



Its working principle is simple: it adapts at all time, for each spot, the dissipated thermal power at the necessary level of temperature and specific needs.

The heating element, inserted between two copper conductors is composed of a polyolefin matrix mixed with a multitude of carbon particles.

These carbon particles ensure the conductivity between the two copper conductors therefore creating an electrical resistance which leads to the heating of cable until the desired temperature (defined by the power of the cable) is reached.

The power absorbed, dissipated in the form of heat, diminishes depending on the temperature until reaching thermic auto-regulation balance.

Due to its properties, the self-regulating heating cable reacts to every temperature change and supplies the required energy in each spot of the system. Furthermore, the absorbed power is practically nil on reaching a determined temperature, avoiding all the problems deriving from over-heating.

Usual applications

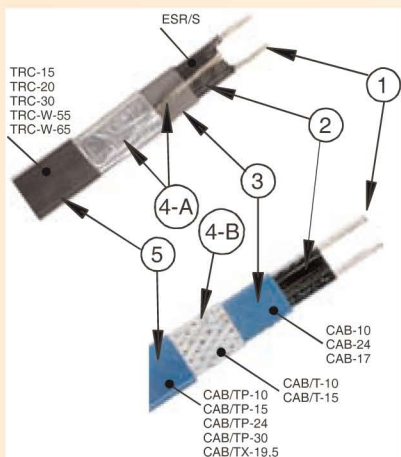
- It maintains the temperature of sanitary hot water: The water comes out of the tap hot the minute it is turned on, all possible heat losses having been compensated. Return circuit is avoided.
- Protection against formation of ice on all outside piping.
- Defrosting of eaves and projections.
- It prevents freezing in pipes and sloping roofs.
- It does not allow freezing of fuels, whether liquid or gaseous, inside cisterns or their circulation circuits.
- Surface heating for outside anti-freeze protection: accesses, garage ramps, porches and stairways.

SELF REGULATING HEATING CABLE, ESR, CAB and TRC RANGES

Code	Model	W/m			Earth connection		Colour	Outer layer	Maximum temp. sup.		Length coils
		At 0 °C	At 10 °C	At 65 °C	Mesh 4-A	Aluminium foil + cable 4-B			Under voltage (1)	Without voltage (2)	
525025000	ESR-S	15	12	-	NO	⇒	GREY	NO	65 °C	80 °C	100 m
525012000	CAB/T-10	11	10	-	YES	-	YELLOW	NO	40 °C	85 °C	50 m
525022000	CAB/TP-10	11	10	-	YES	-	YELLOW	PVC	40 °C	85 °C	50 m
Ex 525030000	TRC-15	17	13	-	-	-	BLACK	PVC	65 °C	80 °C	100 m
525014000	CAB/T-15	18	15	-	YES	-	BLUE	NO	55 °C	85 °C	50 m
525015000	CAB/TP-15	18	15	-	YES	-	BLUE	PVC	55 °C	85 °C	50 m
525002001	CAB-17	20	17	-	NO	⇒	BLACK	NO	65 °C	85 °C	50 m
Ex 525035000	TRC-20	24	20	-	-	-	BLACK	PVC	65 °C	80 °C	100 m
525016000	CAB-24	28	25	-	NO	⇒	RED	NO	65 °C	85 °C	50 m
525018000	CAB/TP-24	28	25	-	YES	-	RED	PVC	65 °C	85 °C	50 m
Ex 525040000	TRC-30	36	30	-	-	-	BLACK	PVC	65 °C	80 °C	100 m
525021000	CAB/TP-30	36	30	7	YES	-	BLACK	PVC	70 °C	85 °C	50 m
525045000	TRC-W-55	22,5	23	7,5	-	-	BLACK	PVC	100 °C	120 °C	100 m
Ex 525050000	TRC-W-65	31,5	32	13	-	-	BLACK	PVC	100 °C	120 °C	100 m
Ex 525003003	CAB/TX-19,5	21	21	11	YES	-	BLUE	PF	135 °C	135 °C	50 m

We also emphasize the ESR-S model the major application of which is industrial cold and overall large refrigerator chambers due to its low cost and great quality. (1) Maximum temperature that the self regulating heating cable is able to maintain, whenever the conditions of work are appropriate (the insulation, diameter of the pipe. For further information, consult the technical notices NTC-0113, NTC-0114 and NTC-0115)

(2) Maximum temperature that the self regulating heating cable is able to support. Above this temperature the self regulating heating cable can be damaged with consequent malfunctioning of the same.



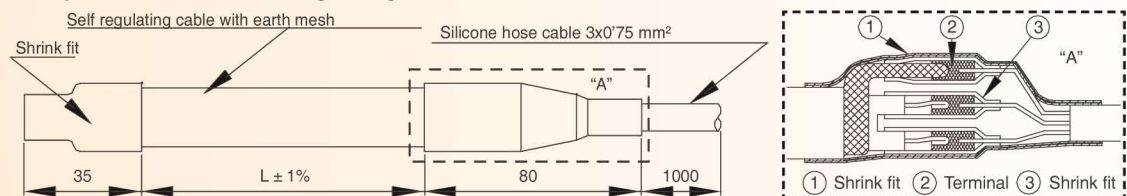
General characteristics

- 1 Tinned copper conductor.
- 2 Heating element with automatic adjustment (Cross-linked carbon plastic).
- 3 Internal protection sheath made of thermo-plastic elastomer
- 4-A Interlaced metallic layer of tinned copper acting as earth connection protector.
- 4-B Surrounding continuous of aluminum foil with tinned copper cable for earth connection
- 5 External protection layer against corrosion, chemicals and environmental factors. It may be composed of Fluorinated polyolefin or Thermoresistant PVC.

Connection accessories for self regulating cable

QUIKSET Range			DOMOCLICK Range	
Code	Description	Reference	Code	Description
525005000	Female connector plug. IP65	CAB02	DHB-100	Power supply connector + 1 Cable output. IP54
525006000	Male connector plug. IP65	CAB03	DHB-101	In line junction for 2 cables. IP54
525007000	"T" shunt plug. IP65	CAB04	DHB-102	Power supply connector + Cable outputs. IP54
525009000	Shrink fit kit WITHOUT earth connection. IP65	CAB21	DHB-103	"T" Connector for 3 cables. IP54
525010000	Shrink fit kit WITH earth connection. IP65	CAB20	DHB-104	Power supply connector + 3 Cable outputs. IP54
			DHB-400	Shrink fit kit for self regulating cable

Example of assembled self regulating cable with kit CAB21



METHOD: Cut the cable to the desired length, insert it 2 cm into a piece of shrink-fit covering of 3,5 cm and apply heat.