7 A student uses the circuit shown in diagram 1 to investigate how the current changes with voltage for a filament lamp.

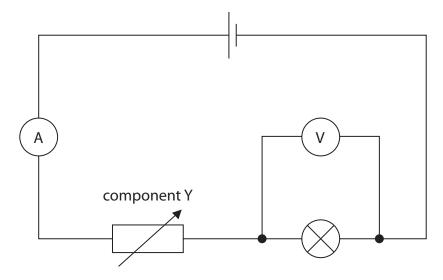


Diagram 1

(a) (i) Give the name of component Y.

(1)

(ii) Give a reason why component Y is included in the circuit.

(1)

