

# Test certificate Parts certificate

Number **TC8177** revision 0  
Project number SO12200368  
Page 1 of 1

Issued by NMI Certin B.V.

In accordance with WELMEC 8.8 Issue 2, Paragraph 8.1 of EN 45501:1992/AC:1993, OIML R60:2000, WELMEC 2.4 Issue 2.

Producer ARPEGE MASTER-K  
38 Avenue des Frères Montgolfier  
B.P. 186  
69686 Chassieu Cedex  
France

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

Brand : Arpege Master-K  
Designation : CISA-I and CISA-A

Further properties are described in the annexes:

- Description TC8177 revision 0
- Documentation folder TC8177-1

An overview of performed tests is given in the annex:

- Description TC8177 revision 0

Issuing Authority

**NMI Certin B.V.**

3 July 2012



C. Oosterman  
Head Certification Board

**NMI Certin B.V.**  
Hugo de Grootplein 1  
3314 EG Dordrecht  
The Netherlands  
T +31 78 6332332  
certin@nmi.nl  
www.nmi.nl

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

Parties concerned can lodge objection against this decision, within six weeks after the date of submission, to the general manager of NMI (see "Regulation objection and appeal against decisions of NMI" [www.nmi.nl](http://www.nmi.nl))

Reproduction of the complete document only is permitted



# Description

Number **TC8177** revision 0  
Project number SO12200368  
Page 1 of 3

## 1 General information about the load cell

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

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

### 1.1 Essential parts

Number	Pages	Description	Remark
8177/0-01		Famille capteurs CISA-I CISA-I Load cells family	Mechanical
8177/0-02		Famille capteurs CISA-A CISA-A Load cells family	Mechanical
8177/0-03		Schema électrique CISA-I, CISA-A Electrical Diagram	Electrical

#### Cable:

- The load cell is provided with a 4-wire system:
  - The standard cable length has to be approximately 5 meters.
  - The cable length shall not be modified.
- The load cell is provided with a 6-wire system (=“Remote-sensing”):
  - The cable length is not limited.

The cable should be a shielded cable, the shield can either be connected (additional marking “TR”), or is not connected to the load cell.



# Description

Number **TC8177** revision 0  
 Project number SO12200368  
 Page 2 of 3

## 1.2 Essential characteristics

Type	CISA-A	CISA-I		
Maximum capacity ( $E_{max}$ )	300 kg - 5000 kg	300 kg - 500 kg	500 kg - 2000 kg	2000 kg - 10000 kg
Minimum dead load	0 kg			
Accuracy Class	C			
Rated Output	2 mV/V			
Maximum number of load cell intervals (n)	3000	4000	6000	4000
Ratio of minimum LC Verification interval $Y = E_{max} / V_{min}$	10000	12000	15000	10000
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	3000	4000	8000	4000
Input impedance	385 $\Omega \pm 20 \Omega$ or 1100 $\Omega \pm 50 \Omega$			
Temperature range	-10 °C / +40 °C			
Fraction $p_{LC}$	0,7			
Humidity Class	SH	CH		
Safe overload	150 % of $E_{max}$			
Output impedance	350 $\Omega \pm 5 \Omega$ or 1000 $\Omega \pm 10 \Omega$			
Recommended excitation	10 V DC/AC			
Excitation maximum	15 V DC/AC			
Transducer material	Stainless steel			
Atmospheric protection	Polymer potting	Hermetically sealed		

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.



# Description

Number **TC8177** revision 0  
Project number SO12200368  
Page 3 of 3

## 1.3 Essential shapes

The load cell is built according to drawings:

- Famille capteurs CISA-I Load cells family, drawing number 8177/0-01;
- Famille capteurs CISA-A Load cells family, drawing number 8177/0-02;
- Marking specifications, drawing number 8177/0-04.

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 recommendation.

In the countries where it is mandatory the load cell should bear this test certificate number: TC8177.

## 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 EC verification or declaration of EC conformity of type.

The load transmission must conform to one of the examples shown in the WELMEC 2.4.

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

## 4 Test reports, evaluation reports and pattern evaluation reports

An overview of performed tests is given in the reports:

- No. R60/2000-NL1-04.04 dated 11 March 2004 that includes 40 pages;
- No. R60/2000-NL1-05.10 dated 12 August 2005 that includes 37 pages;
- No. R60/2000-NL1-06.05 dated 16 May 2006 that includes 37 pages;
- No. R60/2000-NL1-06.13 dated 29 August 2006 that includes 37 pages;
- No. R60/2000-NL1-08.01 dated 15 January 2008 that includes 20 pages.