

# (1) EC-TYPE EXAMINATION CERTIFICATE

## (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC

- (3) EC-Type Examination Certificate Number: **KEMA 05ATEX1178 X** Issue Number: **2**
- (4) Equipment: **Load Cell Model MTB-5kg, MTB-10kg, MTB-20kg, MTB-30kg, MTB-50kg, MTB-75kg, MTB-100kg, MTB-200kg, MTB-300kg, MTB-500kg**
- (5) Manufacturer: **Mettler-Toledo (Chang Zhou) Measurement Technology Ltd.**
- (6) Address: **No. 111, West TaiHu Road, XinBei District, ChangZhou, JiangSu, 213125, P.R.China**
- (7) This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.
- The examination and test results are recorded in confidential test report number 211929100/1.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- |                           |                           |
|---------------------------|---------------------------|
| <b>EN 60079-0 : 2006</b>  | <b>EN 61241-0 : 2006</b>  |
| <b>EN 60079-11 : 2007</b> | <b>EN 61241-11 : 2006</b> |
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.
- (12) The marking of the equipment shall include the following:



**II 2 G Ex ib IIC T4 or  
II 2 D Ex ibD 21 IP6X T135 °C**

This certificate is issued on February 2, 2009 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

KEMA Quality B.V.

  
P.T. van Nijen  
Certification Manager

Page 1/2



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(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 05ATEX1178 X** Issue No. 2

(15) **Description**

The load cells Model MTB-5kg, MTB-10kg, MTB-20kg, MTB-30kg, MTB-50kg, MTB-75kg, MTB-100kg, MTB-200kg, MTB-300kg and MTB-500kg are used to convert a mechanical force or load into an electrical signal.

The load cells are provided with a permanently connected cable.  
The signal and supply circuits of the load cell are considered as one intrinsically safe circuit.

The enclosure of the load cell provides a degree of protection of at least IP6X in accordance with EN 60529.

Ambient temperature range -40 °C to +50 °C.

The maximum surface temperature T135 °C, for applications in explosive atmospheres caused by air/dust mixtures, is based upon an ambient temperature of 50 °C.

**Electrical data**

Signal and supply circuits:

In type of protection intrinsic safety Ex ib IIC, only for connection to a certified intrinsically safe circuit, with following maximum values (combining the parameters of all circuits):

$U_i = 25 \text{ V}$ ;  $I_i = 600 \text{ mA}$ ;  $P_i = 1,25 \text{ W}$ ;  $C_i = 0,2 \text{ nF/m}$ ;  $L_i = 1 \text{ }\mu\text{H/m}$ .

Maximum cable length is 30m.

**Routine tests**

A routine dielectric strength test, in accordance with EN 60079-11 Clause 10.3, shall be conducted on each unit between the signal/supply circuits and the base of the unit using a test voltage of 500 Vac during one minute.

(16) **Test Report**

KEMA No. 211929100/1.

(17) **Special conditions for safe use**

In an explosive atmosphere caused by air/dust mixtures, the loose ends of the cable shall be connected in an enclosure in type of protection ibD suitable for the environment with a degree of ingress protection of at least IP6X in accordance with EN 60529.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 211929100/1.