

# 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 grommet</li> <li>• ATEX certified</li> </ul>

## Installation

The split grommet on the FG3015 fits over the cable where access to the cable ends isn't practical. The feed-through grommet on the FG1015 and FG4015 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 certification*	Approved for use in hazardous locations defined by IEC/EN 60079-0, IEC/EN 60079-1, and IEC/EN 60079-7, ATEX Directive 94/9/EC (FM 13ATEX0027 U), and II 2 G Ex db IIC, Ex eb IIC.

\*FG4014 and FG4015 only

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 blue for each selection. Assemblies include fitting body, grommet and compression plugs, and washer (1015).

<b>FG1015</b>	Model number: FG1015: Cable seal assembly (feed-through grommet) FG3015: Cable seal assembly (split grommet) FG4015: Cable seal assembly (feed-through, ATEX)					
<b>P1</b>	Pipe thread code:					
	Code	Connection thread	Process thread	Overall length	Connection hex size	
	P1	1/2" 14 NPT	3/4" 14 NPT	3.25"	1-1/8"	
	P2	3/4" 14 NPT				
	P3	1/2" 14 NPT	1/2" 14 NPT			
	P4	3/4" 14 NPT				
	P5	NONE	1/2" 14 NPT	2.50"		
	P6		3/4" 14 NPT			
	P7	1/2" 14 NPT (FEMALE)	1/2" 14 NPT	3.25"		
	P8		3/4" 14 NPT			
P9	3/4" 14 NPT (FEMALE)	3/4" 14 NPT	3.35"	1-3/8"		
<b>SS</b>	Fitting material: SS = Stainless steel, type 303 ST = 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		1V130		0.130"	0.100" to 0.130"
			1V160	1V160	0.160"	0.130" to 0.160"
			1V220	1V220	0.220"	0.190" to 0.220"
	2	2N130	2V130		0.130"	0.100" to 0.130"
		2N160	2V160		0.160"	0.130" to 0.160"
		2N190	2V190		0.190"	0.160" to 0.190"
		2N220	2V220	2V220	0.220"	0.190" to 0.220"
	3	3N130	3V130		0.130"	0.100" to 0.130"
			3V160		0.160"	0.130" to 0.160"
3N190		3V190	3V190	0.190"	0.160" to 0.190"	
4			4V100	0.100"	0.080" to 0.100"	
		4V130	4V130	0.130"	0.100" to 0.130"	
		4V160	4V160	0.160"	0.130" to 0.160"	
6	6N050	6V050	6V050	0.050"	0.030" to 0.050"	
FG4015P1SS1V130 = 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 blue 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
	P1	1/2" 14 NPT	3/4" 14 NPT	3.25"	1-1/8"
	P2	3/4" 14 NPT			
	P3	1/2" 14 NPT	1/2" 14 NPT		
	P4	3/4" 14 NPT			
	P5	NONE	1/2" 14 NPT	2.50"	
	P6		3/4" 14 NPT		
	P7	1/2" 14 NPT (FEMALE)	1/2" 14 NPT	3.25"	
	P8		3/4" 14 NPT		
P9	3/4" 14 NPT (FEMALE)	3/4" 14 NPT	3.35"	1-3/8"	
<b>SS</b>	Fitting material: SS = Stainless steel, type 303 ST = Stainless steel, type 316				
FG4015P1SS = 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 blue for each selection. Kits include grommet and compression plugs, and washer (1015).

<b>AC1015</b>	Kit type: AC1015 = Feed-through grommet AC3015 = Split grommet design AC4015 = Feed-through grommet, ATEX certified					
<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		1V130		0.130"	0.100" to 0.130"
			1V160	1V160	0.160"	0.130" to 0.160"
			1V220	1V220	0.220"	0.190" to 0.220"
	2	2N130	2V130		0.130"	0.100" to 0.130"
		2N160	2V160		0.160"	0.130" to 0.160"
		2N190	2V190		0.190"	0.160" to 0.190"
		2N220	2V220	2V220	0.220"	0.190" to 0.220"
	3	3N130	3V130		0.130"	0.100" to 0.130"
			3V160		0.160"	0.130" to 0.160"
3N190		3V190	3V190	0.190"	0.160" to 0.190"	
4			4V100	0.100"	0.080" to 0.100"	
		4V130	4V130	0.130"	0.100" to 0.130"	
		4V160	4V160	0.160"	0.130" to 0.160"	
6	6N050	6V050	6V050	0.050"	0.030" to 0.050"	
AC10151V130 = Sample part number						

Specifications subject to change

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