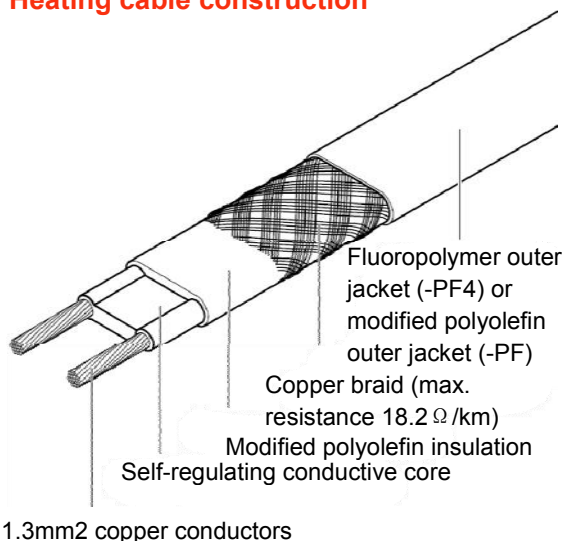


Heating cable construction



Description

The ZWK series of self-regulating heating cables provides the solution to freeze-protection, temperature maintenance for pipes, tanks, valves, vessels. ZWK heating cables maintain process temperatures up to 110 °C and can withstand intermittent exposure to temperatures up to 130 °C.

Features

- Lower installed cost than steam tracing, less maintenance expense and less downtime.
- Easy installation due to on-site assembly and can be cut to any length (up to max circuit length) required on site with no wasted cables
- Energy efficient, automatically varies it's power output in response to pipe temperature changes
- Self-limiting, without overheating or burnout even while overlapping
- Installation in residential, commercial, industrial and Ex-area

Application

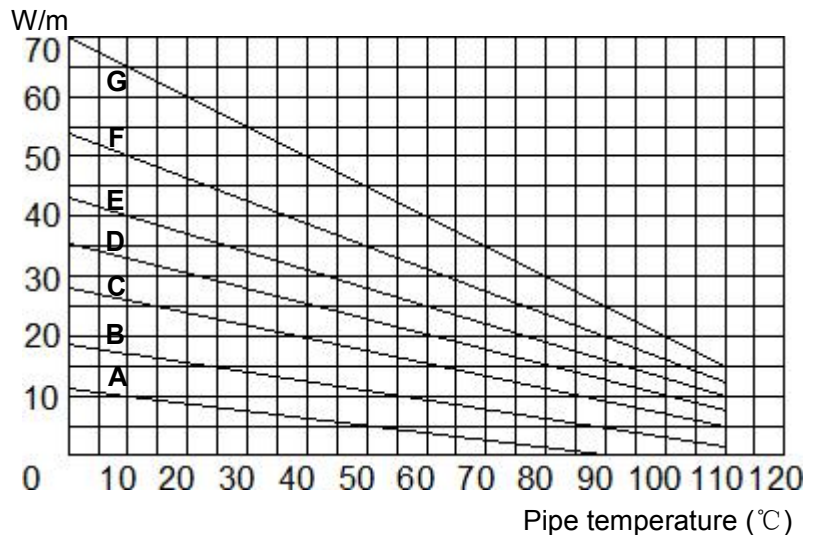
| | |
|---------------------|---|
| Area classification | Hazardous, Zone 1, Zone 2 (Gas), Zone 21, Zone 22 (Dust) Ordinary |
| Traced surface type | Carbon steel Stainless steel Painted or unpainted metal |
| Chemical resistance | For organic corrosives For aggressive organics and corrosives consult MINCO or your local MINCO representative |

Specifications

| | | | | |
|--|---|-------|--------|---------|
| Supply voltage | 200~277V(ZWK2) 100~120V(ZWK1) Contact your local MINCO representative for data on other voltages | | | |
| Maximum maintain or continuous exposure temperature (power on/off) | 110 °C | | | |
| Maximum intermittent exposure temperature | 110 °C (power on) 130 °C (power off) Maximum cumulative exposure 1000 hours | | | |
| Temperature classification | T4 | | | |
| Minimum installation temperature | -40 °C | | | |
| Minimum bend radius | at 20 °C: 25mm at -40 °C: 45mm | | | |
| Product | ZWK-J | ZWK-P | ZWK-PF | ZWK-PF4 |
| Thickness (mm) | 3.5 | 4.2 | 5.8 | 5.3 |
| Width (mm) | 11.9 | 12.2 | 13.8 | 13.1 |
| Weight (g/m) | | | | |

Thermal output rating

| Nominal power output W/m at 230Vac on insulated steel pipes @ 10°C | | |
|--|----------|----|
| D | 35ZWK-PF | 35 |
| E | 40ZWK-PF | 40 |
| F | 50ZWK-PF | 50 |
| G | 65ZWK-PF | 65 |



Maximum circuit length (m)

based on type “C” circuit breakers according to EN 60898

| Electrical protection sizing | Start-up temperature | Maximum heating cable length per circuit (m) | | | | | | |
|------------------------------|----------------------|--|--------|--------|--------|--------|--------|--------|
| | | 10ZWK2 | 15ZWK2 | 25ZWK2 | 35ZWK2 | 40ZWK2 | 50ZWK2 | 65ZWK2 |
| 16A | 10°C | 190 | 150 | 110 | 85 | 70 | 55 | 45 |
| | -20°C | 160 | 110 | 85 | 70 | 55 | 45 | 35 |
| 20A | 10°C | 220 | 180 | 140 | 100 | 85 | 70 | 55 |
| | -20°C | 200 | 150 | 110 | 85 | 65 | 55 | 45 |
| 25A | 10°C | 235 | 190 | 140 | 110 | 90 | 75 | 60 |
| | -20°C | 235 | 170 | 130 | 100 | 80 | 65 | 55 |
| 32A | 10°C | 235 | 190 | 140 | 120 | 100 | 80 | 70 |
| | -20°C | 235 | 190 | 140 | 120 | 90 | 75 | 65 |
| 40A | 10°C | 235 | 190 | 140 | 120 | 100 | 85 | 70 |
| | -20°C | 235 | 190 | 140 | 120 | 100 | 85 | 70 |

The above numbers are for circuit length estimation only. For more detailed information please contact your local MINCO representative. MINCO requires the use of a 30mA 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 30mA 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 300mA. All safety aspects need to be proven.

Components

MINCO 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.