

Issued NMI Certin B.V.

In accordance with WELMEC 8.8 Issue 2, Paragraph 8.1 of EN 45501:1992/AC:1993, WELMEC 2.4 Issue 2, OIML R 60 (2000).

Producer Mettler-Toledo (Changzhou) precision instrument Ltd.
No.5 Middle huashan road, Xinbei district
Changzhou, Jiangsu
China

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

Brand : Mettler-Toledo
Designation : MTB

Further properties are described in the annexes:

- Description TC6035 revision 3;
- Documentation folder TC6035-4.

An overview of performed tests is given in the annex:

- Description TC6035 revision 3.

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

Issuing Authority **NMI Certin B.V.**
17 July 2015


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Head Certification Board

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This document is issued under the provision that no liability is accepted and that the producer shall indemnify third-party liability.

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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 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
6035/3-01	1	Load cell MTB 10 kg	Mechanical
6035/3-02	1	Load cell MTB 20 kg	Mechanical
6035/3-03	1	Load cell MTB 30 kg	Mechanical
6035/3-04	1	Load cell MTB 50 kg	Mechanical
6035/3-05	1	Load cell MTB 75 kg	Mechanical
6035/3-06	1	Load cell MTB 100 kg	Mechanical
6035/3-07	1	Load cell MTB 200 kg	Mechanical
6035/3-08	1	Load cell MTB 300 kg	Mechanical
6035/3-09	1	Load cell MTB 500 kg	Mechanical
6035/3-10	1	Wiring, MTB 10 kg – 500 kg	Electrical

Cable:

- The load cell is provided with a 6-wire system (=“Remote-sensing”):
 - The cable length is not limited;
 - The cable shall be a shielded cable, the shield is, or is not connected to the load cell.

1.2 Essential characteristics

Maximum capacity (E_{max})	10 kg and 20 kg	30 kg up to and including 500 kg
Minimum dead load	0 kg	0 kg
Accuracy Class	C	C
Rated Output	2 mV/V	2 mV/V
Maximum number of load cell intervals (n)	3000	6000
Ratio of minimum LC Verification interval $Y = E_{max} / V_{min}$	12000	12000
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	3000	6000
Input impedance	383 $\Omega \pm 4 \Omega$ or 387 $\Omega \pm 4 \Omega$	
Temperature range	-10 °C / + 40 °C	
Fraction p_{LC}	0,7	
Humidity Class	CH	
Safe overload	150 % of E_{max}	
Output impedance	350 $\Omega \pm 1 \Omega$	
Recommended excitation	5-15 V AC / DC	
Excitation maximum	20 V AC / DC	
Transducer material	Stainless Steel	
Atmospheric protection	Stainless metal laser welding sealing	

The characteristics for n_{max} and Y can be reduced separately. Z is proportional or equal to n_{max} .

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

1.3 Essential shapes

The load cell is built according to drawings:

Number	Pages	Description	Remark
6035/3-01	1	Load cell MTB 10 kg	Mechanical
6035/3-02	1	Load cell MTB 20 kg	Mechanical
6035/3-03	1	Load cell MTB 30 kg	Mechanical

Number	Pages	Description	Remark
6035/3-04	1	Load cell MTB 50 kg	Mechanical
6035/3-05	1	Load cell MTB 75 kg	Mechanical
6035/3-06	1	Load cell MTB 100 kg	Mechanical
6035/3-07	1	Load cell MTB 200 kg	Mechanical
6035/3-08	1	Load cell MTB 300 kg	Mechanical
6035/3-09	1	Load cell MTB 500 kg	Mechanical

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 (2000) and:

- This certificate number TC6035 (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

The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in WELMEC 2 Issue 5 Section 11, at the time of placing on the market.

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-R60/2000-NL-02.10A dated 9 April 2002 that includes 40 pages;
- No NMI-R60/2000-NL-02.10B dated 5 April 2002 that includes 37 pages;
- No NMI-R60/2000-NL1-05.18A dated 4 November 2004 that includes 38 pages;
- No NMI-R60/2000-NL1-05.18B dated 4 November 2004 that includes 37 pages;
- No NMI-R60/2000-NL1-05.18C dated 10 October 2005 that includes 40 pages;
- No LSfc2015-6001 dated 24 June 2015 that includes 24 pages;
- No LSfc2015-6002 dated 24 June 2015 that includes 22 pages.

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