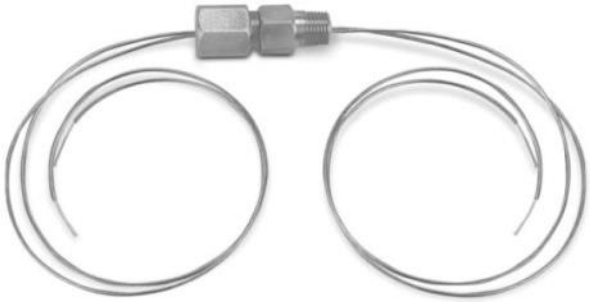
THERMAL Detection

Conax TECHNOLOGIES

Datasheet : 112

NOTE: European specification standard is 316 stainless steel for gland body

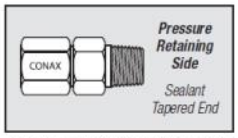
TG24T SERIES ■ SEALING FOR INSULATED LEADWIRE



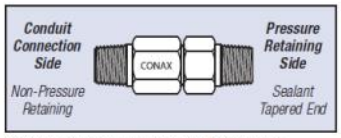
TG24T gland assemblies are provided with a Teflon or Grafoil sealant and 24 AWG solid Teflon insulated thermocouple grade wires or copper wires. These assemblies are ideal for sealing wires exiting compressor bearing housings, pressure vessels, instruments, furnaces and reactors.

- Pressure ratings from vacuum to 8000 psig (551 bar), depending on the gland size.
- Wire Rating: 100 Vdc, 500°F (260°C)

Gland bodies, caps and followers are constructed from 303SST. (For information on alternative body 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. The gland is furnished with 24 inches of wire on each side. Longer wire lengths can be furnished as needed.



Type A has mounting thread only.



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

Conax Technologies can provide numerous options for the management of wires in our sealing assemblies:

- Wire Markers with customer nomenclature for easy wire identification of multiple wires
- Twisting of wires in pairs or other groupings for easier identification and management
- Wire Jackets/Sleeving
- Hot Junctions – exposed or encapsulated

Please consult your Conax Technologies sales engineer for details.

Accessories

The replaceable sealant permits repeated use of the same fitting. Elements can be easily assembled or replaced in the field. To replace the sealant or elements, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Glands are supplied factory lubricated. If glands are cleaned prior to assembly or when reused, the glands should be relubricated to maintain the published torque and pressure ratings. On weld neck models, the heat from the welding process will destroy the lubricant. These models must also be relubricated prior to use. See page 103 for information on our lubrication kit.

To order a Replacement Sealant, order
RS – (Gland) – (Wire Gauge) – (Number of Holes) – (Sealant)

Example: *RS-TG-24T-2-T*

To order a Replacement Packing set, order
RPS – (Gland) – (Wire Gauge) – (Number of Holes) – (Sealant)

Example: *RPS-TG-24T-2-T*

Catalog Numbering System

Gland Style	Wire Gauge & Insulation	Wire Type	Cap Style	Number of Elements Sealed	Sealant	Wire Length Cap Side (in.)	Wire Length Body Side (in.)
MTG TG	24T – 24 AWG solid, Teflon coated	J – Iron/Constantan K – Chromel®/Alumel® T – Copper/Constantan E – Chromel/Constantan CU – Copper Wires CX – Alloy for Tungsten 5% Rhenium/Tungsten 26% Rhenium, 24 AWG only RX/SX – Copper/Copper Nickel alloy N – Nicrosil/Nisil	A – has mounting thread only B – has cap end threaded	2 4 6 8 12 16 24	T – Teflon G – Grafoil		

Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.

Gland Style / Wire Gauge / Wire Type / Cap Style / Number of Elements sealed / Sealant / Wire Length, Cap Side / Wire Length, Body Side

Example: *TG-24T(J)-A2-T, 24/36*

Thermal Detection Limited
Unit 6, Primrose Hill Industrial Estate
Orde Wingate Way
Stockton-on-Tees, England,
TS19 0GA

Fax : +44 (0) 1642 618307
Tel : +44 (0) 1642 602878
Email: sales@thermal-detection.com
Web: www.thermal-detection.com

THERMAL Detection

Conax TECHNOLOGIES

Datasheet : 112

Specifications – TG24T

Catalog Number	Number of Wires	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Teflon PSIG	Pressure Rating Teflon BAR	Pressure Rating Grafoil PSIG	Pressure Rating Grafoil BAR	Torque for Teflon Sealant w/ T/C Wire except Type T (ft-lbs)	Torque for Teflon Sealant w/ T/C Wire except Type T (N-m)	Torque for Grafoil Sealant and Teflon w/ Copper or Type T Wire (ft-lbs)	Torque for Grafoil Sealant and Teflon w/ Copper or Type T Wire (N-m)
MODEL MTG24T																	
Standard 1/8 NPT																	
MTG-24T(X)-2	2	1.38	34.9	1.75	44.5	0.500	0.563	12.70	14.29	3,200	220	4,800	331	20-25	27-34	72-78 in-lbs	8-9
MTG-24T(X)-4	4	1.38	34.9	1.75	44.5	0.500	0.563	12.70	14.29	3,200	220	4,800	331	20-25	27-34	72-78 in-lbs	8-9
Weld Neck Mount (Weld Neck Mount Length 0.39", Diameter 0.405")																	
MTG(SWM1/S316L)-24T(X)-2	2	1.38	34.9	1.75	44.5	0.500	0.563	12.70	14.29	3,200	220	4,800	331	20-25	27-34	72-78 in-lbs	8-9
MTG(SWM1/S316L)-24T(X)-4	4	1.38	34.9	1.75	44.5	0.500	0.563	12.70	14.29	3,200	220	4,800	331	20-25	27-34	72-78 in-lbs	8-9
MODEL TG24T																	
Standard 1/4 NPT																	
TG-24T/(X)-2	2	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
TG-24T/(X)-4	4	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
TG24T(2&4 hole) with Optional 1/8 NPT																	
TG(PTM1/)-24T(X)-2	2	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
TG(PTM1/)-24T(X)-4	4	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
Weld Neck Mount (Weld Neck Mount Length 0.59", Diameter 0.540")																	
TG(SWM2/S316l)-24T(X)-2	2	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
TG(SWM2/S316l)-24T(X)-4	4	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
Standard 1/2 NPT																	
TG-24T(X)-6	6	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
TG-24T(X)-8	8	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
TG24T (6 & 8 hole) with Optional 1/4 NPT																	
TG(PTM2/)-24T(X)-6	6	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
TG(PTM2/)-24T(X)-8	8	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
Weld Neck Mount (Weld Neck Mount Length 0.78", Diameter 0.840")																	
TG(SWM4/S316L)-24T(X)-6	6	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
TG(SWM4/S316L)-24T(X)-8	8	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
Standard 3/4 NPT																	
TG-24T(X)-12	12	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88
TG-24T(X)-16	16	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88
TG-24T(X)-24	24	2.88	73.0	3.63	92.1	1.250	1.500	31.75	38.10	1,200	83	2,800	193	95-100	129-136	70-75	95-102
TG24T (12 & 16 hole) with Optional 1/2 NPT																	
TG(PTM4/)-24T(X)-12	12	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88
TG(PTM4/)-24T(X)-16	16	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88
Weld Neck Mount (Weld Neck Mount Length 0.79", Diameter 1.050")																	
TG(SWM5/S316L)-24T(X)-12	12	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88
TG(SWM5/S316L)-24T(X)-16	16	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88

Note: (X) refers to the wire calibration/type.

** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*

*** Weld neck models require lubrication prior to use.*

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 glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints.

Thermal Detection Limited
Unit 6, Primrose Hill Industrial Estate
Orde Wingate Way
Stockton-on-Tees, England,
TS19 0GA

Fax : +44 (0) 1642 618307
Tel : +44 (0) 1642 602878
Email: sales@thermal-detection.com
Web: www.thermal-detection.com

THERMAL Detection

Conax TECHNOLOGIES

Datasheet : 112

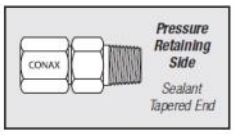
TGF/TGM SERIES ■ SEALING FOR PROCESS TEMPERATURES UP TO 1400°F (760°C)

Transducer gland assemblies with fiberglass-insulated thermocouple wire are specially designed for applications where the sensor wire is exposed to process temperatures reaching up to 900° F (482° C). This assembly is particularly targeted for use with pressure vessels, autoclaves, vacuum and/or inert gas back-filled furnaces with **vessel wall temperatures up to 200° F (93.3° C) and pressures not exceeding 300 psi.**

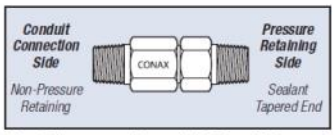
The assembly consists of bonded fiberglass-insulated/silicone impregnated thermocouple grade wires on the body side, with stripped bare wires passing through the Conax-manufactured transducer gland.
An alternative high-temperature fiberglass for Type K wire is also available with temperature capabilities up to 1400° F (760° C).

Sleeved insulation material on the wires exiting the cap side may be fiberglass/silicone impregnated, Teflon® or polyolefin.

Gland bodies, caps and followers are constructed from 303SST. (For information on body 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. These assemblies are offered with Viton or Teflon sealants. Alternative sealants are available. Please consult a Conax Technologies sales engineer for custom needs.



Type A has mounting thread only.



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

Catalog Numbering System

Gland Style	Wire Gauge	Insulation, Body Side	Wire Type	Cap Style	# Elements Sealed	Sealant	Wire Length Cap Side (in.)	Exit Wire Insulation	Wire Length Body Side (in.)
MTG	20 = 20 AWG solid	F – Fiberglass/ Silicone Impregnated – use up to 900° F	J – Iron/Constantan	A – has mounting thread only	2	V – Viton		P – Polyolefin	
TG	24 = 24 AWG solid	M – High Temperature Fiberglass – Magnesia alumina silicate vitreous fiber braid for Type K, 24 AWG standard – use up to 1400° F	K – Chromel/Alumel	B – has cap end threaded	4	T – Teflon		F – Fiberglass	
			T – Copper/Constantan		6			T – Teflon	
			E – Chromel/Constantan		8				
			BX – Copper Wire		16				
			CX – Alloy for Tungsten 5% Rhenium/Tungsten 26% Rhenium, 24 AWG only		24				
			RX/SX – Copper/ Copper Nickel alloy						

Gland Style / Wire Gauge / Insulation, Body Side / Wire Type / Cap Style / Number of Elements Sealed / Sealant / Wire Length, Cap Side / Exit Wire Insulation / Wire Length, Body Side

TGF Example: *TG-24F(J)-A2-T, 24P/36*

TGM Example: *TG-24M(K)-A2-T, 24P/36*

Thermal Detection Limited
Unit 6, Primrose Hill Industrial Estate
Orde Wingate Way
Stockton-on-Tees, England,
TS19 0GA

Fax : +44 (0) 1642 618307
Tel : +44 (0) 1642 602878
Email: sales@thermal-detection.com
Web: www.thermal-detection.com

Datasheet : 112

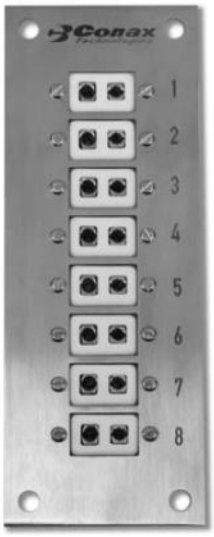
SEALING FOR PROCESS TEMPERATURES UP TO 1400°F (760°C) ■ TGF/TGM SERIES

Specifications – TGF/TGM (TGM available in Type K wire only for applicable models below.)

Catalog Number	Wire Gauge	Number of Wires	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Viton/Teflon PSIG	Pressure Rating Viton/Teflon BAR
MODEL MTG-F												
Standard 1/8 NPT												
MTG-24F(X)-2	24	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	300	21
MTG-24F(X)-4	24	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	300	21
MTG-20F(X)-2	20	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	300	21
MODEL TG-F												
Standard 1/4 NPT												
TG-24F(X)-2	24	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	300	21
TG-24F(X)-4	24	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	300	21
TG-20F(X)-2	20	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	300	21
Standard 1/2 NPT												
TG-20F(X)-14-2	20	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	300	21
TG-20F(X)-14-4	20	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	300	21
TG-20F(X)-6	20	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	300	21
TG-20F(X)-8	20	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	300	21
Standard 3/4 NPT												
TG-24F(X)-16	20	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	300	21
TG-24F(X)-24	20	24	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	300	21

Note: (X) refers to the wire calibration/type.
** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*
*** Weld neck models require lubrication prior to use.*
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 glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints.
For proper assembly of these sealing glands, see the Assembly Instructions provided on page 114.
Per ASTM E230-03, the suggested temperature range for BX, CX, and RX/SX extension grade wire is 32°F to 400°F (0°C to 200°C).

High Temperature Jack Panel Assembly (JP) 1200°F (649°C) Maximum Rating



Conax Technologies' High Temperature Jack Panel Assembly (JP) is designed for mounting directly inside virtually any industrial furnace or autoclave.

It provides the ideal complement to our TGF high temperature feedthrough assemblies in that it provides a rugged platform to securely and efficiently connect internally mounted thermocouple plugs when changing out production loads.

The Jack Panel Assembly comes with 2-12 openings. Visit our website **www.conaxtechnologies.com** to learn more about this product.

Features

- Non out-gassing stainless steel and ceramic components
- Vertical or horizontal mounting options
- Laser marked plug locations with your logo
- Supplied unassembled for field assembly of TC wires
- Supplied with brackets and bracket hardware

Application Ideas

- Composite curing autoclaves
- Heat treating furnaces
- Vacuum furnaces

Thermal Detection Limited
Unit 6, Primrose Hill Industrial Estate
Orde Wingate Way
Stockton-on-Tees, England,
TS19 0GA

Fax : +44 (0) 1642 618307
Tel : +44 (0) 1642 602878
Email: sales@thermal-detection.com
Web: www.thermal-detection.com