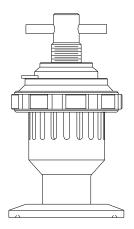


### Validation Thermocouple Entry Gland for Pharmaceutical Autoclaves

# Product Code: TCEG/1 TCEG/2







#### Datasheet: 022

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

## **Description:**

Conventional methods of chamber entry for validation thermocouples allow only limited numbers of thermocouples to be used. They are relatively time consuming in their application and frequently prone to unacceptable leakage.

The TCEG/1 addresses both of these problems by providing individual slots allowing for 18 separate thermocouples to sealed with a rapid locking and securing mechanism.

The TCEG/2 uses a three part sealant arrangement which allows up to 36 individual thermocouples to be sealed.

By using two TCEG's and a Tee or Y tube extension with tri-clover clamps, up to 72 thermocouples can be sealed. In addition, tri-clover reducers (TCR) or adaptors (PTA) can be used to connect the TCEG to a range of different autoclave process connections.

Specification:					
	BODY: machined from 316L stainless steel, round bar stock with bore finished to 0.5 Ra (25µ inch).				
MATERIAL	GLAND BONNET: cap in CZ112 marine brass and compression nose in CZ121 brass, both machined from round bar stock, with spring loaded quick release locking mechanism in 316L stainless steel.				
	SEALANTS: medical grade silicone and in accordance with FDA 21 CFR 177-2600. To USP Class VI on application.				
PROCESS CONNECTION	from 1" through to 3" Tri-clover flange as standard or with 1" screwed BSPT or NPT connection.				
CAPACITY	TCEG/1: 18 thermocouples TCEG/2: 36 thermocouples				
THERMOCOUPLE	4.0mm wide slots				



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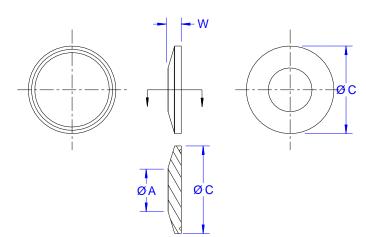
### Validation Thermocouple Entry Gland for Pharmaceutical Autoclaves

## **Mounting Options for TCEG:**

The standard TCEG entry gland is supplied with a Tri-clover flange in 316 grade stainless steel and there are four optional flange sizes available, from 1" up to 3".

It should be remembered that when selecting the flange size, the nominal flange size is not the same as the distance across the flange diameter, as shown under dimension 'C'.

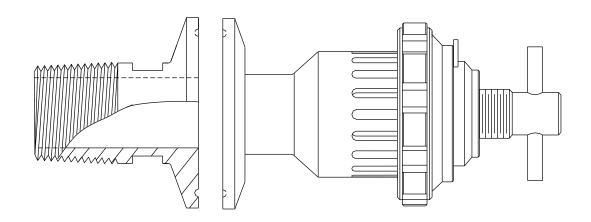
When needing to connect to an existing Tri-clover flange that is larger than 3", a reducing adapter can be supplied.



Nominal Size		Dimensions (mm)			Mass
Imperial	Metric	Face Ø A	Flange Ø C	Width W	(Kg)
1" - 1½"	25	24.5	50.5	7.0	0.08
2"	50	39.0	64.0	7.0	0.14
2½"	n/a	53.5	77.5	7.0	0.21
3"	65	66.5	91.0	7.0	0.30

Where there is only the provision of a screwed connection entry point on an autoclave chamber, then the alternative TCEG mounting arrangement shown below can be supplied.

The adaptor has either a 1" NPT or 1" BSPT thread form and a 1"- $1\frac{1}{2}$ " Tri-clover flange all in 316 grade stainless steel. A blank Tri-clover flange, Teflon© seal and safety clamp can be supplied for sealing off the adaptor when not in use.



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## Validation Thermocouple Entry Gland for Pharmaceutical Autoclaves

#### **Validation Accessories:**



Type T Thermocouple Wire



Pre-cut Validation Thermocouples



Validation Thermocouple Wires in a Loom



Y Piece Extension



Tee Piece Extension



Clamps, Tri-clover blanks, gaskets



Validation Clamp



**Bottle Cap Gland** 



Ampoule Holders

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