

# TRACE HEATING FOR PIPES

Electric heating system for temperature control in pipe networks

*Elementos*  
**as**  
*Calefactores*



## System description



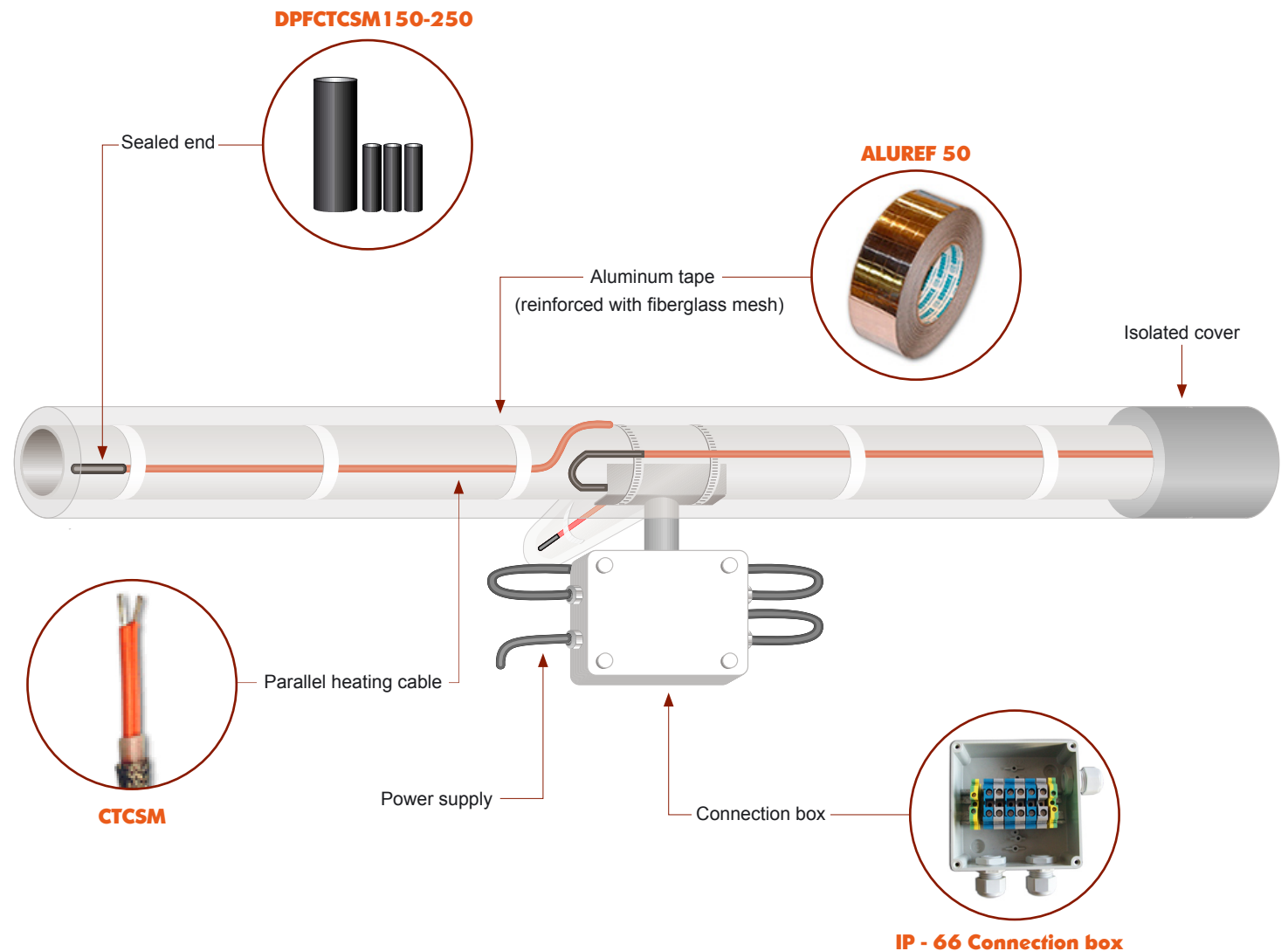
PARALLEL HEATING CABLES – SERIES HEATING CABLES – HEATING MATS – HEATING BLANKETS  
CRANKCASE HEATERS – TEMPERATURE CONTROL SYSTEMS – HEATING COMPLEMENTS

## Trace heating for pipes

At **Elementos Calefactores AS**, we have developed a trace heating system, based on the application of heating cables, to avoid and to prevent any of these inconveniences.

The main purpose of the electric trace heating is to avoid and compensate for the loss of heat that fluids undergo during production processes.

- Of utmost importance is that the fluid or product flowing in the pipes does not freeze or change viscosity.
- Also it is important to avoid that the changes that experience the fluids or products by sudden alterations of temperature, may affect the pipeline.
- In the case of the ACS pipes, the watertightness and the low temperatures, create the ideal habitat to propagate the Legionella.

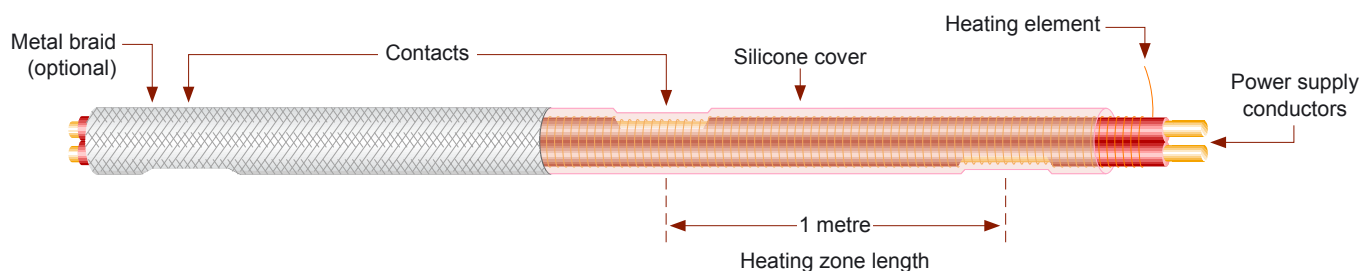


## Parallel heating cable

The heating cable we recommend for the **ECAS** electric trace heating, is the model **CTCSM250/30**.

The parallel heating cable, model **CTCSM**, provides constant power per lineal metre, that allows to be cut-to-length and finished on site. The heating element it's coiled around the two conductors. The two conductors are insulated from the heating element except at certain contact interval points.

The cable forms a system of many resistances in parallel, and each resistance is independent from the others. The two conductors supply power to these resistances.



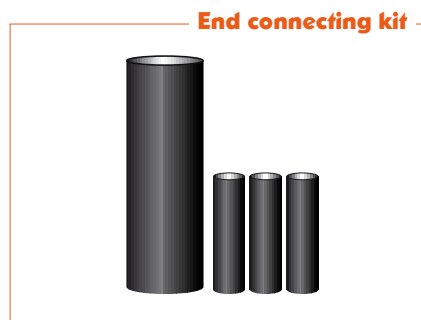
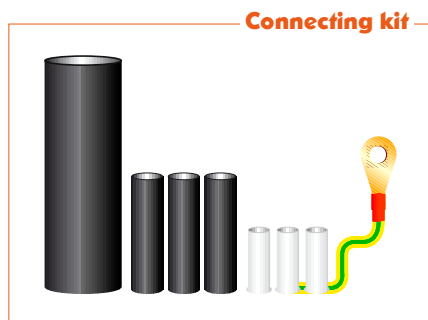
## Technical characteristics of the heating cable:

Catalogue number	CTCSM250/30
Power output at 230 V (W/m):	30 W
Metal braid covering:	90% of covering (copper Sn-1,5 mm <sup>2</sup> )
Maximum working temperature:	115°C (connected)
Maximum working temperature:	180°C (disconnected)
Maximum circuit length (m):	115 m
Heating zone length:	1000 mm
Heating conductor:	Ni/Cr 80/20
Conductor surface:	2 x 2,5 mm <sup>2</sup>
Outer covering insulation:	Thermal silicone
Electric strength:	1.500 V
Loading tolerance:	± 5%
Nominal outer dimensions:	10 x 12,2 mm
Minimum temperature installation:	-50°C
Standard reel length:	*100 mts
Standard: IEC/TR2 61423-1/-2 IEC 60800	

\*Note: The length of the reels may vary under demand.

**Kits and complements**

Connecting kit and end connecting kit



Catalogue number	Description
<b>DPFCTCSM150-250</b>	Connecting kit and end connecting kit <b>CTCSM150 y CTCSM250</b> : <ul style="list-style-type: none"> <li>• 3 tubular connectors</li> <li>• 6 polyofeline sheaths with resin Ø 6.1mm</li> <li>• 2 polyofeline sheath with resin Ø 11mm for mains connection</li> <li>• Ground cable 250mm 1 x 2,5mm<sup>2</sup>, with ring terminal 4,2 mm.</li> </ul>

**IP - 66 Connection box**

Protection	Caracteristics
<b>Nº of sizes/Models:</b>	33/91
<b>Dimensions (H,W,D):</b>	170 x 105 x 82 A
Construction	
<b>Insulation:</b>	PVC/Polycarbonate
<b>Side walls:</b>	With holes
Covers	
<b>Opaque:</b>	●
<b>Transparent:</b>	●
<b>Mounting plates:</b>	●



**Aluminum tape reinforced with fiberglass mesh**

Catalogue number	Description	Length
<b>Aluref 50</b>	Aluminium tape + fiberglass mesh	50m x 50mm



### Thermostat for regulation and control of temperature - Range DP

- Control panels prepared to work outdoor, from -20 °C to +140 °C.
- Case with transparent window: IP-65
- Thermometer / Thermostat
- Cable entries: PG-9
- Allows different types of sensors: PTC, PT100, etc.
- Voltage: 230 V



Modelo DP

Range	Description	Catalogue number
DPA	<ul style="list-style-type: none"> <li>• Thermostat for regulation and control for 1 to 4 circuits, or circuits up to 8 A - 230 V</li> <li>• Box with transparent window: IP-65</li> <li>• Digital Thermometer/Thermostat 0 - 140° C</li> <li>• Cable entries: PG-9</li> <li>• Differential: 0.1° C</li> <li>• Sensor: 1,5 m PTC thermal silicone</li> <li>• Internal contactor: 8 A</li> <li>• Power output: 1.840 W - Voltage: 230 V</li> </ul>	DP8A
DPA	<ul style="list-style-type: none"> <li>• Thermostat for regulation and control for 1 to 4 circuits, or circuits up to 25 A - 230 V</li> <li>• Box with transparent window: IP-65</li> <li>• Digital Thermometer/Thermostat 0 - 140° C</li> <li>• Cable entries: PG-9</li> <li>• Differential: 0.1° C</li> <li>• Sensor: 1,5 m PTC thermal silicone</li> <li>• Internal contactor: 25 A</li> <li>• Power output: 5.750 W - Voltage: 230 V</li> </ul>	DP25A
DPA	<ul style="list-style-type: none"> <li>• Thermostat for regulation and control for 1 to 4 circuits, or circuits up to 65 A - 230 V</li> <li>• Box with transparent window: IP-65</li> <li>• Digital Thermometer/Thermostat 0 - 140° C</li> <li>• Cable entries: PG-9</li> <li>• Differential: 0.1° C</li> <li>• Sensor: 1,5 m PTC thermal silicone</li> <li>• Internal contactor: 65 A</li> <li>• Power output: 14.950 W - Voltage: 230 V</li> </ul>	DP65A
DPAA	<ul style="list-style-type: none"> <li>• Thermostat for regulation and control for 1 to 4 circuits, or circuits up to 10 A - 230 V</li> <li>• Box with transparent window: IP-65</li> <li>• Analogic Thermometer/Thermostat</li> <li>• Rango temperatura: 10 - 110° C</li> <li>• Cable entries: PG-9</li> <li>• Differential: ± 0.4° C</li> <li>• Sensor: 1,5 m PTC thermal silicone</li> <li>• Internal contactor: 10 A</li> <li>• Power output: 2.300 W - Voltage: 230 V</li> </ul>	DP10AA
DPAA	<ul style="list-style-type: none"> <li>• Thermostat for regulation and control for 1 to 4 circuits, or circuits up to 25 A - 230 V</li> <li>• Box with transparent window: IP-65</li> <li>• Analogic Thermometer/Thermostat</li> <li>• Rango temperatura: 10 - 110° C</li> <li>• Cable entries: PG-9</li> <li>• Differential: ± 0.4° C</li> <li>• Sensor: 1,5 m PTC thermal silicone</li> <li>• Supplementary contactor: 25 A</li> <li>• Power output: 5.750 W - Voltage: 230 V</li> </ul>	DP25AA



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