



Australian Government

**Department of Industry,
Science and Resources**

**National
Measurement
Institute**

36 Bradfield Road, West Lindfield NSW 2070

**Supplementary Certificate of Approval
NMI S889**

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 BAI822010 Load Cell

submitted by Newcastle Weighing Services Pty Ltd
 5C Murray Dwyer Circuit
 Mayfield West NSW 2304

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 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 & variants 1 to 8 approved – certificate issued	26/08/26

CONDITIONS OF APPROVAL

General

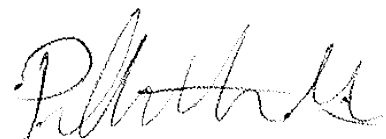
Instruments purporting to comply with this approval shall be marked with approval number 'NMI S889' and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S889' in addition to the approval number of the instrument, and only by persons authorised by the submitter.

It is the submitter'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.



Phillip Mitchell
A/g Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No S889

1. Description of Pattern

approved on 26/08/26

A Nuweigh model BAI822010 alloy steel compression load cell of 30 000 kg maximum capacity (Figure 1 and Table 1) and approved for use with up to 3 000 verification scale 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 Markings

Each load cell is marked with either of the following:

Manufacturer's mark, or name written in full	Nuweigh
Model number	
Maximum capacity, E_{max}	 kg (or t)
Serial number	
Pattern approval mark	NMI S889

1.3 Table of Specifications

Specifications for the pattern are given in Table 1.

TABLE 1

Model Number	BAI822010
E_{max} (kg)	30 000
E_{min} (kg)	0
Class	C
nLC	3 000
V_{min} (kg)	1.875
DR (kg)	3
mV/V	2
Input imp. (Ω)	750
Voltage (V)	15
Cable length (m) (*)	18
Number of leads (plus shield)	4
Operating Temperature range	-10 °C / +40 °C

(*) Load cell cable shall not be altered after manufacture.

Where:

E_{max}	=	Maximum capacity
E_{min}	=	Minimum dead load
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 (AC/DC)

2. Description of Variant 1

approved on 26/08/26

Certain other capacities and characteristics of the Nuweigh model BAI822010 are listed in Table 2.

TABLE 2

Model Number	BAI822010	BAI822010
E_{max} (kg)	20 000	40 000
E_{min} (kg)	0	0
Class	C	C
nLC	3 000	3 000
V_{min} (kg)	1.25	2.5
DR (kg)	2	4
mV/V	2	2
Input imp. (Ω)	750	750
Voltage (V)	15	
Cable length (m) (*)	18	
Number of leads (plus shield)	4	
Operating Temperature range	-10 °C / +40 °C	

(*) Load cell cable shall not be altered after manufacture.

Where:

E_{max}	=	Maximum capacity
E_{min}	=	Minimum dead load
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 (AC/DC)

3. Description of Variant 2

approved on 26/08/26

Certain other capacities and characteristics of the Nuweigh model BAI1692014 (Figure 3) are listed in Table 3.

TABLE 3

Model Number	BAI1692014	BAI1692014
E_{max} (kg)	22 680	45 360
E_{min} (kg)	0	0
Class	C	C
nLC	3 000	3 000
V_{min} (kg)	1.4175	2.835
DR (kg)	2.268	4.536
mV/V	2	2
Input imp. (Ω)	1150	1150
Voltage (V)	15	
Cable length (m) (*)	18	
Number of leads (plus shield)	4	
Operating Temperature range	-10 °C / +40 °C	

(*) Load cell cable shall not be altered after manufacture.

Where:

E_{max}	=	Maximum capacity
E_{min}	=	Minimum dead load
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 (AC/DC)

4. Description of Variant 3

approved on 26/08/26

Certain capacities and characteristics of the Nuweigh model BAI2014 (Figure 5) are listed in Table 4.

TABLE 4

Model Number	BAI2014	BAI2014	BAI2014	BAI2014
E_{max} (kg)	10 000	20 000	30 000	50 000
E_{min} (kg)	0	0	0	0
Class	C	C	C	C
nLC	3 000	3 000	3 000	3 000
V_{min} (kg)	0.625	1.25	1.875	3.125
DR (kg)	1	2	3	5
mV/V	1.5	1.5	1.5	1.5
Input imp. (Ω)	750	750	750	750
Voltage (V)	15			
Cable length (m) (*)	18			
Number of leads (plus shield)	4			
Operating Temperature range	-10 °C / +40 °C			

(*) Load cell cable shall not be altered after manufactured.

Where:

E_{max}	=	Maximum capacity
E_{min}	=	Minimum dead load
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 (AC/DC)

5. Description of Variant 4 approved on 26/08/26

Certain capacities and characteristics of the Nuweigh model BAI2010 (Figure 7) are listed in Table 5.

TABLE 5

Model Number	BAI2010	BAI2010	BAI2010	BAI2010	BAI2010
E_{max} (kg)	15 000	22 500	30 000	40 000	50 000
E_{min} (kg)	0	0	0	0	0
Class	C	C	C	C	C
nLC	3 000	3 000	3 000	3 000	3 000
V_{min} (kg)	0.938	1.406	1.875	2.5	3.125
DR (kg)	1.5	2.25	3	4	5
mV/V	2	2	2	2	2
Input imp. (Ω)	1150	1150	1150	1150	1150
Voltage (V)	15				
Cable length (m) (*)	18				
Number of leads (plus shield)	4				
Operating Temperature range	-10 °C / +40 °C				

(*) Load cell cable shall not be altered after manufactured.

Where:

E_{max}	=	Maximum capacity
E_{min}	=	Minimum dead load
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 (AC/DC)

6. Description of Variant 5 approved on 26/08/26

Certain capacities and characteristics of the Nuweigh model BAI40 (Figure 9) are listed in Table 6.

TABLE 6

Model Number	BAI40
E_{max} (kg)	35 000
E_{min} (kg)	0
Class	C
nLC	3 000
V_{min} (kg)	2.1875
DR (kg)	3.5
mV/V	2
Input imp. (Ω)	750
Voltage (V)	15
Cable length (m) (*)	18
Number of leads (plus shield)	4
Operating Temperature range	-10 °C / +40 °C

(*) Load cell cable shall not be altered after manufacture.

Where:

E_{max}	=	Maximum capacity
E_{min}	=	Minimum dead load
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 (AC/DC)

7. Description of Variant 6 approved on 26/08/26

Certain capacities and characteristics of the Nuweigh model BAI6036 (Figure 11) are listed in Table 7.

TABLE 7

Model Number	BAI6036	BAI6036	BAI6036
E_{max} (kg)	22 680	25 401	25 493
E_{min} (kg)	0	0	0
Class	C	C	C
nLC	3 000	3 000	3 000
V_{min} (kg)	1.4175	1.588	1.5933
DR (kg)	2.268	2.5401	2.5493
mV/V	1.8	2	2
Input imp. (Ω)	1150	1150	1150
Voltage (V)	15		
Cable length (m) (*)	18		
Number of leads (plus shield)	4		
Operating Temperature range	-10 °C / +40 °C		

(*) Load cell cable shall not be altered after manufacture.

Where:

E_{max}	=	Maximum capacity
E_{min}	=	Minimum dead load
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 (AC/DC)

8. Description of Variant 7 approved on 26/08/26

Certain capacities and characteristics of the Nuweigh model BAI2012 (Figure 13) are listed in Table 8.

TABLE 8

Model Number	BAI2012	BAI2012	BAI2012
E_{max} (kg)	22 680	30 000	45 360
E_{min} (kg)	0	0	0
Class	C	C	C
nLC	3 000	3 000	3 000
V_{min} (kg)	1.4175	1.875	2.835
DR (kg)	2.268	3	4.536
mV/V	2	2	2
Input imp. (Ω)	1150	1150	1150
Voltage (V)	15		
Cable length (m) (*)	18		
Number of leads (plus shield)	4		
Operating Temperature range	-10 °C / +40 °C		

(*) Load cell cable shall not be altered after manufacture.

Where:

E_{max}	=	Maximum capacity
E_{min}	=	Minimum dead load
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 (AC/DC)

9. Description of Variant 8 approved on 26/08/26

Certain capacities and characteristics of the Nuweigh model BAI1622012 (Figure 15) are listed in Table 9.

TABLE 9

Model Number	BAI1622012	BAI1622012
E_{max} (kg)	30 000	50 000
E_{min} (kg)	0	0
Class	C	C
nLC	3 000	3 000
V_{min} (kg)	1.875	3.125
DR (kg)	3	5
mV/V	2	2
Input imp. (Ω)	1150	1150
Voltage (V)	15	
Cable length (m) (*)	18	
Number of leads (plus shield)	4	
Operating Temperature range	-10 °C / +40 °C	

(*) Load cell cable shall not be altered after manufacture.

Where:

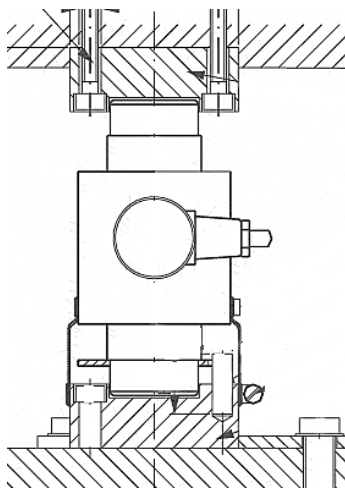
E_{max}	=	Maximum capacity
E_{min}	=	Minimum dead load
nLC	=	Maximum number of verification intervals
V_{min}	=	Minimum value of verification interval
DR	=	Minimum dead load output return value
mV/V	=	Output rating (nominal)
Input imp.	=	Input impedance (nominal)
Voltage	=	Maximum supply voltage (AC/DC)

FIGURE S889 – 1



Nuweigh Model BAI822010 Load Cell (Pattern & Variant 1)

FIGURE S889 – 2



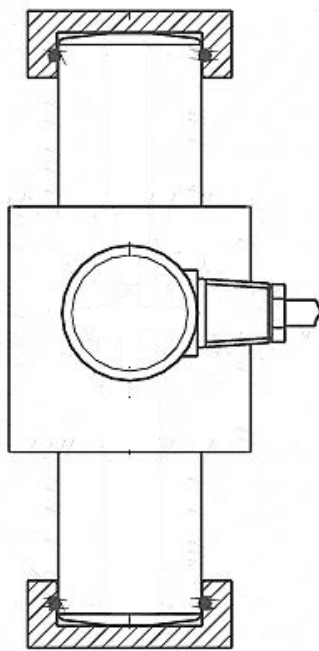
Nuweigh Model BAI822010 Mounting Arrangement (Pattern & Variant 1)

FIGURE S889 – 3



Nuweigh model BAI1692014 Load Cell (Variant 2)

FIGURE S889 – 4



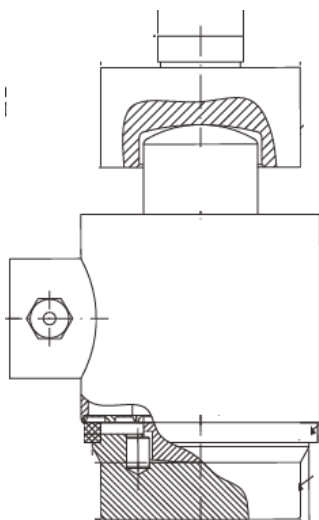
Nuweigh model BAI1692014 Mounting Arrangement (Variant 2)

FIGURE S889 – 5



Nuweigh model BAI2014 Load Cell (Variant 3)

FIGURE S889 – 6



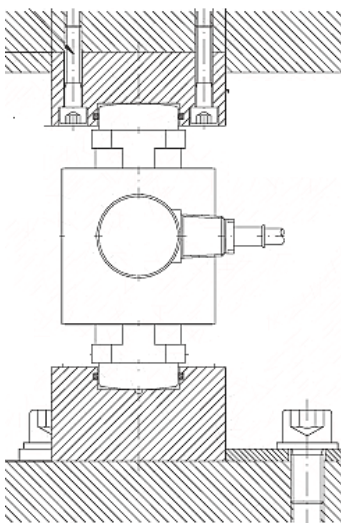
Nuweigh model BAI2014 Mounting Arrangement (Variant 3)

FIGURE S889 – 7



Nuweigh model BAI2010 Load Cell (Variant 4)

FIGURE S889 – 8



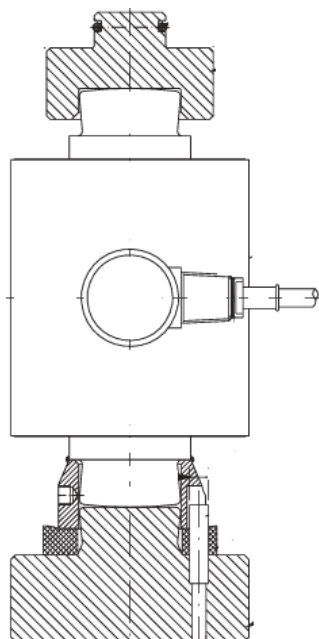
Nuweigh model BAI2010 Mounting Arrangement (Variant 4)

FIGURE S889 – 9



Nuweigh model BAI40 Load Cell (Variant 5)

FIGURE S889 – 10



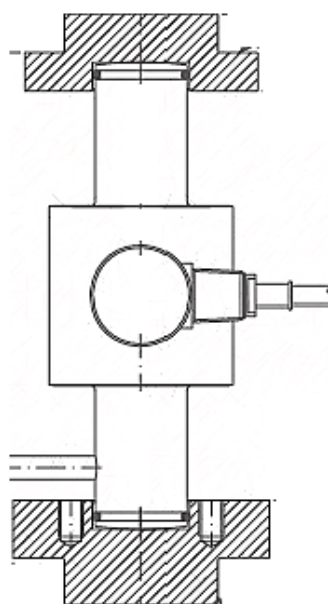
Nuweigh model BAI40 Mounting Arrangement (Variant 5)

FIGURE S889 – 11



Nuweigh model BAI6036 Load Cell (Variant 6)

FIGURE S889 – 12



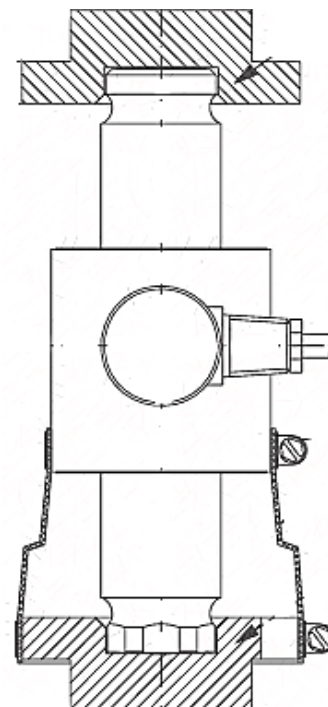
Nuweigh model BAI6036 Mounting Arrangement (Variant 6)

FIGURE S889 – 13



Nuweigh model BAI2012 Load Cell (Variant 7)

FIGURE S889 – 14



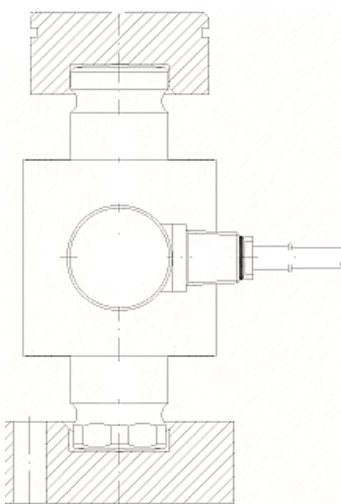
Nuweigh model BAI2012 Mounting Arrangement (Variant 7)

FIGURE S889 – 15



Nuweigh model BAI1622012 Load Cell (Variant 8)

FIGURE S889 – 16



Nuweigh model BAI1622012 Mounting Arrangement (Variant 8)

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