# Test Certificate
# Parts Certificate

Number **TC11696** revision 0
Project number 2373221


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|---|---|
| Issued by | NMi Certin B.V. |
| In accordance with | WELMEC 8.8 2017, WELMEC 2.4 Issue 2, OIML R 60 (2017), EN 45501:2015. |
| Producer | Sauter GmbH<br>Ziegelei 1<br>72336 Balingen<br>Germany |
| Measuring instrument | A **single point load cell**, with strain gauges, tested as a part of a weighing instrument. |

Designation : CP xx-xxP1

Further properties are described in the annexes:
- Description TC11696 revision 0;
- Documentation folder TC11696-1.

An overview of performed tests is given in the annex:
- Description TC11696 revision 0.

Issuing Authority **NMi Certin B.V.**
9 September 2019

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INSPECTION
RvA I 122

# Description



## 1 General information about the load cell

All properties of the load cell, whether mentioned or not, shall not be in conflict with the standards mentioned in this certificate.

This certificate is the positive result of the applied voluntary, modular approach, for a component of a measuring instrument, as described in WELMEC 8.8. The complete measuring system must be covered by an EC type-approval certificate, an EC-type examination certificate or an EU-type examination certificate.

### 1.1 Essential parts

| Number | Pages | Description | Remark |
|---|---|---|---|
| 11696/0-01 | 1 | CP P1 | Mechanical / electrical |

Cable:
- If the load cell is provided with a 4-wire system:
  - The cable length is mentioned in the accompanying load cell document / on the label;
  - The cable length shall not be modified.
- If the load cell is provided with a 6-wire system (="Remote-sensing"):
  - The cable length is not limited.

The cable is shielded; the shield may be connected to the load cell.

### 1.2 Essential characteristics

| | |
|---|---|
| Characterization of load cell capabilities | Analog-passive load cell |
| Maximum capacity ($E_{max}$) | 3 kg up to and including 50 kg |
| Minimum dead load | 0 kg |
| Accuracy Class | C |
| Rated Output | 2,0 mV/V ± 0,2 mV/V |
| Maximum number of load cell intervals (n) (1) | 5000 |
| Ratio of minimum LC Verification interval $Y = E_{max} / v_{min}$ (1) | 20000 |
| Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$ (1) | 7500 |
| Input impedance | 409 Ω ± 6 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 ± 3 Ω |
| Recommended excitation | 5-12 V AC / DC |
| Excitation maximum | 18 V AC / DC |
| Transducer material | Aluminium alloy |
| Atmospheric protection | Silicon rubber |

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

### 1.3 Essential shapes

| Number | Pages | Description | Remark |
|---|---|---|---|
| 11696/0-01 | 1 | CP P1 | Mechanical / electrical |

The descriptive markings plate is secured against removal by sealing or will be destroyed when removed and contains at least the information and markings as described in OIML R 60 (2017) and:
- This certificate number TC11696 (in the countries where it is mandatory);
- Producers name or mark.

## 2 Seals

The connecting cable of the load cell or the junction box is provided with possibility to seal.

## 3 Conditions for conformity assessment

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

The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in EN45501:2015 clause F.4, at the time of putting into use.

Other parties may use this certificate without the written permission of the producer (WELMEC 8.8).

## 4 Reports

An overview of performed tests is given in the reports:
- No. NMi-10200947-07 dated 24 December 2010 that includes 59 pages;
- No. NMi-10200947-08 dated 24 December 2010 that includes 59 pages.

A report can be a test report, an evaluation report, a type evaluation report and/or a pattern evaluation report.