OIML Certificate

OIML Member State
The Netherlands

Number R60/2017-A-NL1-23.30 revision 1
Project number 3739199

Issuing authority	NMi Certin B.V. Person responsible: M.Ph.D. Schmidt
Applicant and Manufacturer	Técnicas de Electrónica y Automatismos, S.A. C/Espronceda 180 08018 Barcelona Spain
Identification of the certified type	A **bending beam load cell**, with strain gauges. Registered trade name : UTILCELL Type : 260
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.

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 Report(s) is not permitted, although either may be reproduced in full.

Issuing Authority

NMi Certin B.V., OIML Issuing Authority NL1
28 March 2024

Certification Board

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

OIML Certificate

OIML Member State
The Netherlands

Number R60/2017-A-NL1-23.30 revision 1
Project number 3739199

The conformity was established by the results of tests and examinations provided in the associated reports:
- No. NMi-3613962-01 dated 23 October 2023 that includes 51 pages;
- No. NMi-3739199-01 dated 28 March 2024 that includes 49 pages.

Characteristics of the load cell:

Characterization of load cell capabilities	Analog-passive load cell	
Maximum capacity (E_{max})	5 kg up to 10 kg	10 kg up to and including 50 kg
Minimum dead load	0 kg	
Accuracy Class	C	
Rated Output	2 mV/V ± 10%	
Maximum number of load cell intervals (n) (1)	2400	4000
Ratio of minimum LC Verification interval (1) $Y = E_{max} / v_{min}$	8300	15000
Ratio of minimum dead load output return (1) $Z = E_{max} / (2 * DR)$	2400	4000
Input impedance	400 Ω ± 30 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 ± 5 Ω	
Recommended excitation	10 V AC / DC	
Excitation maximum	15 V AC / DC	
Transducer material	Aluminium	
Atmospheric protection	Hermetically welded	

Remark:
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.

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.

OIML Certificate

OIML Member State
The Netherlands

Number R60/2017-A-NL1-23.30 revision 1
Project number 3739199

Revision History

Revision	Date	Change(s)
0	2023-10-23	Initial issue.
1	2024-03-28	Extension of capacity range and improved specifications based on test report NMi-3739199-01.