

**28** The diagram shows a view from above of a double-slit interference demonstration.

L is a monochromatic light source with a vertical filament. B is a barrier with two narrow vertical slits and S is a screen upon which interference fringes form.

NOT TO  
SCALE

\*  
L

B

S

The intensity is  $I$  at the point on the screen where the centre of the fringe pattern forms.

When one of the slits is covered, what is the intensity at the same point on the screen?

**A**  $\frac{I}{\sqrt{2}}$

**B**  $\frac{I}{2}$

**C**  $\frac{I}{2\sqrt{2}}$

**D**  $\frac{I}{4}$