Electrical freeze protection for very long pipelines in both nonhazardous and hazardous locations.

VLBTV provides basic freeze protection and low-temperature maintenance for longline applications. The VLBTV heating cables can withstand continuous exposure to temperatures up to 150°F (65°C), and are configured for use in hazardous locations or in areas exposed to corrosives. VLBTV provides very long circuit length capability. It can be used for continuous circuit lengths of 1,000 (305 m) to 12,000 feet (3,660 m), powered from a single source. VLBTV is especially well suited for tracing long pipelines containing temperature-sensitive fluids.

**Heating cable construction**

- Modified polyolefin jacket
- Tinned-copper braid
- Fluoropolymer outer jacket
- Self-regulating core
- Nickel-plated copper bus wires (10 AWG)

**Application**

<table>
<thead>
<tr>
<th>Area classification</th>
<th>Nonhazardous and hazardous locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traced surface type</td>
<td>Metal</td>
</tr>
<tr>
<td>Chemical resistance</td>
<td>Organic and aqueous inorganic chemicals and corrosives</td>
</tr>
</tbody>
</table>

**Temperature Rating**

| Maximum continuous exposure      | 150°F (65°C)                        |
| Maximum intermittent exposure    | 185°F (85°C)                        |
| Minimum installation temperature  | –40°F (–40°C)                        |

**Temperature ID Number (T-Rating)**

T6, 185°F (85°C)
Temperature ID numbers are consistent with North America national electrical codes.

**Supply Voltage**

- 480–600 Vac 3-Phase, 4-Wire

**Circuit Length**

<table>
<thead>
<tr>
<th>480 Vac 3-Phase, 4-Wire</th>
<th>600 Vac 3-Phase, 4-Wire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum length</td>
<td>1,000 ft (305 m)</td>
</tr>
<tr>
<td>Maximum length</td>
<td>10,000 ft (3,050 m)</td>
</tr>
</tbody>
</table>

**Design and Installation**

For proper design and installation of a VLBTV system and connection kit selection, contact Tyco Thermal Controls. Literature is available via the Tyco Thermal Controls Web site, www.tycothermal.com.
### Nominal Power Output Rating

**Power output on insulated metal pipes**

**Circuit length**

- 1,000 ft
- 2,000 ft
- 3,000 ft
- 4,000 ft
- 5,000 ft
- 6,000 ft
- 7,000 ft
- 8,000 ft
- 9,000 ft
- 10,000 ft
- 11,000 ft
- 12,000 ft

W/m = 3.28 x W/ft

°C = \( \frac{5}{9} (°F–32) \)

* For power output inside U-shaped channels consult Tyco Thermal Controls.

### Approvals

**Hazardous Locations**

- Class I, Div. 2, Groups B, C, D
- Class II, Div. 2, Groups F and G
- Class III

### Connection Kits

These connection kits must be used to ensure proper functioning of the product and compliance with warranty, code, and approvals requirements: VBK-System, VBK-S (splice).