

OIML Member State
The Netherlands

Number R60/2017-A-NL1-21.28
Project number 2515827
Page 1 of 3

Issuing authority NMI Certin B.V.
Person responsible: M.Ph.D. Schmidt

Applicant and Manufacturer Hottinger Brüel & Kjaer GmbH
Im Tiefen See 45
64293 Darmstadt
Germany

Identification of the certified type A **bending beam load cell**, with strain gauges.
Registered trade name : HBM
Type : HLC

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 - Edition 2017 (E) for accuracy class C or D

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
28 May 2021

Certification Board

NMI Certin B.V.
Thijsseweg 11
2629 JA Delft
The Netherlands
T +31 88 6362332
certin@nmi.nl
www.nmi.nl

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OIML Member State
The Netherlands

Number R60/2017-A-NL1-21.28
Project number 2515827
Page 2 of 3

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

- No. NMI-2515827-01 dated 26 May 2021 that includes 51 pages;
- No. NMI-2515827-02 dated 26 May 2021 that includes 47 pages.

Characteristics of the load cell:

Characterization of load cell capabilities	Analog-passive load cell		
Maximum capacity (E_{max})	220 kg up to and including 4400 kg	220 kg up to 1100 kg	1100 kg up to and including 4400 kg
Minimum dead load	0 kg		
Accuracy Class	D	C	
Rated Output	1,94 mV/V \pm 0,05 mV/V		
Maximum number of load cell intervals (n) ⁽¹⁾	1000	3000	6000
Ratio of minimum LC Verification interval ⁽¹⁾ $Y = E_{max} / V_{min}$	12500		
Ratio of minimum dead load output return ⁽¹⁾ $Z = E_{max} / (2 * DR)$	15000	18000	15000
Input impedance	415 Ω \pm 65 Ω		
Temperature range	-10 $^{\circ}$ C / +40 $^{\circ}$ C		
Fraction p_{LC}	0,7		
Humidity Class	CH		
Safe overload	150 % of E_{max}		
Output impedance	350 Ω \pm 2 Ω		
Recommended excitation	5 V AC		
Excitation maximum	15 V AC / DC	10 V AC / DC	
Transducer material	Stainless steel		
Atmospheric protection	Hermetically welded		

Remarks:

1. The characteristics for n_{max} , Y and Z can be reduced separately.

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



OIML Certificate

OIML Member State
The Netherlands

Number R60/2017-A-NL1-21.28
Project number 2515827
Page 3 of 3

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.