Consider the situation described in Problem 7.24 of I&D. In addition, assume that the transverse width is 2 cm and that the supporting rods are always at ambient temperature (25°C). The strip temperature of 35°C as given in I&D should be understood to refer to the temperature at the back edge of the strip and half-way between the supporting rods. The thickness of the strip is 1 mm. Do not answer the questions posed by I&D. Instead, please respond to the following:

(a) What is the power requirement if $V = 1$ m/s? If $V = 5$ m/s? If $V = 25$ m/s?

(b)   If the accuracy with which the temperature can be read is ± 0.2°C, what is the uncertainty in V if $V \cong 1$ m/s? If $V \cong 25$ m/s?

(c) Is this a good idea?