

# Instructions: FG4015, or FG4014 + AC4015 Leadwire & Cable Seal Fitting

Ⓔ II 2 G Ex db eb IIC Gb IP66

IECEX Ex db eb IIC Gb IP66

Ex db eb IIC Gb; Ex tb IIC Db (Canada)

Nonincendive Class I, Division 2, Groups ABCD (US and Canada)

Dust-Protected Class II, Division 2, Groups FG (US and Canada)

Class III (US and Canada)

SPI 00-0801 Rev. H (Document 1919236)

## 1. Description

Minco's multi-conductor leadwire and cable seal fittings are designed for use in applications which require one or several conductors or cables to pass through an oil-filled housing or bulkhead within a small area. Their construction allows the fittings to be used in pressure applications up to 50 PSIG.

The fittings may be ordered with several variations.

- The fitting may be ordered as a complete unit as the FG4015 series or as FG4014 with AC4015 grommet kit.
- Grommets may be ordered split for easier installations.
- Fittings are ingress protection rated to IP65/IP66 and Type 4X.

## 2. Attestation of Conformity

This Attestation of Conformity is issued under the sole responsibility of the manufacturer.

Leadwire & Cable Seal Fitting Type: FG4015, or FG4014 + AC4015.

The product defined above is in conformity with the following relevant legislation:

ATEX Directive 2014/34/EU

EN 60079-0:2012+A11:2013\* Explosive atmospheres - Part 0: Equipment - General requirements

EN 60079-1:2007\* Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

EN 60079-7:2007\* Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

IEC 60079-0:2011\* Explosive atmospheres - Part 0: Equipment - General requirements

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

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

CSA C22.2 No. 60079-0:19 Explosive atmospheres - Part 0: Equipment - General requirements

CSA C22.2 No. 60079-1:16 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

CSA C22.2 No. 60079-31:15 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

FM 3600 - 2018 Electrical Equipment for Use in Hazardous (Classified) Locations - General Requirements

FM 3611 - 2018 Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1

and 2 Hazardous (Classified) Locations

National Electrical Code ANSI/NFPA 70 Articles 500, 501, 502, and 503

Canadian Electrical Code CSA C22.2 No. 213

Several additional North American standards apply. See listed certificate for details.

*\*NOTE: The harmonized standards EN IEC 60079-0:2018, EN 60079-1:2014, and EN IEC 60079-7:2015+A1:2018 have been compared to the standards used for certification purposes and no changes in the "state of the art" apply to the product. The standards IEC 60079-0:2017, IEC 60079-1:2014, and IEC 60079-7:2017 have been compared to the standards used for certification purposes and no changes in the "state of the art" apply to the product.*

Certificate FM25US0264U

Certificate FM25CA0089U

Certificate TRAC14ATEX0040U

Quality Assurance Notified Body: DEKRA Certification B.V. (0344)

Certificate IECEX TRC 14.0015U

Element Materials Technology Rotterdam BV (2812)

Zekeringstraat 33, 1014 B.V., Amsterdam, Netherlands

 14Jan2026

Rob Bohland, Ex Authorized Person

Minco Products, Inc

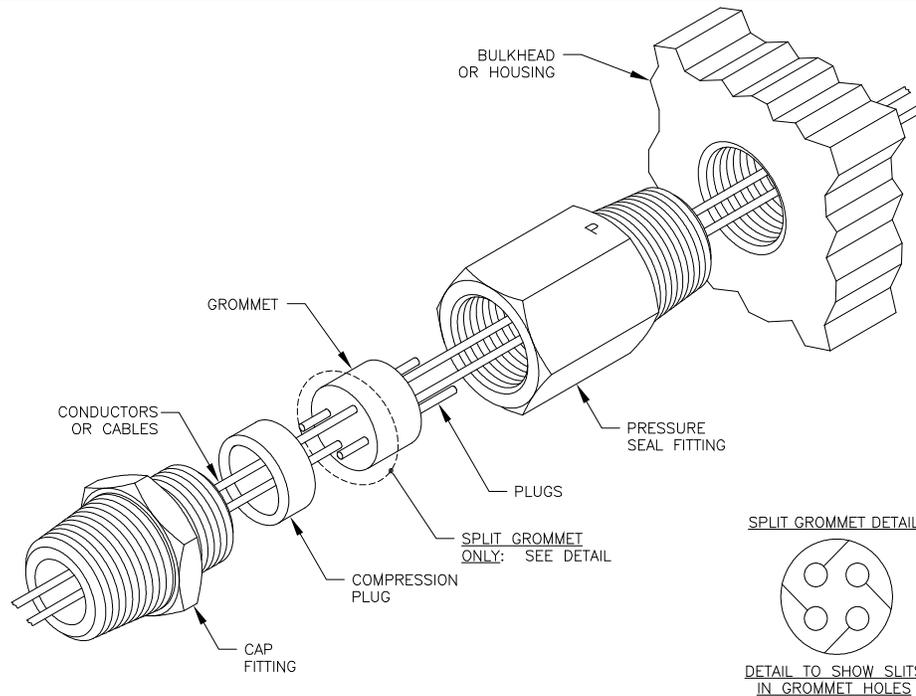
7300 Commerce Lane

Minneapolis, MN 55432 USA

### 3. Schedule of Limitations

- The fitting may be ordered as FG4014 series fitting body and cap, **but must be assembled with an AC4015 series grommet accessory kit to meet the ATEX and IECEx approvals listed above.**
- Neoprene grommet operating temperature range is -40°C to +75°C (-40°F to +167°F).
- Fluoroelastomer grommet operating temperature range is -40°C to +90°C (-40°F to +194°F).
- Leadwire and cable seal fittings are rated for a maximum of 30VDC at 30mA.
- Fittings are offered with 1/2 NPT or 3/4 NPT threads on the process thread. Fittings are directional and the process thread (marked "P") must be assembled into the bulkhead or machine housing.

### 4. Installation Instructions



The leadwire and cable seal fitting package includes a pressure seal fitting, grommet, compression plug, cap fitting, and leadwire plugs (plugs are for the split grommet models only).

1. Thread the NPT end of the pressure seal fitting (marked "P") into the bulkhead or machine housing. This thread will be either 1/2-14 NPT or 3/4-14 NPT, depending on the option purchased.
2. Pass each conductor through the bulkhead or machine housing and pressure seal fitting.
3. Split grommet models only: Spread open a slit portion of the grommet and place a conductor into each slot.
4. Standard grommet models only: Pass each conductor through the grommet.
5. Split grommet models only: Press a leadwire plug (provided) into each empty grommet hole.
6. Pass each conductor through the compression plug.
7. Pass the connection end of each conductor through the cap fitting, as shown in the illustration.
8. Begin screwing the cap fitting onto the pressure seal fitting by hand. Wrench-tighten the cap fitting until all cap fitting threads just disappear into the pressure seal fitting. Torque the cap fitting to 30-35 ft-lbs (41-47 N-m).
9. Add a connection head or other conduit fitting by threading onto the back of the cap fitting.

**NOTE:** Leadwire and cable seal fitting may be combined with Minco RTDs using AC100324 elastomer rubber-filled cable. See chart for grommet hole size selection when AC100324 is combined with Minco RTDs.

Lead size AWG	Number of leads per cable	Grommet hole diameter
22	2, 3, and 4	.160"
24	2	.130"
24	3 and 4	.160"
24	6	.190"
26-28	2, 3, 4, and 6	.130"
30	6	.130"

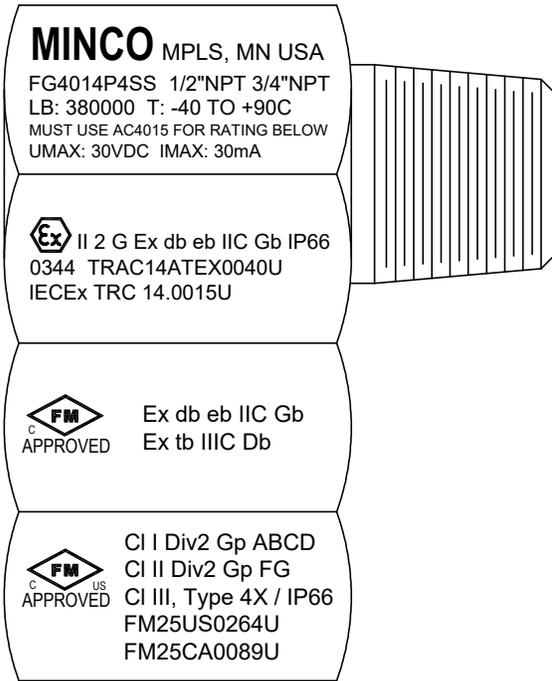
**Cable diameter tolerance ranges**

Hole Diameter	Cable Diameter Tolerance Range	
	Inches	Millimeters
.130" [3.30mm]	.100" to .130"	2.54mm to 3.30mm
.160" [4.06mm]	.130" to .160"	3.30mm to 4.06mm
.190" [4.83mm]	.160" to .190"	4.06mm to 4.83mm
.220" [5.59mm]	.190" to .220"	4.83mm to 5.59mm

## 5. Marking Examples

The marking is on four consecutive fitting hexes as shown below.

### FG4014 MARKING



### FG4015 MARKING

