Test certificate
Parts certificate

Number **TC8178** revision 0
Project number SO12200368

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

Brand : Arpege Master-K
Designation : FSX

Further properties are described in the annexes:
- Description TC8178 revision 0
- Documentation folder TC8178-1

An overview of performed tests is given in the annex:
- Description TC8178 revision 0

Issuing Authority **NMi Certin B.V.**
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Description

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
8178/0-01		Encombrement FSX 5 kg a 5 t	Mechanical
8178/0-02		Schema electrique FSX FSX Electrical diagram	Electrical

Cable:
- The load cell is provided with a 4-wire system:
  - The cable length has to be corresponding with the cable length mentioned on the load cell (not specified if cable length is 3 meter);
  - 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.

1.2 Essential characteristics

Maximum capacity (E_{max})	10 kg up to and including 500 kg	0.5 t up to and including 5 t
Minimum dead load	2 % of E_{max}	
Accuracy Class	C	
Rated Output	2 mV/V ± 0,1%	
Maximum number of load cell intervals (n)	6000	4000
Ratio of minimum LC Verification interval $Y = E_{max} / V_{min}$	20000	10000
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	6000	4000
Input impedance	385 Ω ± 20 Ω	
Temperature range	-10 °C / +40 °C	
Fraction p_{LC}	0,7	
Humidity Class	CH	
Safe overload	150 % of E_{max}	
Output impedance	350 Ω ± 5 Ω	
Recommended excitation	1-10 V DC/AC	
Excitation maximum	15 V DC/AC	
Transducer material	Stainless steel	
Atmospheric protection	Hermetically sealed welded	

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:
- Encombrement FSX 5 kg a 5 t, drawing number 8178/0-01;
- Marking specifications, drawing number 8178/0-03.

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: TC8178.

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 report:
- No. Testreport 21_1139 dated 29 June 1992 that includes 29 pages.