

Issued by NMI Certin B.V.

In accordance with WELMEC 8.8 2017, WELMEC 2.4 2021, OIML R 60 (2021), OIML R 76 (2006), EN 45501:2015, WELMEC 7.2, 2021.

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

Measuring instrument A **single point load cell**, with strain gauges, equipped with electronics, tested as a part of a weighing instrument.

Designation : FIT7

Further properties are described in the annexes:

- Description TCTC8567 revision 2;
- Documentation folder TCTC8567-2.

An overview of performed tests is given in the annex:

- Description TCTC8567 revision 2.

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

Issuing Authority

NMI Certin B.V.
31 March 2022

Certification Board

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

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

Reproduction of the complete document only is permitted.

This document is digitally signed and sealed. The digital signature can be verified in the blue ribbon on top of the electronic version of this certificate.

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, an EU-type examination certificate, or an approval that is valid in the country where the load cell is taken into service.

1.1 Essential parts

Number	Pages	Description	Remark
8567/1-01	4	Outline drawing and electronics	Mechanical & electrical
8567/0-02	2	Parts list	Load cell
8567/0-03	10	Parts list electronics	For CANbus configuration
8567/0-04	10	Parts list electronics	For RS485 configuration

EMI protection measures:

- The A/D board is placed within the metal housing of the load cell.

1.2 Essential characteristics

Characterization of load cell capabilities	Digital load cell		
	VA, VB, VP		VC, VQ
Maximum capacity (E_{max})	3 kg up to 20 kg	20 kg up to and including 75 kg	10 kg up to and including 50 kg
Minimum dead load	0 kg		
Accuracy Class	C		
Maximum number of load cell intervals (n) ⁽¹⁾	4000	4000	6000
Ratio of minimum LC Verification interval ⁽¹⁾ $Y = E_{max} / V_{min}$	20000	35000	50000
Ratio of minimum dead load output return ⁽¹⁾ $Z = E_{max} / (2 * DR)$	8100	8600	17200
Temperature range	-10 °C / + 40 °C		
Fraction p_{LC}	0,8		
Humidity Class	CH		

Safe overload	150 % of E_{max}
Recommended excitation	24 V DC
Excitation maximum	30 V DC
Transducer material	Stainless steel
Atmospheric protection	Silicone membrane
Electromagnetic environment class	E2
Number of counts for E_{max}	$\geq Y * 5 / p_{LC}$
Software identification	Version number: 80, Checksum: 240413 or Version number: 81, Checksum: 244554

Remark:

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

The load cell transmits weighing data with a scale interval smaller than the verification scale interval

List of legally relevant functions:

- Linearity compensation: the linearity can be compensated by using a 3rd order polynomial curve;
- Digital filter;
- Adjustable sample frequency;
- Determination stability of equilibrium;
- Semi-automatic zero-setting;
- Initial zero-setting;
- Zero-tracking;
- Semi-automatic subtractive tare balancing;
- The software seal uses an event counter that increments, each time any parameter changes or adjustment is made and saved.

List of legally relevant functions (exclusively included in Software version 81):

- Preset tare;
- Automatic zero-setting.

Software:

- The identification number will be displayed on the device that displays the primary indications;
- The load cell has embedded software (OIML R 76-1 (2006));
- Software specification (WELMEC 7.2):
 - Software type P;
 - Risk Class B;
 - Extension T.

Data transmission:

The load cell is equipped with one of the following protective interfaces that have not to be secured:

- RS422;
- RS485;
- CANopen;
- DeviceNet.

1.3 Essential shapes

Number	Pages	Description	Remark
8567/1-01	4	Outline drawing and electronics	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 (2021) and:

- This certificate number TCTC8567 (in the countries where it is mandatory);
- The event counter value;
- 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.5, at the time of putting into use.

Other parties may use this certificate without the written permission of the producer.

The load cell equipped with electronics must be powered from the power supply of an indicator or terminal. For the weighing instrument the voltage interruptions, short voltage reductions, voltage transients and surges on the power supply lines shall be considered.

The inscriptions contain the actual value of the event counter at the time of conformity assessment.

This instrument was previously placed on the market under the name of "Hottinger Baldwin Messtechnik GmbH".

4 Reports

An overview of performed tests is given in the evaluation report ERTC8567 revision 2.