# OIML Certificate

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|---|---|
| Issuing authority | NMi Certin B.V.<br>Person responsible: M.Ph.D. Schmidt |
| Applicant and Manufacturer | Minebea Intec GmbH<br>Meiendorfer Strasse 205 A<br>D-22145 Hamburg<br>Germany |

**Identification of the certified type**

A **compression load cell**, with strain gauges.

| | | |
|---|---|---|
| Registered trade name | : | Minebea Intec GmbH |
| Type | : | PR 6212 |

**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**:2021 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**
7 May 2024

Certification Board

The conformity was established by the results of tests and examinations provided in the associated reports:
- No. NMi-16200404-01 dated 6 October 2016 that includes 51 pages;
- No. NMi-16200404-02 dated 6 October 2016 that includes 48 pages;
- No. NMi-3769928-01 dated 7 May 2024 that includes 49 pages.

**Characteristics of the load cell:**

| Characterization of load cell capabilities | Analog-passive load cell | | | | |
|---|---|---|---|---|---|
| Maximum capacity ($E_{max}$) | 100 kg | 200 kg | 300 kg | 500, 1000 and 2000 kg | 500, 1000, 2000, 3000, 5000 and 10000 kg |
| Minimum dead load | 0 kg | | | | |
| Accuracy Class | C | | | | |
| Rated Output | 2 mV/V ± 0,25 mV/V | | | | |
| Maximum number of load cell intervals (n) [1] | 1000 | | | 2000 | 1000 |
| Ratio of minimum LC Verification interval [1] $Y = E_{max} / v_{min}$ | 1500 | 3000 | 4500 | 8000 | 5000 |
| Ratio of minimum dead load output return [1] $Z = E_{max} / (2 * DR)$ | 1000 | | | 2000 | 1500 |
| Input impedance | 650 $\Omega$ ± 6 $\Omega$ | | | | |
| Temperature range | -10 °C / + 40 °C | | | | |
| Fraction $p_{LC}$ | 0,7 | | | | |
| Humidity Class | CH | | | | |
| Safe overload | 150 % of $E_{max}$ | | | | |
| Output impedance | 610 $\Omega$ ± 1 $\Omega$ | | | | |
| Recommended excitation | 10 V AC / DC | | 4 - 24 V AC / DC | | |
| Excitation maximum | 24 V AC / DC | | 32 V AC / DC | | |
| Transducer material | Stainless steel | | | | |
| Atmospheric protection | Hermetically sealed | | | | |

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 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 | 2024-05-07 | Initial issue. |