OIML Certificate

OIML Member State
The Netherlands

Number R60/2017-A-NL1-20.18 revision 1
Project number 3525252

Issuing authority	NMi Certin B.V. Person responsible: M.Ph.D. Schmidt
Applicant	Mettler-Toledo GmbH Im Langacher 44 8606 Greifensee Switzerland
Manufacturer	Mettler-Toledo (Changzhou) Precision Instruments Ltd. No. 22, Zengqiang Road, Xinbei District Changzhou, Jiangsu, 213125 P.R. of China
Identification of the certified type	A **bending and shear beam load cell**, with strain gauges. Registered trade name : Mettler-Toledo Type : SLB215, SLB415
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 samples) 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.

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate was issued, partial quotation of the Certificate and of the associated OIML Test Reports is not permitted, although either may be reproduced in full.

Issuing Authority

NMi Certin B.V., OIML Issuing Authority NL1
5 October 2023

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

- No. NMi-2489220-01 dated 26 May 2020 that includes 51 pages;
- No. NMi-2489220-02 dated 26 May 2020 that includes 46 pages;
- No. NMi-3525252-01 revision 1 dated 5 October 2023 that includes 51 pages;
- No. NMi-3525252-02 revision 1 dated 5 October 2023 that includes 46 pages;
- No. NMi-3525252-03 dated 5 October 2023 that includes 46 pages.

Characteristics of the load cell:

Characterization of load cell capabilities		Analog-passive load cell		
Load cell construction		bending beam		shear beam
Maximum capacity (E_{max})		110 kg up to and including 550 kg	2200 kg up to and including 11000 kg	1100 kg up to and including 5500 kg
Minimum dead load		0,4 kg		
Accuracy Class		C		
Rated Output		0,97 mV/V ± 0,1 mV/V or 1,94 mV/V ± 0,1 mV/V		
Maximum number of load cell intervals (n) (1)		3000		
Ratio of minimum LC Verification interval (1) $Y = E_{max} / v_{min}$	Alloy steel	11000	21000	
	Stainless steel		22000	
Ratio of minimum dead load output return (1) $Z = E_{max} / (2 * DR)$		3000		
Input impedance		382 Ω ± 10 Ω		
Temperature range		-10 °C / +40 °C		
Fraction p_{LC}		0,7		
Humidity Class		CH		
Safe overload		150% of E_{max}		
Output impedance		350 Ω ± 1 Ω		
Recommended excitation		5 - 15 V DC		
Excitation maximum		20 V DC		
Transducer material		Alloy steel or Stainless steel		
Atmospheric protection		Hermetically sealed by laser welding		

Remark:

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

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

The above identified Type (represented by the samples 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	2020-05-26	Initial issue.
1	2023-10-05	Added stainless steel transducer material and tested a high capacity bending beam loadcell