

# National Measurement Institute

# Supplementary Certificate of Approval

# **NMI S740**

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.

Anyload Model 108JA Load Cell

Submitted by Associated Scale Services Pty Ltd

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**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 1/04/22, and then every 5 years thereafter.

#### **DOCUMENT HISTORY**

Rev	Reason/Details	Date
0	Pattern and variants 1 to 12 approved – certificate issued	2/03/17
1	Variant 13 approved – certificate issued	28/04/17

#### CONDITIONS OF APPROVAL

#### General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI S740' and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S740' 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 S740

#### 1. Description of Pattern

#### approved on 2/03/17

An ANYLOAD model 108JA stainless steel single point load cell of 500 kg maximum capacity (Figure 1a and Table 1) and approved for use with up to 5000 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 the following:

Manufacturer's mark, or name written in full Model number ......... kg Serial number ........ kg Serial number ........ NMI S740

### 1.3 Table of Specifications

Specifications for the pattern are given in Table 1.

#### 2. Description of Variant 1

approved on 2/03/17

Certain other capacities of the Anyload 108JA with same characteristics as the pattern are listed in Table 1.

TABLE 1 (a)

Model Number		108JA								
E <sub>max</sub> (kg)	20	50	60	75	100	150	200			
Class	С	С	С	С	С	С	С			
nLC	4000	5000	5000	5000	5000	5000	5000			
V <sub>min</sub> (kg)	0.0013	0.0041	0.0049	0.0061	0.0081	0.0122	0.0163			
DR (kg)	0.0025	0.0050	0.0060	0.0075	0.0100	0.0150	0.0200			
mV/V				2						
Input imp (Ω)				415						
Voltage (V)				10						
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres;the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.									
Number of leads			4 (p	lus shield)	)		•			

TABLE 4 (b)

Model Number			108J	A				
E <sub>max</sub> (kg)	300	500	750	1000	1500	2000		
Class	С	С	С	С	С	С		
nLC	5000	4000	4000	4000	4000	4000		
V <sub>min</sub> (kg)	0.0244	0.1250	0.1875	0.2500	0.3750	0.5000		
DR (kg)	0.0300	0.0333	0.0500	0.0667	0.1000	0.1333		
mV/V			2					
Input imp (Ω)			415					
Voltage (V)			10					
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres;the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.							
Number of leads			4 (plus s	hield)				

#### 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)

Voltage = Maximum supply voltage (AC/DC)

### 3. Description of Variant 2

### approved on 2/03/17

Anyload 108UAUN (Figure 1b) with similar characteristic as the pattern is listed in Table 2.

TABLE 2

Model Number				1	08UAUN				
E <sub>max</sub> (kg)	50	100	150	200	300	500	635	700	1000
Class	С	С	С	С	С	С	С	С	С
nLC	5000	5000	5000	5000	5000	4000	4000	4000	4000
V <sub>min</sub> (kg)	0.0041	0.0081	0.0122	0.0163	0.0244	0.1250	0.1588	0.1750	0.2500
DR (kg)	0.0050	0.0100	0.0150	0.0200	0.0300	0.0333	0.0423	0.0467	0.0667
mV/V					2				
Input imp (Ω)					415				
Voltage (V)					10				
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres;the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.								
Number of leads	4 (plus sh	nield)							

### approved on 2/03/17

Anyload 108UA (Figure 1c) with similar characteristic as the pattern is listed in Table 3.

TABLE 3

Model Number					108UA					
E <sub>max</sub> (kg)	50	100	150	200	300	500	635	700	1000	
Class	С	С	С	С	С	С	С	С	С	
nLC	5000	5000	5000	5000	5000	4000	4000	4000	4000	
V <sub>min</sub> (kg)	0.0041	0.0081	0.0122	0.0163	0.0244	0.1250	0.1588	0.1750	0.2500	
DR (kg)	0.0050	0.0100	0.0150	0.0200	0.0300	0.0333	0.0423	0.0467	0.0667	
mV/V					2					
Input imp (Ω)					415					
Voltage (V)					10					
Cable length (m)	nominal	Manufactured in various lengths between 0.5 and 5metres;the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.								
Number of leads				4	(plus shiel	d)				

### 5. Description of Variant 4

### approved on 2/03/17

Anyload 108BA (Figure 1d) with similar characteristic as the pattern is listed in Table 4.

TABLE 4 (a)

Model Number			108	BA					
E <sub>max</sub> (kg)	6	10	15	20	30	40			
Class	C C		С	С	С	С			
nLC	4000	4000	4000	4000	4000	4000			
V <sub>min</sub> (kg)	0.0004	0.0007	0.0010	0.0013	0.0020	0.0027			
DR (kg)	0.0008	0.0013	0.0019	0.0025	0.0038	0.0050			
mV/V			2						
Input imp (Ω)			41	5					
Voltage (V)			10	)					
Cable length (m)	Manufactured in various lengths between 0.5 and 5 metres;the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.								
Number of leads		·	4 (plus	shield)					

TABLE 4 (b)

Model Number			108BA					
E <sub>max</sub> (kg)	50	60	75	100	150			
Class	С	С	С	С	С			
nLC	5000	5000	5000	5000	5000			
V <sub>min</sub> (kg)	0.0041	0.0049	0.0061	0.0081	0.0122			
DR (kg)	0.0050	0.0060	0.0075	0.0100	0.0150			
mV/V			2					
Input imp (Ω)			415					
Voltage (V)			10					
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres; the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.							
Number of leads		4	(plus shiel	d)				

# approved on 2/03/17

Anyload 108CA (Figure 1e) with similar characteristic as the pattern is listed in Table 5.

TABLE 5 (a)

Model Number			108	CA					
E <sub>max</sub> (kg)	10	20	30	60	100	200			
Class	С	С	С	С	С	С			
nLC	4000	4000	4000	5000	5000	5000			
V <sub>min</sub> (kg)	0.0007	0.0013	0.0020	0.0049	0.0081	0.0163			
DR (kg)	0.0013	0.0025	0.0038	0.0060	0.0100	0.0200			
mV/V			2						
Input imp (Ω)			41	5					
Voltage (V)			10	)					
Cable length (m)	Manufactured in various lengths between 0.5 and 5 metres; the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.								
Number of leads		•	4 (plus	shield)					

TABLE 5 (b)

Model Number			108CA				
E <sub>max</sub> (kg)	300	500	600	750	1000		
Class	С	С	С	С	С		
nLC	5000	4000	4000	4000	4000		
V <sub>min</sub> (kg)	0.0244	0.1250	0.1500	0.1875	0.2500		
DR (kg)	0.0300	0.0333	0.0400	0.0500	0.0667		
mV/V	2						
Input imp (Ω)			415				
Voltage (V)			10				
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres; the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.						
Number of leads			(plus shiel				

# approved on 2/03/17

Anyload 108EA (Figure 1f) with similar characteristic as the pattern is listed in Table 6.

TABLE 6

Model Number				108EA						
E <sub>max</sub> (kg)	10	20	30	60	100	200	300			
Class	С	С	С	С	С	С	С			
nLC	4000	4000	4000	5000	5000	5000	5000			
V <sub>min</sub> (kg)	0.0007	0.0013	0.0020	0.0049	0.0081	0.0163	0.0244			
DR (kg)	0.0013	0.0025	0.0038	0.0060	0.0100	0.0200	0.0300			
mV/V		2								
Input imp (Ω)				415						
Voltage (V)				10						
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres;the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate									
Number of leads			4	(plus shiel	d)					

### approved on 2/03/17

Anyload 108EASH (Figure 1g) with similar characteristic as the pattern is listed in Table 7.

TABLE 7

Model Number				108EASH						
E <sub>max</sub> (kg)	10	20	30	60	100	200	300			
Class	С	С	С	С	С	С	С			
nLC	4000	4000	4000	5000	5000	5000	5000			
V <sub>min</sub> (kg)	0.0007	0.0013	0.0020	0.0049	0.0081	0.0163	0.0244			
DR (kg)	0.0013	0.0025	0.0038	0.0060	0.0100	0.0200	0.0300			
mV/V		2								
Input imp (Ω)				415						
Voltage (V)				10						
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres; the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.									
Number of leads			4	(plus shield	)					

### 9. Description of Variant 8

### approved on 2/03/17

Anyload 108HAUN (Figure 1h) with similar characteristic as the pattern is listed in Table 8.

TABLE 8

Model Number				108HAUN					
E <sub>max</sub> (kg)	50	100	250	300	500	600	750		
Class	С	С	С	С	С	С	С		
nLC	5000	5000	5000	5000	4000	4000	4000		
V <sub>min</sub> (kg)	0.0041	0.0081	0.0203	0.0244	0.1250	0.1500	0.1875		
DR (kg)	0.0050	0.0100	0.0250	0.0300	0.0333	0.0400	0.0500		
mV/V		2							
Input imp (Ω)				415					
Voltage (V)				10					
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres; the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.								
Number of leads			4	(plus shield	l)				

# approved on 2/03/17

Anyload 108MA (Figure 1i) with similar characteristic as the pattern is listed in Table 9

TABLE 9

Model Number	108MA									
E <sub>max</sub> (kg)	50	75	100	150	200	250	300	500	635	660
Class	С	С	С	С	О	С	С	С	С	С
nLC	5000	5000	5000	5000	5000	5000	5000	4000	4000	4000
V <sub>min</sub> (kg)	0.0041	0.0061	0.0081	0.0122	0.0163	0.0203	0.0244	0.1250	0.1588	0.1650
DR (kg)	0.0050	0.0075	0.0100	0.0150	0.0200	0.0250	0.0300	0.0333	0.0423	0.0440
mV/V	2									
Input imp (Ω)		415								
Voltage (V)		10								
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres; the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.									
Number of leads	4 (plus shield)									

### 11. Description of Variant 10

### approved on 2/03/17

Anyload 108MAUN (Figure 1j) with similar characteristic as the pattern is listed in Table 10.

TABLE 10

Model Number	108MAUN							
E <sub>max</sub> (kg)	50	100	250	300	500	600	750	
Class	С	С	С	С	С	С	С	
nLC	5000	5000	5000	5000	4000	4000	4000	
V <sub>min</sub> (kg)	0.0041	0.0081	0.0203	0.0244	0.1250	0.1500	0.1875	
DR (kg)	0.0050	0.0100	0.0250	0.0300	0.0333	0.0400	0.0500	
mV/V		2						
Input imp (Ω)		415						
Voltage (V)		10						
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres;the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.							
Number of leads	4 (plus shield)							

### approved on 2/03/17

Anyload 108TA (Figure 1k) with similar characteristic as the pattern is listed in Table 11

**TABLE 11 (a)** 

Model Number	108TA							
E <sub>max</sub> (kg)	5	7	10	15	20	30		
Class	С	С	С	С	С	С		
nLC	4000	4000	4000	4000	4000	4000		
V <sub>min</sub> (kg)	0.0003	0.0005	0.0007	0.0010	0.0013	0.0020		
DR (kg)	0.0006	0.0009	0.0013	0.0019	0.0025	0.0038		
mV/V	2							
Input imp (Ω)		415						
Voltage (V)	10							
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres; the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.							
Number of leads	4 (plus shield)							

**TABLE 11 (b)** 

Model Number	108TA							
E <sub>max</sub> (kg)	50	75	100	150	200			
Class	С	С	C	С	C			
nLC	5000	5000	5000	5000	5000			
V <sub>min</sub> (kg)	0.0041	0.0061	0.0081	0.0122	0.0163			
DR (kg)	0.0050	0.0075	0.0100	0.0150	0.0200			
mV/V	2							
Input imp (Ω)	415							
Voltage (V)	10							
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres; the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.							
Number of leads 4 (plus shield)								

### 13. Description of Variant 12

### approved on 2/03/17

Anyload 108TAUN (Figure 1I) with similar characteristic as the pattern is listed in Table12.

TABLE 12(a)

Model Number	108TAUN								
E <sub>max</sub> (kg)	5	7	10	15	20	30			
Class	С	С	С	С	С	С			
NIc	4000	4000	4000	4000	4000	4000			
V <sub>min</sub> (kg)	0.0003	0.0005	0.0007	0.0010	0.0013	0.0020			
DR (kg)	0.0006	0.0009	0.0013	0.0019	0.0025	0.0038			
Mv/V		2							
Input imp (Ω)		415							
Voltage (V)		10							
Cable length (m)	the nominal	Manufactured in various lengths between 0.5 and 5metres; the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.							
Number of leads	4 (plus shield)								

TABLE 12(b)

Model Number	108TAUN							
E <sub>max</sub> (kg)	50	75	100	150	200			
Class	С	С	С	С	С			
nLC	5000	5000	5000	5000	5000			
V <sub>min</sub> (kg)	0.0041	0.0061	0.0081	0.0122	0.0163			
DR (kg)	0.0050	0.0075	0.0100	0.0150	0.0200			
mV/V	2							
Input imp (Ω)		415						
Voltage (V)		10						
Cable length (m)	Manufactured in various lengths between 0.5 and 5metres; the cable length other than the nominal value of 2 meters appending to the model number in brackets, and so marked on the data plate.							
Number of leads 4 (plus shield)								

#### approved on 28/04/17

The pattern and variants may also be known as SUPPLYWEIGH 108 series load cells. The model number may have a prefix 'SW', for example, SW108JA.

#### FIGURE S740 - 1



(a) ANYLOAD model 108JA



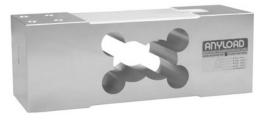
(b) ANYLOAD model 108UAUN



(c) ANYLOAD model 108UA



(d) ANYLOAD model 108BA



(e) ANYLOAD model 108CA



(f) ANYLOAD model 108EA



(g) ANYLOAD model 108EASH



(h) ANYLOAD model 108HAUN



(i) ANYLOAD model 108MA



(j) ANYLOAD model 108MAUN



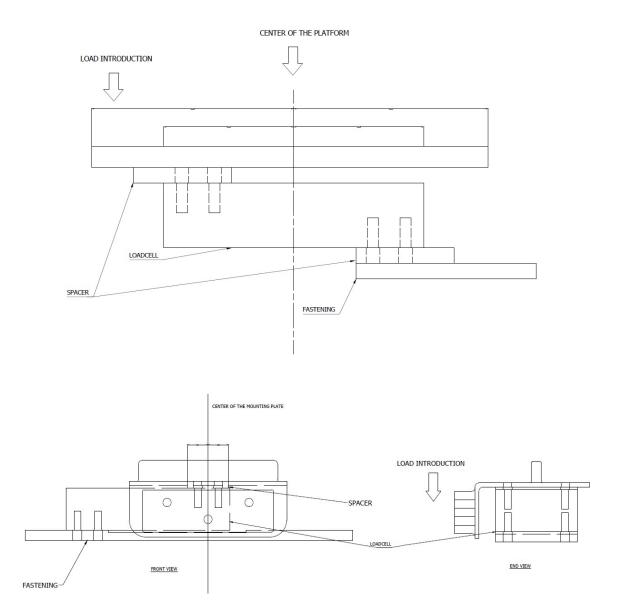
(k) ANYLOAD model 108TA



(I) ANYLOAD model 108TAUN

ANYLOAD model 108 Series Load Cell (pattern & variants)

#### FIGURE S740 - 2



Typical Mounting Method (pattern and variants)

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