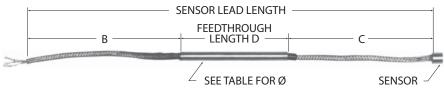
Feedthroughs - Prevent Oil Seepage







Overview

Feedthroughs provide an oil-tight-seal where a cable exits a machine housing. The stainless steel tube is epoxy filled and each wire is sealed to the individual conductor. This prevents wicking of oil inside the wires as well as leakage around the wire insulation. The pressure rating to 25 psi (1.7 bar) is suitable for most oil and coolant pump systems.

Feedthroughs can be ordered as an accessory to any sensor in this guide. When ordering feedthroughs with case style B bearing sensors, the spring and retaining ring are automatically included. Fluid seal fittings allow easy installation of feedthroughs into standard NPT threaded machine housings. See page 3-4, 3-5 or 3-10 (metric) for fluid seal fittings, or page 3-12 for transitions through housings.

Specifications

Material: Stainless steel with epoxy potting.

Temperature limit: 149°C (300°F). Pressure limit: 25 psi (1.7 bar).

Sheath Ø	Max. Cable Ø	Model
0.188" (4.8 mm)	0.12" (3.0 mm)	AC958
0.215" (5.5 mm)	0.14" (3.6 mm)	AC717
0.250" (6.4 mm)	0.17" (4.3 mm)	AC718
0.375" (9.5 mm)	0.26" (6.6 mm)	AC961

Specification and order options

AC717	Model number from table		
B6	Lead length B or C in inches (specify one): B = Lead end C = Sensor end		
D250	Feedthrough length D in 0.01" increments: Min. length: 1.6" (40.6 mm) (Ex: 250 = 2.50")		
AC717B6D250 = Sample part number			

▼= STANDARD OPTIONS

Specifications subject to change



FG Series Cable Seals

Prevent oil wicking with bearing embedment sensors

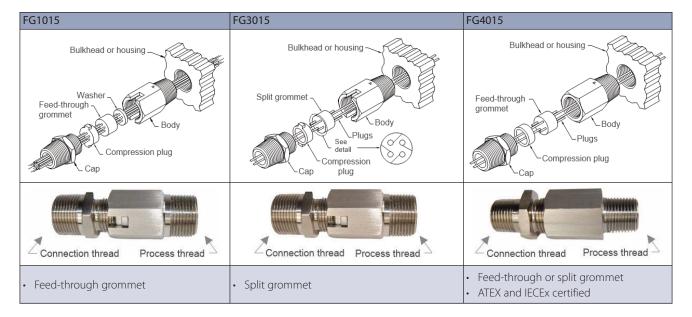


Overview

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.



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	Fluoroelastomer:
(grommet)	-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	IP65/IP66
rating*	
ATEX and IECEx	ATEX (Ex) II 2 G Ex d e llc Gb
certification*	IECEx Ex d e llc 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).

FG1015	Mode	el number: 1015: Cable seal assembly (feed-through grommet)						
		FG3015: Cable seal assembly (reed-through grommet) FG3015: Cable seal assembly (split grommet)						
	▼FG	4015 : Cable seal assembly						
		feed-through grommet, certified) G4015 : Cable seal assembly (feed-through grommet,						
		certified - add S to end of part number for certified version)						
P1	Pipe t	hread code:						
	Code Connecthread			Proo		Overal length		
	▼ P1	7 P1 1/2" 14		3/4"	14 NPT	3.25"	1-1/8"	
	▼ P2	3/4" 1	4 NPT					
	▼ P3	1/2" 1	4 NPT	T 1/2" 14 N		PΤ		
	▼ P4	3/4" 1	4 NPT					
	P5	NONE		1/2"	14 NPT	2.50"		
	P6			3/4"	14 NPT			
	P7	1/2" 1		1/2"	14 NPT	3.25"		
	P8	(FEMA			14 NPT			
	P9	3/4" 1 (FEMA		3/4"	14 NPT	3.35"	1-3/8"	
SS		Fitting material:						
		= Stainles						
1V130		ST = Stainless steel, type 316						
	Grommet hole quantity, material and size: Hole Material Grom- Cable/					d size:		
	Hole			ity, m	aterial and	d size: Grom-	Cable/	
)-	aterial and	Grom- met hole	Cable/ conductor Ø range	
	Hole	Material Neo-	Fluor)-	3015	Grom- met	conductor Ø	
	Hole	Material Neo- prene 1015,	Fluoro elasto	o- omer		Grom- met hole Ø	conductor Ø	
	Hole qty.	Material Neo- prene 1015,	Fluoro elasto 1015, 4015	omer		Grom- met hole Ø	conductor Ø range 0.100" to 0.130"	
	Hole qty.	Material Neo- prene 1015,	Fluoro elasto 1015, 4015	130 160	3015	Grom- met hole Ø	conductor Ø range 0.100" to 0.130" 0.130" to 0.160"	
	Hole qty.	Material Neo- prene 1015,	Fluoro elasto 1015, 4015 V1V1	130 160 220	3015 1V160	Grommet hole Ø 0.130"	conductor Ø range 0.100" to 0.130" 0.130" to 0.160" 0.190" to 0.220"	
	Hole qty.	Material Neo- prene 1015, 4015	Fluoro elasto 1015, 4015 V1V1 V1V2	130 160 220	3015 1V160	Grom- met hole Ø 0.130" 0.160" 0.220"	conductor Ø range 0.100" to 0.130" 0.130" to 0.160" 0.190" to 0.220" 0.100" to 0.130"	
	Hole qty.	Material Neo- prene 1015, 4015	Fluore elasted 1015, 4015 ▼1V1 ▼1V2 ▼2V1	130 160 220 130	3015 1V160	Grommet hole Ø 0.130" 0.160" 0.220" 0.130"	conductor Ø range 0.100" to 0.130" 0.130" to 0.160" 0.190" to 0.220" 0.100" to 0.130" 0.130" to 0.160"	
	Hole qty.	Material Neo- prene 1015, 4015 2N130 2N160	Fluoro elasto 1015, 4015 V1V1 V1V1 V2V1	130 160 220 130 160	3015 1V160	Grommet hole Ø 0.130" 0.160" 0.220" 0.130" 0.160"	conductor Ø range 0.100" to 0.130" 0.130" to 0.160" 0.190" to 0.220" 0.100" to 0.130" 0.130" to 0.160" 0.160" to 0.190" 0.190" to 0.220"	
	Hole qty.	Material Neo- prene 1015, 4015 2N130 2N160 2N190	Fluore elaster 1015, 4015 V1V1 V1V2 V2V1 2V1 2V1 3V1	130 160 220 130 160 90 20	3015 1V160 1V220	Grommet hole Ø 0.130" 0.160" 0.220" 0.130" 0.190" 0.220" 0.130"	conductor Ø range 0.100" to 0.130" 0.130" to 0.160" 0.190" to 0.220" 0.130" to 0.160" 0.160" to 0.190" 0.190" to 0.220" 0.100" to 0.130"	
	Hole qty.	Material Neo- prene 1015, 4015 2N130 2N160 2N190 2N220 3N130	Fluore elaste 1015, 4015 V1V1 V1V2 V2V1 2V1 2V2 3V1 3V1	130 160 220 130 160 90 20 30	3015 1V160 1V220 2V220	Grommet hole Ø 0.130" 0.160" 0.220" 0.130" 0.160" 0.220" 0.130" 0.160"	conductor Ø range 0.100" to 0.130" 0.130" to 0.160" 0.190" to 0.220" 0.100" to 0.130" 0.160" to 0.190" 0.190" to 0.220" 0.100" to 0.130" 0.130" to 0.130" 0.130" to 0.160"	
	Hole qty. 1 2	Material Neo- prene 1015, 4015 2N130 2N160 2N190 2N220	Fluore elaster 1015, 4015 V1V1 V1V2 V2V1 2V1 2V1 3V1	130 160 220 130 160 90 20 30	3015 1V160 1V220 2V220 ▼3V190	Grommet hole Ø 0.130" 0.160" 0.220" 0.130" 0.160" 0.190" 0.130" 0.160" 0.190"	conductor Ø range 0.100" to 0.130" 0.130" to 0.160" 0.190" to 0.220" 0.100" to 0.130" 0.130" to 0.160" 0.160" to 0.190" 0.190" to 0.220" 0.100" to 0.130" 0.130" to 0.160" 0.160" to 0.190"	
	Hole qty.	Material Neo- prene 1015, 4015 2N130 2N160 2N190 2N220 3N130	Fluoro elasto 1015, 4015 V1V1 V1V1 V2V1 V2V1 2V1 3V1 3V1	130 160 2220 130 160 90 20 30 60	3015 1V160 1V220 2V220 ▼3V190 ▼4V100	Grommet hole Ø 0.130" 0.160" 0.220" 0.130" 0.160" 0.220" 0.130" 0.160" 0.190" 0.190"	conductor Ø range 0.100" to 0.130" 0.130" to 0.160" 0.190" to 0.220" 0.100" to 0.130" 0.160" to 0.190" 0.190" to 0.220" 0.100" to 0.130" 0.130" to 0.160" 0.160" to 0.190" 0.160" to 0.190" 0.160" to 0.190" 0.080' to 0.100"	
	Hole qty. 1 2	Material Neo- prene 1015, 4015 2N130 2N160 2N190 2N220 3N130	Fluoro elasto 1015, 4015 V1V1 V1V1 V2V1 V2V1 2V1 3V1 3V1	130 160 130 160 130 160 90 20 30 60 90	3015 1V160 1V220 2V220 ▼3V190 ▼4V100 ▼4V130	Grommet hole Ø 0.130" 0.160" 0.220" 0.130" 0.160" 0.190" 0.160" 0.190" 0.130" 0.130"	conductor Ø range 0.100" to 0.130" 0.130" to 0.160" 0.190" to 0.220" 0.100" to 0.130" 0.160" to 0.190" 0.190" to 0.220" 0.100" to 0.130" 0.130" to 0.160" 0.130" to 0.160" 0.160" to 0.190" 0.080' to 0.130" 0.100" to 0.130"	
	Hole qty. 1 2 3	Material Neo- prene 1015, 4015 2N130 2N160 2N190 2N220 3N130 3N190	Fluoro elasto 1015, 4015 1015, 4015 1017, 4015 1018, 4016 1018, 4017 1018, 4018 1018	130 160 220 130 160 220 30 60 90	3015 1V160 1V220 2V220 ▼3V190 ▼4V100 ▼4V130 ▼4V160	Grommet hole Ø 0.130" 0.160" 0.220" 0.130" 0.160" 0.190" 0.190" 0.190" 0.100" 0.130" 0.160"	conductor Ø range 0.100" to 0.130" 0.130" to 0.160" 0.190" to 0.220" 0.100" to 0.130" 0.130" to 0.160" 0.160" to 0.190" 0.190" to 0.220" 0.100" to 0.130" 0.130" to 0.160" 0.160" to 0.190" 0.080' to 0.100" 0.100" to 0.130" 0.130" to 0.160"	
FG1015P	Hole qty. 1 2 3 4	Material Neo- prene 1015, 4015 2N130 2N160 2N190 2N220 3N130 3N190	Fluore elaste 1015, 4015 1015, 4015 1101	130 160 130 160 130 160 90 20 30 60 90 130 160 90	3015 1V160 1V220 2V220 V3V190 V4V100 V4V130 V4V160 V6V050	Grommet hole Ø 0.130" 0.160" 0.220" 0.130" 0.160" 0.190" 0.160" 0.190" 0.130" 0.130"	conductor Ø range 0.100" to 0.130" 0.130" to 0.160" 0.190" to 0.220" 0.100" to 0.130" 0.130" to 0.160" 0.160" to 0.190" 0.190" to 0.220" 0.100" to 0.130" 0.130" to 0.160" 0.160" to 0.190" 0.080' to 0.100" 0.100" to 0.130" 0.130" to 0.160"	

Specifications subject to change

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.

FG1014	Model number: FG1014: Cable seal fitting body only FG4014: Cable seal fitting body only (ATEX)						
P1	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					
	Р3	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	1/2" 14 NPT	3.25"			
P8 P9	P8	(FEMALE)	3/4" 14 NPT				
	P9	3/4" 14 NPT (FEMALE)	3/4" 14 NPT	3.35"	1-3/8"		
SS	Fitting material: SS = Stainless steel, type 303 ST = 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).

AC1015	Kit type: AC1015 = Feed-through grommet AC3015 = Split grommet design AC4015 = Feed-through grommet, certified AC4015 = Split grommet design, certified (add S to end of part number to receive split grommet version)					
H1V130	Grommet hole quantity, material and size:					
	Hole Material				Grommet	Cable/conductor
	qty.	Neo- prene	Fluoro- elastomer		hole Ø	Ø range
		1015, 4015	1015, 4015	3015		
	H1		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"
	H2	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"
	H3	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"
	H4			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"
	H6	6N050	6V050	6V050	0.050"	0.030" to 0.050"
AC1015H1V130 = Sample part number						

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

