

# FG Series Cable Seals

Prevent oil wicking with bearing embedment sensors



**STOP OIL SEEPAGE!**

## Overview

Minco's FG series cable seals prevent oil wicking with bearing embedment sensors in rotating equipment. They were specifically designed for use with Minco's innovative elastomer filled cables to prevent oil wicking along the sensor cable. FG series seals can also be used to seal around individual leadwires and rigid tubing. The seals include a grommet that provides a tight seal and also allows adjustment of the cable or leadwire position.

## Configurations

FG series cable seals are available in three configurations, all of which perform the same basic function of providing an adjustable, oil-tight seal on Minco elastomer filled cables, leadwires, rigid probes or feed-through tubing.

FG1015	FG3015	FG4015
<ul style="list-style-type: none"> <li>• Feed-through grommet</li> </ul>	<ul style="list-style-type: none"> <li>• Split grommet</li> </ul>	<ul style="list-style-type: none"> <li>• Feed-through or split grommet</li> <li>• ATEX and IECEx certified</li> </ul>

## Installation

The split grommet fits over the cable where access to the cable ends isn't practical. The feed-through grommet requires the cables to be threaded through the grommet. Tightening the fitting compresses the grommet, forming the seal. To adjust the position of the cables in the seal, simply loosen the fitting to decompress the grommet and pull the wire or cable through the grommet to the desired position and retighten the fitting.

Note:

- Plugs are provided to fill unused holes on 6-hole and split grommets.
- Insulated leadwires must be used; do not use bare stranded leadwires.
- Wires must be oil sealed on sensor end.

## Specifications

Fitting material	Stainless steel (303 or 316)
Grommet material	Fluoroelastomer or Neoprene
Temperature range (grommet)	Fluoroelastomer: -40 to 90°C (-40 to 194°F) Neoprene: -40 to 75°C (-40 to 167°F)
Pressure	50 psi (3.4 bar) at 20°C
Ingress protection rating*	IP65/IP66
ATEX and IECEx certification*	ATEX  II 2 G Ex d e IIc Gb IECEx Ex d e IIc Gb

\*FG4014 and FG4015 only

▼ = **STANDARD OPTIONS**  
Specifications subject to change

## Ordering Information

FG products can be ordered as complete assemblies or as piece parts (fitting body and grommet kit separately).

## Cable Seal Assemblies

To configure your assembly, select from the options listed below to determine the complete assembly part number. Use the code shown in **bold** for each selection. Assemblies include fitting body, grommet and compression plugs, and washer (1015).

<b>FG1015</b>	Model number: ▼ <b>FG1015</b> : Cable seal assembly (feed-through grommet) ▼ <b>FG3015</b> : Cable seal assembly (split grommet) ▼ <b>FG4015</b> : Cable seal assembly (feed-through grommet, certified) ▼ <b>FG4015</b> : Cable seal assembly (feed-through grommet, certified - add S to end of part number for certified version)					
<b>P1</b>	Pipe thread code:					
	Code	Connection thread	Process thread	Overall length	Connection hex size	
	▼ <b>P1</b>	1/2" 14 NPT	3/4" 14 NPT	3.25"	1-1/8"	
	▼ <b>P2</b>	3/4" 14 NPT				
	▼ <b>P3</b>	1/2" 14 NPT	1/2" 14 NPT			
	▼ <b>P4</b>	3/4" 14 NPT				
	<b>P5</b>	NONE	1/2" 14 NPT	2.50"		
	<b>P6</b>		3/4" 14 NPT			
	<b>P7</b>	1/2" 14 NPT (FEMALE)	1/2" 14 NPT	3.25"		
	<b>P8</b>		3/4" 14 NPT			
<b>P9</b>	3/4" 14 NPT (FEMALE)	3/4" 14 NPT	3.35"	1-3/8"		
<b>SS</b>	Fitting material: ▼ <b>SS</b> = Stainless steel, type 303 <b>ST</b> = Stainless steel, type 316					
<b>1V130</b>	Grommet hole quantity, material and size:					
	Hole qty.	Material			Grommet hole Ø	Cable/conductor Ø range
		Neo-prene	Fluoro-elastomer			
		1015, 4015	1015, 4015	3015		
	1		▼ <b>1V130</b>		0.130"	0.100" to 0.130"
			▼ <b>1V160</b>	<b>1V160</b>	0.160"	0.130" to 0.160"
			▼ <b>1V220</b>	<b>1V220</b>	0.220"	0.190" to 0.220"
	2	<b>2N130</b>	▼ <b>2V130</b>		0.130"	0.100" to 0.130"
		<b>2N160</b>	▼ <b>2V160</b>		0.160"	0.130" to 0.160"
		<b>2N190</b>	<b>2V190</b>		0.190"	0.160" to 0.190"
		<b>2N220</b>	<b>2V220</b>	<b>2V220</b>	0.220"	0.190" to 0.220"
	3	<b>3N130</b>	<b>3V130</b>		0.130"	0.100" to 0.130"
			<b>3V160</b>		0.160"	0.130" to 0.160"
		<b>3N190</b>	<b>3V190</b>	▼ <b>3V190</b>	0.190"	0.160" to 0.190"
	4			▼ <b>4V100</b>	0.100"	0.080" to 0.100"
		▼ <b>4V130</b>	▼ <b>4V130</b>	0.130"	0.100" to 0.130"	
		▼ <b>4V160</b>	▼ <b>4V160</b>	0.160"	0.130" to 0.160"	
6	<b>6N050</b>	▼ <b>6V050</b>	▼ <b>6V050</b>	0.050"	0.030" to 0.050"	
FG1015P1SS1V130 = Sample part number						

## Fitting Body/Cap Only

To configure your fitting body/cap, select from the options listed below to determine the complete part number. Use the code shown in **bold** for each selection. Fitting bodies do not include grommet and compression plugs, and washer.

<b>FG1014</b>	Model number: FG1014: Cable seal fitting body only FG4014: Cable seal fitting body only (ATEX)				
<b>P1</b>	Pipe thread code:				
	Code	Connection thread	Process thread	Overall length	Connection hex size
	<b>P1</b>	1/2" 14 NPT	3/4" 14 NPT	3.25"	1-1/8"
	<b>P2</b>	3/4" 14 NPT			
	<b>P3</b>	1/2" 14 NPT	1/2" 14 NPT		
	<b>P4</b>	3/4" 14 NPT			
	<b>P5</b>	NONE	1/2" 14 NPT	2.50"	
	<b>P6</b>		3/4" 14 NPT		
	<b>P7</b>	1/2" 14 NPT (FEMALE)	1/2" 14 NPT	3.25"	
	<b>P8</b>		3/4" 14 NPT		
<b>P9</b>	3/4" 14 NPT (FEMALE)	3/4" 14 NPT	3.35"	1-3/8"	
<b>SS</b>	Fitting material: <b>SS</b> = Stainless steel, type 303 <b>ST</b> = Stainless steel, type 316				
FG1014P1SS = Sample part number					

## Grommet Kits

To configure your grommet kit, select from the options listed below to determine the complete part number. Use the code shown in **bold** for each selection. Kits include grommet and compression plugs, and washer (1015).

<b>AC1015</b>	Kit type: <b>AC1015</b> = Feed-through grommet <b>AC3015</b> = Split grommet design <b>AC4015</b> = Feed-through grommet, certified <b>AC4015</b> = Split grommet design, certified (add S to end of part number to receive split grommet version)					
<b>H1V130</b>	Grommet hole quantity, material and size:					
	Hole qty.	Material			Grommet hole Ø	Cable/conductor Ø range
		Neo-prene	Fluoro-elastomer			
		1015, 4015	1015, 4015	3015		
	H1		<b>1V130</b>		0.130"	0.100" to 0.130"
			<b>1V160</b>	<b>1V160</b>	0.160"	0.130" to 0.160"
			<b>1V220</b>	<b>1V220</b>	0.220"	0.190" to 0.220"
	H2	<b>2N130</b>	<b>2V130</b>		0.130"	0.100" to 0.130"
		<b>2N160</b>	<b>2V160</b>		0.160"	0.130" to 0.160"
		<b>2N190</b>	<b>2V190</b>		0.190"	0.160" to 0.190"
	H3	<b>2N220</b>	<b>2V220</b>	<b>2V220</b>	0.220"	0.190" to 0.220"
		<b>3N130</b>	<b>3V130</b>		0.130"	0.100" to 0.130"
			<b>3V160</b>		0.160"	0.130" to 0.160"
	H4	<b>3N190</b>	<b>3V190</b>	<b>3V190</b>	0.190"	0.160" to 0.190"
				<b>4V100</b>	0.100"	0.080" to 0.100"
			<b>4V130</b>	<b>4V130</b>	0.130"	0.100" to 0.130"
	H6		<b>4V160</b>	<b>4V160</b>	0.160"	0.130" to 0.160"
			<b>4V130</b>	<b>4V130</b>	0.130"	0.100" to 0.130"
<b>6N050</b>		<b>6V050</b>	<b>6V050</b>	0.050"	0.030" to 0.050"	
AC1015H1V130 = Sample part number						

Specifications subject to change

Note: Order the 6-hole version to seal around PTFE-insulated wires.