

DS18B20 digital sensor:

1. Multidrop capability simplifies distributed.
2. Zero standby power required.
3. ISO9001-2000.ROHS

Specifications:

- Multidrop capability simplifies distributed temperature sensing applications.
- Requires no external components.
- Can be powered from data line. Power supply range is 3.0V to 5.5V
- Zero standby power required
- Measures temperatures from -55°C to +125°C.
Fahrenheit equivalent is -67°F to +257°F
- Accuracy : $\pm 0.5^{\circ}\text{C}$ accuracy from -10°C to +85°C
- Thermometer resolution is programmable from 9 to 12 bits
- Converts 12-bit temperature to digital word in 750 ms (max.)
- User-definable, nonvolatile temperature alarm settings DS18B20Z
- Alarm search command identifies and 8-Pin SOIC (150 mil)
addresses devices whose temperature is outside of programmed limits
(temperature PIN DESCRIPTION alarm condition)
- Applications include thermostatic controls, DQ - Data In/Out
industrial systems, consumer products, VDD - Power Supply Voltage
thermometers, or any thermally sensitive NC - No Connect system
- The DS18B20 Digital Thermometer provides 9 to 12-bit (configurable)
temperature readings which indicate the temperature of the device. Information is
sent to/from the DS18B20 over a 1-Wire interface, so that only one wire (and
ground) needs to be connected from a central microprocessor to a DS18B20.
- Power for reading, writing, and performing temperature conversions can be
derived from the data line itself with no need for an external power source.
- Because each DS18B20 contains a unique silicon serial number, multiple
DS18B20s can exist on the same 1-Wire bus. This allows for placing temperature
sensors in many different places. Applications where this feature is useful include
HVAC environmental controls, sensing temperatures inside buildings, equipment
or machinery, and process monitoring and control.

