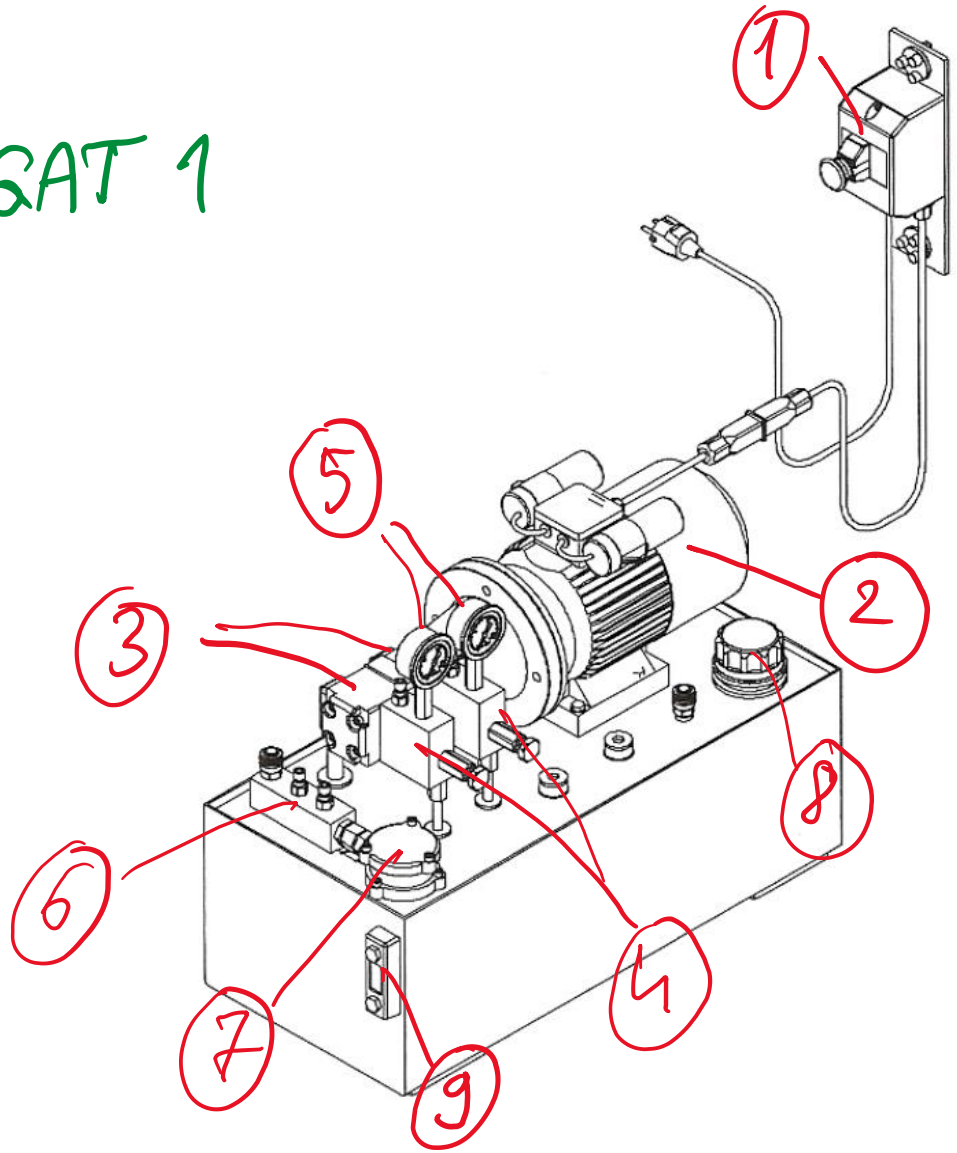
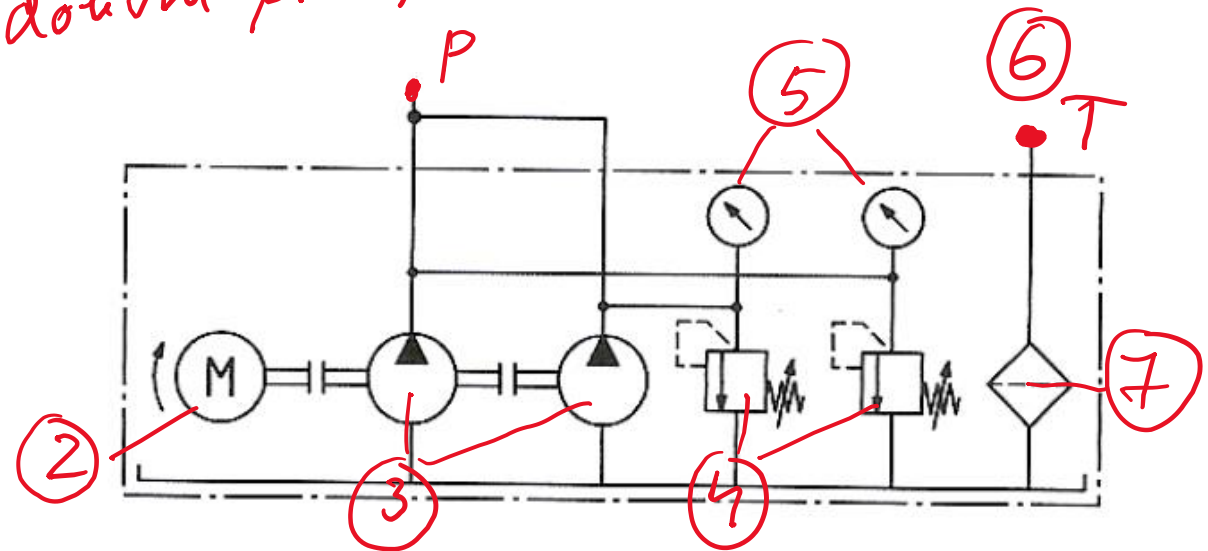
Legenda:

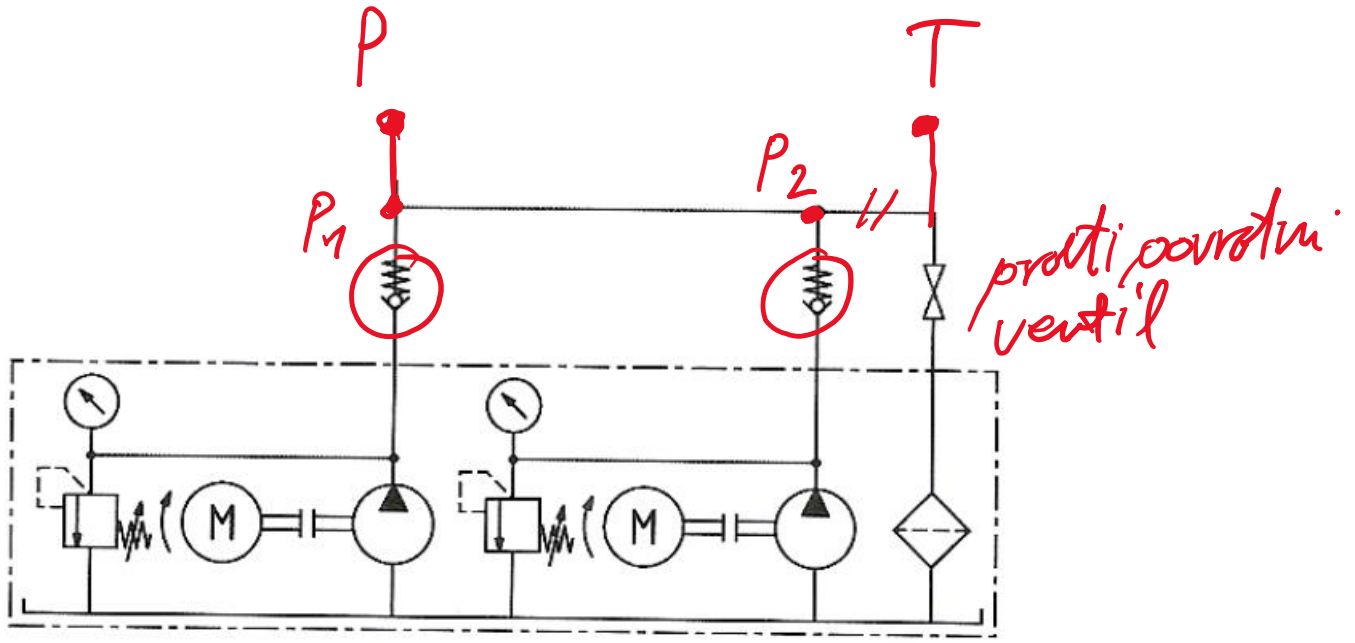
1. vklopno stikalo
2. elektro motor (1,1 kW)
3. črpalki (2 × 3,7 l/min)
4. varnostna ventila, priklop P
5. manometri (tlak p)
6. priključki povratni vod T
7. povratni filter
8. dolivni priključek
9. merilnik nivoja olja

AGREGAT 1

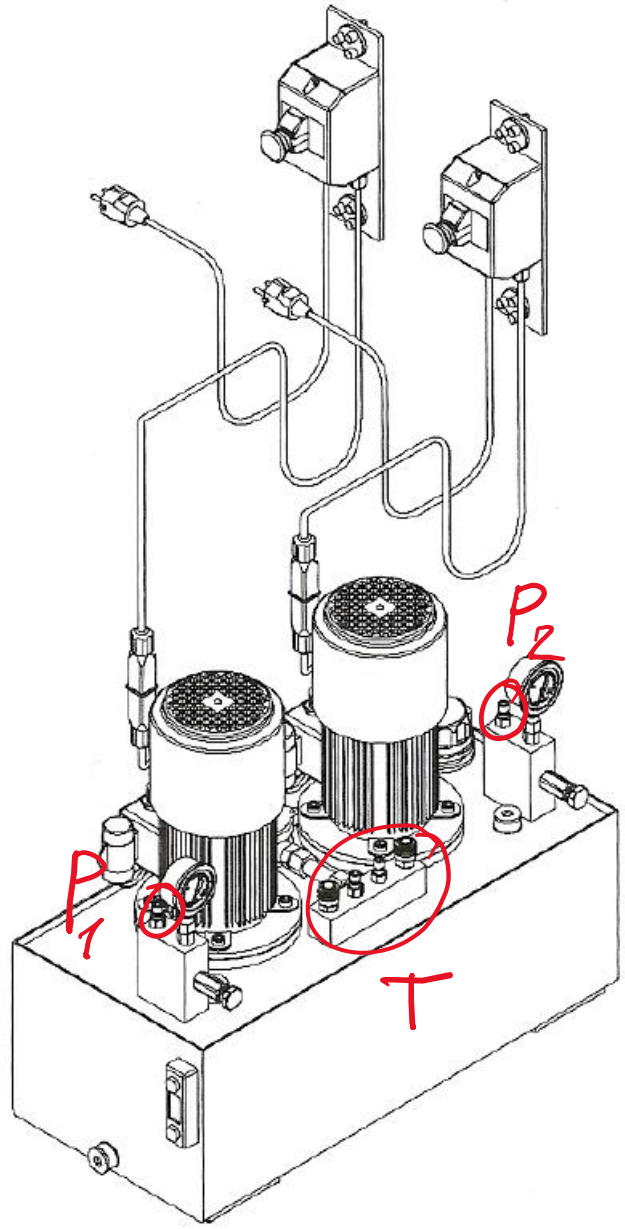


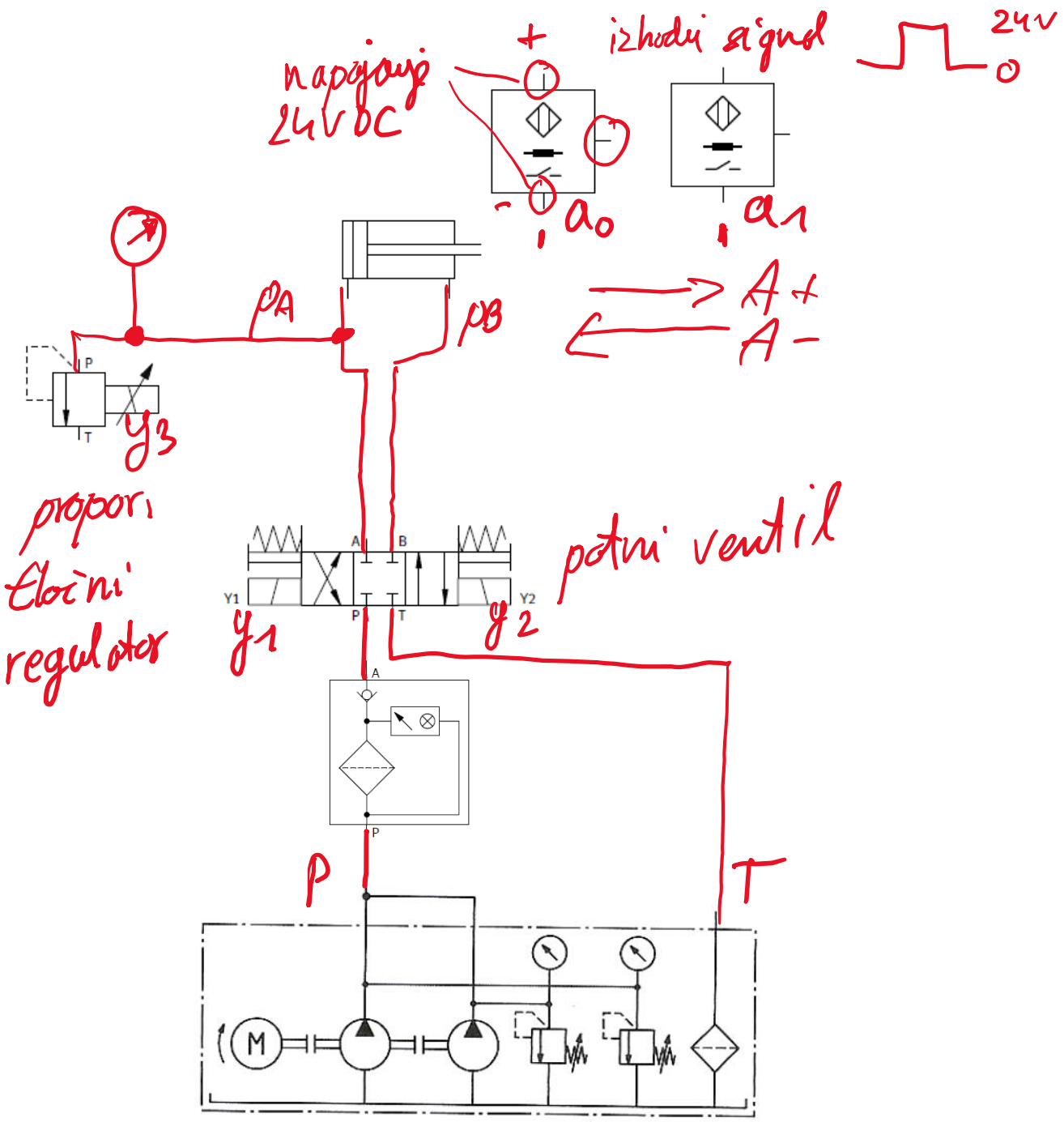


AGREGAT 2



prodi povratni ventil





KRMILJENJE:

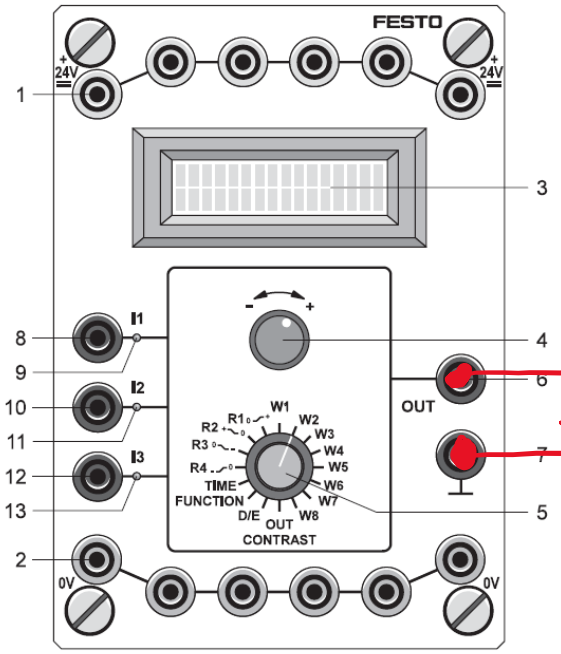
- potni ventil
- proporc. tlačni regulator

!!

električna krmilna shema

- stikala (START, STOP)
- releji
- magneti (y_1, y_2, y_3)
- končna stikala (a_0, a_1) (induktivna)

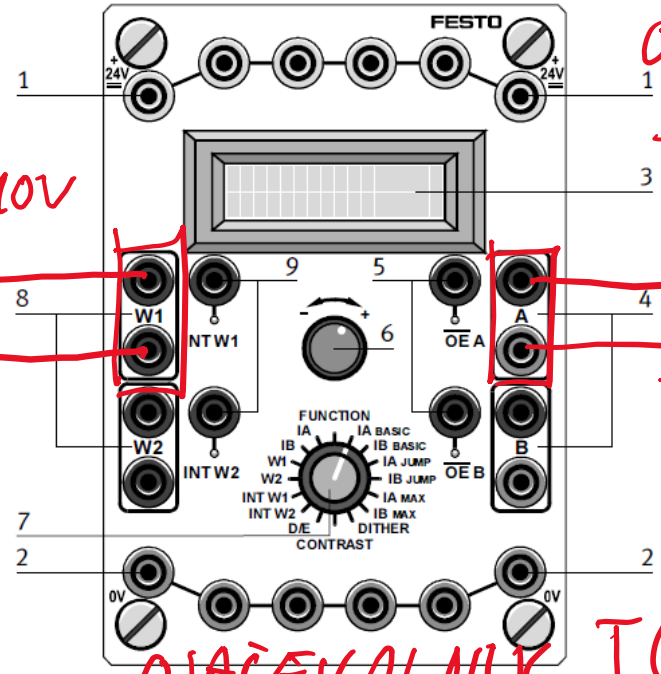
generator signala U(t)



+ signal U

- signal U

0 → 10V



ojačevalnik elekt. toka I(t)

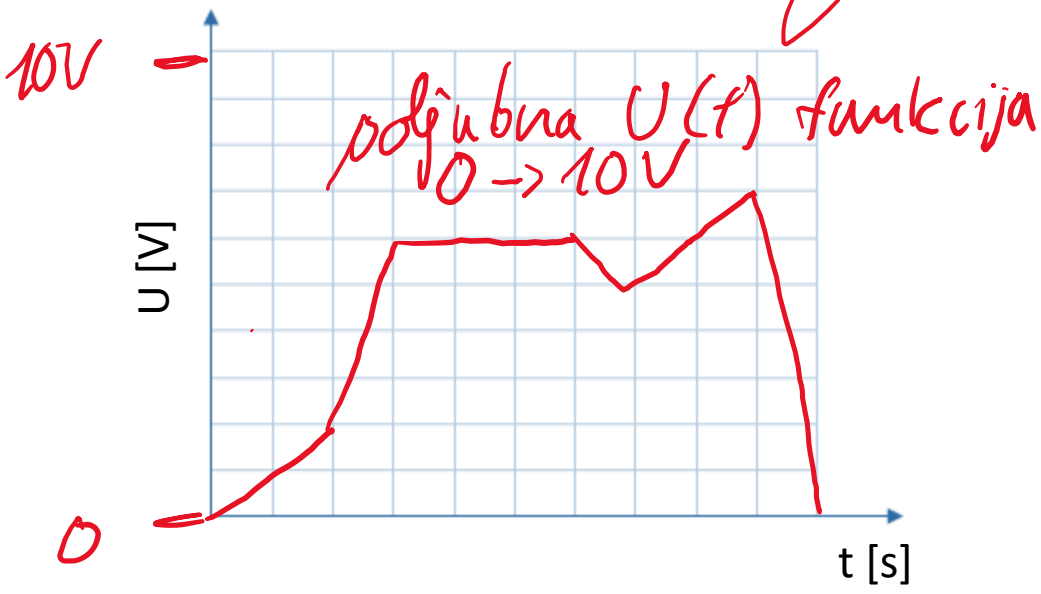
+ signal I

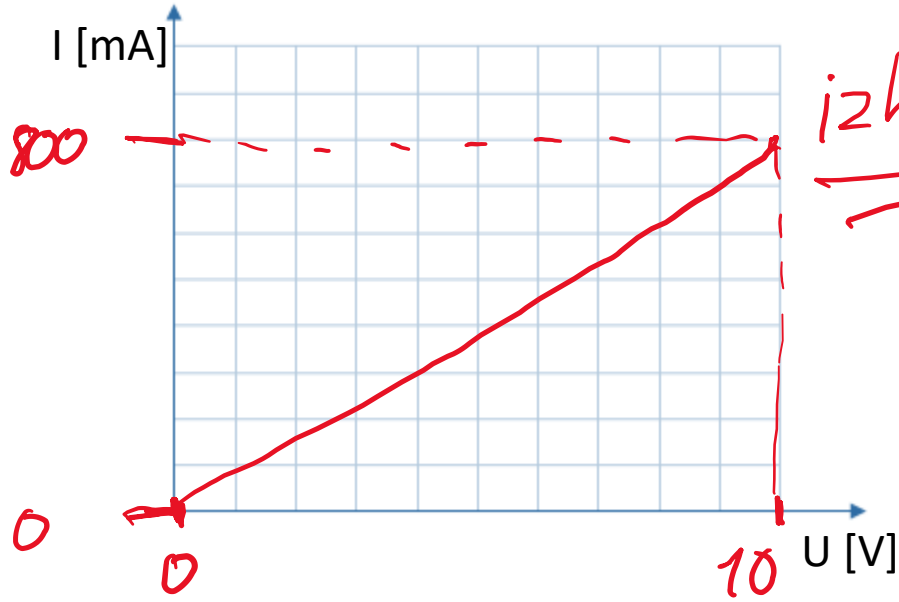
0 → 800 mA

- signal I

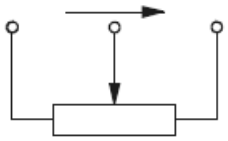
OJAČEVALNIK I(t)

U(t)

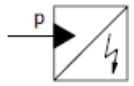




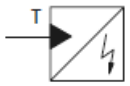
izhodišče



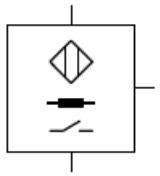
potenciometer
merilnik pomika (0→10 V)
(0→200 mm)



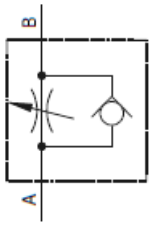
tlačni senzor (0→10V)
(0→100 bar)



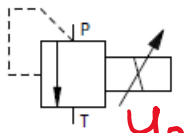
temp. senzor (0→10 V)
(0→100°C)



indukt. končni stikalo (napajanje 24V DC)

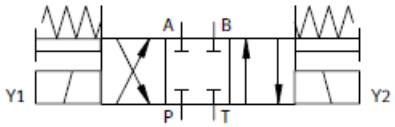


protipovratni dušilni ventil

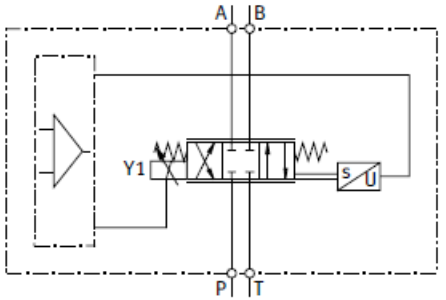


Y_3

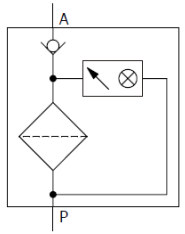
proporcionalni tlačni ventil (0 ... 800 mA)
~ 1000



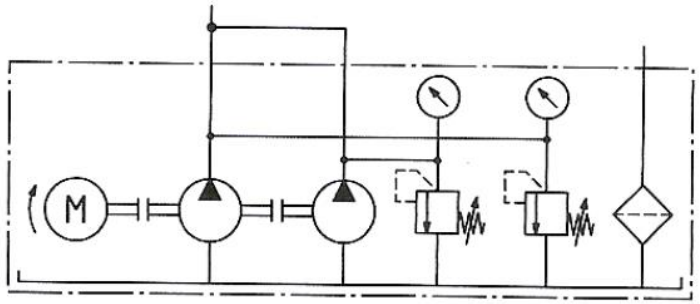
potni ventil 4/3 (krmil. signal 24V)



proporc. potni ventil 4/3
napaj: + 24VDC
— 0VDC
krm. signal ± 10V



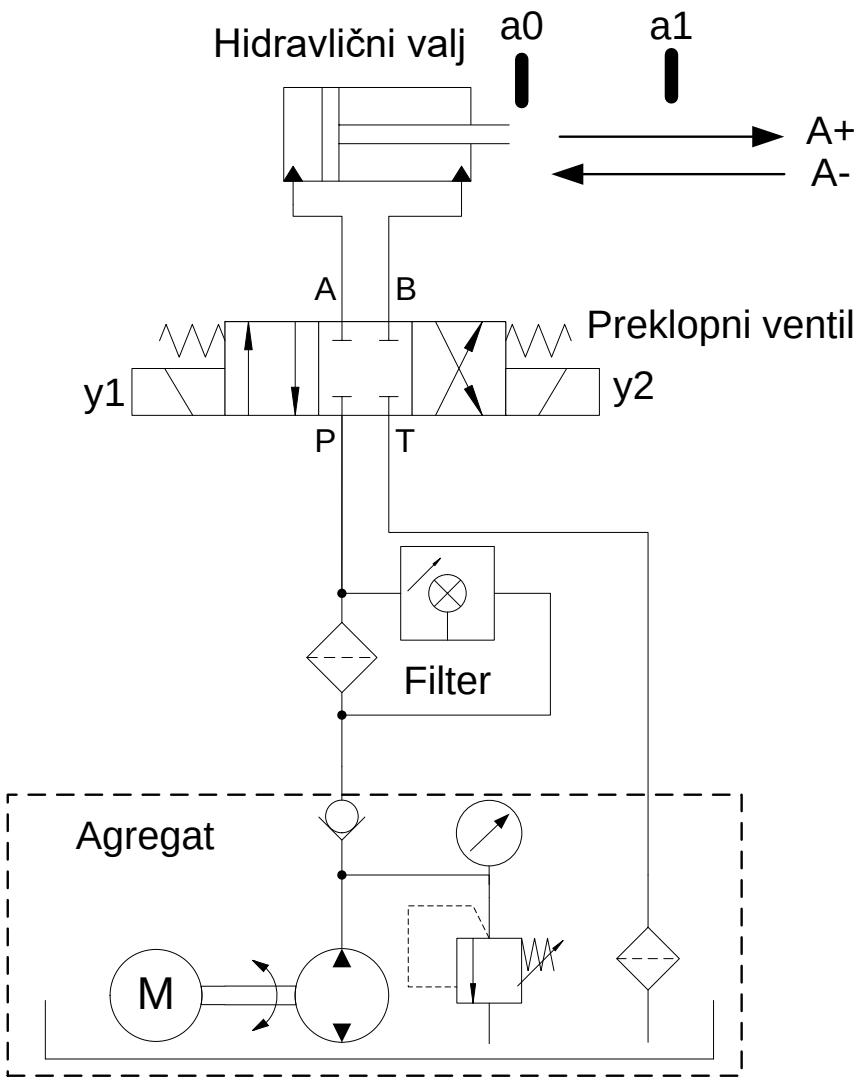
tlačni filter (5μm)



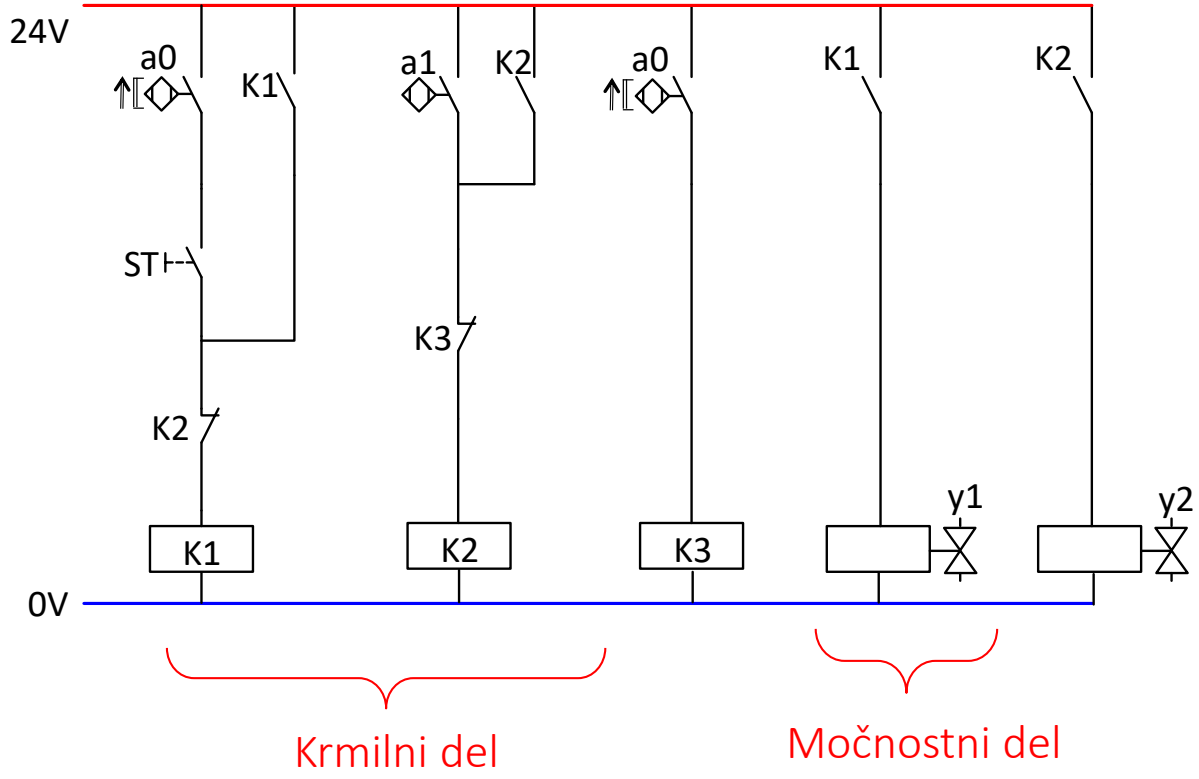
agregat

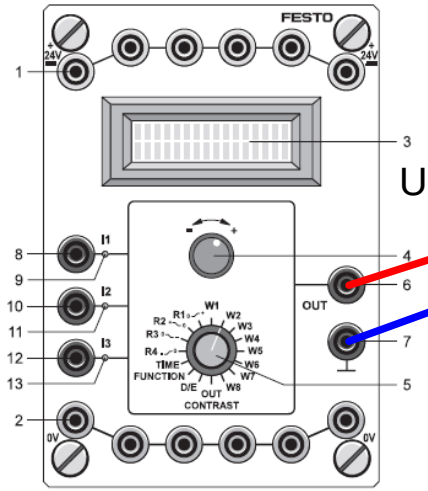
Hidravlična shema za krmiljenje cilindra A+, A-

osnovna za A+ in A-



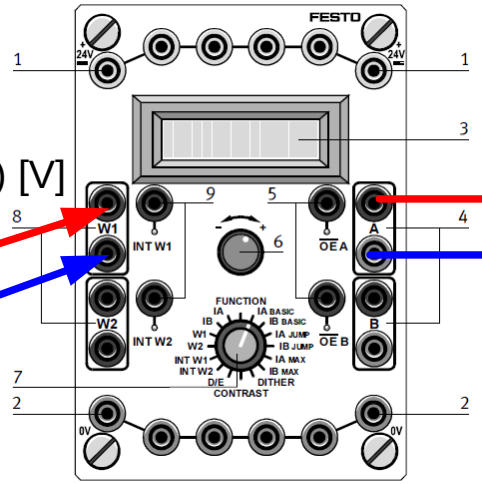
Električna krmilna shema za krmiljenje cilindra A+, A-





Generator napetostnega signala v obliki funkcije

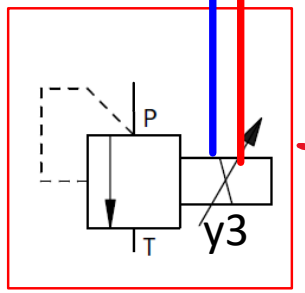
U(t) [V]



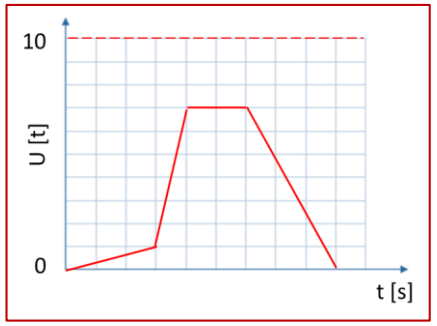
Ojačevalnik električnega toka

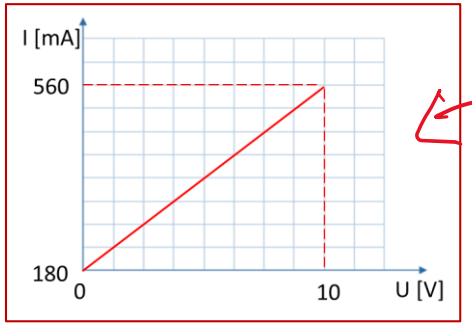
I(t)=180...560 mA

I(t) [mA]



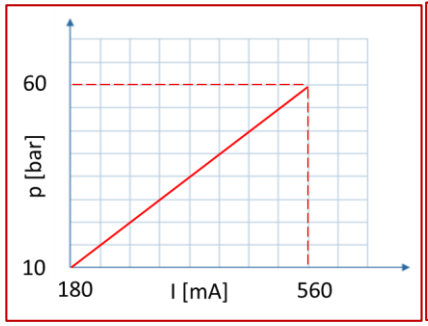
U(t)=0...10 V



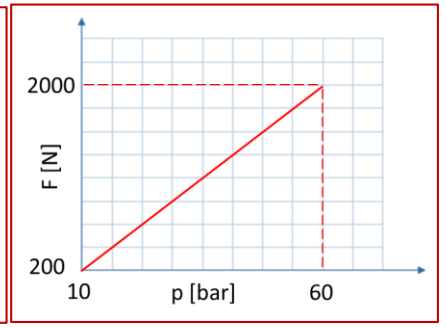


Nastavljena karakteristika ojačevalnika (primer)

upoštevana karakteristika



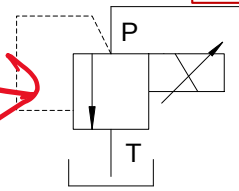
Nastavljena karakteristika ojačevalnika vpliva na kriljenje tlaka (primer)



Karakteristika cilindra (primer)

pA

p(t)



Hidravlični valj

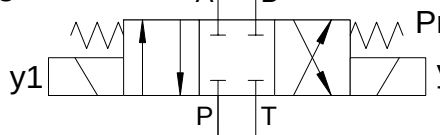
a0

a1

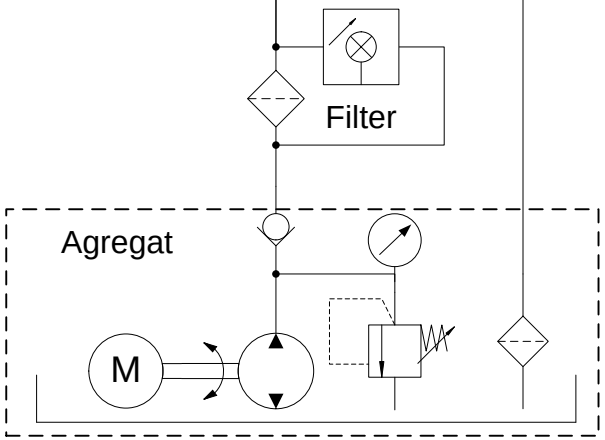
A+

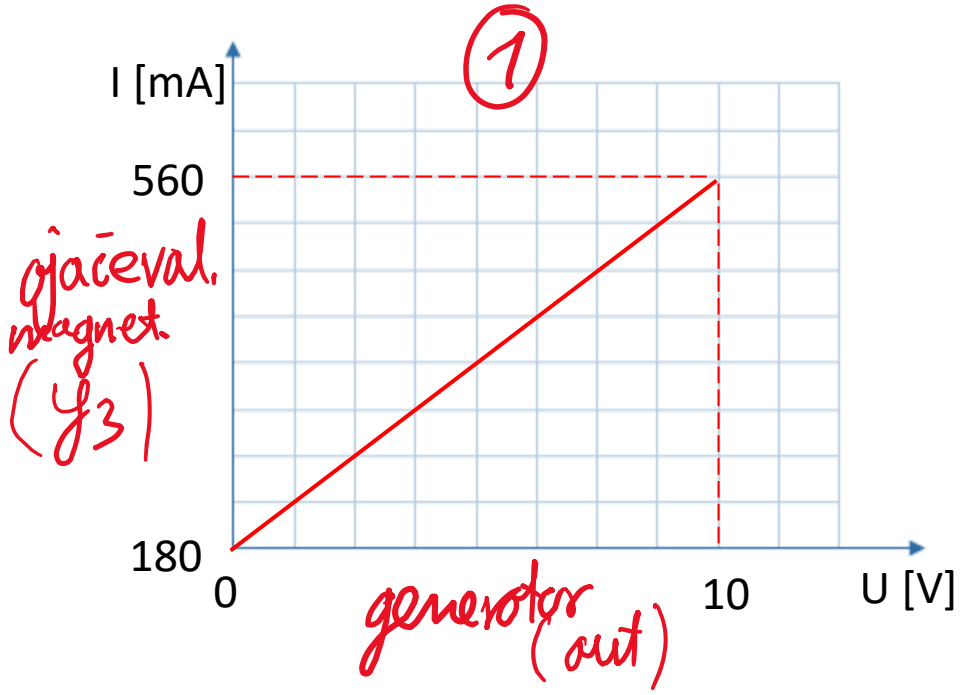
A-

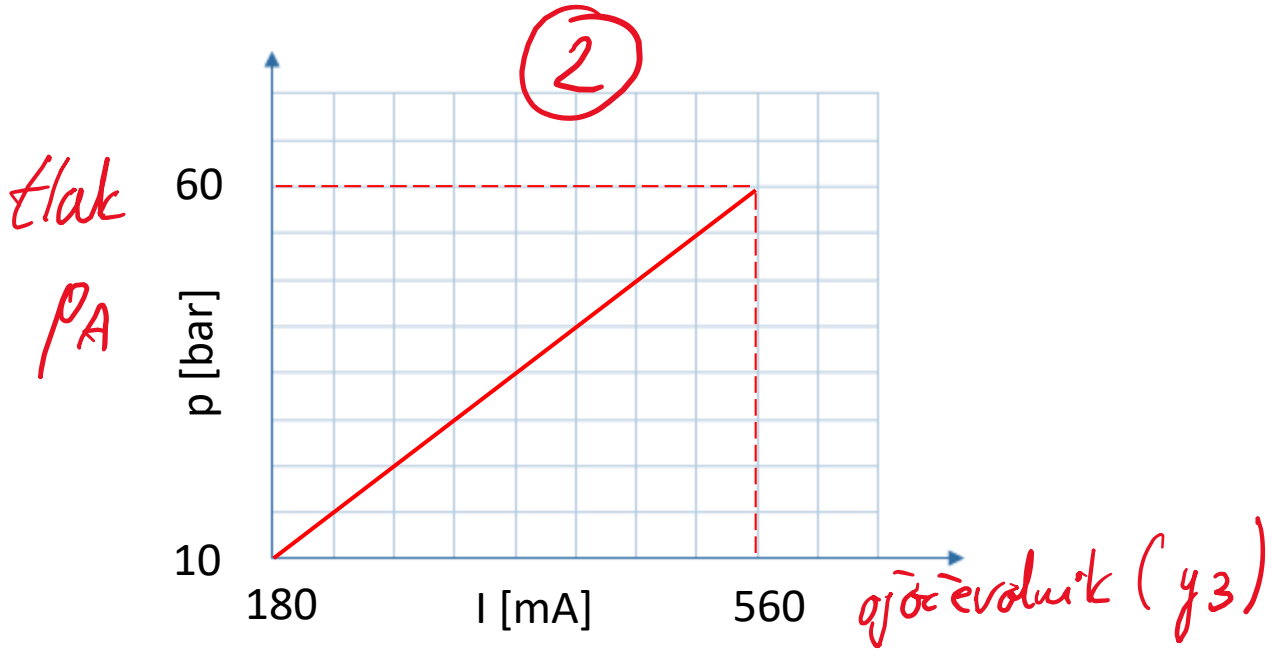
F(t)

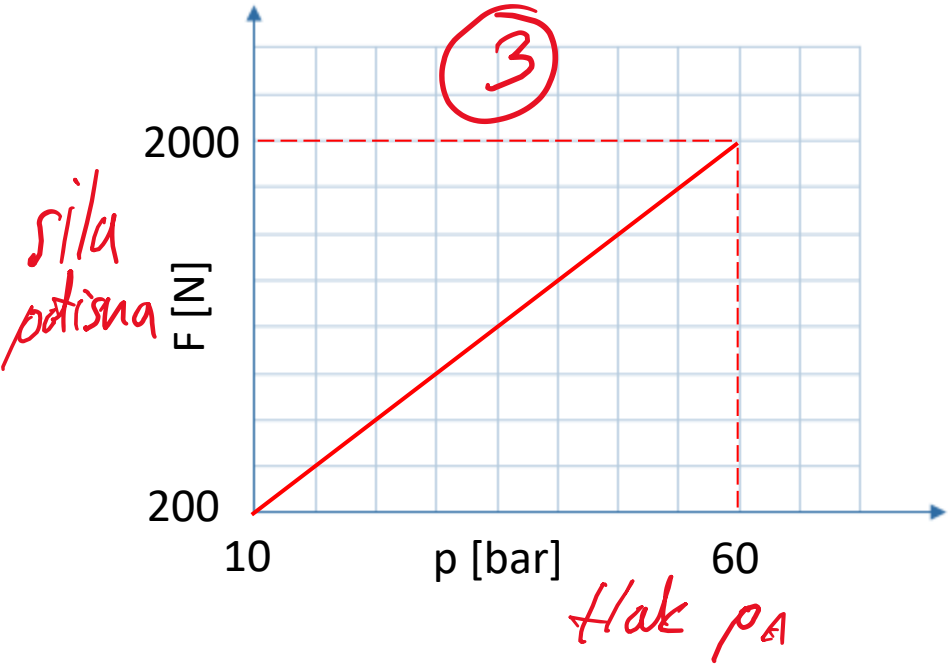


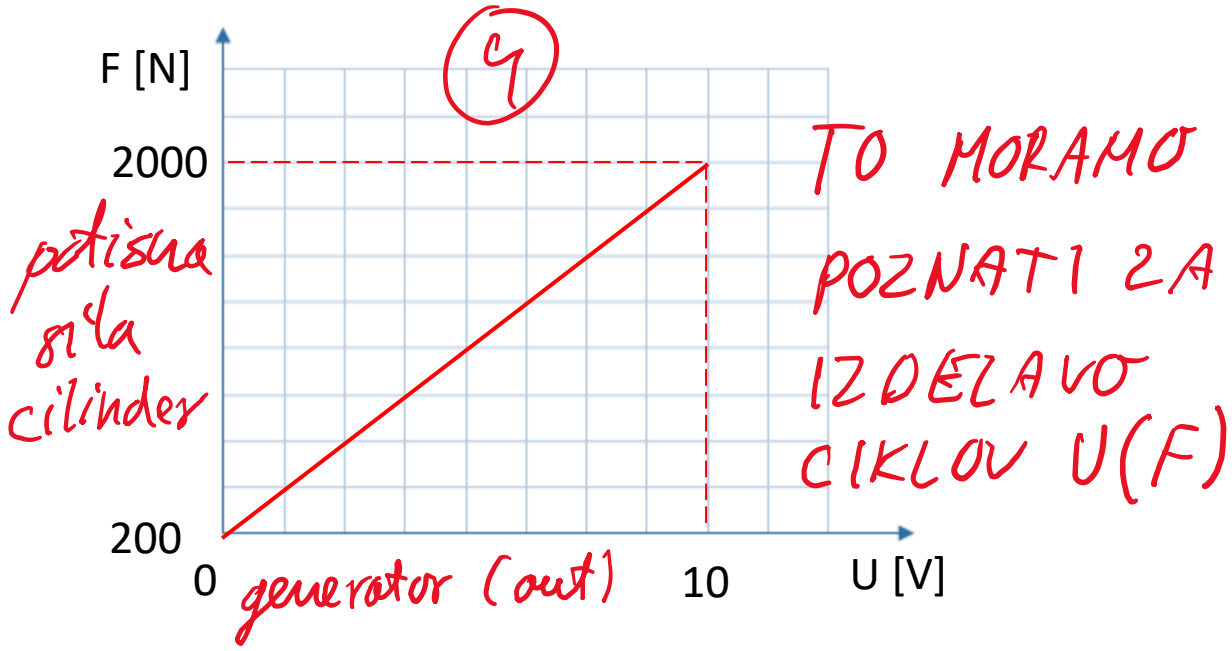
Preklopni ventil




1
I [mA]
560
180
0
10
U [V]
generator (out)
gjačeval. magnet. (y3)


2
tlak pA
60
10
p [bar]
180
I [mA]
560
gjačevalnik (y3)


3
2000
200
F [N]
10
p [bar]
60
tlak pA
sila potisna


4
F [N]
2000
200
0
generator (out)
10
U [V]
potisna sila cilinder
TO MORAMO POZNATI ZA IZDELAVO CIKLOV U(F)