

# 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: MII13ATEX0002X**

4 **Equipment or protective system: TS206 -DIN-ATEX and TS20W-DIN-ATEX  
(Type Reference and Name) TRUNSAFE 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: **TS200-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 nC [ic] IIC T4  
Ta = -40°C to +70°C**

*Christine Whan*

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

Date of Issue: 07 Oct. 2013

# SCHEDULE

## To Type Examination Certificate No. MII13ATEX0002X

13 Description of Equipment or Protective System:

The Models TS20W and TS206 are device couplers which maintain continuous communications between field devices and a distributed control system (DCS) in the event of any single point failure such as a short or open. The Model TS20W device couplers contain 12 spur outputs and the Model TS206 device coupler contains 6 spur outputs. The device couplers contain either Foundation Fieldbus™ or Profibus communication. Each spur is connected to a fieldbus device using separate cabling.

The Models TS20W and TS206 Device Couplers have two inputs which are supplied power by the Moore Industries Model TPS202 Fieldbus Power Supply. The device couplers have redundant power supplies so that if one supply fails the device coupler will continue to work via the second supply.

The TS200-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 TS200-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: 24 Vdc maximum

Electrical Parameters:

Uo = 24V, Io = 50mA, Co = 220nF, Lo = 6mH

TRUNKSAFE Series TS200 Device Coupler Model Designations

TS200-DIN-ATEX

Where

00 = Spurs: 06, 0W(12)

14 Special Conditions for Safe Use:

1. *When installed as Category 3 equipment, the TS200-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 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 A/B connections when the enclosure is opened.*
3. *The outputs of the Model TS206 and Model TS20W Device Couplers are non-linear.*
4. *The Model TS206 and Model TS20W Device Couplers shall be powered by the Moore Industries Model TPS202 Power Supply.*

15 Essential Health and Safety Requirements:

See Item 9.