

$$D = \frac{p}{qB} \theta_{bend} \frac{1}{2} \left(\cos \theta + \frac{1}{\cos \theta} \right)$$

D : drift distance

B : Solenoid field

θ_{bend} : Bending angle of the solenoid channel

p : Momentum of the particle

q : Charge of the particle

θ : $\text{atan}(P_T/P_L)$