1 # Type Examination Certificate

2 **Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 94/9/EC**

3 **Type Examination Certificate No:** **MII13ATEX0001X**

4 **Equipment or protective system: (Type Reference and Name)** **TG200-DIN-ATEX: TRUNKGUARD Series Device Couplers**

5 **Manufacturer:** **Moore Industries-International, Inc.**

6 **Manufacturer's Address:** **16650 Schoenborn Street**
North Hills, CA 91343
U.S.A.

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8 Moore Industries-International, Inc. certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number: **TG200-TF001**

9 Compliance with the Essential Health and Safety Requirements has been assessed by compliance with the following documents: EN 60079-0:2009, EN 60079-11:2012 and EN 60079-15:2010

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 Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC.

12 The marking of the equipment or protective system shall include:

II 3 G Ex nA [ic] IIC T5
Ta = -40˚C to +70˚C

Christine Whan
Certification Engineer, Moore Industries-International, Inc.

Date of Issue: 07 Oct. 2013

SCHEDULE

To Type Examination Certificate No. MII13ATEX0001X

13 Description of Equipment or Protective System:

The TRUNKGUARD Series TG200-DIN-ATEX Device Couplers connect multiple devices to a main fieldbus trunk in FOUNDATION fieldbus™ H1 and PROFIBUS PA networks. The TG200-DIN-ATEX Device Couplers provide electronic and fully auto-resetting spur short-circuit protection that prevent segment failure caused by single device faults. The unit has designation TG200-DIN-ATEX where 00 = the number of spurs that can be connected, each connected to a fieldbus device using separate cabling, up to a maximum of 32.

The TG200-DIN-ATEX unit comprises a printed circuit board populated with components and terminal blocks, fitted into an aluminum case. The unit is filled with encapsulant such that the terminal blocks and light emitting diodes (LED's) protrude through the encapsulant. The TG200-DIN-ATEX device couplers have a separation barrier installed between the trunk and spur terminals to segregate the I.S. and non-I.S. wiring.

Voltage ratings: 10-30 Vdc

Electrical Parameters:
Uo = 30V, Io = 50mA, Co = 220nF, Lo = 30mH (Group IIC)
Uo = 30V, Io = 50mA, Co = 1.41uF, Lo = 120mH (Group IIB)
Uo = 30V, Io = 50mA, Co = 5.50uF, Lo = 240mH (Group IIA)

TRUNKGUARD Series TG200 Device Coupler Model Designations
TG200-DIN-ATEX
Where
00 = Spurs*: 04, 08, 0X(10), 0W(12)
*Spurs are available up to 32

14 Special Conditions for Safe Use:

1. *When installed as Category 3 equipment, the TG200-DIN-ATEX Device Coupler shall be mounted within a tool-secured enclosure which meets the requirements of EN 60079-0, EN 60079-11 and EN 60079-15 and is capable of accepting the applicable wiring methods specified in EN 60079-14. The enclosure shall, at a minimum, meet the requirements of IP54.*
2. *If external maintenance devices are connected to the test points, they shall be certified Ex n or Ex i and the output parameters of these devices shall not exceed those of the spur circuit, i.e. Uo = 30 V and Io = 50 mA. The covers for the test points shall only be removed for the minimum time necessary for the maintenance operations and shall be replaced after use.*
3. *A minimum clearance of 1 mm between live parts and earthed metal shall be maintained.*
4. *If other electrical circuits are fitted into the enclosure, then they shall be suitably approved for the hazardous area of installation. All live parts shall be protected to a minimum of IP20 at the Spur connections and IP40 at the Trunk In/Out connections when the enclosure is opened.*

15 Essential Health and Safety Requirements:
See Item 9.