The XL-Trace system provides freeze protection for metal and plastic water pipes in commercial, institutional, and residential construction.

The XL-Trace family of heating cables is ideal for use on:
- Cooling tower lines
- Sprinkler systems
- Fire stand pipe and drain pipes
- Exposed plumbing systems
- Metal and plastic pipes

The heating element in the XL-Trace heating cable consists of a continuous core of conductive polymer extruded between two copper bus wires. As current flows through the core, the XL-Trace heating cable regulates its own heat output in response to pipe temperature changes.

This self-regulating feature eliminates hot spots and results in better temperature control and exceptionally long cable life. More than 300 million feet of Raychem self-regulating heating cable have been installed worldwide since 1970.

Low total installed cost
The XL-Trace heating cable’s parallel circuitry allows it to be cut to the exact length required, with no wasted cable. Its flexibility allows it to be wrapped around complex fittings and valves and overlapped without overheating plastic pipes. No thermostat is necessary. All of these characteristics simplify and streamline the design of a heat-tracing system. Installation is quick and simple.

Low total operating cost
Building operators are assured of optimal energy efficiency and low maintenance costs when an XL-Trace system is specified.

Self-regulation makes the XL-Trace heating cable an energy miser. Its conductive core supplies more heat as the temperature drops, and reduces its heat output as the temperature rises—and this is done automatically, at every point along the cable’s length.

The same features that make an XL-Trace system easy to install the first time also simplify additions or changes to the system during building renovations.
**Product construction**

1. Copper bus wire (16 AWG)
2. Self-regulating conductive core
3. Modified polyolefin jacket
4. Tinned copper braid
5. Modified polyolefin jacket (-CR) or optional fluoropolymer jacket (-CT)

**Product ratings**

<table>
<thead>
<tr>
<th>Catalog number</th>
<th>5XL1-CR/CT</th>
<th>5XL2-CR/CT</th>
<th>8XL1-CR/CT</th>
<th>8XL2-CR/CT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal rating at 50°F</td>
<td>5 W/ft</td>
<td>5 W/ft</td>
<td>8 W/ft</td>
<td>8 W/ft</td>
</tr>
<tr>
<td>Service voltage</td>
<td>120 Vac</td>
<td>208 Vac*</td>
<td>120 Vac</td>
<td>208 Vac*</td>
</tr>
<tr>
<td>Maximum circuit length</td>
<td>250 ft</td>
<td>450 ft</td>
<td>190 ft</td>
<td>350 ft</td>
</tr>
</tbody>
</table>

*Product approval for 208–277 Vac operation.

**Thermal output ratings**

Power output on insulated metal pipes at 120 Vac and 208 Vac:

A 5XL1-CR and 5XL1-CT  
5XL2-CR and 5XL2-CT

B 8XL1-CR and 8XL1-CT  
8XL2-CR and 8XL2-CT

**System design**

Be sure to consult the XL-Trace System Application and Design Guide (H55838) for information regarding design, heating cable and component selection, and circuit breaker sizing.

Raychem and the 1996 National Electrical Code Article 427 require ground-fault equipment protection on each heating cable branch circuit. To reduce the risk of fire caused by damage or improper installation, circuit breakers such as Square D QO-EPD and QOB-EPD or equivalent, with a 30-mA trip level, should be used. Use a TraceGuard 277 GFEPD for 277-volt applications, up to 50 amps. Alternative designs providing comparable levels of ground-fault protection may also be acceptable.

A grounded metal braid is also required.

For technical assistance, call Raychem at (800) 545-6258.

**System components**

<table>
<thead>
<tr>
<th>Component</th>
<th>Catalog number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power connection kit</td>
<td>RayClic-PC</td>
</tr>
<tr>
<td>Tee kit</td>
<td>RayClic-T</td>
</tr>
<tr>
<td>Splice kit</td>
<td>RayClic-S</td>
</tr>
<tr>
<td>End seal kit</td>
<td>RayClic-E</td>
</tr>
<tr>
<td>Glass tape</td>
<td>GT-66</td>
</tr>
<tr>
<td>Electric-Traced label</td>
<td>ETL</td>
</tr>
</tbody>
</table>

**Approvals**

- UL 718K Pipe Heating Cable
- FM APPROVED DESIG. 3A, 3B, 3C
- ISO 9001

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