

Validation Thermocouples in Looms

Product Code: VTFP-LOOM



Description:

The preferred method of temperature measurement for pharmaceutical validation purposes is the Copper/Constantan type 'T' thermocouple.

A loom allows for easy placement and handling of a large number of long thermocouples when mapping a chamber.

The loom is produced by bundling and securing pre-cut thermocouples, number and length as specified by the customer. The loom is reeled for ease of transportation to the customers site.

Once the loom and hot junctions are in place, the cable ties can be removed by the engineer.

The main wire types are:

- PFA Extruded : Smooth, easy to clean.
- PTFE Lapped: Tightly wrapped insulation minimises capillary action.
- Kapton®: For high temperature applications such as depyrogenation.

Weep holes can be specified for PFA insulated wires to counter any condensate travelling up the inner jacket of the thermocouple by capillary action.

Encapsulation of the hot junction also reduces the incident of condensate penetration and further ensures that the rate of oxidisation of the thermocouple hot junction is reduced. For Kapton® wire a thin wall stainless steel tip can be specified for added hot junction protection.

		Available Optional Extras						
Insulation Material	Conductor Format	Max Temp °C	Bare Hot Junction	Teflon Encapsulated Hot Junction	316 St St Tip over Hot Junction	Identification Both Ends of TC	Weep hole	Mini Plug
PFA Extruded	1/0.3mm	250°C	V	✓	V	heat shrink	V	>
	1/0.5mm	250°C	~	✓	~	heat shrink	•	>
	3/0.2mm	250°C	~	~	~	heat shrink	V	>
	7/0.2mm	250°C	~	~	~	heat shrink	Y	>
	13/0.2mm	250°C	~	~	~	heat shrink	Y	~
PTFE Lapped	1/0.3mm	250°C	~	~	~	heat shrink	×	~
	1/0.5mm	250°C	~	✓	~	heat shrink	×	>
Kapton®	1/0.3mm	300°C*	~	×	•	heat shrink or st st. tag	×	•
	7/0.2mm	300°C*	~	×	•	heat shrink or st st. tag	×	>

^{*} Kapton® can go to 350°C for short periods

Datasheet: 021

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