

Australian/New Zealand
Certification Scheme for

EXPLOSION-PROTECTED ELECTRICAL EQUIPMENT

ANZEx Scheme

Certificate of Conformity

Certificate No.: ANZEx 06.3036X

Issue No.: 2

Date of Issue: 14/09/2009

Issue No.: 0*

Date of Issue: 08/09/2006

* This ANZEx certificate was issued on the basis of an existing AUS Ex certificate of conformity (Ex 1461X) in accordance with Clause 3.3 of MP87:2004. Certificate AUS Ex 1461X was first issued on 27/07/1993.

Certificate Holder: Flowserve US Inc.
1350 North Mountain Springs Parkway,
Springville,
Utah 84663 USA

Electrical Apparatus: NT 3000 Transducer

Type of Protection: Ex ia, n

Marking Code: Ex ia IIC T4 at an ambient of 100 °C, T5 at an ambient of 65 °C
Ex n IIC T6
ANZEx 06.3036X

Manufacturing Location(s): Flowserve US Inc.
1350 North Mountain Springs Parkway,
Springville
Utah 84663 USA

The EPEE certification database located at <http://www.anzex.com.au> shows the validity of this Certificate.

This certificate and schedule shall not be reproduced except in full



Certificate issued by:

TestSafe Australia

919 Londonderry Road, Londonderry NSW 2753

Australia

Phone: +61 2 4724 4900 Fax: +61 2 4724 4999

<http://www.testsafe.com.au>



www.jas-anz.com.au/register

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This certificate is granted subject to the conditions as set out in Standards Australia/Standards New Zealand Miscellaneous Publication MP87:2004.

STANDARDS:

The electrical apparatus 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 60079.0:2000 Electrical apparatus for explosive gas atmospheres – Part 0: General requirements (including Amendment 1)
- AS/NZS 60079.11:2000 Electrical apparatus for explosive gas atmospheres – Part 11: Intrinsic safety “i” (including Amendment 1)
- AS 1939-1990 Degrees of protection provided by enclosures of electrical equipment (IP Code)
- AS 2380.1-1989 Electrical equipment for explosive atmospheres - Explosion-protection techniques Part 1: General requirements
- AS 2380.9-1991 Electrical equipment for explosive atmospheres - Explosion-protection techniques Part 9: Type of protection n - non sparking

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

ASSESSMENT & TEST REPORTS:

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

- Test Report No. and Issuing Body: 24629, 27872, 30875 in 2008/033256, TestSafe Australia
- Quality Assessment Report No. and Issuing Body: GB/SIR/QAR07.0005/00
- File Reference: 2009/016550



Signed for and on behalf of issuing body

Quality & Certification Manager

Position

14/09/2009

Date of Issue

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This certificate is not transferable and remains the property of the issuing body and must be returned in the event of it being revoked or not renewed.

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Schedule

EQUIPMENT:

The NT Model 3000 positioner/transducer is a control device providing a reciprocating motion for control positioning of linear or rotary action actuators. It is an electro-pneumatic assembly which converts mA signals (4-20 mA) to a pressure (3-15 psi), complete with a pressure meter. The positioner/transducer is fabricated from cast A413 aluminium or stainless steel and is a two piece housing comprising a base and screw on cover. The base of the housing has two sintered bronze flame arrestors, one of which vents to atmosphere, the other through the process fluid.

CONDITIONS OF CERTIFICATION:

The equipment has been assessed to the "Entity Concept" and accordingly the following electrical parameters must be taken into account during installation

Maximum Input Voltage (U_i)	=	30 V
Maximum Input Current (I_i)	=	125 mA
Maximum Input Power (P_i)	=	0.8 W
Maximum Internal Capacitance (C_i)	=	0 μ F
Maximum Internal Inductance (L_i)	=	2 μ H

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DOCUMENTS:

Document Number	Document Title	Revision	Date
194337	NT3000 Schematic Drawing	3	01/09/2004
194348 sht 1	NT3000 PCB Drill Drawing	2	08/08/2003
194348 sht 2	NT3000 PCB Top Silkscreen Layer	2	08/08/2003
194348 sht 3	NT3000 PCB Top Mask Layer	2	08/08/2003
194348 sht 4	NT3000 PCB Top Layer	2	08/08/2003
194348 sht 5	NT3000 PCB Bottom Layer	2	08/08/2003
194348 sht 6	NT3000 PCB Bottom Mask Layer	2	08/08/2003
195121 sht 1	NT3000 PCBA Top Assembly Drawing	2	08/08/2003
195121 sht 2	NT3000 PCBA Bottom Assembly Drawing	2	08/08/2003
82791	I/P Module Transducer Coil Assembly	6	27/05/2004
199605	Enclosure, PCB, Top, NT3000	5	04/08/2005
199606	Enclosure, PCB, Board, Bottom, Cover, NT3000, Transducer	2	02/06/2005
141216	Nameplate, NT 3000 EEx ia, Ex n, Ex d SAA	3	26/07/2006

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Schedule of Variations

Variations Permitted by Issue 1

Revision to schematic 194337 from rev 3 to rev 5

- Rev 3 raised value of components Q3, transistor Jfet, P channel, SMT SOT 23
- Rev4 increased components D3, D4 from 3 W zener diodes to 5 W zener diodes.

Revision to PCB 194348 from rev 2 to rev 3

- Rev 3 changed D3, D4 from surface mount to through hole components and increased the size of the traces and ground planes.

Conditions of Certification Relating Variations Permitted to Issue 1:

There are no changes to conditions of certification for issue 1. Conditions of certification remain as for original certification.

Drawings Relating to Variations Permitted by Issue 1:

Drawing No.	Drawing Title	Revision	Date
194337	NT3000 Schematic Drawing	5	19/11/2007
194348 7shts	NT3000 PCB Drill Drawing	3	05/06/2007

Variations Permitted by Issue 2:

1. The applicant name has been changed from Flowserve Corporation to Flowserve US Inc.
2. The marking label material has been changed. (Reference in Sira Test Report R52A13949A).

Conditions of Certification Relating Variations Permitted to Issue 2:

There are no changes to conditions of certification for issue 2. Conditions of certification remain as for original certification.

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Drawings Relating to Variations Permitted by Issue 2:

Drawing No.	Drawing Title	Revision	Date
225306	Nameplate, NT3000 Explosion Proof, Ex ia, Ex n, Ex d, ANZEx, NT3002-05 Plastic Sticker	2	16/03/2009