

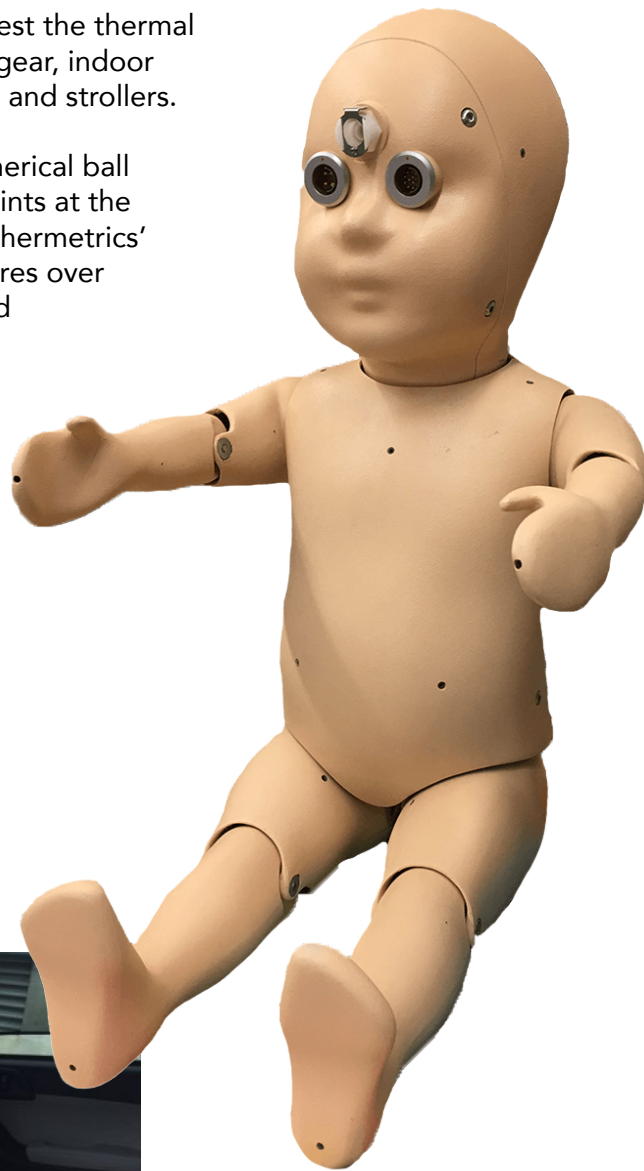
THE WORLD'S MOST ADVANCED THERMAL MANIKIN

THERMAL MANIKIN BABY

The Baby Thermal Manikin makes it possible to accurately test the thermal comfort properties of baby clothing and diapers, wearable gear, indoor environments, and bedding and carriers, including car seats and strollers.

Realistic range of motion is achieved through the use of spherical ball joints at the neck, shoulders, and hips, with single-flexure joints at the knees and elbows. The Baby manikin is also available with Thermetrics' exclusive sweating skin system, which utilizes a matrix of pores over the active surface of the manikin coupled with computerized fluid delivery and a wicking fabric skin layer to evenly distribute water over the surface of the manikin. This proven control method allows for precise metering of the sweating rate, selectable by manikin region.

All Baby systems are complete, ready-to-use instruments including manikin, control electronics, laptop PC, and exclusive ThermDAC control software. Just add your own climate chamber for a comprehensive testing solution.



Test Methods Supported

- ASTM F1291
- ASTM F2370
- ISO 15831





Baby Specifications

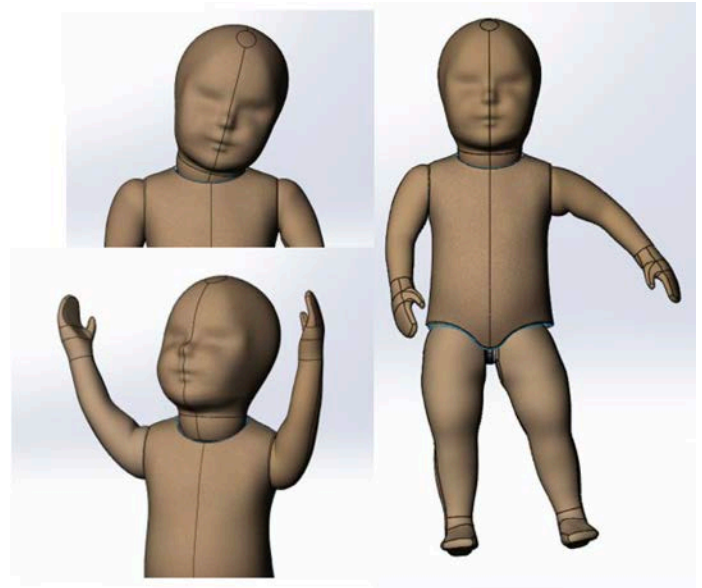
- 9-month old body form height: 29 in./73 cm
- Manikin weight ~ 20 lbs./9.1kg
- Mitten style hands
- Standard operating range: -20°C to +50°C
- Extended operating range: -40°C to +50°C (with "cold capable" option)
- 0 to 100% RH, including condensation
- Temperature accuracy: $\pm 0.1^\circ\text{C}$
- RH accuracy: $\pm 3\%$
- Sweating delivery range: 0-1,000 ml/hr/m²
- Power: 85-265VAC, 50/60Hz, Single-phase
- $\pm 3\%$ relative humidity measurement
- 800 W/m² maximum power output
- Power/communication cable length: 25 ft./7.5 m

Base Products Include:

- Manikin body form with heaters and sensors
- Control electronics
- Two ambient temperature sensors
- Laptop loaded with ThermDAC control software
- Power and control cabling
- One relative humidity sensor
- One omni directional wind-speed sensor
- Standard one year warranty

Baby Feature Highlights & Benefits

- Features 12 independent thermal zones
- Sweating version features computerized fluid delivery by zone
- Ultra-stable resistance wire heating provides uniform heat flux
- Temperature sensor elements are distributed over each zone and are protected by an epoxy coating
- Mitten style hands
- Expanded range of motion due to the use of spherical ball joints at the neck, shoulders, and hips
- Miniaturized components provide the same features and functionality as our full sized thermal manikin systems
- Includes Ambient Temperature, RH, Windspeed sensors, and all cabling
- ThermDAC user interface software; optional ManikinPC physiological control



CAD perspective showing manikin range of motion



ThermDAC Control Software

ThermDAC is an engineered user interface for thermal manikin systems providing real-time device control, automated testing, and flexible display and logging capabilities, including:


- Manikin control by skin temperature, constant heat flux, comfort equation, ManikinPC
- User-programmable test configurations, stability criteria, linked work cycles
- Automatic steady-state detection
- Color-coded manikin pictorial displays, selectable for any manikin variable
- Zoomable time-history graph of multiple device and ambient variables
- Real-time statistical analysis over any user-selected time range
- Logging of raw data, statistical analysis, user-reports
- Device calibration and fault detection

4D **PHYSIOLOGY & COMFORT MODEL INTEGRATION**

Bring your manikin to life with the next dimension in testing; ManikinPC

- Real-time data
- Reduce dependence on human testing
- Shorten design cycles
- Design based on comfort metrics

513 - Thermal Manikin - Baby	Item #	Description	Product Name
Semi-Custom Base Product	19-51301	Baby Manikin, 12Z, Gender Neutral	513-XXX C.s12
Standard Options	11-01407	Software, ManikinPC License (Permanent) - US	—
	11-03396	Software, ManikinPC License (Permanent) - OUS	—
Custom Option	20-01040	13th Zone for Diaper	—

 *Don't see what you need above? Contact Thermetrics to customize your perfect system. Keep your Baby Manikin in tip-top shape. Discuss service plan options and point-of-sale discounts with us at sales@thermetrics.com.*