



Australian Government  
Department of Industry,  
Innovation and Science

**National  
Measurement  
Institute**

**Supplementary Certificate of Approval**

**NMI S499**

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.

HBM Model RTNC3 33T Load Cell

submitted by Hottinger Baldwin Messtechnik GmbH  
Im Tiefen See 45  
D-64293 Darmstadt  
Germany

**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 1/08/21, and then every 5 years thereafter.

**DOCUMENT HISTORY**

Rev	Reason/Details	Date
0	Pattern and variant 1 approved – certificate issued	17/7/07
1	Pattern and variant 1 updated & reviewed – certificate issued	11/05/16

## CONDITIONS OF APPROVAL

### General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI S499' and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S499' 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*.



**Dr A Rawlinson**

TECHNICAL SCHEDULE No S499

**1. Description of Pattern** **approved on 17/7/07**

An HBM model RTNC3 33T load cell of 33 000 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	HBM
Model number	.....
Maximum capacity, $E_{max}$	..... kg (or t)
Serial number	.....
Pattern approval mark	NMI S499

**1.3 Table of Specifications**

Specifications for the pattern are given below and in Table 1.

**2. Description of Variant 1** **approved on 17/7/07**

Certain other models and with characteristics and specifications as listed below and in Tables 1 and 2. Note that the load cells shown in Table 1 do not have a DR value specified.

In all cases	
mV/V	2.85 mV/V
Input imp. (ohms)	4450
Voltage (V)	30 V max AC/DC
Cable length	5 m, 12 m or 15 m according to Tables 1 and 2.
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)

TABLE 1  
HBM RTN series load cells of Class C as listed below.

Model	E <sub>max</sub> (t)	Class	n <sub>LC</sub>	V <sub>min</sub> (kg)	Cable length (m)
RTNC3 1T	1	C	3000	0.05	5
RTNC3 2.2T	2.2	C	3000	0.11	5
RTNC3 4,7T	4.7	C	3000	0.24	5
RTNC3 10T	10	C	3000	0.50	5
RTNC3 15T	15	C	3000	0.75	5
RTNC3 22T	22	C	3000	1.10	12
RTNC3 33T	33	C	3000	1.65	15
RTNC3 47T	47	C	3000	2.35	12
RTNC3 68T	68	C	3000	3.40	12
RTNC3 100T	100	C	3000	5.00	12
RTNC3 150T	150	C	3000	7.50	5
RTNC3 220T	220	C	3000	11.00	5
RTNC3 330T	330	C	3000	16.50	5
RTNC3 470T	470	C	3000	23.50	5
RTNC4 1T	1	C	4000	0.04	5
RTNC4 2.2T	2.2	C	4000	0.09	5
RTNC4 4,7T	4.7	C	4000	0.20	5
RTNC4 10T	10	C	4000	0.42	5
RTNC4 15T	15	C	4000	0.63	5
RTNC4 22T	22	C	4000	0.92	12
RTNC4 33T	33	C	4000	1.38	15
RTNC4 47T	47	C	4000	1.96	12
RTNC4 68T	68	C	4000	2.83	12
RTNC4 100T	100	C	4000	4.17	12
RTNC5 1T	1	C	5000	0.04	5
RTNC5 2.2T	2.2	C	5000	0.09	5
RTNC5 4,7T	4.7	C	5000	0.20	5
RTNC5 10T	10	C	5000	0.42	5
RTNC5 15T	15	C	5000	0.63	5
RTNC5 22T	22	C	5000	0.92	12
RTNC5 33T	33	C	5000	1.38	15
RTNC5 47T	47	C	5000	1.96	12
RTNC5 68T	68	C	5000	2.83	12
RTNC5 100T	100	C	5000	4.17	12

TABLE 2

Additional HBM RTN series load cells of Class C as listed below.

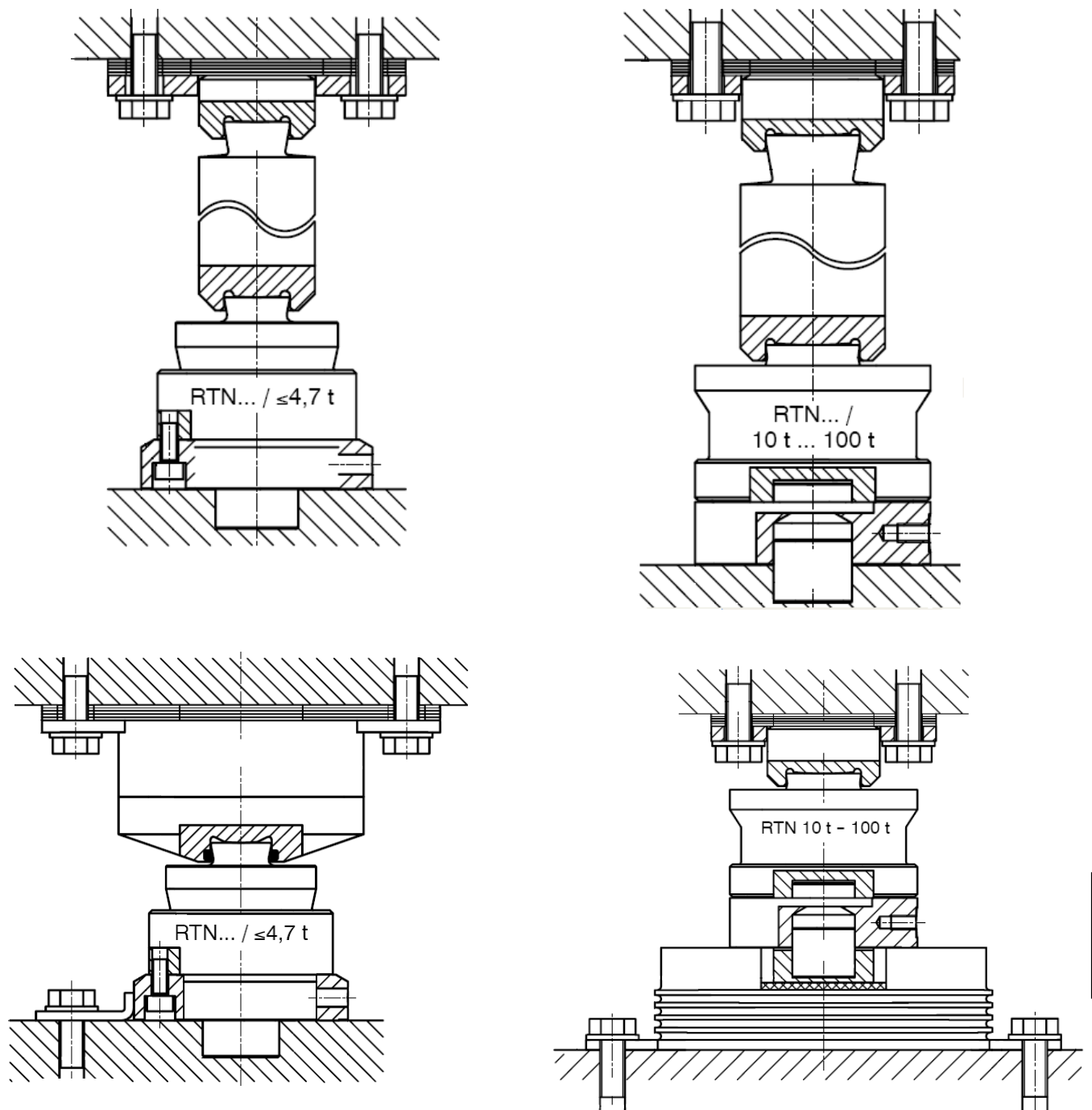
Model	E <sub>max</sub> (t)	Class	n <sub>LC</sub>	V <sub>min</sub> (kg)	DR (kg)	Cable length (m)
RTNC3MI7,5 1T	1	C	3000	0.04	0.07	5
RTNC3MI7,5 2.2T	2.2	C	3000	0.09	0.15	5
RTNC3I7,5 4,7T	4.7	C	3000	0.20	0.31	5
RTNC3MI7,5 10T	10	C	3000	0.42	0.67	5
RTNC3MI7,5 15T	15	C	3000	0.63	1.00	5
RTNC3MI7,5 22T	22	C	3000	0.92	1.47	12
RTNC3MI7,5 33T	33	C	3000	1.38	2.20	15
RTNC3MI7,5 47T	47	C	3000	1.96	3.13	12
RTNC3MI7,5 68T	68	C	3000	2.83	4.53	12
RTNC3MI7,5 100T	100	C	3000	4.17	6.67	12
RTNC4MI7,5 1T	1	C	4000	0.04	0.07	5
RTNC4MI7,5 2.2T	2.2	C	4000	0.09	0.15	5
RTNC4MI7,5 4,7T	4.7	C	4000	0.20	0.31	5
RTNC4MI7,5 10T	10	C	4000	0.42	0.67	5
RTNC4MI7,5 15T	15	C	4000	0.63	1.00	5
RTNC4MI7,5 22T	22	C	4000	0.92	1.47	12
RTNC4MI7,5 33T	33	C	4000	1.38	2.20	15
RTNC4MI7,5 47T	47	C	4000	1.96	3.13	12
RTNC4MI7,5 68T	68	C	4000	2.83	4.53	12
RTNC4MI7,5 100T	100	C	4000	4.17	6.67	12

FIGURE S499 – 1



HBM Model RTNC3 33T Load Cell

FIGURE S499 – 2



Mounting Arrangements

~ End of Document ~