TraceCalc© Pro Version 2.10
Readme File

Welcome to TraceCalc© Pro, the industry standard for heat-tracing design. Pentair Thermal Management is devoted to delivering quality software and support to make this the best design tool available in the industry today. Your feedback is very important to us. Please feel free to contact us at PTM-Info@pentair.com with questions, issues, or suggestions for this program.

IMPORTANT: Please check our web site at www.pentairthermal.com periodically to obtain the latest TraceCalc Pro news and updates.

This Readme covers the following topics:

1. **Main New Features of Version 2.10**
2. **Known Issues and Limitations**
3. **System Requirements**
4. **Installation**
5. **Register for a Validation Code**
6. **Technical Support**
7. **Change History** (new features and fixed issues)

1) Main new features of version 2.10

- A new Polymer Insulated (PI) series hating cable, Raychem XPI-F, has been introduced for the European and Asian (IEC) markets. The new product is a new series heating cable designed for frost protection and moderate maintain temperature applications. It is fully compatible with all existing XPI components and approved for use in hazardous area (IEC regions). For more information on this product, consult our website www.pentairthermal.com or contact your local representative.

- The Raychem Raystat-Control-10 controller was erroneously set up with an incorrect number of internal switch poles. This prevented the possibility of direct connection for the heat tracing cable. This has been corrected and now the Raychem Raystat-Control-10 fully supports direct connection of the heating cable.

- The current rating for the new line sensing thermostat Raychem ETS-05 for the North American market has been set to 24A.

- Designs for the North American market in which a local controller is desired, will now per default offer a solution that allows for direct connection of the heating cable, if this option is possible. If this solution is not desired and all connections to a power supply are desired by means of a junction box, the option 'use direct connection when possible' should be unchecked. Controllers that allow for direct connection are Raychem JBS-100-ECP-A, Raychem ETS-05-L1-A and Raychem ETS-05-L2-A.

- When checking the option 'use local controller' for design for the European and Asian Market (IEC), per default the option 'use direct connection when possible' will also be activated. If however this is not desired and all connection to power supply should be by means of a junction box, the option 'use direct connection when possible' should be unchecked.

2) Known Issues and Limitations

- **Notice for Windows XP users outside of North America:** There is a known Windows issue that causes column totals in the Line List Summary Report to be summed and displayed incorrectly; Microsoft has released a Windows Update that will correct this issue. You may find information on the issue and the downloadable Update by searching for Knowledge Base article 951978 on the Microsoft website.

- For designs with European single conductor, polymer insulated (PI) series heater cables, the connection components selected by TraceCalc Pro have the following limitations:

    a. For CS-150-xx-PI connection kits, the specific crimp size is not indicated in the bill of material. You will need to manually select the correct crimp based on data presented in the latest Technical Data Book.

    b. For Power Tee or Power Splice configurations, a JB-EX-20 junction box will be selected by TraceCalc Pro; a JB-EX-21 should be substituted instead.

    c. The last leg of a multi-segment Parent/Child design will include two single conductor segments and a junction box allowed for series connection of the two segments. At this point, TraceCalc Pro does not support a single looped cable as the last segment.

    d. TraceCalc Pro will not support the full application range of the universal connection and splice kit for PI heating cables, reference: CS-150-UNI-PI. Its maximum use temperature has been limited to 120℃ for simplification of the selection algorithms. However; if the user plans to use the kit anyway, it is important to verify the maximum allowed wattages for higher temperatures as detailed in our installation instructions for the kit (ref. Install-064). In case of doubt, please contact Pentair Thermal Management or use the kit CS-150-2.5-PI instead.

- For European series cable designs, TraceCalc Pro will propose a bill of materials for which some components have the quantity set to zero. These are small electrical items required to create the desired electrical configuration and are compatible with the proposed junction box. Users should adjust the quantities of these components to ensure that the requested electrical configuration can be realized. Refer to the individual datasheets of the proposed junction boxes for more information on the exact contents and electrical limitations.

3) System Requirements

The TraceCalc Pro installation package no longer supports installation on Windows XP. Contact Pentair Thermal Management for more information.

Minimum Requirements:
- Microsoft Windows 7 or later, Server 2008 or later
- At least 25 MB of free hard disk space
- **Internet Explorer 6.0 or later**
- Adobe Acrobat Reader 5.0 or later
- Recommended: 500 MHZ, 2 GB RAM

4) Installation

The program can be downloaded from our website www.pentairthermal.com/tracecalcpro, after downloading, just start the TraceCalc Pro 2.10 Setup.exe program and follow the instructions.

During installation, Setup will detect if an earlier version has been installed. If you have an

earlier version installed, then Setup will uninstall it before continuing. All of your application settings will be retained. Old projects will not be removed and can be used with TraceCalc Pro 2.10.

5) Register for a Validation Code

When you install the TraceCalc Pro software, you are getting a trial version which will only function for 30 days, unless it is registered and a valid registration code is entered.

The first time you launch TraceCalc Pro, you will be prompted to register. Once you register, we will send you the validation code. To enter the code, launch TraceCalc Pro, click **Register** on the main menu and type the code in the pop-up window.

6) Technical Support

For help using TraceCalc Pro, first check the extensive on-line help in the program.

- To contact your local Pentair Thermal Management representative, visit www.pentairthermal.com, click on the 'Support' menu, then choose 'Where to Buy'

- To view Frequently Asked Questions, visit www.pentairthermal.com, click on the 'Support' menu, then choose 'Frequently Asked Questions (FAQ)'

- To contact Technical Support, send email to PTM-Info@pentair.com and indicate your country and preferred language.

- To download the latest version of TraceCalc Pro or the user manual, go to the TraceCalc Pro page at http://www.pentairthermal.com/tracecalcpro

Thanks for reporting any issues to us.

7) Change history

Version 2.10

New	A new Polymer Insulated (PI) series heating cable, Raychem XPI-F, has been introduced for the European and Asian (IEC) markets.
New	The current rating for the new line sensing thermostat Raychem ETS-05 for the North American market has been set to 24A.
New	When checking the option 'use local controller' for design for the European and Asian Market (IEC), per default the option 'use direct connection when possible' will also be activated.
New	Designs for the North American market in which a local controller is desired, will now per default offer a solution that allows for direct connection of the heating cable, if this option is possible.
Fixed	When doing calculations with Mineral insulated (MI) heating cables, the software would under very specific circumstances give an incorrect voltage in the product ordering string. However, all power and sheath temperature calculations and validations were performed using the correct voltage, it was only the order text string in the reports that could indicate an incorrect voltage.

Fixed	The Raychem Raystat-Control-10 controller was erroneously set up with an incorrect number of internal switch poles which prevented it to be used for direct connection.
Fixed	The bill of materials had an extra sensor when an NGC-20-CL-E was used (EUR only).
Fixed	Mineral-insulated heaters were not being allowed in dust atmospheres (Zones 21 and 22) (EUR only).
Fixed	Two extra pipe straps were sometimes added to the bill of materials when a heater was directly connected to a controller.
Fixed	The unconditional T-rating of a child, if forced to use same heater as parent, is validated against the parent's auto-ignition temperature (T-rating).
Fixed	The heater minimum start-up temperature is not validated against a child line's start-up temperature if the child is forced to use the same heater as the parent.
Fixed	User cannot force a D configuration when designing MI cables (EUR only).
Fixed	PyroFLX cold lead design should not be allowed under US approvals (NAM only).
Fixed	An extra pipe strap was added to the bill of materials when JBS-100-ECW-A was selected (NAM only).