



Issued by NMI Certin B.V.  
Hugo de Grootplein 1  
3314 EG Dordrecht  
The Netherlands

Notified Body Number 0122

In accordance with Paragraph 8.1 of the European Standard on Metrological aspects of non-automatic weighing instruments EN 45501:1992/AC:1993 and by application of the OIML International Recommendation R 60 (Edition 2000). The applied error fraction  $p_i$ , meant in the paragraph 3.5.4. of the standard is 0.7.

Applicant Mettler-Toledo (Changzhou) Precision Instrument Ltd.  
No.5, Middle HuaShan Road, SanJing Industrial Park,  
Changzhou, Jiangsu  
People's Republic of China

In respect of A **single point load cell**, with strain gauges, tested as a part of a weighing instrument.

Manufacturer : Mettler-Toledo  
Type : MT1022-....

Characteristics  $E_{max}$  : 3 kg up to and including 30 kg  
Accuracy class : C3

In the description number TC5442 revision 3 further characteristics are described.

Description and documentation The load cell is described in the description number TC5442 revision 3 and documented in the documentation folder TC5442-3, appertaining to this test certificate.

Remarks Summary of the test involved: see Appendix number TC5442 revision 3  
This revision test certificate replaces the earlier version(s), except for its documentation folder.

Dordrecht, 19 November 2008  
NMI Certin B.V.

  
Ing. C. Oosterman  
Manager Product Certification

## 1 General information about the load cell

All properties of the load cell, whether mentioned or not, may not be in conflict with the standard mentioned in the test certificate.

### 1.1 Essential parts

Description	Drawing number	Rev.	Remarks
Load cell assembly, 3kg	17471700A	-	-
Load cell assembly, 5kg	17471800A	-	-
Load cell assembly, 7kg	17471900A	-	-
Load cell assembly, 10kg	17472200A	-	-
Load cell assembly, 15kg	17472300A	-	-
Load cell assembly, 20kg	17472400A	-	-
Load cell assembly, 30kg	17472500A	-	-
Schematic diagram for wiring, 5#PCB	72214761A	-	-
Schematic diagram for wiring, 14#PCB	72214762A	-	-

#### Cable:

- The load cell is provided with a 4-wire system, the cable length has to correspond with the cable length mentioned on the above-mentioned drawing.
- The cable length shall not be modified.
- The cable should be a shielded cable, the shield is sometimes connected to the load cell.

## 1.2 Essential characteristics

Type	MT1022-....	
Humidity classification	CH	
Maximum capacity $E_{max}$	3 kg up to and including 15 kg	20 kg up to and including 30 kg
Accuracy class	C	
Maximum number of load cell verification intervals $n_{max}$	3000	
Ratio of minimum LC verification interval $Y = E_{max}/v_{min}$	7000	5000

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

Minimum dead load	: 0 kg
Safe overload	: 150 % of $E_{max}$
Rated Output	: 2 mV/V $\pm$ 0.2 mV/V
Input impedance	: 400 $\Omega$ $\pm$ 10 $\Omega$
Output impedance	: 350 $\Omega$ $\pm$ 4 $\Omega$
Recommended excitation	: 5 - 15 V DC/AC
Excitation maximum	: 20 V DC/AC
Transducer material	: Aluminum
Atmospheric protection	: Silicon rubber

## 1.3 Essential shapes

The load cell is built according to the drawings:

- Load cell assembly 3 kg – 30 kg, drawing numbers 17471700A, 17471800A, 17471900A, 17472200A, 17472300A, 17472400A, 17472500A.

The data plate is secured against removal by sealing or will be destroyed when removed. The data plate mentions at least the information and markings as described in the OIML R60 document. In the countries where it is mandatory the load cell should bear this test certificate number: TC5442.

Securing:

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

Number **TC5442** revision 3  
 Project number 809810  
 Page 4 of 4

Tests performed for this test certificate:

Test	Institute	type, version, remarks
Temperature test and repeatability (20, 40, -10 and 20 °C)	NMi Certin B.V.	3 kg and 30 kg
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	3 kg and 30 kg
Creep (20, 40 and -10 °C)	NMi Certin B.V.	3 kg and 30 kg
Minimum dead load output return (20, 40 and -10 °C)	NMi Certin B.V.	3 kg and 30 kg
Barometric pressure effects at room temperature	NMi Certin B.V.	30 kg
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	3 kg