

# Controllable current source

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**Notes:**

Max Iout =  $V_{pc} / (R_{sense} + R_2 + R_{load})$

Minimal current is not zero, Imin = 20mA (depends on R\_limit)

In actual circuit we used four NMOSFET transistor: 2N7000 connected in parallel

C4 = 100nF (actually any fast one), C3 = 6.8uF and R8 combination remove pulsation, without them I have modulation of the current around 100kHz due to coil inductivity

C1, C2 increases start up time (which is good, since it does make slow start circuit) and decrease output noise above 100Hz (I think it is R1.C1 time constant), and decrease coupling of the rail noise (from voltage divider) into the output current. Though it increase low frequency noise a bit

