



## OVERVIEW

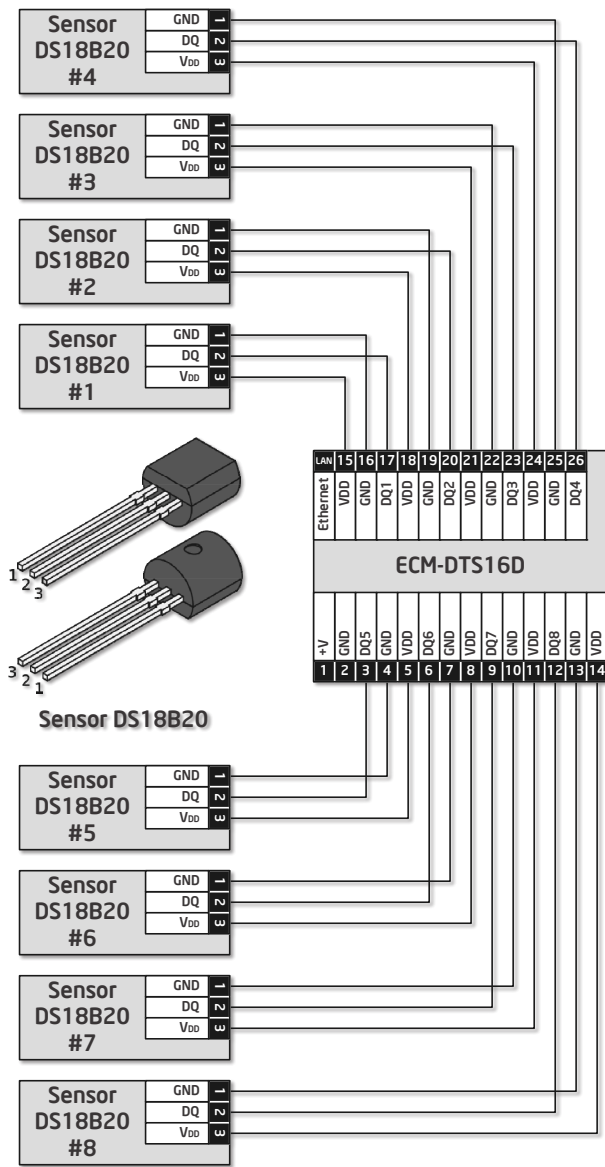
The digital temperature sensors module ECM-DTS16D is designed to receive temperature data from digital temperature sensors.

Each sensor can be powered by ECM-DTS16D device on the V<sub>DD</sub> pin, or sensor can operate in "parasite power" mode, which allows

the sensor to function without a external powering.

When the DS18B20 sensor is used in parasite power mode, the V<sub>DD</sub> pin (3) must be connected to ground pin (1).

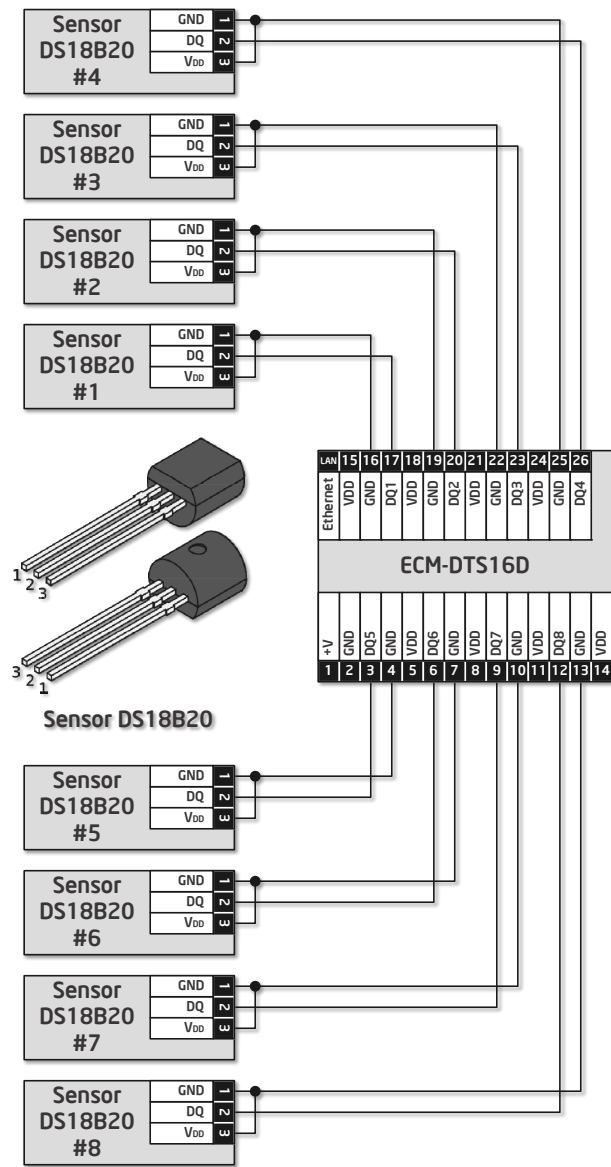
### Single-Ended Connection (3 wires)



The sensors connection diagram for the device configured to **single-ended connection mode**.

Each sensor connects to the module via **direct cable** and uses **three wires**.

### Single-Ended Connection (2 wires)



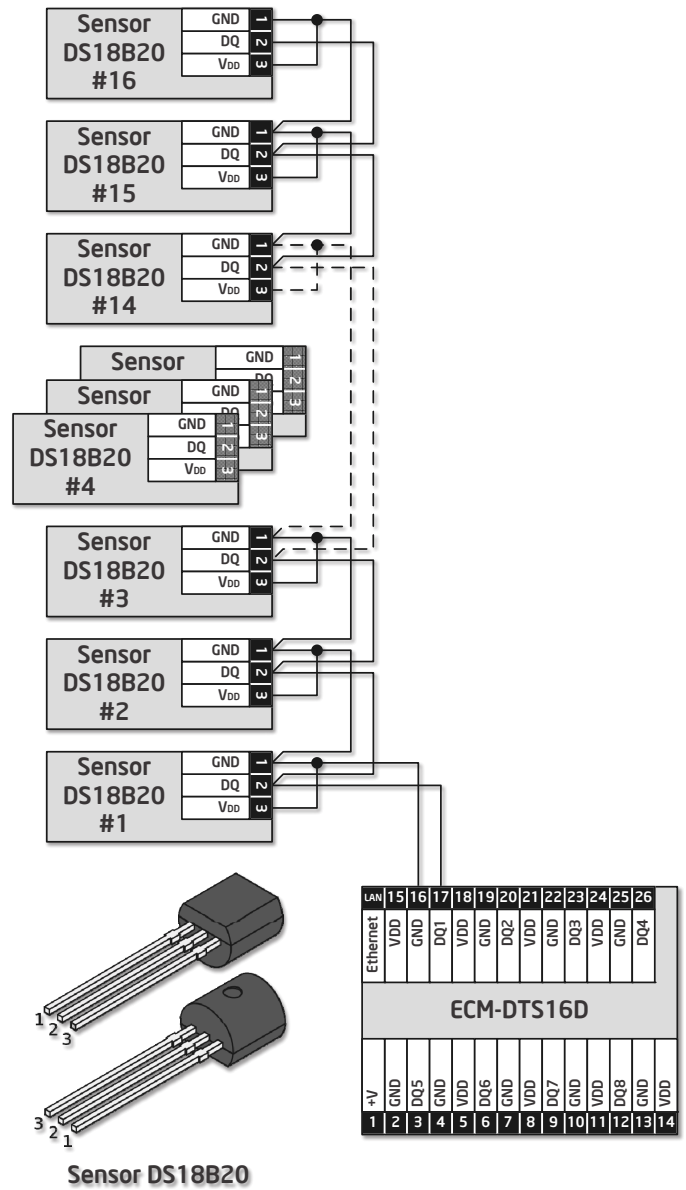
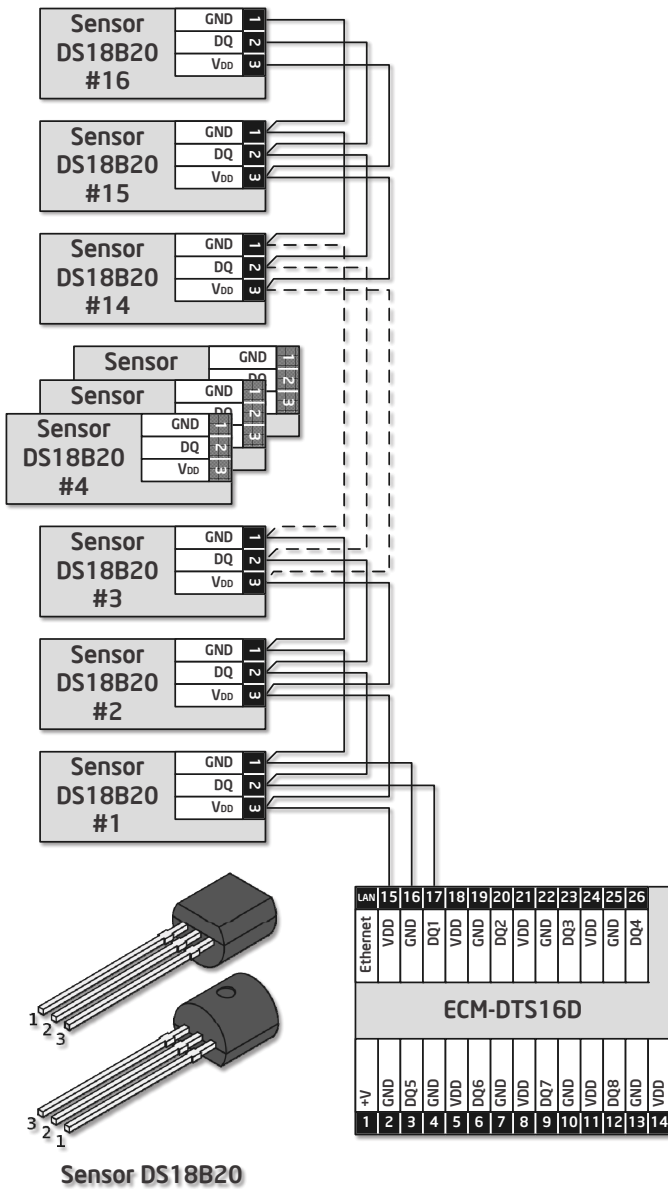
The sensors connection diagram for the device configured to **single-ended connection mode**.

Each sensor connects to the module via **direct cable** and uses **two wires** only (1-Wire bus).

When this connection diagram is used, the sensor's V<sub>DD</sub> pin (3) and ground pin (1) must be connected.

## Bus Connection (3 wires)

## Bus Connection (2 wires)



The sensors connection diagram for the device configured to **bus connection mode**.

All sensors combine to a bus which is connected to channel #1 terminals and use **three wires**.

Be sure that the device receive data from sensors without errors. Error statistics of each sensor displays in the "Sensors" web-page.

The sensors connection diagram for the device configured to **bus connection mode**.

All sensors combine to a bus which is connected to channel #1 terminals and use **two wires only (1-Wire bus)**.

When this connection diagram is used, the sensor's VDD pin (3) and ground pin (1) must be connected.

Be sure that the device receive data from sensors without errors. Error statistics of each sensor displays in the "Sensors" web-page.

For further information refer to [www.highcross.pro](http://www.highcross.pro)