



# 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](http://www.iecex.com)

### Ex COMPONENT CERTIFICATE

Certificate No.: **IECEx TRC 14.0015U** Page 1 of 4 [Certificate history:](#)  
Issue 0 (2014-11-20)

Status: **Current** Issue No: 1

Date of Issue: 2021-01-26

Applicant: **Minco Products**  
7300 Commerce Lane  
Minneapolis  
Minnesota 55432  
**United States of America**

Ex Component: Leadwire and Cable Seal Fittings, FG4015 series (complete assemblies); FG4014 series (fitting body and cap) to be assembled with AC4015 series grommets.

*This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).*

Type of Protection: **Flameproof, Increased Safety**

Marking: Ex db eb IIC Gb IP66

Approved for issue on behalf of the IECEx  
Certification Body:

**Stephen Winsor**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:

\_\_\_\_\_  
\_\_\_\_\_

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Certificate issued by:

**Element Materials Technology**  
**Unit 1 Pendle Place**  
**Skelmersdale**  
**West Lancashire**





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7300 Commerce Lane  
Minneapolis  
Minnesota 55432  
**United States of America**

Additional manufacturing locations: **Minco SAS**  
Zone Industrielle  
09310, Aston  
**France**

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 60079-0:2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-1:2007-04** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:6

**IEC 60079-7:2006-07** Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:4

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/TRC/ExTR14.0017/00](#)

[GB/TRC/ExTR14.0017/01](#)

Quality Assessment Reports:

[FR/LCIE/QAR12.0001/10](#)

[NL/DEK/QAR12.0028/07](#)



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## Ex Component(s) covered by this certificate is described below:

The FG4015 series of fittings are cable transit type devices which are also known as Leadwire and Cable Seal Fittings. They are designed for use in applications which require one or several conductors or cables to pass through a bulkhead within a small area. The fittings are rated for pressure applications with a maximum of 50 PSIG. The seal fittings are offered with 1/2 or 3/4 NPT thread types on the 'process thread'. The fittings are directional and the process thread must be employed for mounting the fittings in their respective housings. Additionally the fittings are offered with 1, 2, 3 or 4 hole grommets, which can accommodate a variety wire diameters ranging from 0.05 to 0.22 inches (1.27 to 5.588mm).

The sealing grommets are offered in 2 different configurations - non split and split. They are also available in 2 material types for different temperature applications. The neoprene grommets are rated for use in -40°C to +75°C applications and are only available as 'non-split' solid type grommets. The fluoroelastomer grommets are rated for use in -40°C to +90°C applications and are available as both solid and split types.

The seal fitting can be ordered as FG4015 series, which are complete assemblies, comprised of an FG4014 series fitting body and an AC4015 series grommet. Alternatively FG4014 fittings can be ordered separately with AC4015 series grommets. The FG4014 fittings must only be used in conjunction with AC4015 (non split) or AC4015S (split) series of grommets.

The fitting bodies are available in either Type 303 Stainless Steel or Type 316 Stainless Steel. The cap fittings, which screw into the body and compress the grommet via a compression plug, can be supplied with 1/2 or 3/4 NPT external or internal threads for external connections or with no threaded section. The approximate length of the fittings range from 100mm to 130mm. The Leadwire and Cable Seal Fittings are rated for a maximum of 30VDC @ 30mA.

Product part number breakdown is described in the Annex.

## SCHEDULE OF LIMITATIONS:

1. The Model FG4014 Leadwire & Cable Seal Fitting must be used in conjunction with AC4015 or AC4015S series grommets.
2. The neoprene grommet material shall not be subjected to service temperatures of less than -40°C or in excess of +75°C.
3. The fluoroelastomer grommet material shall not be subjected to service temperatures of less than -40°C or in excess of +90°C.
4. The seal fittings are offered with 1/2 or 3/4 NPT thread types on the 'process thread'. The fittings are directional and the process thread must be employed for mounting the fittings in their respective housings.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Drawing updates including change to marking format to 'eb' 'db'.

**Annex:**




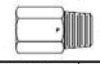



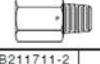

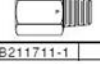

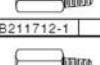






[Annex to IECEx TRC 14.0015U iss 1\\_1.pdf](#)

Annex to IECEx Certificate of Conformity

IECEx TRC 14.0015U issue No.: 1

Product part number breakdown:

**TABLE 1**  
CAP FITTING AND BODY

|   |          |   |   |    |    |
|---|----------|---|---|----|----|
|    |          |    |   |    |    |
| B10570-2  | 056-6171 | B211712-2   | - | ST |    |
| B10570-3  | 056-6156 | B211712-1   | - | SS |    |
|    |          |    |   |    |    |
| B10159-2  | 056-6175 | B211712-2   | - | ST |    |
| B10159-3  | 056-6176 | B211712-1   | - | SS |    |
|    |          |    |   |    |    |
| B10570-2  | 056-6171 | B211711-2   | - | ST |    |
| B10570-3  | 056-6156 | B211711-1   | - | SS |    |
|   |          |   |   |    |    |
| B10159-2  | 056-6175 | B211711-2   | - | ST |    |
| B10159-3  | 056-6176 | B211711-1   | - | SS |    |
|  |          |  |   |    |    |
| B12131  | 056-6160 | B211711-1   | - | SS | P5 |
|  |          |  |   |    |    |
| B12131  | 056-6160 | B211712-1   | - | SS | P6 |
|  |          |  |   |    |    |
| B13056-1  | -        | B211711-2   | - | ST | P7 |
| B13056-2  | -        | B211711-1   | - | SS |    |
|  |          |  |   |    |    |
| B13056-1  | -        | B211712-2   | - | ST | P8 |
| B13056-2  | -        | B211712-1   | - | SS |    |
|  |          |  |   |    |    |
| B13782-1  | -        | B211712-2   | - | ST | P9 |
| B13782-2  | -        | B211712-1   | - | SS |    |

AC4015H 2V 200 S  
 FG4015 P2 SS 2V 220 S  
 FG4014 P2 SS

**TABLE 2**

























| MATERIAL             | HOLE DIA   | HOLE CONFIGURATION   | GROMMET  |            | SPLIT GROMMET ADDITIONS ONLY   |               |                | COMPRESSION FLUG   | PACKAGING  |
|----------------------|------------|--|----------|------------|--|---------------|----------------|--|--|
|                      |            |  | STOCK NO | DRAWING NO | HOLE SPLIT PATTERN   | HOLE PLUG QTY | HOLE PLUG ITEM |  |  |
| N<br>NITROGEN        | 2N120 .120 |   | 056-6127 | A1016N120  |   |               |                |  | TUBE<br>068-0097<br>.....<br>CAP<br>068-0098<br>.....<br>3/8" x 2.8"<br>LABEL<br>061-0050<br>(AC4015 ONLY) |
|                      | 2N160 .160 |  | 056-6128 | A1016N160  |  |               |                |  |  |
|                      | 2N180 .180 |  | 056-6129 | A1016N180  |  |               |                |  |  |
|                      | 2N220 .220 |  | 056-6130 | A1016N220  |  |               |                |  |  |
|                      | 2N257 .257 |  | 056-6131 | A1016N257  |  |               |                |  |  |
| N<br>NITROGEN        | 8N180 .180 |   | 056-6133 | A10978N180 |   |               |                |  |  |
|                      | 8N190 .190 |  | 056-6134 | A10979N190 |  |               |                |  |  |
| V<br>FLUOROPOLYESTER | 6N050 .050 |  | 056-6137 | A10976N    |  |               |                |  |  |
|                      | 1V190 .190 |  | 056-6203 | A11146V190 |  |               |                |  |  |
|                      | 1V160 .160 |  | 056-6204 | A11146V160 |  |               |                |  |  |
|                      | 1V220 .220 |  | 056-6206 | A11146V220 |  |               |                |  |  |
|                      | 2V130 .130 |  | 056-6123 | A1016V130  |  |               |                |  |  |
|                      | 2V180 .180 |  | 056-6124 | A1016V180  |  |               |                |  |  |
|                      | 2V190 .190 |  | 056-6124 | A1016V190  |  |               |                |  |  |
|                      | 2V220 .220 |  | 056-6125 | A1016V220  |  |               |                |  |  |
|                      | 2V257 .257 |  | 056-6126 | A1016V257  |  |               |                |  |  |
|                      | 3V180 .180 |  | 056-6181 | A10979V180 |  |               |                |  |  |
| 3V180 .180           | 056-6300   | A10979V180   |          |            |  |               |                |  |  |
| 3V190 .190           | 056-6182   | A10979V190   |          |            |  |               |                |  |  |
| 4V190 .190           | 056-6301   | A11145V190   |          |            |  |               |                |  |  |
| 4V160 .160           | 056-6302   | A11145V160   |          |            |  |               |                |  |  |

Table 2 Detail

|                             | HOLE DIA | HOLE CONFIGURATION  | GROMMET   |                                      | SPLIT GROMMET ADDITIONS ONLY  |   |                | COMPRESSION PLUG | PACKAGING  |  |
|-----------------------------|----------|---|---|--------------------------------------|---|---|----------------|------------------|--|--|
|                             |          |   | STOCK NO.   | DRAWING NO.                          | HOLE SPLIT PATTERN  | HOLE PLUG QTY   | HOLE PLUG ITEM |                  |  |  |
| <b>N</b><br>NEOPRENE        | 2N130    | .130  |    | 056-6127                             | A10161N130  |    |                |                  | <br>A211710 | TUBE<br>068-3097<br>-----<br>CAP<br>068-3098<br>-----<br>3/8" x 2.8"<br>LABEL<br>031-8035<br>(AC4015 ONLY) |
|                             | 2N160    | .160  |   | 056-6138                             | A10161N160  |   |                |                  |  |  |
|                             | 2N190    | .190  |   | 056-6128                             | A10161N190  |   |                |                  |  |  |
|                             | 2N220    | .220  |   | 056-6129                             | A10161N220  |   |                |                  |  |  |
|                             | 2N257    | .257  |   | 056-6130                             | A10161N257  |   |                |                  |  |  |
| 3N130                       | .130     |  | 056-6133  | A10375N130                           |  |   |                |                  |  |  |
| 3N190                       | .190     |   | 056-6134  | A10375N190                           |   |   |                |                  |  |  |
|                             | 6N050    | .050  |    | 056-6137<br>TEFLON LINE:<br>056-6670 | A10376N   |    |                |                  |  |  |
| <b>V</b><br>FLUOROELASTOMER | 1V130    | .130  |    | 056-6303                             | A11146V130  |    | N/A            | N/A              |  |  |
|                             | 1V160    | .160  |   | 056-6304                             | A11146V160  |   |                |                  |  |  |
|                             | 1V220    | .220  |   | 056-6306                             | A11146V220  |   |                |                  |  |  |
|                             | 2V130    | .130  |    | 056-6123                             | A10161V130  |    | 1              | A12145-1         |  |  |
|                             | 2V160    | .160  |   | 056-6136                             | A10161V160  |   |                | A12145-2         |  |  |
|                             | 2V190    | .190  |   | 056-6124                             | A10161V190  |   |                | A12145-3         |  |  |
|                             | 2V220    | .220  |   | 056-6125                             | A10161V220  |   |                | A12145-4         |  |  |
|                             | 2V257    | .257  |   | 056-6126                             | A10161V257  |   |                | N/A              |  |  |
|                             | 3V130    | .130  |   | 056-6131                             | A10375V130  |   | 2              | A12145-1         |  |  |
|                             | 3V160    | .160  |   | 056-6300                             | A10375V160  |   |                | A12145-2         |  |  |
|                             | 3V190    | .190  |   | 056-6132                             | A10375V190  |   |                | A12145-3         |  |  |
|                             | 4V130    | .130  |  | 056-6301                             | A11145V130  |  | 3              | A12145-1         |  |  |
| 4V160                       | .160     | 056-6302  |   | A11145V160                           | A12145-2  |   |                |                  |  |  |

| <b>Manufacturer's Documents</b>   |              |             |            |
|---|--------------|-------------|------------|
| Title:  | Drawing No.: | Rev. Level: | Date:      |
| Pressure seal fitting FG4015 series ATEX/IECEx/TR CU Ex db eb certified         | FG4015       | B           | 2017-04-19 |
| Grommet Accessory Kit for Pressure Seal Fitting AC4015 Series                   | AC4015       | B           | 2017-04-19 |
| Pressure Seal Fitting FG4014 Series   | FG4014       | B           | 2017-04-19 |
| Body Pressure Seal Fitting 1/2 – 1/4 NPT  | B211711      | C           | 2020-07-27 |
| Pressure Seal Fitting Final Assembly Models FG4014, FG4015 and AC4015 (2 pages) | B211713      | F           | 2020-09-09 |
| Cap Fitting Pressure Seal No Connection Thread                                  | B12131       | C           | 2016-05-10 |
| Cap Fitting Pressure Seal   | B13056       | E           | 2020-07-27 |
| Cap Fitting Pressure Seal   | B13782       | E           | 2020-07-27 |
| Cap Fitting Pressure Seal 1/2 -14 NPT   | B10570       | G           | 2020-07-27 |
| Cap Fitting Pressure Seal 1/2 -14 NPT   | B10159       | H           | 2020-07-27 |
| Body Pressure Seal Fitting 3/4 - 14 NPT   | B211712      | C           | 2020-07-27 |
| Installation & Operation Instructions (6 pages)                                 | SPI 00-0801  | E           | 2020       |

\* Denotes information not provided by manufacturer



Attention is drawn to the operating and installation instructions which may contain useful information in relation to conditions of use.