

CERTIFICATE

(1) EU-Type Examination

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **DEKRA 17ATEX0122 X** Issue Number: **0**

(4) Product: **CANBUS Converter Box model CCB-a-X**

(5) Manufacturer: **Mettler-Toledo GmbH**

(6) Address: **Im Langacher 44, CH-8606 Greifensee, Switzerland**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products 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 NL/DEK/ExTR17.0067/00.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2012 + A11 : 2013

EN 60079-11 : 2012

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:



II 2 G Ex ib IIB T4 Gb
II 2 D Ex ib IIIC T130 °C Db

Date of certification: 14 March 2018

DEKRA Certification B.V.

R. Schuller
Certification Manager



(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 17ATEX0122 X**

Issue No. **0**

(15) **Description**

The CANBUS Converter Box model CCB-a-X provides intrinsically safe interface between the associated intrinsically safe CANBUS Barrier on one side and intrinsically safe device (i.e. load cells models SLC820/SLC611D/SLB615D) on the other side.

The enclosure of the Converter provides a degree of protection of at least IP54 in accordance with EN 60079-0.

Ambient Temperature range: -40 °C to 55 °C.

Nomenclature:

Model: CCB-a-X

a = Number of Option Boards used

1 : one Option Board

2 : two Option Boards

3 : three Option Boards

4 : four Option Boards

Electrical data

Input circuit B1, IS power (base board terminal J11; pins +V and EX_GND):

in type of protection intrinsic safety Ex ib IIB or ib IIIC, with the following maximum values:
 $U_i = 13,65 \text{ V}$; $I_i = 400 \text{ mA}$; $P_i = 5,46 \text{ W}$; $C_i = 0 \text{ nF}$; $L_i = 0 \text{ }\mu\text{H}$.

Input circuit B1, CAN signal (base board terminal J16; pins CANH and CANL):

in type of protection intrinsic safety Ex ib IIB or ib IIIC, with the following maximum values:
 $U_i = 5,88 \text{ V}$; $I_i = 59 \text{ mA}$; $P_i = 0,35 \text{ W}$; $C_i = 0,5 \text{ }\mu\text{F}$; $L_i = 0 \text{ }\mu\text{H}$.

Option Boards outputs 1, 2, 3 or 4

IS power output circuit (option board terminals J4; pins OUT_V and EX_GND):

in type of protection intrinsic safety Ex ib IIB or ib IIIC, with the following maximum values:
 $U_o = 8,4 \text{ V}$; $I_o = 96 \text{ mA}$; $P_o = 0,81 \text{ W}$; $C_o = 29,7 \text{ }\mu\text{F}$; $L_o = 18 \text{ }\mu\text{H}$ (or $C_o = 22,7 \text{ }\mu\text{F}$; $L_o = 30 \text{ }\mu\text{H}$)

CAN signal output circuit (option board terminals J4; pins CANH and CANL):

in type of protection intrinsic safety Ex ib IIB or ib IIIC, with the following maximum values:
 $U_o = 5,88 \text{ V}$; $I_o = 96 \text{ mA}$; $P_o = 0,57 \text{ W}$; $C_o = 46,5 \text{ }\mu\text{F}$; $L_o = 35 \text{ }\mu\text{H}$.

The dielectric strength of at least 500 V a.c. r.m.s. between intrinsically safe circuit and enclosure of the CANBUS Converter Box is limited only by the overvoltage protection.

Installation instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

No. NL/DEK/ExTR17.0067/00.

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 17ATEX0122 X** Issue No. **0**

(17) **Specific conditions of use**

Precautions shall be taken to minimize the risk from electrostatic discharge of marking label.

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR17.0067/00.

(20) **Certificate history**

Issue 0 - 221690900 initial certificate