

**OIML Member State**  
The Netherlands

Number R60/2017-A-NL1-22.37 revision 0  
Project number 3512451  
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Issuing authority

NMi Certin B.V.  
Person responsible: M.Ph.D. Schmidt

Applicant and  
Manufacturer

Hottinger Brüel & Kjaer GmbH  
Im Tiefen See 45  
D-64293 Darmstadt  
Germany

Identification of the  
certified type

A **bending beam load cell**, with strain gauges, equipped with electronics.  
Registered trade name : HBM  
Type : FIT/5.....,FIT5

Characteristics

See next page

This OIML Certificate is issued under scheme A.

This Certificate attests the conformity of the above identified Type (represented by the sample(s) identified in the OIML Test Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

**OIML R 60-1:2017** for accuracy class C

This Certificate relates only to the metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML International Recommendation above-identified. This Certificate does not bestow any form of legal international approval.

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Issuing Authority

**NMi Certin B.V., OIML Issuing Authority NL1**  
2 November 2022

Certification Board

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This document is digitally signed and sealed. The digital signature can be verified in the blue ribbon on top of the electronic version of this certificate.



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The conformity was established by the results of tests and examinations provided in the associated OIML Reports:

- No. R60/2000-NL1-06.12 rev. 1 dated 25 August 2006 that includes 56 pages;
- No. NMI-13200549-01 dated 22 May 2014 that includes 66 pages;
- No. NMI-14200321-03 dated 11 December 2015 that includes 9 pages;
- No. NMI-15200679-01 dated 26 April 2016 that includes 9 pages;
- No. NMI-16200839-01 dated 2 November 2017 that includes 46 pages;
- No. NMI-3512451-01 dated 2 November 2022 that includes 9 pages.

### Characteristics of the load cell:

Maximum capacity ( $E_{max}$ )	5 kg up to and including 30 kg	50 up to and including 250 kg
Minimum dead load	0 kg	
Accuracy Class	C	
Maximum number of load cell intervals (n) <sup>(1)</sup>	4000	
Ratio of minimum LC Verification interval <sup>(1)</sup> $Y = E_{max} / V_{min}$	25000	19000
Ratio of minimum dead load output return <sup>(1)</sup> $Z = E_{max} / (2 * DR)$	4000	
Temperature range	-10 °C / + 40 °C	
Fraction $p_{LC}$	0,8	
Humidity Class	CH	
Safe overload	150 % of $E_{max}$	
Recommended excitation	10 - 30 V DC	
Excitation maximum	30 V DC	
Transducer material	Stainless steel	
Atmospheric protection	Stainless steel cover	
Number of counts for $E_{max}$	$\geq Y * 5 / p_{LC}$	
Software identification	Version number: P7x <sup>(2)</sup> , or Version number: 80, checksum 240413, or Version number: 81, checksum 244554	

### Remarks:

1. The characteristics for  $n_{max}$ , Y and Z can be reduced separately.
2. x is a number between 0 and 9 representing updates of the non-legally relevant part of the software.

Each load cell produced is provided with an accompanying document with information about its characteristics.



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The above identified Type (represented by the sample(s) identified in the OIML Test Report) have been found to comply with the additional national requirements established by the United States of America (NIST Handbook 44 and NCWM Publication 14), included in the Utilizer Declaration:

- R 60 OIML-CS rev.2 Additional requirements from the United States Accuracy class III L;
- R 60 OIML-CS rev.2 Additional requirements from the United States Marking requirements.

## Revision History

Revision	Date	Change(s)
0	2022-11-02	Initial issue.