



RAYCHEM

Circuit Label Marking

Instructions for PI-LABEL-EX, PI-LABEL-NH & LAB-EX-FXT

Failure to follow these instructions could invalidate the warranty or conflict with hazardous area regulations.

CIRCUIT I.D. :

- Fill out unique circuit identification in accordance with the system or design documentation.

HEATING CABLE:

- **nVent RAYCHEM XPI- / RAYCHEM FMT- / RAYCHEM FHT- :** Fill out the correct and full reference of the installed heating cable. (e.g.nVent RAYCHEM XPI-F-7, XPI-1000, XPI-S-4.4, 10FMT2-CT, 20FHT4-CT, ...) This information is printed every meter on the outer jacket of the heating cable or can be found in the design documentation.
- Verify whether the cable print complies with the design documentation. (e.g. the standard report 'Series Cable Tag List' generated by the trace heating software nVent RAYCHEM TraceCalc Pro)
- **r_{spec} :** Fill out the nominal specific resistance of the heating cable. This can be found in the cable reference. (e.g. XPI-600 is 600Ohms/km) Not applicable for FMT & FHT heaters.
- **Length:** Specify the installed length. In case of a tri-phased system, fill out the installed length of only one of the three segments.
- **U_{max} / P_{max} / I_{max} :** Fill out the maximum supply voltage, maximum wattage per meter and maximum current drawn by the trace heating system as indicated in the design documentation.
(e.g. in the standard report 'Series Cable Tag List' generated by the trace heating software TraceCalc Pro)
In case of a triphased system, fill out the voltage across one of the trace heating segments and the current drawn by one phase.
- **Single-Phase:** In case of a single phase system, tick the appropriate box. Not applicable for FMT & FHT heaters.
- **Three-phase:** In case of a tri-phase system, tick appropriate box of the actual configuration, star or delta.
- Not applicable for FMT & FHT heaters.

AREA CLASS:

- **Zone:** Tick the relevant box(es) applicable to the classification of the trace heating installation as per the design or system documentation. (e.g. the standard report 'Series Cable tag List' generated by the trace heating software TraceCalc Pro)
- **T-Rating or AIT:** Fill out the temperature classification rating

of the area or specify the auto ignition temperature (AIT) in °C as in the design or system documentation.. (e.g. the standard report 'Series Cable Tag List' generated by the trace heating software TraceCalc Pro)

DESIGN METHOD:

- **Stabilized design:** Tick this box if the design has been performed in accordance to the rules of stabilized design as per IEC/EN 60079-30-1 and IEC/EN 60079-30-2. Refer to the design or system documentation for this info. (e.g. the standard report 'Series Cable tag List' generated by the trace heating software TraceCalc Pro)
- **Control limited design:** Tick this box if the design has been performed in accordance to the rules of stabilized control limited design as per IEC/EN 60079-30-1 and IEC/EN 60079-30-2. Refer to the design or system documentation to obtain this information. (e.g. the standard report 'Series Cable tag List' generated by the trace heating software TraceCalc Pro)
- **Safety limiter:** Tick this box if a Safety Lock out thermostat will be used to switch of the trace heating when the associated temperatures could cause the trace heating system to exceed the max. allowed temperatures defined by the area classification parameters.

DESIGN RESULTS:

- **Sheath ref. T°:** Fill out the max. surface temperature that was used as a basis to calculate the sheath temperature.
For a stabilized design, this temperature is dependent on the total trace heating installation (insulation, traced object dimensions and material, environmental and process parameters ...). For a control limited design, this temperature has been self-defined in accordance with process and control specifications. Therefore always refer to the design documentation to obtain this temperature. (e.g. the standard report 'Series Cable tag List' generated by the trace heating software TraceCalc Pro)
- **Max. design sheath T°:** Fill out the max. sheath temperature of the heating cable associated with the Sheath reference temperature.
This value is cable type and usage dependent, therefore always refer to the design or system documentation to obtain this temperature. (e.g. the standard report 'Series Cable tag List' generated by the trace heating software TraceCalc Pro)

⚠ WARNING:

Do not install where the maximum sheath temperature exceeds the auto ignition temperature or T-rating of the hazardous atmospheres or the equipment to be traced. Refer to specific installation instructions of the heating cable and individual components used. Any changes to the operation or installation may require a re-design of the entire system to ensure hazardous area compliance. Ensure that the tag reflects actual installation data.

⚠ CAUTION:

Complete the label with the required data using a permanent marker. (Tip: Use marker type MP-1 BRADY or equivalent)
Attach the label to the cold lead or heating cable, next to the junction box, by means of the cable tie included in the kit.

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