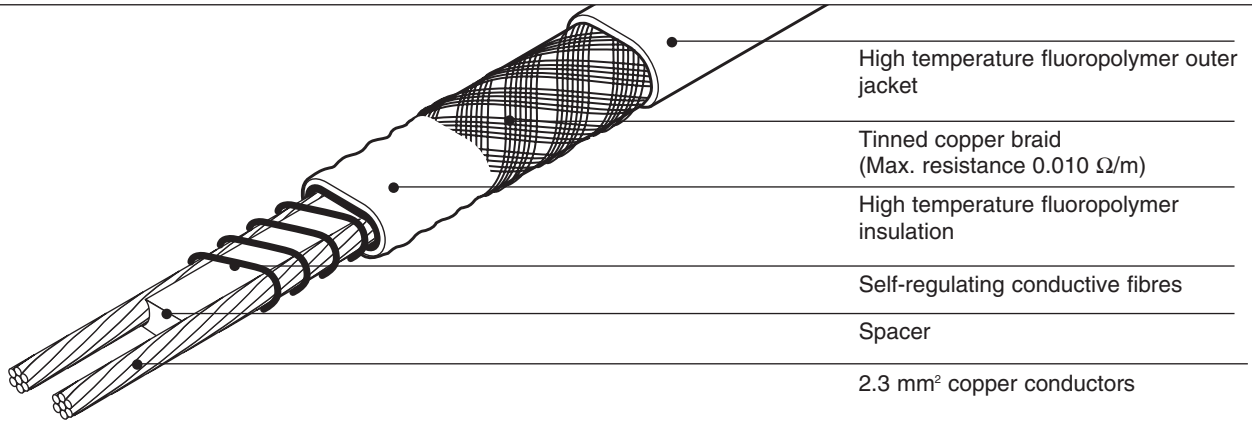
## Self-regulating heating cables

Electrical trace-heating for process temperature maintenance applications up to 120°C which may be subject to steam cleaning.

The XTV family of self-regulating, parallel circuit heating cables is used for process temperature maintenance of pipes and vessels.

It can also be used for frost protection of large pipes and for applications requiring high temperature exposure capability.

**Heating cable construction**

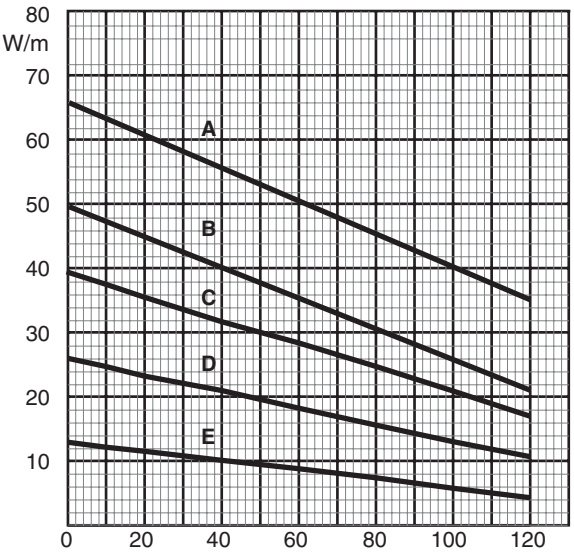



| | |
|---|---|
| **Application** | |
| Area classification | Hazardous, Zone 1, Zone 2 (Gas), Zone 21, Zone 22 (Dust)<br>Ordinary |
| Traced surface type | Carbon steel<br>Stainless steel<br>Painted or unpainted metal |
| Chemical resistance | Organics and corrosives<br>For aggressive organics and corrosives consult your local Tyco Thermal Controls representative |
| **Supply voltage** | 230 Vac (Contact your local Tyco Thermal Controls representative for data on other voltages) |
| **Approvals** | The XTV heating cables are approved for use in hazardous areas by PTB and by PTB and Baseefa 2001 Ltd.<br>II 2 G/D EEx e(m) II T4/T3/250°C(T2) IP66 T130°C, T195°C, T250°C PTB 98 ATEX 1105 X<br>II 2 GD EExe II T3 and 240°C (T2) BAS98ATEX2336X<br>The XTV heating cables are approved by DNV for use on ships and mobile off shore units. DNV Certificate No. E-5122<br>They are also VDE approved. |
| **Specifications** | |
| Maximum exposure temperature (continuous power on) | 120°C |
| Max. exposure temperature (intermittent power on and off) | 215°C (20 bar saturated steam)<br>Maximum cumulative exposure 1000 hours |
| Temperature classification | T2: 20XTV2-CT-T2<br>T3: 4XTV2-CT-T3, 8XTV2-CT-T3, 12XTV2-CT-T3, 15XTV2-CT-T3<br>in accordance with European Standard EN 50 014 |
| Minimum installation temperature | –60°C |
| Minimum bend radius | at 20°C: 13 mm<br>at –60°C: 51 mm |

## Thermal output rating

Nominal power output at 230 Vac on insulated steel pipes

**A 20XTV2-CT-T2**
**B 15XTV2-CT-T3**
**C 12XTV2-CT-T3**
**D 8XTV2-CT-T3**
**E 4XTV2-CT-T3**




| | 4XTV2-CT-T3 | 8XTV2-CT-T3 | 12XTV2-CT-T3 | 15XTV2-CT-T3 | 20XTV2-CT-T2 |
|---|---|---|---|---|---|
| **Nominal power output (W/m at 10°C)** | 12 | 25 | 38 | 47 | 63 |
| **Product dimensions (nominal) and weight** | | | | | |
| Thickness (mm) | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 |
| Width (mm) | 11.7 | 11.7 | 11.7 | 11.7 | 11.7 |
| Weight (g/m) | 170 | 170 | 170 | 170 | 170 |

**Maximum circuit length based on type 'C' circuit breakers according to EN 60898**

| Electrical protection sizing | Start-up temperature | Maximum heating cable length per circuit (m) | | | | |
|---|---|---|---|---|---|---|
| 16A | –20°C | 145 | 90 | 65 | 55 | 40 |
| | +10°C | 170 | 105 | 75 | 60 | 45 |
| 25A | –20°C | 225 | 145 | 105 | 85 | 65 |
| | +10°C | 245 | 165 | 120 | 95 | 70 |
| 32A | –20°C | 245 | 175 | 135 | 105 | 80 |
| | +10°C | 245 | 175 | 140 | 125 | 90 |
| 40A | –20°C | 245 | 175 | 140 | 135 | 105 |
| | +10°C | 245 | 175 | 140 | 135 | 105 |

The above numbers are for circuit length estimation only. For more detailed information please use the Tyco Thermal Controls TraceCalc software or contact your local Tyco Thermal Controls representative.
Tyco Thermal Controls requires the use of a 30 mA residual current device to provide maximum safety and protection from fire. Where design results in a higher leakage current, a maximum 300 mA residual current device may be used. All safety aspects need to be proven.

**Ordering details**

| Part description | 4XTV2-CT-T3 | 8XTV2-CT-T3 | 12XTV2-CT-T3 | 15XTV2-CT-T3 | 20XTV2-CT-T2 |
|---|---|---|---|---|---|
| Part No. | 002735-000 | 325059-000 | 427089-000 | 214999-000 | 849015-000 |

**Components** Tyco Thermal Controls offers a full range of components for power connections, splices and end seals. These components must be used to ensure proper functioning of the product and compliance with electrical requirements.