

Issued by NMI Certin B.V.

In accordance with WELMEC 8.8 2017, WELMEC 2.4 2021, OIML R 60 (2021), EN 45501:2015.

Producer Hottinger Brüel & Kjaer GmbH  
Im Tiefen See 45  
D-64293 Darmstadt  
Germany

Measuring instrument A **bending beam load cell**, with strain gauges, tested as a part of a weighing instrument.

Registered trade name : HBM  
Designation : Z6...

Further properties are described in the annexes:

- Description TC2207 revision 5;
- Documentation folder TC2207-5.

An overview of performed tests is given in the annex:

- Description TC2207 revision 5.

Initially issued 17 March 1993

Remark This revision replaces the earlier versions, including its documentation folder.

Issuing Authority **NMI Certin B.V.**  
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Certification Board

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## 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 instrument must be covered by relevant metrological certification that is valid in the country where the instrument is put into use.

### 1.1 Essential parts

Number	Pages	Description	Remark
2207/5-01	3	Z6 series outline	-
2207/5-02	3	Z6 series mechanical and electrical configuration	-
2207/5-03	1	Z6 series cable and connector configuration	-

Cable:

- The load cell is provided with a 6-wire system (=“Remote-sensing”):
  - The cable length is not limited.

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

The cable is optionally provided with a connector plug at the load cell side.

## 1.2 Essential characteristics

Characterization of load cell capabilities	Analog-passive load cell			
Maximum capacity ( $E_{max}$ )	5 kg up to and including 1000 kg	10 kg up to 20 kg	20 kg up to 200 kg	200 kg up to and including 1000 kg
Minimum dead load	0 kg			
Accuracy Class	D	C		
Rated Output	2,0 mV/V			
Maximum number of load cell intervals (n) <sup>(1)</sup>	1000	4500	6000	6000
Ratio of minimum LC Verification interval <sup>(1)</sup> $Y = E_{max} / V_{min}$	3000	22500	22500	22500
Ratio of minimum dead load output return <sup>(1)</sup> $Z = E_{max} / (2 * DR)$	1800	11000	14000	20000
Input impedance	350 - 480 $\Omega$			
Temperature range	-10 °C / + 40 °C			
Fraction $p_{LC}$	0,7			
Humidity Class	CH			
Safe overload	150 % of $E_{max}$			
Output impedance	356 $\Omega \pm 0,2 \Omega$	356 $\Omega \pm 0,12 \Omega$ , or with plug 355 $\Omega \pm 0,12 \Omega$		
Recommended excitation	0,5 - 12 V AC / DC			
Excitation maximum	18 V AC / DC			
Transducer material	Stainless steel			
Atmospheric protection	Hermetically sealed (welded)			

Remark:

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

## 1.3 Essential shapes

Number	Pages	Description	Remark
2207/5-01	3	Z6 series outline	-
2207/5-02	3	Z6 series mechanical and electrical configuration	-

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 (2021) and:

- This certificate number TC2207 (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.

The load cell was previously put on the market under the name of Hottinger Baldwin Messtechnik GmbH.

## 4 Reports

An overview of performed tests is given in the evaluation report ER2207 revision 5.