# Australian/New Zealand Certification Scheme for

### **EXPLOSION-PROTECTED ELECTRICAL EQUIPMENT**

#### **ANZEX Scheme**

# Certificate of Conformity

Certificate No.: ANZEx 09.3018	Issue No.: 0*	Date of Issue: 2010-02-04
	Issue No.: 1	Date of Issue: 2017-09-12

\* This ANZEx certificate was issued on the basis of an existing AUSEx Certificate of Conformity (Ex 2341U) in accordance with Clause 3.3 of MP87.1:2008. Certificate AUSEx 2341U was first issued on 06/02/1998.

Applicant:

Triflex Manufacturing Pty Ltd Unit 29, 2-4 Picrite Close Pemulwuy NSW 2145

Australia

**Electrical Apparatus:** 

Sealsafe Range of DIP & Flameproof Conduit Fittings

**Type of Protection:** 

Ex d\* DIP\* (\*refer Schedule)

Marking Code:

Sealsafe "Type ID" "Thread Size" HD

Ex d IIB DIP\* or

DIP\*

(\*refer Schedule)

ANZEx 09.3018

Manufacturer:

Triflex Manufacturing Pty Ltd Unit 29, 2-4 Picrite Close Pemulwuy NSW 2145

Australia

**Manufacturing Location(s):** 

As above

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

http://www.testsafe.com.au



www.jas-anz.org/register

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This certificate is granted subject to the conditions as set out in Standards Australia/Standards New Zealand Miscellaneous Publication MP87.1:2008.

#### 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 standard(s):

AS 2380.1-1989 Electrical equipment for explosive atmospheres - Explosion-protection techniques - Part 1: General requirements (incorporating amendment 1)

AS 2380.2-1991 Electrical equipment for explosive atmospheres - Explosion-protection techniques - Part 2: Flameproof enclosure d (incorporating amendment 1)

AS 2236-1994 Electrical equipment for explosive atmospheres – Dust-excluding ignition-proof (DIP) enclosure

(incorporating amendment 1)

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.(s) and Issuing Body: E97/0550, SIMTARS; 31607, TestSafe

Quality Assessment Report No. and Issuing Body: AU/TSA/QAR10.0001/06; TestSafe Australia

File Reference: 2008/010151; 2017/011509

Signed for and on behalf of issuing body

Date of Issue

Quality & Certification Manager

Position

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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 Sealsafe range of DIP & Flameproof Conduit Fittings is manufactured from brass alloy grade C38500, with most component parts having a nickel-plating finish.

The Sealsafe FHC-075 and FHC-100 female barrier fittings are suitable for flameproof (Ex d) and dust-excluding ignition-proof (DIP) applications and are designed for use with Sealsafe FC-16 (FHC-075) or FC-19 (FHC-100) conduit. The fittings consist of a Front Body, which incorporates a female mounting thread for attachment to rigid conduit, a Back Body, which accepts the FC conduit, a Sleeve, which is inserted into the Back Body, a Body Nut, which secures the Back Body to the Front Body, and a Conduit Nut, which fastens the FC conduit to the Back Body. Sealing of the electrical conductors is by means of the supplied PF8 Epoxy Putty, which is used to fill the free space between the Sleeve and the electrical conductors. The Front Body is provided with an O-ring seal to prevent dust and water ingress. Note: Sealsafe part no. FHC-075 was designated as part no. FHC-75 on certificate AUS Ex 2341U.

The Sealsafe FHC-2003 and FHC-2503 male barrier fittings are suitable for flameproof (Ex d) and dust-excluding ignition-proof (DIP) applications and are designed for use with Sealsafe FC-16 (FHC-2003) or FC-19 (FHC-2503) conduit complying with AS/NZS 2053.4. The fittings consist of a Front Body, which incorporates a male mounting thread for attachment to a flameproof enclosure, a Sleeve, which is inserted into the Front Body, a Back Body, which accepts the FC conduit, a Body Nut, which secures the Back Body to the Front Body, and a Conduit Nut, which fastens the FC conduit to the Back Body. Sealing of the electrical conductors is by means of the supplied PF8 Epoxy Putty, which is used to fill the free space between the Sleeve and the electrical conductors. The Back Body is provided with an O-ring seal to prevent dust and water ingress.

The Sealsafe FHC-2002 and FHC-2502 male fittings are suitable for dust-excluding ignition-proof (DIP) applications and are designed for use with Sealsafe FC-16 (FHC-2002) or FC-19 (FHC-2502) conduit complying with AS/NZS 2053.4. The fittings consist of a Female Body, which incorporates a male mounting thread for attachment to a flameproof enclosure, a Male Body, which accepts the FC conduit, and a Conduit Nut, which fastens the FC conduit to the Male Body.

The Sealsafe FLC-075 and FLC-100 female barrier fittings are suitable for flameproof (Ex d) and dust-excluding ignition-proof (DIP) applications and are designed for use with Sealsafe 20 mm (FLC-075) or 25 mm (FLC-100) Liquidtight conduit complying with AS/NZS 2053. The fittings consist of a Front Body, which incorporates a female mounting thread for attachment to rigid conduit, a Back Body, which accepts the Liquidtight conduit, a Sleeve, which is inserted into the Back Body, a Body Nut, which secures the Back Body to the Front Body, a Ferrule, which is located around the cut-end of the conduit, a Gland Ring, which is located around the conduit, and a Conduit Nut, which fastens the conduit to the Back Body by compressing the Gland Ring between the Gland Nut and Back Body. Sealing of the electrical conductors is by means of the supplied PF8 Epoxy Putty, which is used to fill the free space between the Sleeve and the electrical conductors. The Front Body is provided with an O-ring seal

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to prevent dust and water ingress. <u>Note:</u> Sealsafe part no. FLC-075 was designated as FLC-75 on certificate AUS Ex 2341U.

The Sealsafe FLC-20 and FLC-25 male barrier fittings are suitable for flameproof (Ex d) and dust-excluding ignition-proof (DIP) applications and are designed for use with Sealsafe Liquidtight conduit. The fittings consist of a Front Body, which incorporates a male mounting thread for attachment to a flameproof enclosure, a Ferrule, which accepts the Liquidtight conduit, a Sleeve, which is inserted into the Body, a Gland Ring, which is located around the conduit, and a Conduit Nut, which fastens the conduit to the Ferrule by compressing the Gland Ring between the Gland Nut and Ferrule. Sealing of the electrical conductors is by means of the supplied PF8 Epoxy Putty, which is used to fill the free space between the Sleeve and the electrical conductors. The Ferrule is provided with an O-ring seal to prevent dust and water ingress.

The Sealsafe FB-20, FB-20B, FB25 and FB-25B universal barrier fittings are suitable for flameproof (Ex d) and dust-excluding ignition-proof (DIP) applications and are designed for use with rigid threaded conduit. The fittings consist of a Front Body, which incorporates a male mounting thread for attachment to a flameproof enclosure, a Sleeve, which is inserted into the Front Body, a Back Body, which accepts the rigid threaded conduit, and a Back Body Nut, which secures the Back Body to the Front Body. Sealing of the electrical conductors is by means of the supplied PF8 Epoxy Putty, which is used to fill the free space between the Sleeve and the electrical conductors. The Back Body is provided with an O-ring seal to prevent dust and water ingress. Note: Sealsafe part nos. FB-20B and FB25B were not previously included on certificate AUS Ex 2341U and are identical to Sealsafe part nos. FB-20 and FB25, except for their mounting threads.

Sealsafe FC-16 conduit was previously designated as Sealsafe 20 mm conduit and Sealsafe FC-19 conduit was previously designated as Sealsafe 25 mm conduit, on certificate AUS Ex 2341U. Sealsafe FC-16 and FC-19 conduits comply with AS/NZS 2053.1:2001 and AS/NZS 2053.4:1995.

Liquidtight 20 mm conduit was previously designated as LT-11 20 mm conduit and Liquidtight 25 mm conduit was previously designated as LT-12 25 mm, on certificate AUS Ex 2341U. Liquidtight 20 mm and 25 mm conduits comply with AS/NZS 2053.1:2001 and AS/NZS 2053.4:1995. All Sealsafe fittings have an ingress protection rating of IP65.

The certified equipment and ratings are summarised in the table, below.

#### Sealsafe Range of DIP & Flameproof Conduit Fittings

Part Number	Description	Thread Type & Size	Conduit or Pipe Type & Size	Type of Protection
FB-20	Universal Barrier Fitting	M20 x 1.5	Rigid Threaded M20 x 1.5	Ex d / DIP
FB-20B	Universal Barrier Fitting	M20 x 1.5	Rigid Threaded M20 x 1.5	Ex d / DIP
FB-25	Universal Barrier Fitting	M25 x 1.5	Rigid Threaded M25 x 1.5	Ex d / DIP

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Part Number	Description	Thread Type & Size	Conduit or Pipe Type & Size	Type of Protection
FB-25B	Universal Barrier Fitting	M25 x 1.5	Rigid Threaded M25 x 1.5	Ex d / DIP
FHC-075	Female Barrier Fitting	3/4" BSP	FC-16 16 mm	Ex d / DIP
FHC-100	Female Barrier Fitting	1" BSP	FC-19 20 mm	Ex d / DIP
FHC-2002	Male Fitting	M20 x 1.5	FC-16 16 mm	DIP
FHC-2502	Male Fitting	M25 x 1.5	FC-19 20 mm	DIP
FHC-2003	Male Barrier Fitting	M20 x 1.5	FC-16 16 mm	Ex d / DIP
FHC-2503	Male Barrier Fitting	M25 x 1.5	FC-19 20 mm	Ex d / DIP
FLC-20	Male Barrier Fitting	M20 x 1.5	Liquidtight 20 mm	Ex d / DIP
FLC-25	Male Barrier Fitting	M25 x 1.5	Liquidtight 25 mm	Ex d / DIP
FLC-075	Female Barrier Fitting	3/4" BSP	Liquidtight 20 mm	Ex d / DIP
FLC-100	Female Barrier Fitting	1" BSP	Liquidtight 25 mm	Ex d / DIP

#### CONDITIONS OF CERTIFICATION:

None.

#### **DOCUMENTS:**

Drawing/Document No.:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
9626	1	FHC-075, FHC-100 Fitting Component Parts & Marking	_	2009-12-09
9627	1	FHC-2002, FHC-2502 Fitting Component Parts & Marking	_	2009-12-09
9628	1	FHC-2003, FHC-2503 Fitting Component Parts & Marking	_	2009-12-09
9629	1	FLC-075, FLC-100 Fitting Component Parts & Marking	_	2009-12-09
9633	1	FLC-20, FLC-25 Fitting Component Parts & Marking	_	2009-12-09

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Drawing/Document No.:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
9636	1	FB-20, FB-20B, FB-25, FB- 25B Fitting Component Parts & Marking	-	2009-12-09
-	1	Sealsafe GA Drawing & Component Drawing List	_	2009-11-26
9620	1	Instruction Sheet No. 1 FC Conduit Assembly Instructions for FHC Fittings	_	2010-01-13
9621	1	Instruction Sheet No. 7 FHC Female Barrier Fitting Assembly Instructions	_	2009-12-17
9622	1	Instruction Sheet No. 8 Liquidtight Conduit Assembly Instructions	-	2010-01-13
9623	1	Instruction Sheet No. 3 FB Universal Barrier Fitting Assembly Instructions	_	2009-12-17
9624	1	Instruction Sheet No. 2 FHC Male Barrier Fitting Assembly Instructions	_	2009-12-17
9625	1	Instruction Sheet No. 6 FLC Female Barrier Fitting Assembly Instructions	-	2009-12-17
9630	1	Instruction Sheet No. 5 FLC Male Barrier Fitting Assembly Instructions	_	2009-12-17
9631	1	Instruction Sheet No. 4 PF8 Epoxy Sealing Compound	_	2009-12-17

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#### ADDITIONAL INFORMATION:

Routine tests: There are no routine tests required.

## **Schedule of Variations**

#### Variations Permitted by Issue 1, dated 2017-09-12:

1. The address of the Applicant and Manufacturer has been changed from 4/20 Tucks Road, Seven Hills NSW 2147 AUSTRALIA to Unit 29, 2-4 Picrite Close, Pemulwuy NSW 2145 AUSTRALIA.

#### **Condition of Certification Relating to Issue 1:**

None.

Drawings Relating to Issue.

None.