IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx DEK 13.0063X	Issue No: 0	Certificate history: Issue No. 0 (2016-10-24)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2016-10-24**		
Applicant:	**Zemic Europe B.V.** Leerlooierstraat 8 4871EN Etten-Leur **The Netherlands**		
Equipment:	**Load Cell Model BM24R capacity 60kg, 130kg, 250kg, 280kg, 500kg, 1t, 2t, 3.5t, 5t, 10t, 13t, 28t, 60t**		
Optional accessory:			
Type of Protection:	**ia IIC, ic IIC, ia IIIC, nA IIC, tc IIIC**		
Marking:	Ex ia IIC T4 Ga Ex ia IIIC T73 °C Da Ex ic IIC T4 Gc Ex nA IIC T4 Gc Ex tc IIIC T63 °C Dc		

Approved for issue on behalf of the IECEx Certification Body: L.G. van Schie

Position: Certification Manager

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

DEKRA Certification B.V.
Meander 1051,
6825 MJ Arnhem
The Netherlands

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Manufacturer: **Zhonghang Electronic Measuring Instruments Co., Ltd.**
Xinyuan Rd, North Part of EDZ, Hanzhong, 723000, Shaanxi
China

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

NL/DEK/ExTR13.0066/00

Quality Assessment Report:

NL/DEK/QAR16.0008/00

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The load cells Model BM24R with capacity 60kg, 130kg, 250kg, 280kg, 500kg, 1t, 2t, 3.5t, 5t, 10t, 13t, 28t, 60t, convert a mass force into an electrical signal.

The load cells are provided with a permanently connected cable of maximum 30 m length.
The circuits of each load cell are considered as one intrinsically safe circuit.

Ambient temperature range -30 °C to +60 °C.

Following table gives relation between specified enclosure temperature for applications in explosive atmosphere caused by air/dust mixtures, ambient temperature and power dissipation, with dust layer of maximum 5 mm thickness.

Type of protection	Ex ia IIIC	Ex ia IIIC	Ex ia IIIC	Ex tc IIIC
Maximum input power	Pi = 1.3 W	Pi = 1.25 W	Pi = 1.2 W	Pi = 0.25 W
Maximum ambient temperature	+40 °C	+50 °C	+60 °C	+60 °C
Maximum enclosure external surface temperature	T54 °C	T64 °C	T73 °C	T63 °C

Electrical data

Apparatus in type of protection intrinsic safety "i"
Signal and supply: in type of protection intrinsic safety Ex ia IIC, ia IIIC or ic IIC, only for connection to a certified intrinsically safe circuit, with the following maximum values (combining the parameters of all circuits):
U_i = 19.1 V; I_i = 200 mA; C_i = 1.71 nF (30 m cable length); L_i = 41.7 µH (30 m cable length).
C_i = 0.0001 nF + 0.057 nF/m (load cell cable)
L_i = 2.7 µH + 1.3 µH/m (load cell cable)

Relation between maximum intrinsically safe input power and ambient temperature range is given in the following table:

Maximum intrinsically safe input power	Pi = 1.3 W	Pi = 1.25 W	Pi = 1.2 W
Maximum ambient temperature	+40 °C	+50 °C	+60 °C

Apparatus in type of protection nA or tc
Signal and supply:
U_n = 15 V.

CONDITIONS OF CERTIFICATION: YES as shown below:

The load cell and cable gland had been tested for the low risk of mechanical danger (drop height 0.4 m with 1 kg mass). The load cell shall therefore be protected against higher impact energy levels, except for model BM24R-60kg, -130kg and 280kg which is protected with BM-24-400 guard plate.

Provisions shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 40% for the type of protection Ex nA IIC.

For ambient temperature range see Equipment section.