

Current Sensing Example Circuits

TI Precision Labs – Current Sense Amplifiers

Quiz

Current sensing example circuits – quiz

1. Overcurrent detection and warning and shutdown are examples of:
 - a) Linear circuits
 - b) Comparator-based circuits
 - c) Audio circuits
 - d) None of the above

2. The summing circuit works by:
 - a) Connecting OUT of the previous stage to REF of the next stage
 - b) Connecting OUT of the previous stage to GND of the next stage
 - c) Connecting OUT of the previous stage to IN+ of the next stage
 - d) Connecting all the OUT pins together

Current sensing example circuits – quiz

3. The differencing circuit is useful for:
 - a) Detecting overcurrent conditions
 - b) Measuring the total current through different loads
 - c) Checking for leakage currents within a system
 - d) Measuring higher currents than possible with one stage

4. Load current is split evenly between stages in a paralleling circuit because:
 - a) The maximum continuous current of each device is limited
 - b) OUT of the first stage is connected to REF of the second stage
 - c) The gains are the same
 - d) The shunt resistances are the same

Current sensing example circuits – quiz

5. Overcurrent detection is used to:
 - a) Alert when load current has exceeded a specified threshold
 - b) Help ensure that electronic systems operate safely
 - c) Help a control system decide if power needs to be turned off
 - d) All of the above

6. The INA302 and INA303 are examples of:
 - a) A current sense comparator
 - b) A current sense amplifier with dual comparators
 - c) A dual-channel current sense amplifier
 - d) An operational amplifier

Answers

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