

Lag Compensator (7A)

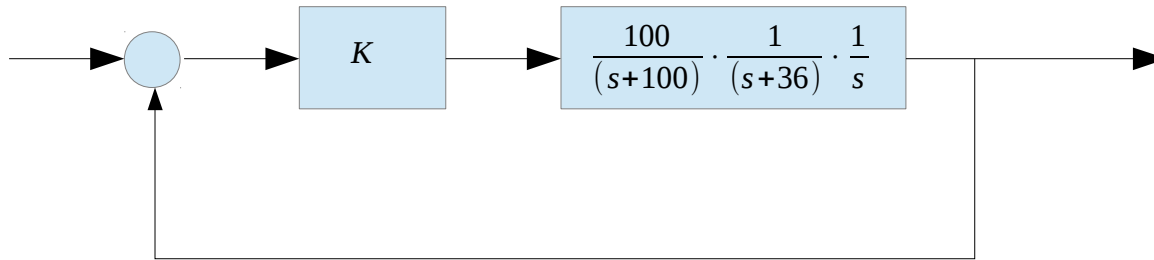
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Initial K



From the
uncompensated
Bode plot

$\omega=0.1 \rightarrow$ Magnitude=1 (0db)

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

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"