

**CITY OF NEW YORK  
DEPARTMENT OF BUILDINGS**

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use in accordance with the Report of Materials and Equipment Acceptance (MEA) Division.

Patricia J. Lancaster, F.A.I.A., Commissioner

**MEA 86-04-E  
Report of Material and Equipment Acceptance Division**

**Manufacturer – Thermotech, Inc., 2900 N. 1000 W. Ogden, UT 84414.**

**Trade Name(s) – Siemens Building Technologies, Inc.**

**Product –Automatic Heat Detectors/Thermostats.**

**Pertinent Code Section(s) –NFPA 72, Sec. 2-2, Reference Standard RS 17-3.**

**Prescribed Test(s) – UL Standards 521 and 1203.**

**Laboratory – Underwriters Laboratories, Inc.**

**Test Report(s) – UL Multiple Listings File No. S726 issued July 16, 1990, revised April 28, 2003.**

**Description – Automatic Heat Detectors/Thermostats:**

1. **General – The DT-135/195 WP automatic heat detector are designed for fire detection with alarm systems. Such detectors are normally open devices and are “rate compensation type” detectors. All five models are self-restoring, hermetically sealed, chock and corrosion resistant, nonferrous, and tamperproof.**
  
2. **Principles of Operation – The DT-135/195 WP operates on the principles of a rate compensation detector. The detector consists of a high expansion aluminum tube that encases two insulated struts with opposing open contact points. The high expansion sensing shall and the expansion struts have a different coefficient of expansion. This allows the detectors to react to changes in temperature in the following two ways:**
  - (a) **Slow Rate of Temperature Rise – A slow rate of temperature rise allows the heat to penetrate the inner expansion struts. As the temperature rises, the tubular shell and the struts both expand until the total device has been heated to the rated temperature. At this point, the silver contact points close; which initiates the alarm.**

- (b) **Rapid Rate of Temperature Rise –** When subjected to a rapid rise in temperature, there is not as much time for heat to penetrate the inner strut. The rapid lengthening of the shell along with the slower reaction of the struts allow the silver contact points to close at a lower level. The detector reacts almost instantly to the rapid increase in temperature and “compensates” for thermal lag inherent in conventional fixed temperature detectors.

When the ambient air temperature drops below the detector’s rated temperature, the shell contracts which forces the contacts to open and the detector to reset itself.

3. **Specific Model Descriptions – Siemens DT-135 WP and DT-195 WP.** Such models are available in either 135°F or 194°F ratings.

Description	Basic Applicant Thermotech Inc. Model No.	Thermotech MEA No.	Listee Siemens Model No.
Open circuit rate	302-ET-135	193-03-E	DT-135 WP
Compensation	302-ET-194	193-03-E	DT-195 WP

**Recommendation –** That the above units be accepted provided that all uses, locations, and installations shall comply with the New York City Building Code, specifically Subchapter 17, and with the Reference Standards RS 17-3 through 17-3C, inclusive as applicable including the NFPA as appropriate, the UL Listing, manufacturer’s instructions, the Fire Department Directives, and with the Electrical Code of the City of New York.

All shipments and deliveries of such equipment shall be provided with a metal tag, suitably placed, certifying that the equipment shipped or delivered is equivalent to that tested and acceptable for use as provided for in Section 27-131 of the Building Code.

Final Acceptance

*May 3, 2004*

Examined by

*Donald [Signature]*