



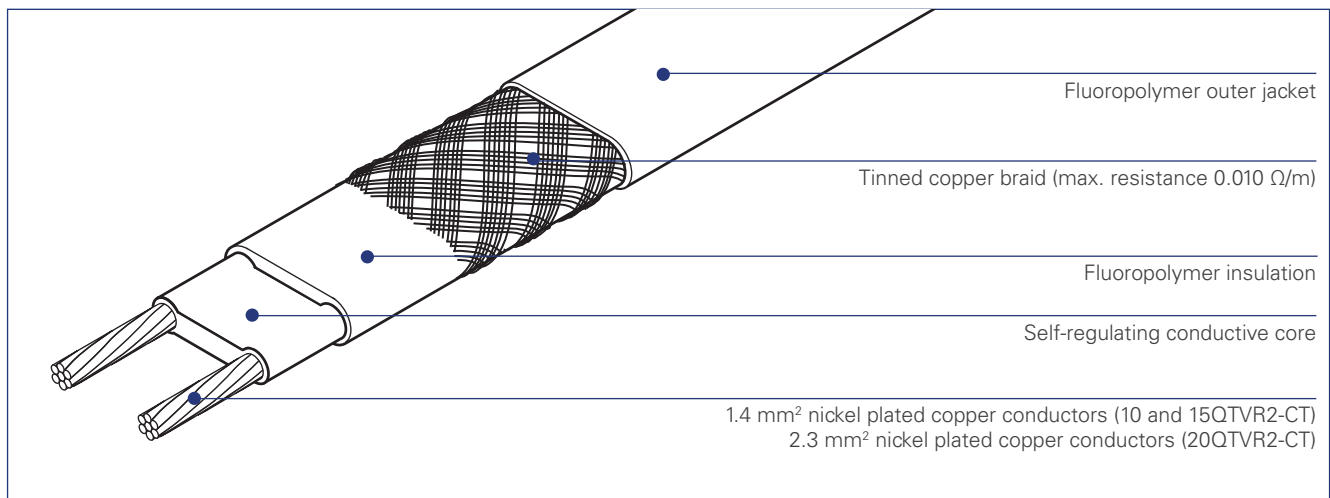
Self-regulating heating cable

Electrical heat-tracing for process temperature maintenance applications up to 110°C which are not subject to steam cleaning.

The QTVR 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 medium temperature exposure capability.

Heating cable construction



Application

| | |
|---------------------|---|
| Area classification | Hazardous, Zone 1, Zone 2 (Gas), Zone 21, Zone 22 (Dust) Ordinary |
| Traced surface type | Carbon steel Stainless steel Painted or unpainted metal |
| Chemical resistance | Organics and corrosives 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 QTVR heating cables are approved for use in hazardous areas by PTB and Baseefa Ltd.
 PTB 09 ATEX 1116 X & Baseefa06ATEX0185X
 Ex II 2G Ex e II T4 & Ex II 2D Ex tD A21 IP66 T130°C
 IECEx PTB 09.0057X & IECEx BAS 06.0045X
 Ex II 2G Ex e II T4 & Ex II 2D Ex tD A21 IP66 T130°C

The QTVR heating cables are approved by DNV for use on ships and mobile offshore units.
 DNV Certificate No. E-8933

The products also have the required approvals for use in Kazakhstan, Russia and many other countries. Contact your Tyco Thermal Controls representative for more details.

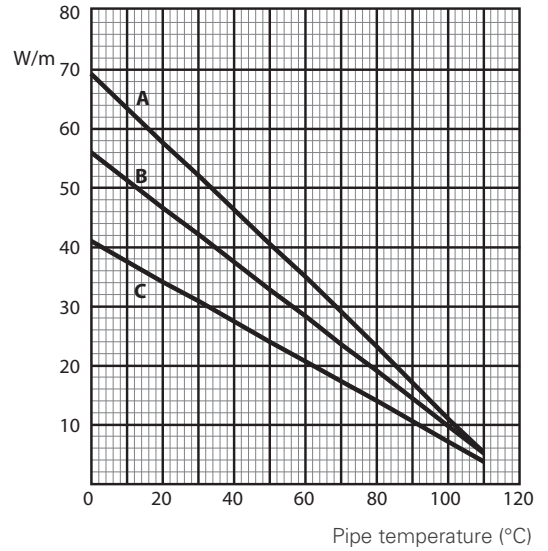
Specifications

| | |
|--|--|
| Maximum maintain or continuous exposure temperature (power on) | 110°C |
| Temperature classification | T4 in accordance with European Standard EN 60079-30-1 5.1.13 |
| Minimum installation temperature | -60°C |
| Minimum bend radius | at 20°C: 13 mm at -60°C: 35 mm |

Thermal output rating

Nominal power output at 230 Vac on insulated steel pipes

A 20QTVR2-CT
B 15QTVR2-CT
C 10QTVR2-CT



| | 10QTVR2-CT | 15QTVR2-CT | 20QTVR2-CT |
|--|------------|------------|------------|
| Nominal power output (W/m at 10°C) | 38 | 51 | 64 |
| Product dimensions (nominal) and weight | | | |
| Thickness (mm) | 4.5 | 4.5 | 5.1 |
| Width (mm) | 11.8 | 11.8 | 14.0 |
| Weight (g/m) | 126 | 126 | 180 |

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) | | |
|------------------------------|----------------------|--|-----|-----|
| 25 A | -20°C | 95 | 75 | 60 |
| | +10°C | 115 | 95 | 75 |
| 32 A | -20°C | 115 | 100 | 75 |
| | +10°C | 115 | 100 | 95 |
| 40 A | -20°C | 115 | 100 | 95 |
| | +10°C | 115 | 100 | 115 |

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 higher leakage current, the preferred trip level for adjustable devices is 30 mA above any inherent capacitive leakage characteristic of the heater as specified by the trace heater supplier or alternatively, the next common available trip level for non adjustable devices, with a maximum of 300 mA. All safety aspects need to be proven.

Ordering details

| | | | |
|------------------|------------|------------|------------|
| Part description | 10QTVR2-CT | 15QTVR2-CT | 20QTVR2-CT |
| Part No. | 391991-000 | 040615-000 | 988967-000 |

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.

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