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

Supplementary Certificate of Approval

NMI S416

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 JAC-1000 Load Cell

submitted by Newcastle Weighing Pty Ltd
104-110 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 **1/02/19**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – interim certificate issued	17/01/03
1	Pattern & variant 1 approved – certificate issued	10/03/03
2	Variant 2 approved – interim certificate issued	27/10/03
3	Variant 2 approved – certificate issued	27/11/13
4	Variant 3 approved – certificate issued	4/05/07
5	Pattern & variants 1 to 3 reviewed – notification of change issued	5/05/08
6	Pattern & variants 1 to 3 reviewed & updated – certificate issued	23/01/14

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI (or NSC) S416' and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI (or NSC) S416' 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 their powers under Regulation 60 of the *National Measurement Regulations 1999*.

Dr A Rawlinson

TECHNICAL SCHEDULE No S416

1. Description of Pattern approved on 17/01/03

A Nuweigh model JAC-1000 load cell of 1000 kg maximum capacity (Figure 1 and Table 1) approved for use with up to 3000 verification intervals.

1.1 Method of Mounting

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

1.2 Descriptive Markings

Each load cell is marked with the following:

Manufacturer's mark, or name written in full	NUWEIGH
Model number	.....
Serial number	.....
Pattern approval mark	NMI (or NSC) No S416
Maximum capacity	E_{max} ..... kg

1.3 Table of Specifications

Specifications for the pattern are given in Table 1.

2. Description of Variant 1 approved on 17/01/03

Certain other models of the JAC series, namely models JAC-1000, JAC-3000 and JAC-5000, and with characteristics as listed in Table 1.

3. Description of Variant 2 approved on 27/10/03

Nuweigh JAC series load cells without the transverse groove on the underside, in which case the load cells are supplied with a packing plate.

4. Description of Variant 3 approved on 4/05/07

Certain other models of the JAC series with characteristics as listed in Table 1.

The load cells are without a transverse groove on the underside, hence the cells are supplied with a packing plate.

TABLE 1

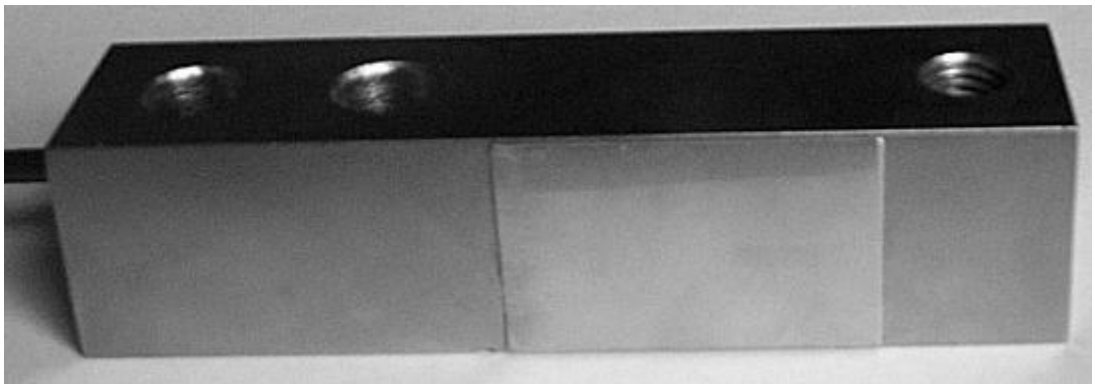
Type: Nuweigh JAC-# series as listed below, where # in the model number represents the capacity (E_{max}) in tonnes, e.g. the pattern model JAC-1000 (1000 kg) capacity.

Model number	#=500	#=1000	#=1500	#=2000	#=2500	#3000	#5000	#=10000
E_{max} (kg)	500	1000	1500	2000	2500	3000	5000	10 000
Class	C3							
nLC	3000							
V_{min} (kg)	0.05	0.15	0.15	0.2	0.25	0.45	0.75	2.5
DR (kg)	0.05	0.11	0.15	0.2	0.25	0.33	0.75	2.5
mV/V	3							
Input imp. (Ω)	350							
Supply voltage (V)	15 DC							
Cable length (m)	4							
Number of leads	4 (plus shield)							

Where:

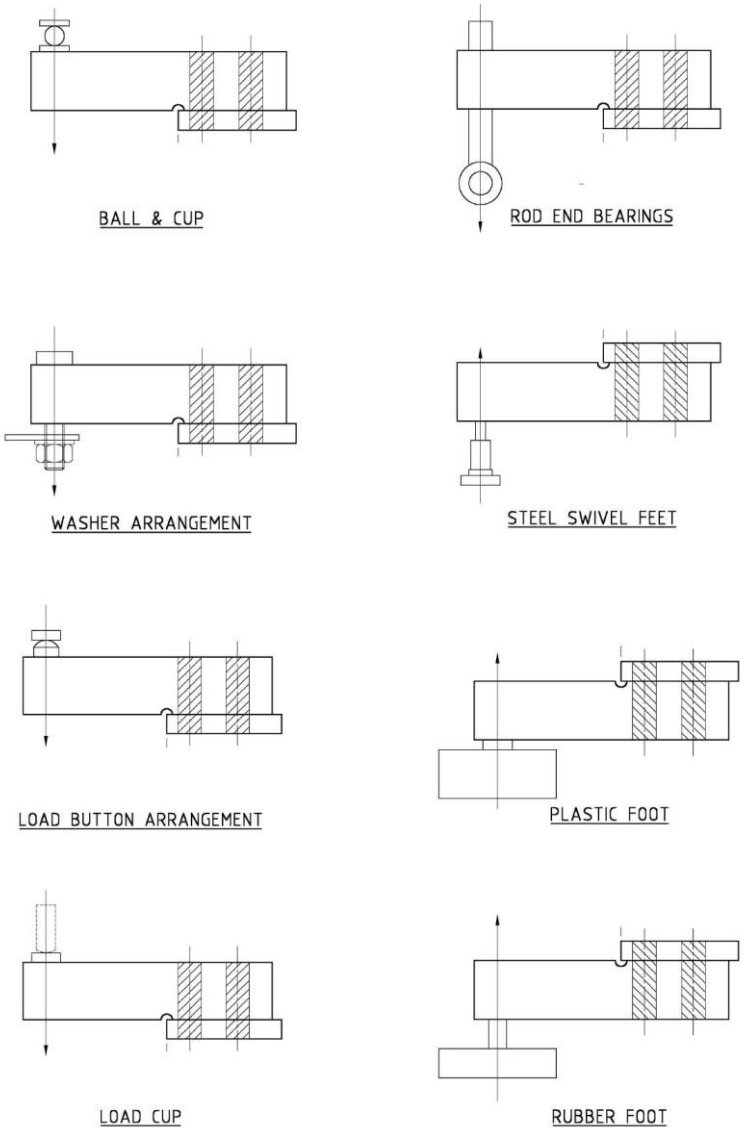
E_{max} = Maximum capacity
nLC = Maximum number of verification intervals
V_{min} = Minimum value of verification interval
DR = Minimum dead load output return value
mV/V = Output rating (nominal)
Input imp. = Input impedance (nominal)
Voltage = Maximum supply voltage (DC)

FIGURE S416 – 1



Nuweigh Model JAC-1000 Load Cell

FIGURE S416 – 2



Typical Mounting Methods

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