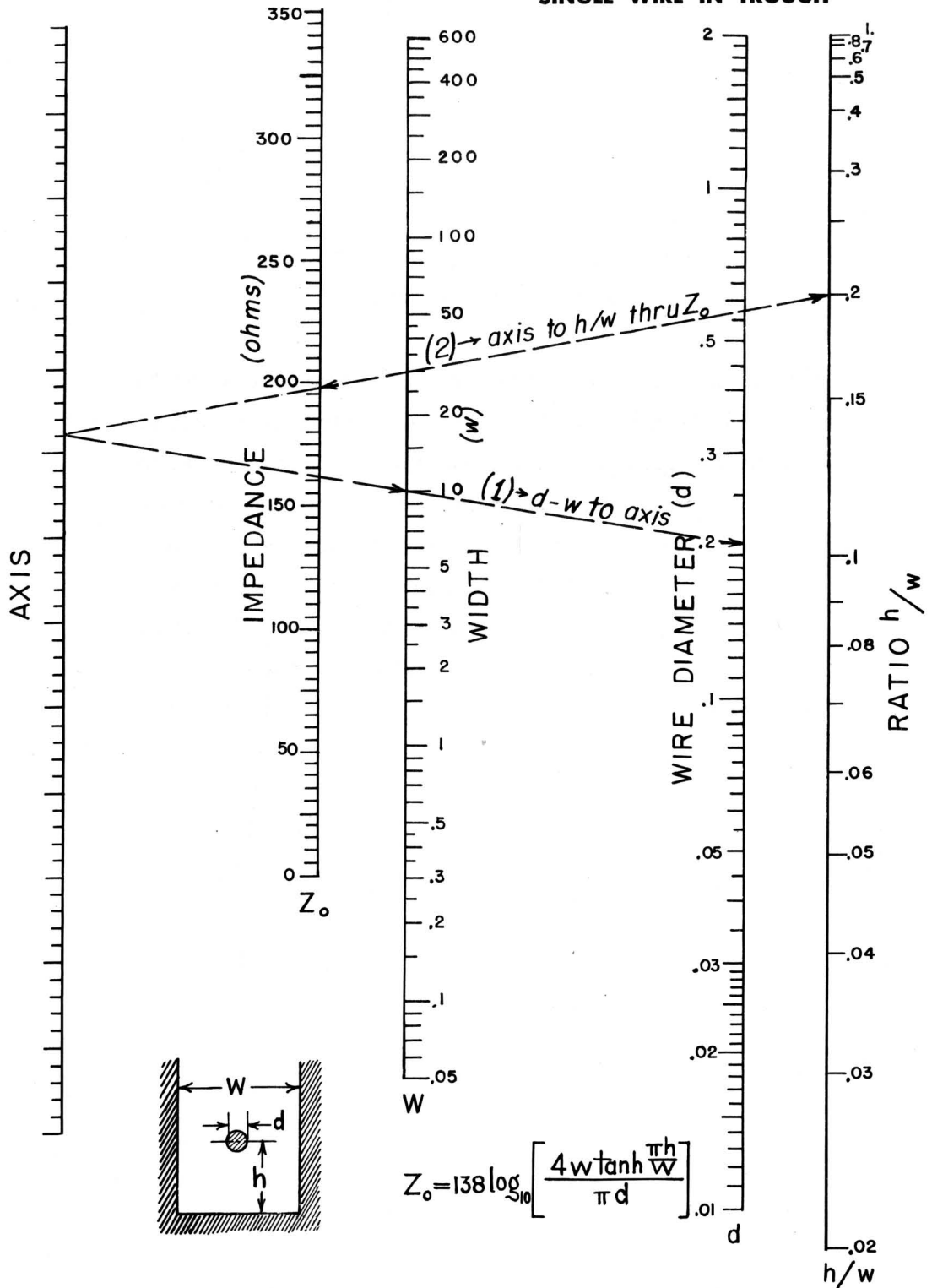




CHARACTERISTIC IMPEDANCE OF LINES

SINGLE WIRE IN TROUGH



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CHARACTERISTIC IMPEDANCE OF LINES
SINGLE WIRE IN TROUGH

Start with d and W values and extend line to axis. From latter point, a line to h/W scale will intersect Z_0 axis at resulting impedance value. Engineering accuracy when $W/d > 3$ and $h/d > 1.5$. Relations are only approximate beyond these values. Assumes lossless dielectric (air) and perfect conductors. Sides of trough assumed to extend to infinity. Any dimensional unit may be used. For other dielectrics multiply Z_0 by $1/\sqrt{\epsilon}$ where ϵ is dielectric constant.