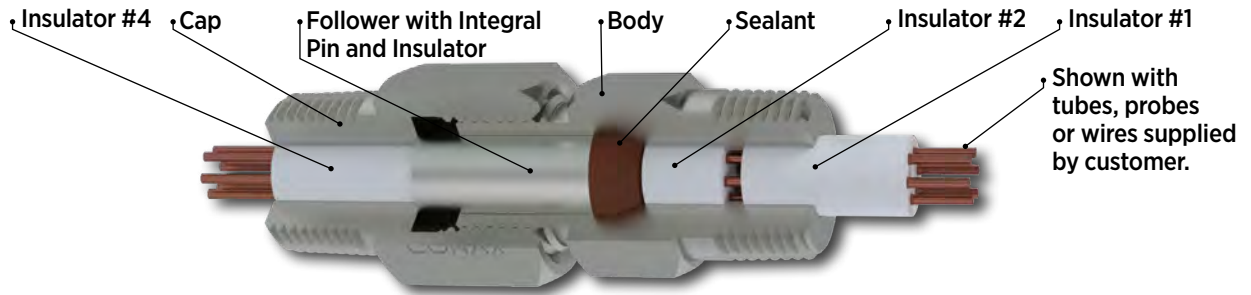


TG Bare Wire Sealing



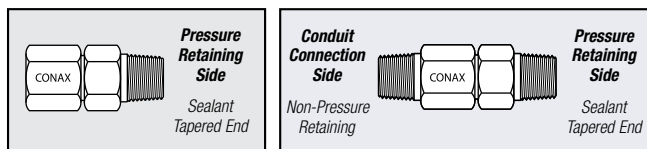
Conax Technologies Model TG (Transducer-Gland) Fittings provide pressure/vacuum sealing of solid bare wire transducers, including thermocouples, strain gauges, thermistors and RTD leads; or bare solid conductors supplying current **at low voltage (millivolts)** through a pressure vessel to instrumentation within the vessel. Bare wire may be replaced with insulated solid wire with an equivalent outer diameter to provide a higher voltage capability (see TG-24T on page 46).

In addition to electrical isolation, the TG Fittings seal against gases and liquids and resists element movements under pressure.

TG Fitting bodies with NPT threads or SAE threads are constructed from 303 SST standard. Weld neck style fittings are constructed from 316L SST standard. Followers on all styles are constructed from 303 SST standard. Many optional materials are also available, including 316L SST, INCONEL™ and more. For information on alternative materials, see page 9.

Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads. Alternative sealant materials are available. Please consult a Conax Technologies sales engineer for custom needs.

- Temperature Range: -300 °F to +1600 °F (-185 °C to +870 °C)
- Pressure Range: Vacuum to 10,000 PSIG (690 bar)—see Pressure Ratings in Specification Charts
- Seals 1-24 Elements



Type A has mounting thread only. Type B has cap end threaded. B Cap NPT matches the standard mounting NPT.

Accessories

The replaceable sealant permits repeated use of the same fitting. Wires can be easily assembled or replaced in the field. Simply insert the element and torque the cap. To replace the sealant or wires, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Fittings are supplied factory lubricated. When reused, the fittings should be relubricated to maintain published torque and pressure ratings. If fittings are cleaned prior to assembly, they should be relubricated. On weld mount models, the heat from the welding process will destroy the lubricant. These models must also be relubricated prior to use. See page 109 for information on our lubrication kit.

Replacement Packing Sets are available. These consist of a sealant and four ceramic insulators. Replacement sealants may also be ordered separately (without insulators).

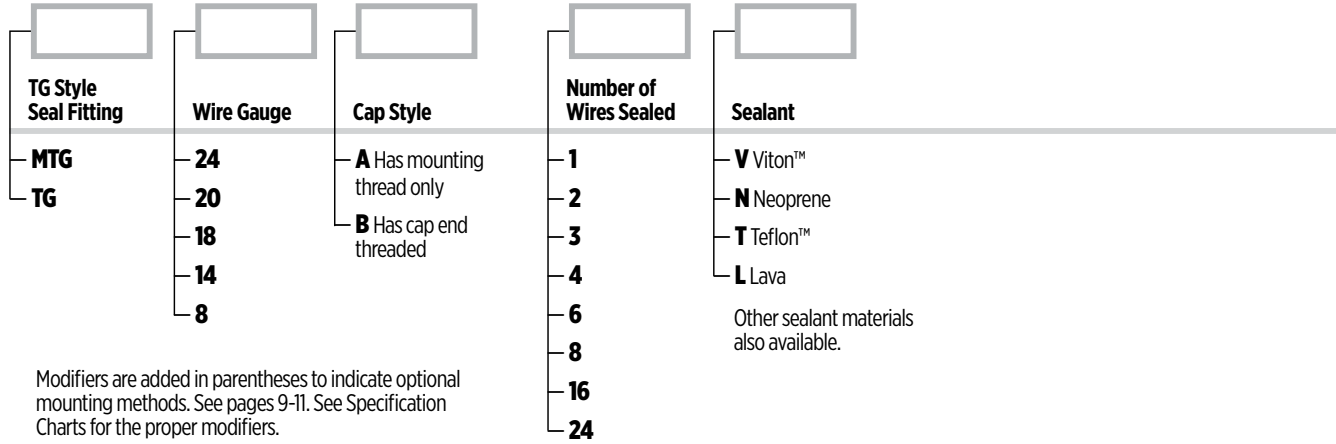
To order a Replacement Packing Set, order RPS - (TG) - (Wire Gauge) - (Number of Holes) - (Sealant).

Example: RPS-TG-20-2-V

To order a Replacement Sealant only, order RS - (TG) - (Wire Gauge) - (Number of Holes) - (Sealant).

Example: RS-TG-20-2-V

Catalog Numbering System



Modifiers are added in parentheses to indicate optional mounting methods. See pages 9-11. See Specification Charts for the proper modifiers.

See the TG Selection Guide to determine the number of elements offered with each model.

TG Selection Guide		Wire Gauge	Number of Elements Offered							
Model			1	2	3	4	6	8	16	24
MTG	24			X		X				
	20			X		X				
	14	X								
TG	24			X		X				
	20			X		X	X	X	X	X
	18						X	X		
	14	X	X	X	X	X	X	X		
	8		X							

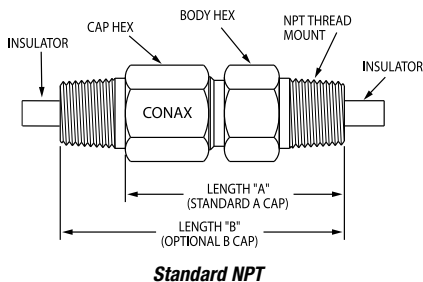
Note: The number of elements offered depends on the mounting port size. See the Specification Charts on the subsequent pages for details.

TG Series Sealant Selection Guide	
Material	Temperature Range
Lava (L)	-300 °F to +1600 °F (-185 °C to +870 °C)
Teflon™ (T)	-300 °F to +450 °F (-185 °C to +232 °C)
Neoprene (N)	-40 °F to +200 °F (-40 °C to +93 °C)
Viton™ (V)	-10 °F to +450 °F (-23 °C to +232 °C)

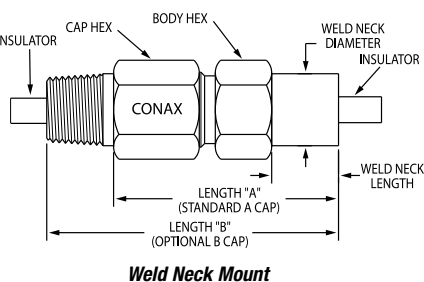


TG SERIES

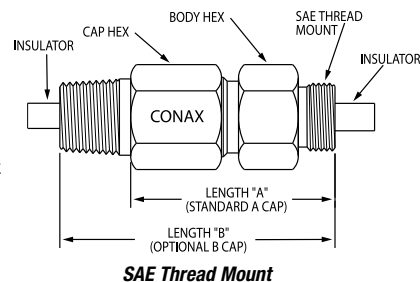
Specifications



Standard NPT



Weld Neck Mount



SAE Thread Mount

TG Series Catalog Number	Wire Gauge	Number of Wires	Length				Hex Size				Pressure Rating							
			Length A		Length B		Body	Cap	Body	Cap	Neoprene		Viton™		Teflon™		Lava	
			IN	MM	IN	MM	IN	IN	MM	MM	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR
Model MTG																		
Standard 1/8" NPT																		
MTG-24-2	24	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG-24-4	24	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG-20-2	20	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG-20-4	20	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG-14-1	14	1	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	8,000	551	8,000	551	8,000	551	8,000	551
Weld Neck Mount (Weld Mount Length 0.39", Diameter 0.405")*																		
MTG(SWM1/S316L)-24-2	24	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG(SWM1/S316L)-24-4	24	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG(SWM1/S316L)-20-2	20	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG(SWM1/S316L)-20-4	20	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG(SWM1/S316L)-14-1	14	1	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	8,000	551	8,000	551	8,000	551	8,000	551
SAE 7/16-20 Thread Mount (formerly MS)																		
MTG(MSE4/-)-24-2	24	2	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	630	9,138	630	9,138	630	9,138	630
MTG(MSE4/-)-24-4	24	4	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	630	9,138	630	9,138	630	9,138	630
MTG(MSE4/-)-20-2	20	2	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	630	9,138	630	9,138	630	9,138	630
MTG(MSE4/-)-20-4	20	4	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	630	9,138	630	9,138	630	9,138	630
MTG(MSE4/-)-14-1	14	1	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	8,000	551	8,000	551	8,000	551	8,000	551
Model TG																		
Standard 1/4" NPT																		
TG-24-2	24	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG-24-4	24	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG-20-2	20	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG-20-4	20	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG-14-1	14	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG with Optional 1/8" NPT																		
TG(PTM1/-)-24-2	24	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM1/-)-24-4	24	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM1/-)-20-2	20	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM1/-)-20-4	20	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM1/-)-14-1	14	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
Weld Neck Mount (Weld Mount Length 0.59", Diameter 0.540")*																		
TG(SWM2/S316L)-24-2	24	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM2/S316L)-24-4	24	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM2/S316L)-20-2	20	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM2/S316L)-20-4	20	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM2/S316L)-14-1	14	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
SAE 7/16-20 Thread Mount (formerly MS)																		
TG(MSE4/-)-24-2	24	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE4/-)-24-4	24	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE4/-)-20-2	20	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE4/-)-20-4	20	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE4/-)-14-1	14	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630

Note: The pressure and torque ratings provided in this catalog apply only when bores are drilled by Conax Technologies. Custom bore sizes and/or a blank body, follower and/or sealant may be provided. Consult factory.

* Weld neck models require lubrication prior to use.

TG Series Catalog Number	Wire Gauge	Number of Wires	Length				Hex Size				Pressure Rating							
			Length A		Length B		Body	Cap	Body	Cap	Neoprene		Viton™		Teflon™		Lava	
			IN	MM	IN	MM	IN	IN	MM	MM	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR
Standard 1/2" NPT																		
TG-20-6	20	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG-20-8	20	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG-18-6	18	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG-18-8	18	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG-14-2	14	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG-14-3	14	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG-14-4	14	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG with Optional 1/4" NPT																		
TG(PTM2/-)-20-6	20	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM2/-)-20-8	20	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM2/-)-18-6	18	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM2/-)-18-8	18	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM2/-)-14-2	14	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG(PTM2/-)-14-3	14	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG(PTM2/-)-14-4	14	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
Weld Neck Mount (Weld Mount Length 0.78", Diameter 0.840")*																		
TG(SWM4/S316L)-20-6	20	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM4/S316L)-20-8	20	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM4/S316L)-18-6	18	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM4/S316L)-18-8	18	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM4/S316L)-14-2	14	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG(SWM4/S316L)-14-3	14	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG(SWM4/S316L)-14-4	14	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
SAE 3/4-16 Thread Mount (formerly MS)																		
TG(MSE8/-)-20-6	20	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE8/-)-20-8	20	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE8/-)-18-6	18	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE8/-)-18-8	18	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE8/-)-14-2	14	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	9,138	630	8,000	551	9,138	630
TG(MSE8/-)-14-3	14	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	9,138	630	8,000	551	9,138	630
TG(MSE8/-)-14-4	14	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	9,138	630	8,000	551	9,138	630
Standard 3/4" NPT																		
TG-20-16	20	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	8,000	551	8,000	551	10,000	689
TG-20-24	20	24	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	N/A	N/A	7,200	496	2,800	193	10,000	689
TG-14-6	14	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	8,000	551	10,000	689
TG-14-8	14	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	10,000	689	10,000	689
TG-8-2	8	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	10,000	689
TG with Optional 1/2" NPT																		
TG(PTM4/-)-20-16	20	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	8,000	551	8,000	551	10,000	689
TG(PTM4/-)-14-6	14	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	8,000	551	10,000	689
TG(PTM4/-)-14-8	14	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	10,000	689	10,000	689
TG(PTM4/-)-8-2	8	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	10,000	689
Weld Neck Mount (Weld Mount Length 0.79", Diameter 1.050")*																		
TG(SWM5/S316L)-20-16	20	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	8,000	551	8,000	551	10,000	689
TG(SWM5/S316L)-14-6	14	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	8,000	551	10,000	689
TG(SWM5/S316L)-14-8	14	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	10,000	689	10,000	689
TG(SWM5/S316L)-8-2	8	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	10,000	689
SAE 7/8-14 Thread Mount (formerly MS)																		
TG(MSE10/-)-20-16	20	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	7,600	524	7,600	524	7,600	524
TG(MSE10/-)-14-6	14	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	7,600	524	7,600	524	7,600	524
TG(MSE10/-)-14-8	14	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	7,600	524	7,600	524	7,600	524
TG(MSE10/-)-8-2	8	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	7,600	524

Note: The pressure and torque ratings provided in this catalog apply only when bores are drilled by Conax Technologies. Custom bore sizes and/or a blank body, follower and/or sealant may be provided. Consult factory.

* Weld neck models require lubrication prior to use.

N/A = Not Applicable

All pressure and torque ratings were determined at 68 °F (20 °C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for fittings with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints.

CAUTION: When sealing on soft, fragile or crushable elements, catalog torques may not apply. When catalog torques are applied, compressed sealants generate considerable forces on the element to be sealed. These forces could result in damaging soft or fragile elements such as coax cables or thin-wall materials. Consult factory for these types of applications.

