Lag Compensator (7A)

Please send corrections (or suggestions) to youngwlim@hotmail.com.

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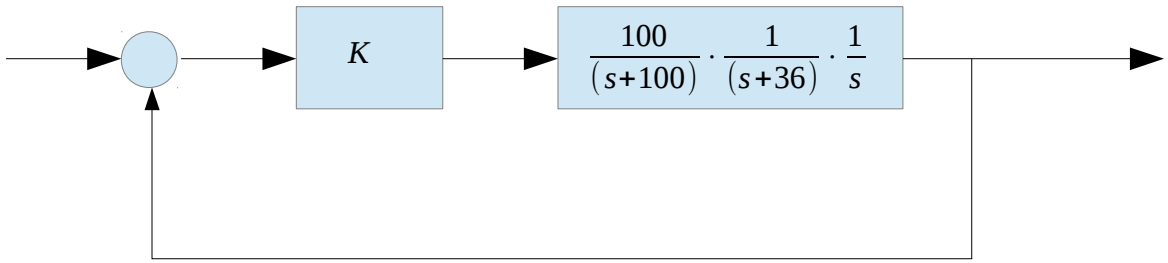
Initial K



From the uncompensated Bode plot

$\omega = 0.1 \Rightarrow Magnitude = 1 \ (0\,db)$

$$\left| K \frac{100}{(j\omega+100)} \cdot \frac{1}{(j\omega+36)} \cdot \frac{1}{j\omega} \right| \approx \left| K \frac{100}{(100)} \cdot \frac{1}{(36)} \cdot \frac{1}{0.1} \right| = 1 \Rightarrow K \approx 3.6$$

References

[1] http://en.wikipedia.org/
[2] M.L. Boas, “Mathematical Methods in the Physical Sciences”
[3] E. Kreyszig, “Advanced Engineering Mathematics”
[4] D. G. Zill, W. S. Wright, “Advanced Engineering Mathematics”