

PID Optimization Results

Generated on 2025-12-07_21-35-57

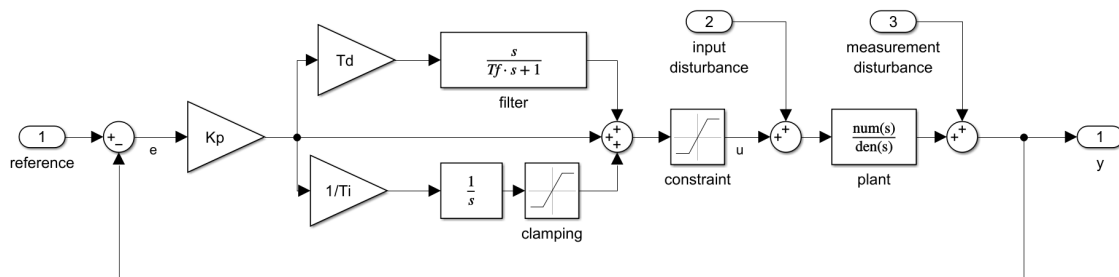


Information

PRELIMINARY – results have not been fully validated and the application is still under development

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enjoy tuning and leave us some feedback: bhir@zhaw.ch



Plant Model

Numerator: [23040]

Denominator: [1, 9.6, 2304]

Best Found Parameters

$K_p = 7.6346$

$T_i = 0.2618$

$T_d = 0.0053$

Best ITAE = 0.000024

Recommended Filter Time Constant (T_f)

$T_{f,max} = 1.3719e-05$ s (upper limit imposed by the crossover frequency)

To implement this filter digitally, the sampling frequency f_s should be at least 232025 Hz.

For the generated plots, the filter time constant was set to $T_{f,max}$.

Simulation Settings

Start time: 0

End time: 1

Mode: fixed

Time step: 0.0001

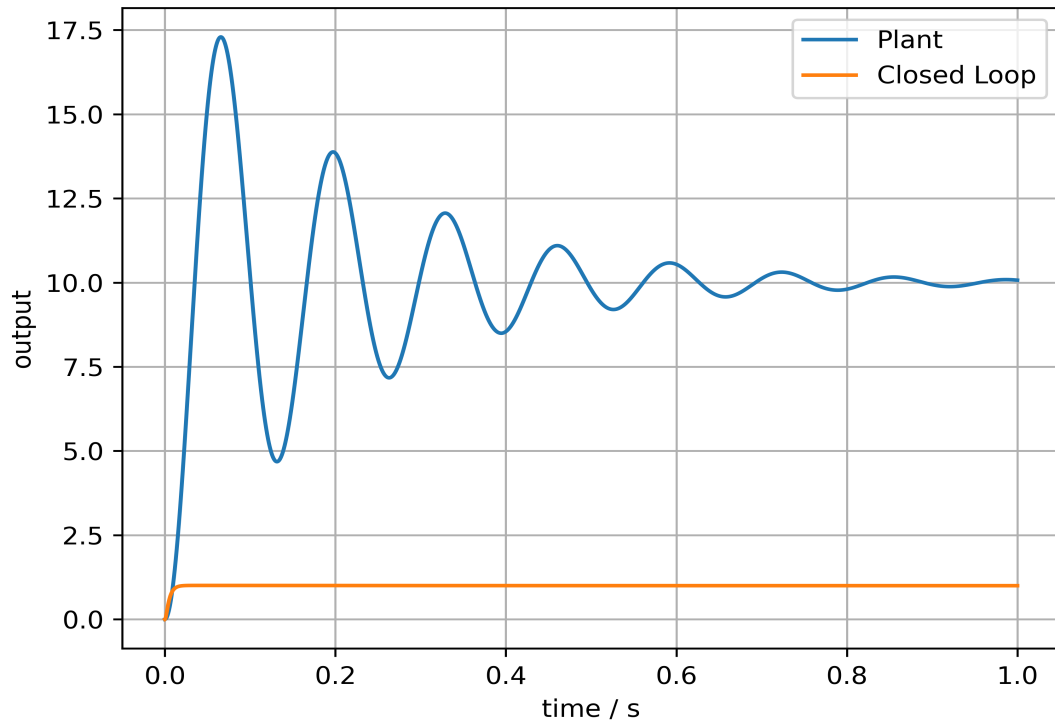
Excitation target: reference

Anti-windup-method: clamping

Control output upper limit: 4

Control output lower limit: -4

Step Response



Bode Diagramm

