IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx SIR 10.0177X**

Certificate history:
Issue 1 (2018-03-06)
Issue 0 (2011-01-14)

Status: **Current**

Issue No: 2

Date of Issue: 2022-09-21

Applicant: **International Metal Engineering Pte Ltd**
Blk 13, Toa Payoh Lorong 8
#06-05 Braddell Tech Park
319261
Singapore

Equipment: **92 and 93 series Nipple Union Assembly**

Optional accessory:

Type of Protection: **Flameproof and Dust**

Marking: Ex db IIC T6 Gb
Ex tb III C T85 °C Db IP68*
(Ta = -40 °C to +70 °C)
* Dust protection and IP68 only applicable when probe end meets the special condition of safe use.

Approved for issue on behalf of the IECEx Certification Body: **Michelle Halliwell**

Position: **Director Operations, UK & Industrial Europe**

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom

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Date of issue: 2022-09-21 Issue No: 2

Manufacturer: **International Metal Engineering Pte Ltd**
Blk 13, Toa Payoh Lorong 8
#06-05 Braddell Tech Park
319261
Singapore

Manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

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

IEC 60079-0:2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1:2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31:2022-01 Edition:3.0	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"

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

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/SIR/ExTR11.0001/00 GB/SIR/ExTR18.0013/00 GB/SIR/ExTR22.0139/00

Quality Assessment Report:

GB/SIR/QAR07.0040/09

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

92 and 93 Series nipple union assembly

The 92 and 93 Series nipple union assembly is a stainless steel assembly comprising a nipple union and probe. The probe is retained within the nipple by a spring. The assembly has a ½" NPT thread at the probe end and a ½" NPT or M20 thread at the leads end. The 92 and 93 series can be fitted to any IECEx approved enclosure offering at least the same level of protection as detailed in the marking section. The probe end of the nipple union is threaded to accommodate an optional protection of the probe such as a thermowell.

For table detailing part numbers, see annexe.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. To meet the requirements of IEC 60079-31 and IEC 60529 for degree of protection IP68, the user shall ensure the probe end of the union nipple shall be threaded into a protection tube such as a thermowell to maintain the degree of protection IP68.
2. When the temperature of the process medium affects the temperature of the external part of the equipment the latter shall be verified that it does not exceed the rated ambient temperature of the equipment.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
This issue, Issue 2, recognises the following changes; refer to the certificate annex to view a comprehensive history:

1. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2011 Ed.6.0, IEC 60079-1:2014-06 Ed.7.0 and IEC 60079-31:2013 Ed.2.0 were replaced by IEC 60079-0:2017+COR1:2020 Ed.7.0, IEC 60079-1:2014+COR1:2018 Ed.7.0 and IEC 60079-31:2022 Ed.3.0 respectively, and the documents were updated accordingly to recognize the new standards.
2. Update of drawing 90x-xx-x-Lxxx Rev. 0 to Rev. 1.
3. Update of marking plate drawings 1080-204 and 1080-205 from Rev. 1 to Rev. 2.

Annex:

IECEx SIR 10.0177X Iss 2 Annexe.pdf

Annexe to: **IECEx SIR 10.0177X Issue 2**

Applicant: **International Metal Engineering Pte Ltd**

Apparatus: **92 and 93 series Nipple Union Assembly**

92 and 93 Series

Part number	Sensor description
92	Flameproof union with sensor
93	Flameproof union with sensor

Code	SS316 Sheath, plain Capsule
TJ	Type J thermocouple, class 1, DIN/IEC 584-2-1992
TK	Type K thermocouple, class 1, DIN/IEC 584-2-1992
TT	Type T thermocouple, class 1, DIN/IEC 584-2-1992
TE	Type E thermocouple, class 1, DIN/IEC 584-2-1992
TR	Type R thermocouple, class 1, DIN/IEC 584-2-1992
TS	Type S thermocouple, class 1, DIN/IEC 584-2-1992
PA	Pt-100 RTD Class A, DIN/IEC 751-1985
PB	Pt-100 RTD Class B, DIN/IEC 751-1985
PF	Pt-100 RTD Class A, DIN/IEC 751-1985, 4 wire
XX	Alternative Temperature Sensor

Code	No of elements
S	Single element
D	Dual element

Code	Nipple Union Assembly length (“N” Length)
04	4 Inch
05	5 Inch
06	6 Inch
07	7 Inch

Code	Thread For Flame Lock
001	½” NPT
002	M20 x 1.5

Code	Sensor diameter
EG	6.4 mm
MT	6.0 mm

Code	Sensor “A” length
L000	Specify “A” length in mm

Full certificate change history

Issue 1:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2007 Ed.5, IEC 60079-1:2007 Ed.6 and IEC 60079-31:2008 Ed.1 were replaced by IEC 60079-0:2011 Ed.6, IEC 60079-1:2014 Ed.7 and IEC 60079-31:2013 Ed.2, the markings and conditions were updated accordingly to recognise the new standards

Issue 2:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2011 Ed.6.0, IEC 60079-1:2014-06 Ed.7.0 and IEC 60079-31:2013 Ed.2.0 were replaced by IEC 60079-0:2017+COR1:2020 Ed.7.0, IEC 60079-1:2014+COR1:2018 Ed.7.0 and IEC 60079-31:2022 Ed.3.0 respectively, and the documents were updated accordingly to recognize the new standards.
ii. Update of drawing 90x-xx-x-Lxxx Rev. 0 to Rev. 1.
iii. Update of marking plate drawings 1080-204 and 1080-205 from Rev. 1 to Rev. 2.

Date: **21 September 2022**

CSA Group Testing UK Ltd.
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