal)
Supply Voltage	=	Maximum supply voltage

FIGURE S481 – 1

Nuweigh Model JAC9000-C3-30t-15B Load Cell

FIGURE S481 – 2

Mounting Arrangement

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