

**Design Questionnaire For Electrically Trace Heated Hose**



**HOSE SPECIFICATION**

Hose Type: \_\_\_\_\_  
Nominal Bore: \_\_\_\_\_ [inches]      Hose Length: \_\_\_\_\_ [1 - 10 meters]  
End Fitting One: \_\_\_\_\_  
End Fitting Two: \_\_\_\_\_

**WORKING CONDITIONS**

Maximum Working Pressure: \_\_\_\_\_ Bar      Vacuum Requirements: \_\_\_\_\_ mBar  
Please state minimum bend radius required \_\_\_\_\_

**NOTE: Minimum bend radii of ETH hoses are three times and not twice that of the standard GP+SS hoses featured in our product literature.**

Fluid To Be Transferred: \_\_\_\_\_

(Please supply Data Sheet if possible)

Ambient Temperature: \_\_\_\_\_ °C Min.      \_\_\_\_\_ °C Max.

Location:      Indoors       Outdoors

Will the hose be subject to external corrosion from chemicals, water, etc?      YES       NO

If Yes please describe: \_\_\_\_\_  
\_\_\_\_\_

Will the hose be subject to Abrasion or Mechanical abuse?      YES       NO

Will the hose be supported or hanging from End Fittings?      YES       NO

Are there any maintenance requirements? (E.g. Steam Cleaning)      YES       NO

If Yes please describe: \_\_\_\_\_  
\_\_\_\_\_

Brief description of the exact duty of the hose: (E.g. Tanker Off Loading)

\_\_\_\_\_  
\_\_\_\_\_

**HEATING REQUIREMENTS**

*Self Regulating Heater*

Maintain Temperature: \_\_\_\_\_ °C

Min. Startup: \_\_\_\_\_ °C      Max. Operating: \_\_\_\_\_ °C

Max. Exposure: \_\_\_\_\_ °C      Max. Allowable: \_\_\_\_\_ °C

Supply Voltage:      220-240v       110-120v       \*

What is the required length of external heater leads? (default 2) \_\_\_\_\_ [m]

Which end of hose is to have the Electrical Connections?      End 1       End 2

\* must use at least 30 Amp circuit breaker

**AREA REQUIREMENTS**

Area Classification            Non-Hazardous

N/A      Zone 0      In which an explosive Gas/Air mixture is continuously present for long period.

     Zone 1      In which an explosive Gas/Air mixture is likely to occur in normal operation.

     Zone 2      In which an explosive Gas/Air mixture is not likely to occur in normal operation.

**AREA REQUIREMENTS (continued)**

Temperature Classification      T1 - 450°C       T2 - 300°C       T3 - 200°C

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(if area is hazardous)      T4 - 135°C       T5 - 100°C       T6 - 85°C

Are there any unusual external conditions that could create a Potentially Explosive Atmosphere or fire risk due to an ignition source being present? For example, airborne dust or flammable vapours.

Please state: \_\_\_\_\_  
\_\_\_\_\_

Please state the gas grouping: (further gases may be identified in Table 7 BS 5345: Part 1)

	Gas Group	Representative Gas	T-Class	Ignition Temperature
<input type="checkbox"/>	I	Methane	T1	595°C
<input type="checkbox"/>	IIA	Propane	T1	470°C
<input type="checkbox"/>	IIB	Ethylene	T2	425°C
<input type="checkbox"/>	IIC	Hydrogen	T1	560°C

**CONTROL REQUIREMENTS**

It may be necessary to use sensors and controllers with self-regulating heaters when very tight temperature limits are required. *Aflex will advise of this if applicable*

Controllers are supplied with PT100 (RTD) temperature sensors connected to the hose via flexible conduit.

If Hazardous Area conditions apply, it is possible to supply Special Hazardous Area Controllers for use with certain types of heaters. However, it is preferable that Standard Controllers be placed outside the Hazardous Area in a Non-Hazardous location if possible.

Are cold leads required?      Yes       No

Is a Temperature Controller required?      Yes       No

Please indicate what kind of sensor is required (if any)  
PT-100       K-Type       J-Type

Additional information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

QUESTIONNAIRE COMPLETED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
POSITION: \_\_\_\_\_

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