THERMOSTATS

Thermostats control the heating cable in an ON / OFF operation, reducing the amount of energy consumed.

The use of the thermostat, in combination with the insulation, helps to reduce the amount of energy consumed, which can be very important when operating off a battery or from solar / wind-generated power.

Depending on the application, combining insulation and a thermostatic control can increase energy savings by as much as 80%.



INSULATION

An important feature of Heat-Line self-regulating heating cables is their ability to be thermally insulated without the risk of overheating.

A thermally insulated pipe is not as susceptible to freezing and erratic changes in the environment's temperature.

The insulation creates greater thermal consistency throughout the pipe and increases the efficiency of the Kompensator system. When the warmth generated by the heating cable system is captured by insulation, the amount of energy consumed by the heating cable is vastly reduced.

It is recommended that all new or exposed pipes be insulated.



Kompensator[®] AT A GLANCE

- cCSAus certified for general usage in dry and wet locations
- 1 year limited warranty
- Factory finished to length
- Most reliable, energy efficient system on the market
- Provides freeze protection for many pipe diameters
- Can be installed with a thermostat and fully insulated to increase energy efficiency
- Will not overheat and melt pipes or tubes, even when dry
- Compatible with various methods of power generation including alternator/battery systems
- Compatible with DC voltages
- No need for power inverters
- Suitable on all pipe materials both metallic and nonmetallic including PEX, ABS, Polyethylene, PVC, Copper, Steel, Iron and more

SPECIAL REQUIREMENTS

Since 1988, Heat-Line has been specializing in freeze protection of all types. If you have a special application of any kind, give us a call. Special system designs are common to us. We manufacture many other innovative products not mentioned in this brochure.



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Kompensator®

Low Voltage (12 V and 24 V) Self-Regulating Heating Cable System, Suitable for Various Uses



ABOUT Kompensator®

Kompensator self-regulating low voltage heating cable systems are custom manufactured and engineered to suit various applications. Kompensator systems are the only LOW VOLTAGE, external, self-regulating heating cable set supplied job-ready to provide safe, efficient, and reliable freeze protection for various installation parameters. Designed to be installed directly onto the outside of pipes, tubes and hoses the Kompensator system can protect both small and large diameter fluid systems.

- Certified for use in dry and wet locations
- Recommended to be insulated
- Safe for use on metal and plastic pipes and tubes
- Thermostats are optional
- Superior self-regulating heating cable
- 12 V available in 3 W/ft @ 50°F (10 W/m @ 10°C) max length 40 ft or 5 W/ft @ 50°F (16 W/m @ 10°C) max length 30 ft
- 24 V available in 3 W/ft @ 50°F (10 W/m @ 10°C) max length 60 ft or 5 W/ft @ 50°F (16 W/m @ 10°C) max length 40 ft
- 12 or 14 AWG 6' SJOOW supply cord for direct hard wire



Completed Kompensator installation shown on a water tanker. The heating cable was installed on the pipe in a spiral about 1 ½ inches apart with foil tape over the top to hold the cable in constant contact with the pipe and assist with heat transfer. Insulation was then installed to enhance energy efficiency and operational reliability.

APPLICATIONS

Kompensator systems are manufactured in both 12 and 24 Volts with various watt densities available to optimize heat output and power consumption. Within the Recreational Vehicle (R.V.) industry Kompensator systems operate directly off of alternator/battery systems and are trusted to protect water supply lines, holding tanks, waste water pipes, diesel exhaust fluid (DEF) hoses and containment units, oil lines, gas tubes, and compressor lines.

Application examples include but not limited to;

- Small and large diameter pipes and hoses
- Tanker fluid delivery hoses
- Compressed air systems
- Valves, shutoffs and other exposed fittings
- Diesel exhaust fluid (DEF) holding tanks and lines
- Hydraulic oil lines and hoses
- Sewage, septic and effluent pipes

Kompensator can be found providing freeze protection in many of the following places:

- Commercial fluid delivery trucks
- Fire trucks and other emergency vehicles
- Camps and motorized recreational vehicles
- Mining and exploration camps/developments
- Commercial and industrial
- Off-grid residences, lake homes and cottages

POWER SUPPLY

Kompensator is supplied job-ready with an electrical cold lead for direct connection to a low voltage circuit. Over current protection is required and ampacities vary with applications and start up temperatures. For more information on required over current protection please refer to your Kompensator installation manual.



ORDERING GUIDE

Example: KHL123 - 040 - CS

Product	
KHL123	12 V Kompensator 3 W/ft @ 50°F (10 W/m @ 10°C)
KHL125	12 V Kompensator 5 W/ft @ 50°F (16 W/m @ 10°C)
KHL243	24 V Kompensator 3 W/ft @ 50°F (10 W/m @ 10°C)
KHL245	24 V Kompensator 5 W/ft @ 50°F (16 W/m @ 10°C)
Length of System	
3 W/ft 12 V max length 40 ft	
5 W/ft 12 V max length 30 ft	
3 W/ft 24 V max length 60 ft	
5 W/ft 24 V max length 40 ft	

Cord-Set Type _

CS Cord connected (no GFCI)

NOTE: It is the requirement of the installer to provide proper voltage regulation and over-current protection. It is also the recommendation of Heat-Line to install a shut-off switch to prevent the draining of batteries or power supply. Only available in Modified Polyolefin outer heating cable jacket.



SELF-REGULATING TECHNOLOGY

Kompensator employs the unique and advanced performance of self-regulating heating cable technology. Self-regulation allows the heating cable to effectively increase heat and energy output to sections along its length which are cold and simultaneously reduce heat and energy output to sections which are warm.

Kompensator offers reliable freeze protection without the worry of overheating. Self-regulating heating cable technology provides exceptional performance in the coldest climates, as heat is gently applied to prevent freezing. Not all self-regulating heating cables are created equal. Heat-Line self-regulating technology offers superior performance in demanding temperatures, consumes less energy, and is North American-made.