ANZEx

Australian/New Zealand Certification Scheme
for Explosion Protected Equipment

Certificate of Conformity

Ex EQUIPMENT

Certificate No.: **ANZEx 09.3020X**	*Current Issue:* 1	*Date of Issue:* 2019-04-18

Applicant: **Moore Industries International**
16650 Schoenborn Street
North Hills CA 91343
U.S.A

Equipment: Fully Encapsulated PC-Programmable Temperature Transmitters (TRX: non-isolated; and TRY: isolated)

Type of Explosion Protection: Intrinsic Safety 'ia'

Explosion Protection Marking: Ex ia IIC T5 -20 °C ≤ T_a ≤ +85 °C

This certificate is granted subject to the conditions as set out in Standards Australia/Standards New Zealand Miscellaneous Publication ***MP87.1***

Signed for and on behalf of issuing body

Name & Position Ujen Singh, Quality & Certification Manager

This certificate is not transferable and remains the property of the issuing body.
The status of this certificate can be confirmed through the database located at www.anzex.com.au

Certificate issued by:

TestSafe Australia
919 Londonderry Road, Londonderry NSW 2753 Australia

JAS-ANZ
WWW.JAS-ANZ.ORG/REGISTER

Test Safe AUSTRALIA

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Additional Manufacturing Location(s): 'None'

STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

AS/NZS 60079-0:2005	Electrical equipment for explosive gas atmospheres– Part 0: General requirements (Including Amendment 1)
AS/NZS 60079.11:2006	Explosive atmospheres– Part 11: Equipment protection by Intrinsic safety "i"
AS 60529:2004	Degree of protection provided by enclosure (IP code)

This Certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

The equipment listed has successfully met the examination and test requirements as recorded in:

Test Report Nos. & Issuing Bodies associated with all issues of the certificate:	30577, TestSafe
Quality Assessment Report No. & Issuing Body:	GB/FME/QAR18.0009/00 FM Approvals
File Reference:	2007/025237, 2018/020108

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Schedule

Equipment Description:

The PC- Programmable Temperature Transmitter TRX: non-isolated model is fully encapsulated within a plastic enclosure and the electrical connections are provided with screw terminals on top of the plastic enclosure. There are two PCBs in this model.

The PC- Programmable Temperature Transmitter TRY: isolated model is fully encapsulated within a plastic enclosure and the electrical connections are provided with screw terminals on top of the plastic enclosure. There are three PCBs in this model.

Each model of apparatus provides a proportional 4-20 mA signal output derived from input signal of an RTD probe or a thermocouple or a milli-volt source of maximum 1000 mV. The PCB assembly is identified as HPP-Style (Hockey-Puck Housing) in the instruction manual. The power supply is connected to the screw terminals marked +PS and –PS. The temperature sensor is connected to the screw terminals marked 1, 2, 3 and 4 of the HPP model housing. The COM port is to be used only in the non-hazardous area and the parameters are given in the label drawing.

The enclosures of both TRX and TRY Transmitters are plastic. The drawing number 204-284-01 and 204-284-02 provide details of the top and bottom part of this enclosure.

Variations Permitted by this Issue:

1. Change of QAR issuer to FM Approvals GB/FME/QAR18.0009/00.
2. Marking label drawings changed to show ambient temperature range instead of the maximum ambient temperature.

Specific Conditions of Use:

1. When used in Zone 0, a warning on potential electrostatic charging hazard is required.
2. The following input and output parameters must be taken into account when installed:

<u>Input parameters at + PS, –PS terminals:</u>

TRY (isolated) and TRX (non-isolated)

Ui = 30V

Ii = 110 mA

Pi = 825 mW

Certificate of Conformity
Ex EQUIPMENT

Certificate No.: **ANZEx 09.3020X**	*Current Issue:* 1	*Date of Issue:* 2019-04-18

Ci = 5.2 nF

Li = 0 µH

Output parameters at terminals where temperature sensor is connected:

TRY Model, Terminals 1, 2, 3, 4.

Uo = 6.51 V

Io = 205 mA

Po = 675 mW

Lo = 0.410 mH

Co = 5.1 µF

TRX Model, Terminals 1, 2, 3, 4.

Uo = 6.51 V

Io = 110 mA

Po = 532 mW

Lo = 1.4 mH

Co = 2.262 µF

Additional Information:

The infallible transformer T201 shall be subjected to routine tests as per clause 11.2 of AS/NZS 60079.11:2006.

Manufacturer's Documents associated with this Issue:

Document Number	Pages / Sheets	Document Title	Revision	Date
200-251-1712	1	Label, ANZEx TRX-ISA [HPP], Intrinsically Safe	B1	2019-05
200-251-1721	1	Label, ANZEx TRY-ISA [HPP], Intrinsically Safe	B1	2019-05

Certificate of Conformity
Ex EQUIPMENT

Certificate No.: **ANZEx 09.3020X**	*Current Issue:* 1	*Date of Issue:* 2019-04-18

History of Issues and Variations

Issue 0 dated 2009-12-02

Manufacturer's Documents associated with Issue 0:

Document Number	Pages / Sheets	Document Title	Revision	Date
PC Programmable Temperature Transmitter TRX: non-isolated				
235-866-00	2	PC1 Bom Description	B	-
235-882-00	1	TRX PC2 Bom Description	D	-
506-551-02	1	TRX-HPP PC1 Primary Side Circuitry *(PCB Art Work)*	B	2002-09-06
506-551-02	1	TRX-HPP PC1 Secondary Side Circuitry *(PCB Art Work)*	B	2002-09-06
506-551-02	1	TRX-HPP PC1 Inner Layer 1 Circuitry *(PCB Art Work)*	B	2002-09-06
506-551-02	1	TRX-HPP PC1 Inner Layer 2 Circuitry *(PCB Art Work)*	B	2002-09-06
235-582-00	1	PC2, T2X [HPP] TRX- R [HPP], P2X [HPP] *(PC Assembly)*	D	2002-03
506-571-02	1	T2X [HPP] &TRX [HPP] – R PC2 Primary Side Circuitry *(PCB art work)*	D	2006-01-15
506-571-02	1	T2X [HPP] &TRX [HPP] – R PC2 Secondary Side Circuitry *(PCB art work)*	D	2006-01-15
235-466-00	1	TRX [HPP] – R Option *(Schematic)*	D	2004-08
235-566-00	1	PC1, TRX [HPP] – R Option *(PC Assembly)*	B	2002-09
235-568-00	3	Top Assembly, TRX [HPP] –R Option *(PC Assembly)*	A	2000-03
506-551-01	2	PC1, TRX [HPP] – R Option *(PC Fabrication)*	B	2002-09
506-571-01	2	PC2, T2X [HPP] & TRX [HPP]– R *(PC Fabrication)*	D	2006-01
200-251-1712	1	Label, ANZEx TRX-ISA [HPP], Intrinsically Safe	B	2009-10
PC Programmable Temperature Transmitter TRY: isolated				
235-876-00	2	PC1 Bom Description	C	-
235-877-00	2	PC2 Bom Description	B	-
235-878-00	2	List of materials PC3	F1	-

Certificate of Conformity
Ex EQUIPMENT

Certificate No.: **ANZEx 09.3020X**	*Current Issue:* 1	*Date of Issue:* 2019-04-18

506-556-02	1	TRY [HPP] – R PC1 Primary Side	D	2002-11-22
506-556-02	1	TRY [HPP] – R PC1 Secondary Side	D	2002-11-22
506-556-02	1	TRY [HPP] – R PC1 Inner Layer 1	D	2002-11-22
506-556-02	1	TRY [HPP] – R PC1 Inner Layer 2	D	2002-11-22
506-557-02	1	TRY-HPP PC2 Primary Side	B	2002-11-22
506-557-02	1	TRY-HPP PC2 Secondary Side	B	2002-11-22
506-558-02	1	PC3, TRY-R HPP Primary Side	G	2008-09-30
506-558-02	1	PC3, TRY-R HPP Secondary Side	G	2008-09-30
506-558-02	1	PC3, TRY-R HPP Innaer Layer 1	G	2008-09-30
235-476-00	1	PC1, TRY [HPP] –R Option *(Schematic)*	J	2006-08
235-476-00	1	PC2, TRY [HPP] –R Option *(Schematic)*	J	2006-08
235-476-00	1	PC3, TRY [HPP] –R Option *(Schematic)*	J	2006-08
235-576-00	1	PC1, TRY [HPP] –R Option *(PC Assembly)*	C	2002-11
235-577-00	1	PC2, TRY [HPP] –R Option *(PC Assembly)*	B	2002-11
235-578-00	1	PC3, TRY [HPP] –R Option *(PC Assembly)*	F	2007-02
235-579-00	3	Top Assembly, TRY-HPP –R Option *(PC Assembly)*	A	2000-03
506-556-01	2	PC1, TRY [HPP] –R Option *(PC Fabrication)*	D2	2008-07
506-557-01	2	PC2, TRY [HPP] –R Option *(PC Fabrication)*	B	2002-11
506-558-01	2	PC3, TRY [HPP] –R Option *(PC Fabrication)*	G	2008-09
235-569-00	1	Front Panel Sub-Assembly TRX / TRY –R Option *(Mech Assembly)*	A	2000-03
200-251-1721	1	Label, ANZEx TRY-ISA [HPP], Intrinsically Safe	B	2009-10
205-248-00	1	TRY Case Assembly – R Option Mech Assy)	B	2004-09
204-284-01	1	TRX / TRY Case Top (Fabrication)	B	1995-06
204-284-02	1	TRX / TRY Case Bottom (Fabrication)	A	1995-06
235-710-01	1	TRY & TRX PC-Programmable Temperature Transmitters (Service manual)	N	2005-04