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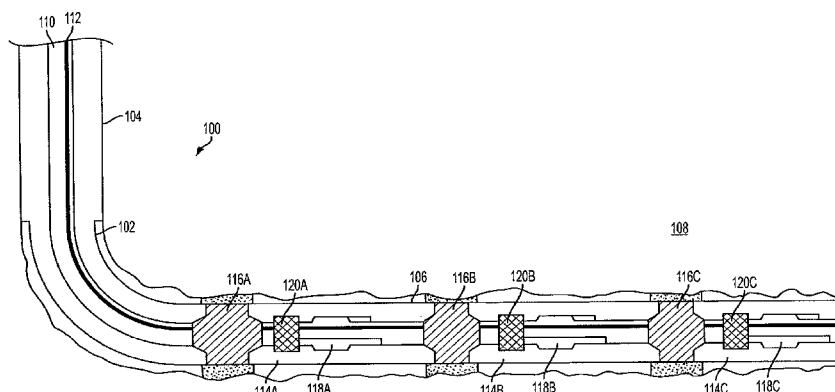


FIG. 1

(57) Abstract: Systems and methods for controlling power distribution among various electrical loads disposed in a bore are described. Control modules that are associated with loads such that each load is associated with at least one control module. Each control module includes circuitry that can respond to a voltage at a level that is above a threshold by allowing current to flow to its associated load, and that can prevent current from flowing to its associated load when a voltage level at another load, instead of the associated load, is above a threshold. The loads and control modules can be located in various zones in the wellbore.