

LINEAHEAT PROPORTIONAL HEATERS

With Optional Discharge Temperature Sensor

LineaHeat is an electronic, time proportional electric heat system utilizing quiet, rapid performing solid-state relays. The solid-state relays are switched off and on by the LineaHeat Electric Heat Module (EHM) dependent on the call for heat from the controls. The LineaHeat EHM accepts a variety of different input signals from terminal unit controllers or thermostats, which can be determined by the position of one or two jumpers easily accessible on the board. Specific LineaHeat Submittals are available for each application that details the function and wiring of the board.

LineaHeat is available with an optional discharge temperature sensor that will modulate the discharge temperature between the maximum temperature setting and initial temperature of incoming air before heating began. The discharge temperature set point is easily set in the field by rotating the temperature dial on the EHM. The EHM will not allow temperatures over the set point to insure meeting of ASHRAE 62, Addenda N, preventing unwanted temperature stratification and direct heat loss through return ductwork.

On/Off (LX1)	One 24 Vac input at "Inc" steps the heater output from OFF to 100% heater kW rating. The signal may be pulsed off and on over a small time period to provide proportional heat.
2 Stage (LX2)	Two 24 Vac inputs step the heater output from OFF to 50% or 100% heater kW rating.
0-10V (LX3)	0-10 Vdc (0-20mA) signal proportionally modulates the heater output.
2-10V (LX4)	2-10 Vdc (4-20 mA) signal proportionally modulates the heater output.
Incremental (LX5)	One 24 Vac input modulates heater output, mirroring a Normally Closed water valve's action. An increase signal will increase the heater output from 0% to 100% 4 minutes and 10 seconds. When the signal is removed, the heater output will decrease to 0% over the same time period.
Binary (LX6)	Two 24 Vac inputs step the heater from OFF to 33%, 67%, or 100% of the heater kW rating.
3 Point Floating (LX7)	Two 24 Vac inputs increase or decrease heater output, mirroring a Three-Point floating hot water valve. When the increase signal is sent, the heater will increase from 0% to 100% at rate of 0.4% seconds (4 minutes and 10 seconds). If the increase signal is removed or the decrease signal is added, the heater will decrease at a rate of 0.4% per 20 seconds as a safety precaution. When only the decrease signal is sent, the heater will decline from the present level to 0% at a rate of 0.4% per second.

