

SM(T)200 Temperature Simulators

Application Note: Discontinued models SM(T)200H/F1



General Information

Murphy SM200 and SMT200 temperature simulators are designed to control the timing of heat impulse bag/wrap sealing machines.

The modules have two or three front face user controls:

- 1) A two-digit SEAL setting for controlling the initial impulse time of the seal relay output, which in turn controls a heated wire element for melting, sealing and cutting plastic wrap/film.
- 2) A rotary TRIM potentiometer, which allows compensation for residual heat in the wire element (an automatic reduction of the seal impulse time): a setting of 10 give no compensation (no change in the initial seal output time); a setting of 0 gives maximum compensation (the seal impulse time automatically reduces as the time BETWEEN seals reduces).
- 3) (SMT200 modules only) A one-digit COOL setting, which controls the time between the de-energization of the seal relay (the end of the seal) and the energization of the cool relay. The cool relay output normally-closed contacts are typically used to control machine magnets, which hold the workpiece in position until the sealed wrap/film has cooled and set.



For full details of SM(T)200 operation and specifications, please visit www.enovationcontrols.eu/smt200

Non-standard models SMT200H/F1

This application note relates to non-standard models SM(T)200H/F1, production of which was discontinued in 2016.

On standard models, the SEAL setting switch can be adjusted from 00 to 99, giving a maximum initial seal time of approximately 1.4 seconds. If connector pins 12 and 13 at the rear are shorted, the seal time adjustment range is increased by a factor of 5.

On discontinued models SM(T)200H/F1, the SEAL setting switch was mechanically limited between 00 and 19, giving a much reduced maximum for the initial seal time.

Aside from the mechanical switch limit, the electronic control and timings of standard and non-standard units are the same. This means that a standard unit can be used in place of special SMT200H/F1, and will give the same results, **as long as a SEAL setting of 19 or lower is used.**



WARNING: Settings higher than 19 will result in progressively longer seal output times, which (depending on the machine's seal wire element thickness and electrical ratings) may cause overheating of the seal wire element. This in turn may cause damage or operational issues to some machines and workpieces, either:

- a) Immediate burn-out, or reduced long-term life, of the seal heater element and machine wiring, and/or
- b) Overheating and melting of the wrap material (dependant on type and thickness), with possible poor sealing and contamination of the workpiece.

If in doubt, please consult the sealing machine manufacturer for details of the maximum permissible seal impulse time and heater element ratings.



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