

---

## TEMPERATURE SENSOR - 1W

---



---

### GENERAL DESCRIPTION

---

The digital thermometer provides 9-bit to 12-bit Celsius temperature measurements. communicates over a 1-Wire bus that by definition requires only one data line (and ground) for communication with a central microprocessor. In addition, can derive power directly from the data line (“parasite power”), eliminating the need for an external power supply.

Has a unique 64-bit serial code, which allows multiple sensors to function on the same 1-Wire bus. Thus, it is simple to use one microprocessor to control many sensors distributed over a large area. Applications that can benefit from this feature include HVAC environmental controls, temperature monitoring systems inside buildings, equipment, or machinery, and process monitoring and control systems.

---

## APPLICATIONS

---

Thermostatic Controls  
Industrial Systems  
Consumer Products  
Thermometers  
Thermally Sensitive Systems

---

## FEATURES

---

Unique 1-Wire® Interface Requires Only One Port Pin for Communication

---

## TECHNICAL SPECIFICATION

---

Temperatures = from -55°C to +125°C (-67°F to +257°F)  
±0.5°C Accuracy from -10°C to +85°C  
VDD = 3.0V to 5.5V  
Active Current = 1-1.5 mA  
Standby Current = 750-1000nA  
Operating Temperature Range -55°C to +125°C  
Storage Temperature Range -55°C to +125°C