



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

Supplementary Certificate of Approval

NMI S471

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.

Kelba Model KH8C-C3-1.0t-4B Load Cell

submitted by Kelba (Australia) Pty Ltd
7 Leonard Street
Hornsby NSW 2077

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 **1/09/22**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – interim certificate issued	23/08/06
1	Pattern re-approved & variant 1 amended & re-approved – interim certificate issued	29/09/06
2	Pattern & variant 1 approved – certificate issued	8/11/06
3	Pattern & variant 1 reviewed & updated – certificate issued	8/03/12
4	Pattern & variant 1 reviewed & updated – certificate issued	14/12/16

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI S471' and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S471' 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*.



Mario Zamora

TECHNICAL SCHEDULE No S471

1. Description of Pattern **approved on 23/08/06**

A Kelba model KH8C-C3-1.0t-4B load cell of 1000 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 1b.

1.2 Markings

Each load cell is marked with the following:

Manufacturer's mark, or name written in full	Kelba
Model number
Maximum capacity kg (or t)
Serial number
Pattern approval mark	NMI S471

1.3 Table of Specifications

Specifications for the pattern are given in Table 1.

2. Description of Variant 1 **approved on 29/09/06**

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

TABLE 1

Type: Kelba KH8C-C3-#t-4B series as listed below, where # in the model number represents the capacity (*E_{max}*) in tonnes, e.g. the pattern model KH8C-C3-1.0t-4B is of 1 t (1000 kg) capacity.

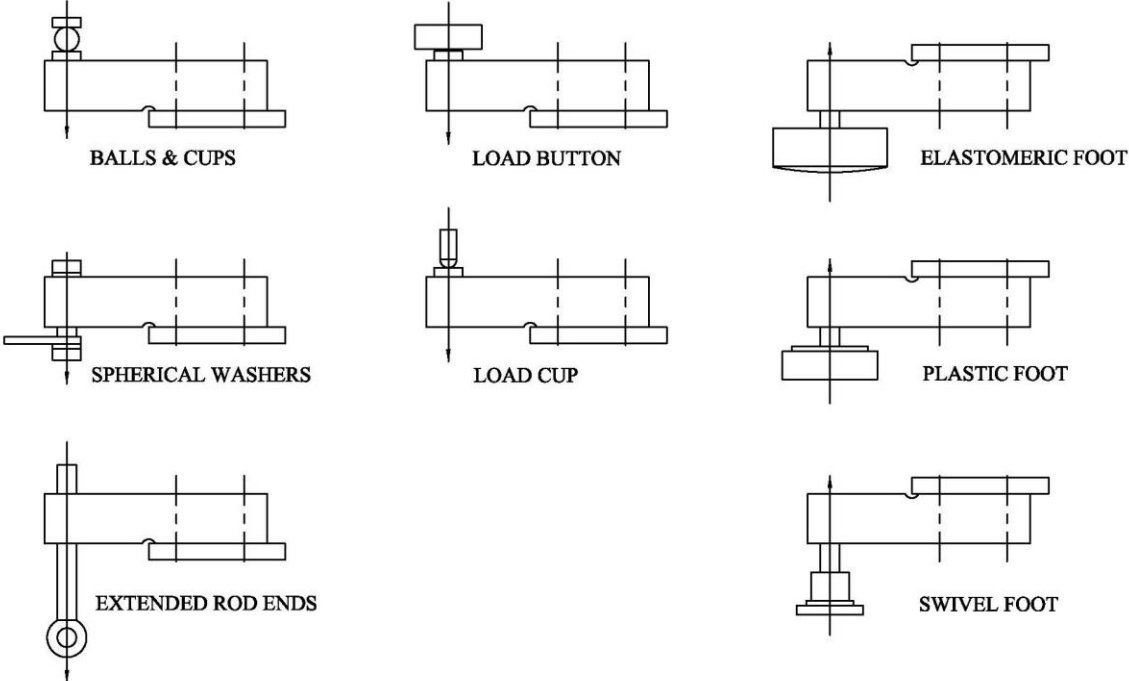
Model number	#=0.5t	#=1.0t	#=1.5t	#=2.0t	#=2.5t
<i>E_{max}</i> (kg)	500	1000	1500	2000	2500
Class	C3	C3	C3	C3	C3
nLC	3000	3000	3000	3000	3000
<i>V_{min}</i> (kg)	0.05	0.15	0.15	0.2	0.25
DR (kg)	0.05	0.11	0.15	0.2	0.25
mV/V	3	3	3	3	3
Input imp. ohms	350	350	350	350	350
Supply voltage (V)	15	15	15	15	15
Cable length (m)	4	4	4	4	4
Number of leads (plus shield)	4	4	4	4	4

Where:	<i>E_{max}</i>	=	Maximum capacity
	nLC	=	Maximum number of verification intervals
	<i>V_{min}</i>	=	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 S471 – 1



(a) Kelba Model KH8C-C3-1.0t-4B Load Cell



(b) Approved Mounting Methods

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