

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**

2. **Certificate No:** FM19US0085X
3. **Equipment:** CBR-a-X CANBUS Barrier
(Type Reference and Name)

4. **Name of Listing Company:** Mettler-Toledo GmbH

5. **Address of Listing Company:** Im Langacher 44
CH-8606 Greifensee
Switzerland

6. The examination and test results are recorded in confidential report number:

PR453506 dated 28th April 2020

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2018, FM Class 3610:2018, FM Class 3810:2018,
ANSI/ISA 60079-0:2013, ANSI/ISA 60079-11:2014, ANSI/IEC 60529:2004

8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

10. Equipment Ratings:

Associated Intrinsically Safe for connection to Class I, II, III, Division 1, Groups C, D, E, F and G Hazardous (Classified) Locations, $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$; Associated Intrinsically Safe for connection to Class I, Zone 1, AEx ib IIB for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$ Gb; Associated Intrinsically Safe for connection to Class II, III, Zone 21, AEx ib IIIC Db for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$; IP54.

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

28 April 2020

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
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SCHEDULE



Member of the FM Global Group

US Certificate Of Conformity No: FM19US0085X

11. The marking of the equipment shall include:

AIS Class I, II, III, Division 1, Groups C, D, E, F and G for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$; IP54

AIS Class I, Zone 1, [AEx ib IIB] for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$ Gb; IP54

AIS Zone 21, [AEx ib IIIC] for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$ Db; IP54

12. **Description of Equipment:**

The CANBUS Barrier Model CBR-a-X provides an intrinsically safe power signal and CAN signal to up to three externally attached devices. The CANBUS Barrier contains up to three internally attached Option boards. The enclosure of the Barrier provides a degree of protection of at least IP54. Ambient Temperature range: -20°C to 50°C .

CBR-a-X, CANBUS Barrier

a = Number of Option Boards used

1 : one Option Board

2 : two Option Boards

3 : three Option Boards

FM Approved with the following parameters

Input (V)	Option Boards Outputs 1, 2 or 3.	Uo (V)	Io (mA)	Po (W)	Co (μF)	Lo (μH)
Power Um=26.4	terminals J4A, B or C; pins VOUT_A, B or C and EX_GND	13.65	375	5.12	4.6	20
CANBUS Um=10	CAN signal output circuit (terminals J4A, B or C; pins CANH_A, B or C and CANL_A, B or C)	5.88	59	0.2	61	20

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13. Specific Conditions of Use:

1. Due to application of Annex F circuit is required to be installed in overvoltage category I/II as defined in ANSI/UL60664-1.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
28 th April 2020	Original Issue.

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