22 A strain gauge consists of a length of wire with uniform cross-sectional area. Its resistance is 2.000 kΩ. It is attached to a gas container. When the container expands, the strain gauge changes its dimensions. Its length increases by 0.40% and diameter reduces by 1.0 %.

What is the new resistance of the strain gauge?

A 1.968 kΩ

B 2.028 kΩ

C 2.049 kΩ

D 2.122 kΩ