Test certificate

Nederlands Meetinstituut

Number **TC2939** Revision 0
Project number 10065922

Issued by

NMi Certin B.V.
Hugo de Grootplein 1
3314 EG Dordrecht
The Netherlands

Notified Body Number 122

In accordance with

Paragraph 8.1 of the European Standard on Metrological aspects of non-automatic weighing instrument EN 45501:1992/AC:1993 and by application of the OIML International Recommendation R 60 (Edition 1991). The applied error fraction pi, meant in paragraph 3.5.4. of the standard is 0.7.

Applicant

Master K
38 avenue des Frères Montgolfier
69680 Chassieu
FRANCE

In respect of

The model of a **double ended shear-beam load cell** with strain gauges, tested as part of a weighing instrument (for NAWI class (III) or (IIII)):
Manufacturer : Master K
Type : CIP ..

Characteristics

Maximum Capacity (E_{max})	22 t		40 t	
Accuracy Class	C			
Maximum number of load cell intervals (n)	2500	3000	2500	3000
Ratio of minimum LC verification interval: $Y = E_{max} / V_{min}$	8800		8000	

In the description TC2939 revision 0 further essential characteristics are described.

Description and Documentation

The load cell is described in the description number TC2939 revision 0 and documented in the documentation folder number TC2939-1, appertaining to this test certificate.

Nederlands Meetinstituut
Hugo de Grootplein 1
3314 EG Dordrecht (NL)
Telephone +31 78 6332332
Telefax +31 78 6332309

Remarks Summary of tests involved: see Appendix number TC2939 revision 0.

Dordrecht, 15 January 1997
NMi Certin B.V.

A.J. Nederlof
Director

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
CIP22 CIP40	102787/6B 102788/6B	0 0	Mechanical
Ful bridge circuit CIP type	102790/6B	0	Electrical

Cable:
The load cell is provided with a 4-wire system.
Because no "remote-sensing" is used the cable length has to be approximately 15 meters.
The cable should be a shielded cable.

1.2 Essential characteristics

Minimum dead load	: 1000 kg
Safe overload	: 150 % of E_{max}
Rated output	: 2 mV/V ± 1%
Input impedance	: 820 Ω ± 40 Ω
Output impedance	: 705 Ω ± 5 Ω
Excitation minimum	: 5 V DC/AC
Excitation maximum	: 12 V DC/AC
Transducer material	: Stainless Steel
Atmospheric protection	: hermetically sealed

1.3 Essential shapes

Sealing:
- The data plate is sealed against removal or will be destroyed when removed. The data plate consists of at least the following information:
  - manufacturer's mark, or name;
  - E_{max} of the load cell;
  - standard classification in the form C2.5 or C3;
  - manufacturer's designation;
  - serial number and year of manufacture;
  - the number of this test certificate, TC2939.

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

Tests carried out for this test certificate on the load cell, type **CIP 22 C3**

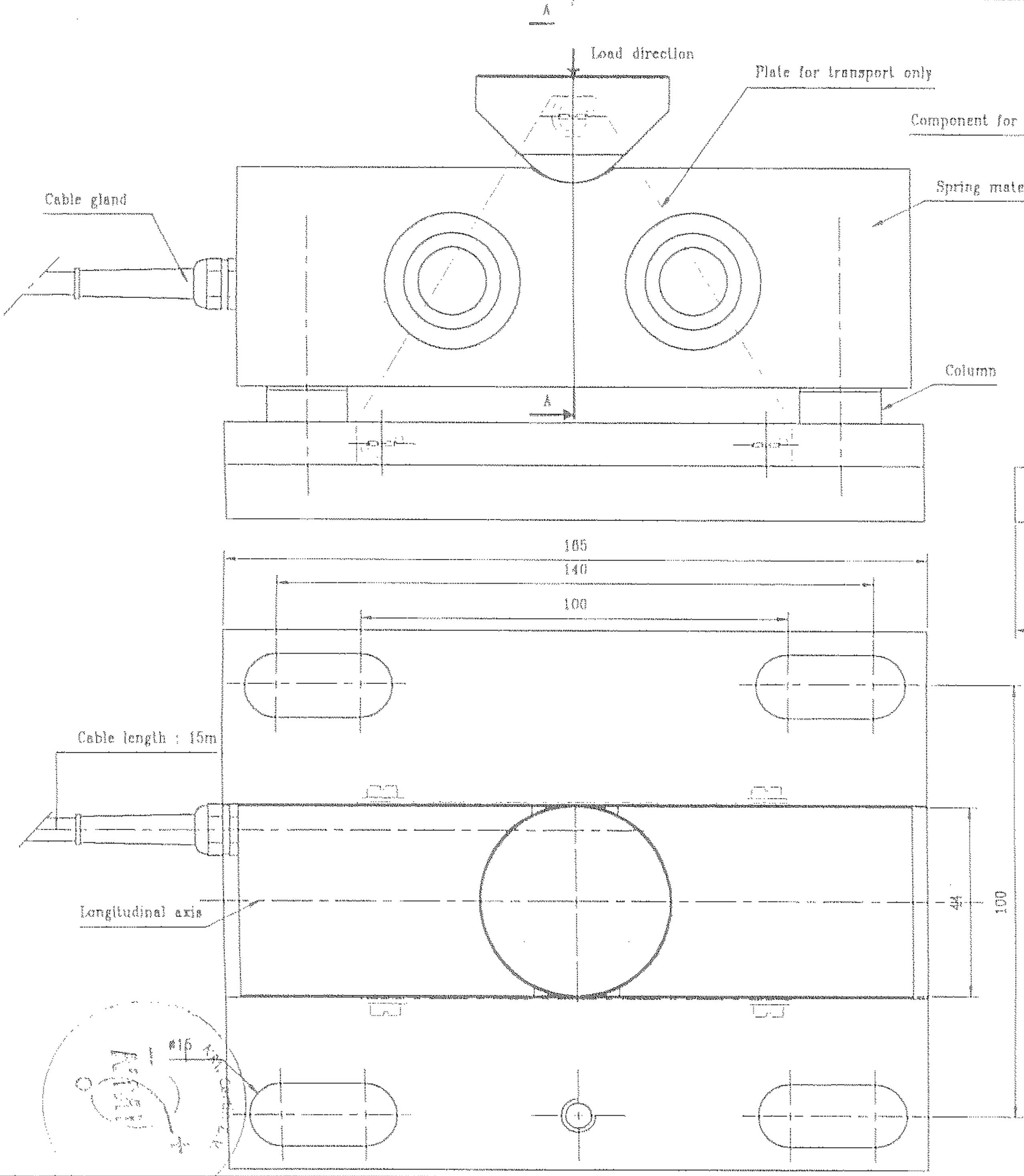
Test	Institute	type, version, remarks
Temperature test and repeatability (20, 40, -10 and 20 °C)	NMi Certin B.V.	
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	
Creep test (20, 40 and -10 °C)	NMi Certin B.V.	
Minimum load output return (20, 40 and -10 °C)	NMi Certin B.V.	
Barometric pressure test at room temperature	--	Not applicable because of construction
Humidity test	NMi Certin B.V.	

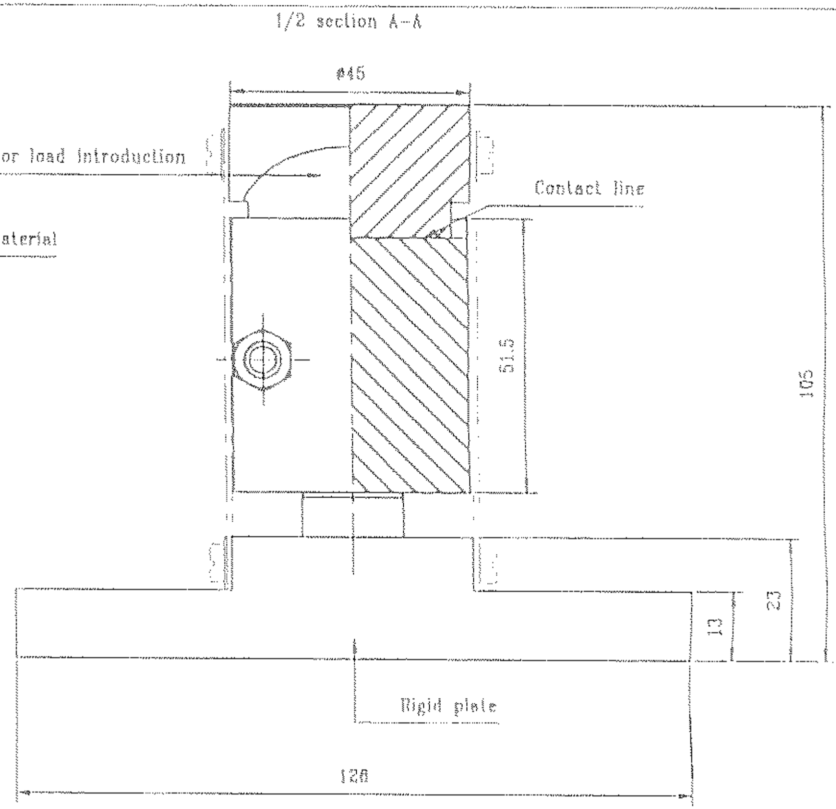
Nederlands Meetinstituut

Documentation folder

Number **TC2939-1**
Project number 10065922

Description	Drawing number	Rev.	Remarks
CIP22 CIP40	102787/6B 102788/6B	0 0	Mechanical
Ful bridge circuit CIP type	102790/6B	0	Electrical





+Excit.	+Signal	-Signal	-Excit.	⏚
blue	black	red	white	yellow-green

All dimensions in mm

IND	Date	Détail des modifications

CE PLAN EST NOTRE PROPRIETE : IL NE PEUT ETRE REPRODUIT OU COMMUNIQUE SANS NOTRE AUTORISATION ECRITE

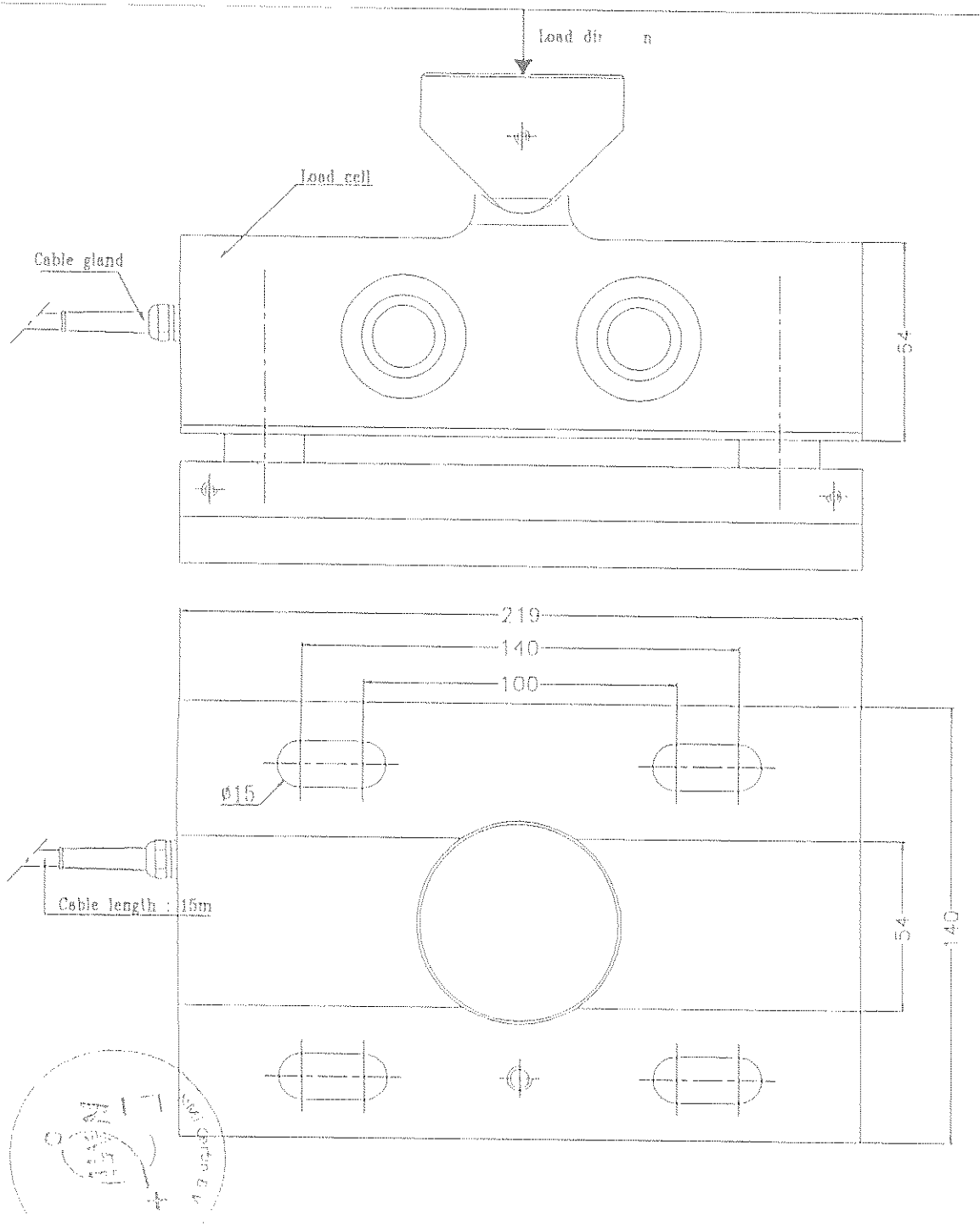
MASTER-K

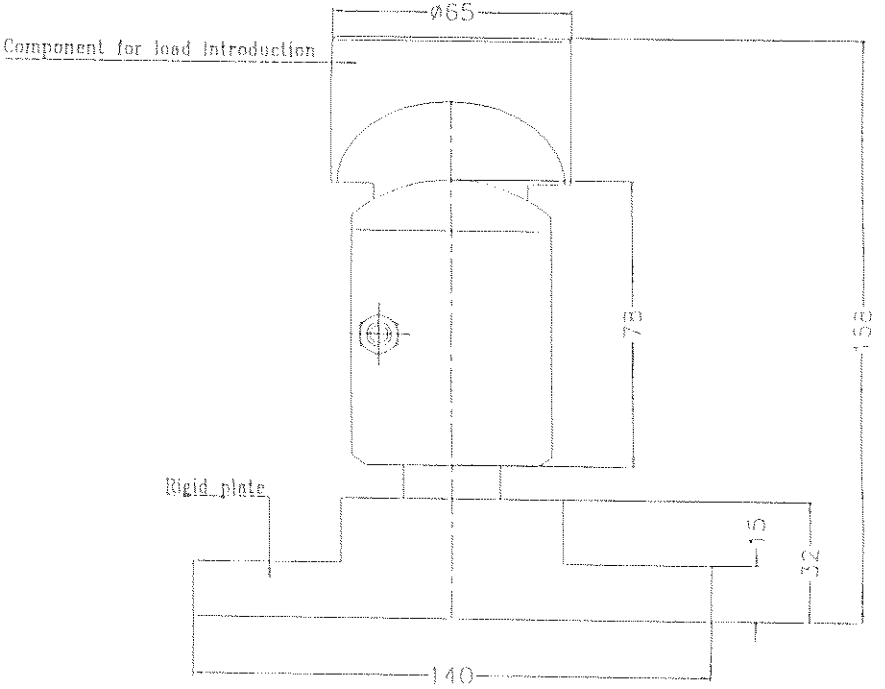
CIP22 : Outline drawing & dimensisons

Dess. par: J.C. le: 06 11 98

Echelle : 1/1

102787/6B





+Excit.	+Signal	-Signal	-Excit.	⏚
blue	black	red	white	yellow-green

All dimensions in mm

IND	Date	Détail des modifications

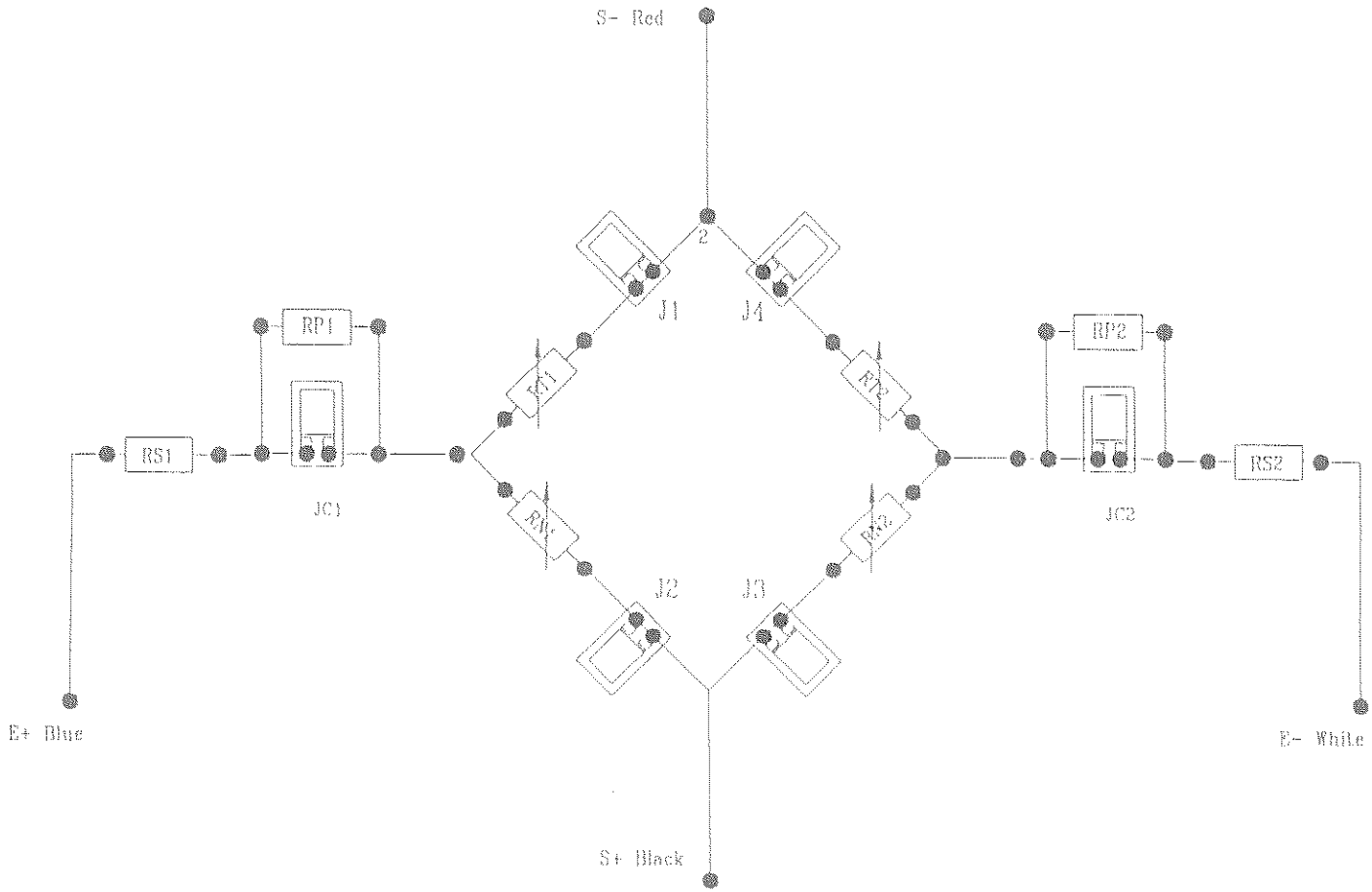
MASTER-K

CIP40 : Outline drawing & dimensisons

Dess par : J C le : 05 11 08

Echelle : 1/1

102788/6B



MASTER-K

LES MAITRES DU PESAGE INDUSTRIEL

Full bridge circuit CIP type load cell

Dess par: A.C le: 10/11/98

Echl: 1/1 Folio: /

102790/6B

Nederlands Meetinstituut

Member State
The Netherlands

OIML Certificate N° R60/1991-NL-97.02
Project number 10065922

OIML CERTIFICATE OF CONFORMITY

Issuing authority
Name: NMi Certin B.V.

Address: Hugo de Grootplein 1, Dordrecht

Person responsible: A.J. Nederlof

Applicant
Name: Master K

Address: 38 avenue des Frères Montgolfier
69680 Chassieu
FRANCE

Manufacturer of the certified pattern
Name: Master K

Address: 38 avenue des Frères Montgolfier
69680 Chassieu
FRANCE

Identification of the certified pattern
Type : CIP..

The applied error fraction, P_i = 0.7

Maximum Capacity (E_{max})	22 t		40 t	
Accuracy Class	C			
Maximum number of load cell intervals (n)	2500	3000	2500	3000
Ratio of minimum LC verification interval: $Y = E_{max} / V_{min}$	8800		8000	

Nederlands Meetinstituut
Hugo de Grootplein 1
3314 EG Dordrecht (NL)
Telephone +31 78 6332332
Telefax +31 78 6332309

Nederlands Meetinstituut

Member State
The Netherlands

OIML Certificate N° R60/1991-NL-97.02
Project number 10065922

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report, the test certificate and the description with number TC2939 and the appertaining documentation folder, with the requirements of the following Recommendation(s) of the International Organization of Legal Metrology (OIML):

R60
edition 1991 (E)
for accuracy class C

This certificate relates only to the metrological and technical characteristics of the pattern of the Loadcell concerned, as covered by the relevant OIML International Recommendation(s).

This certificate does not bestow any form of legal international approval.

The conformity was established by tests described in the associated test report N° R60/1991-NL-97.02, that includes 37 pages.

The issuing authority
A.J. Nederlof

16 January 1997

The CIML member
G.J. Faber

16 January 1997

*
* *