

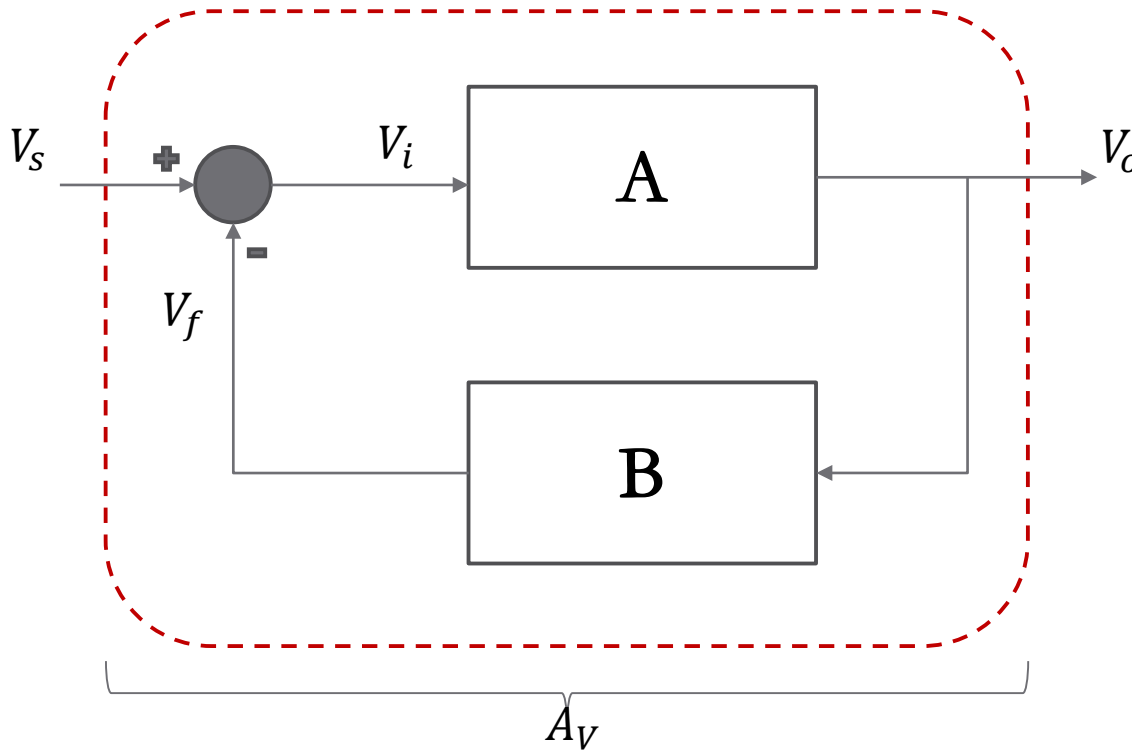
# ELM320 ANALOG ELEKTRONİK

Ders Materyali

GERİBESLEMELİ YÜKSELTEÇLER

# GERİBESLEMELİ YÜKSELTEÇLER

Geribeslemeli yükselteç:



$$A = \frac{V_o}{V_i}$$

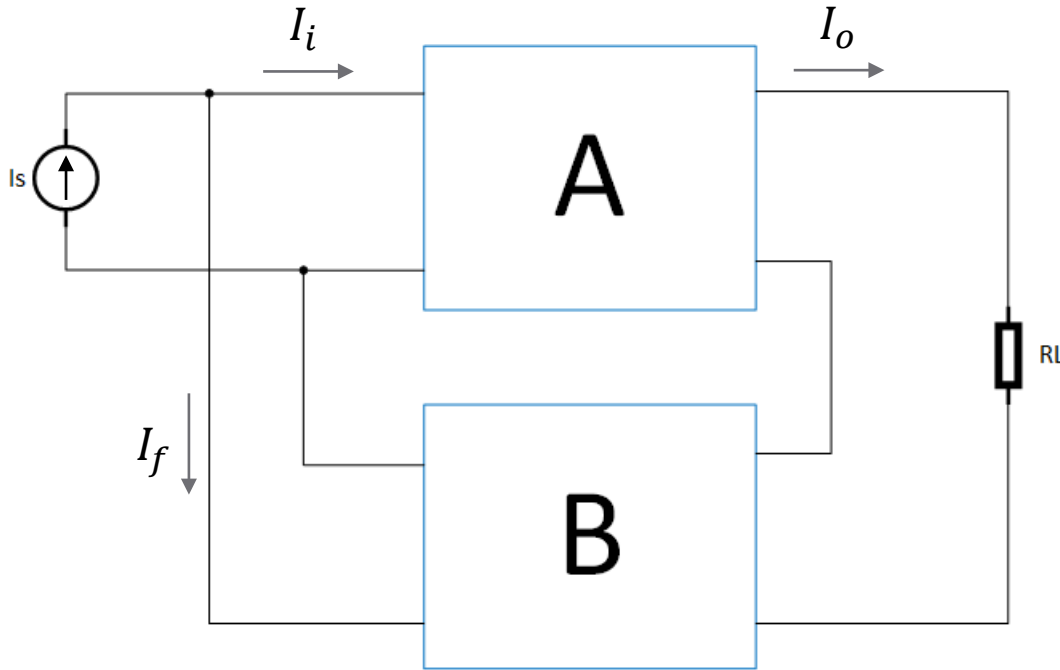
$$B = \frac{V_f}{V_o}$$

$$A_V = \frac{V_o}{V_s}$$

$$A_V = \frac{A}{1 + AB}$$

## GERİBESLEMELİ YÜKSELTEÇLER

Çıkış akımının girişe paralel olarak geribeslenmesi:



$$A = \frac{I_o}{I_i}$$

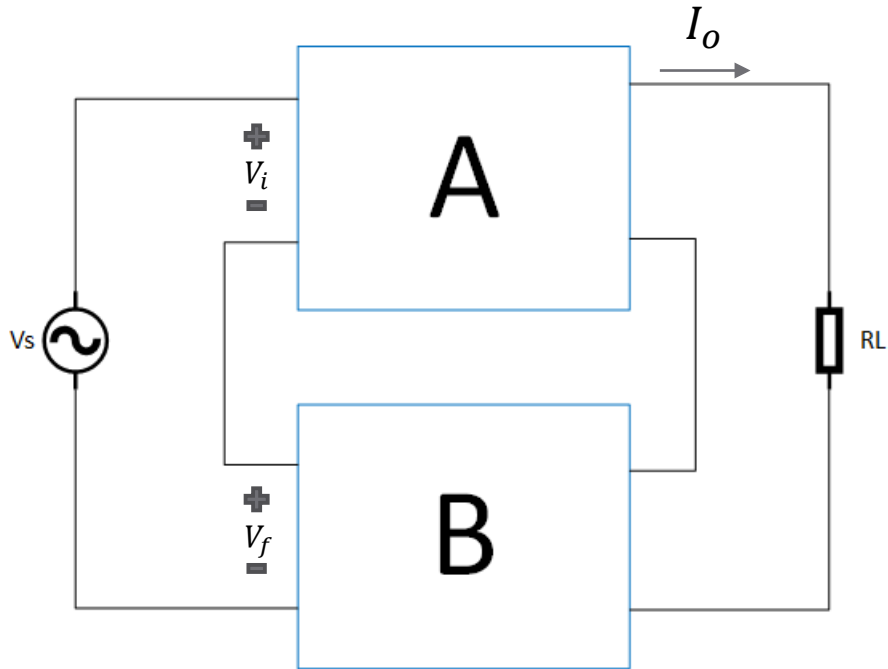
$$B = \frac{I_f}{I_o}$$

$$A_V = \frac{I_o}{I_s}$$

$$A_V = \frac{A}{1 + AB}$$

## GERİBESLEMELİ YÜKSELTEÇLER

Çıkış akımınının girişe seri olarak geribeslenmesi:



$$A = \frac{I_o}{V_i}$$

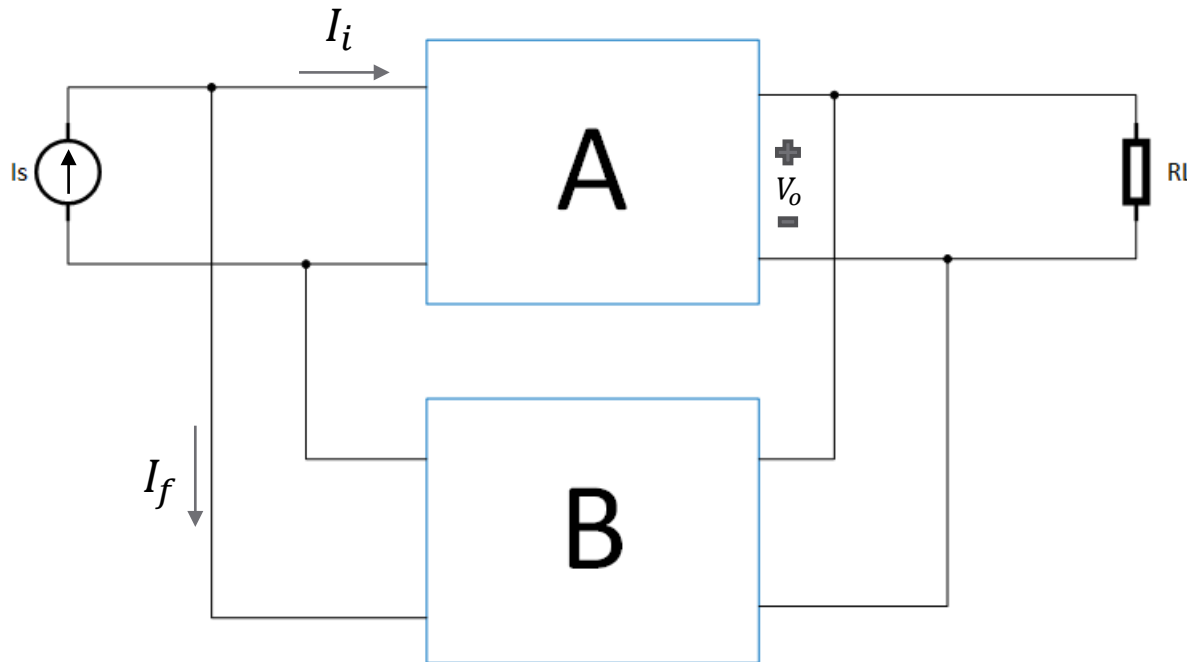
$$B = \frac{V_f}{I_o}$$

$$A_V = \frac{I_o}{V_s}$$

$$A_V = \frac{A}{1 + AB}$$

## GERİBESLEMELİ YÜKSELTEÇLER

Çıkış geriliminin girişe paralel olarak geribeslenmesi:



$$A = \frac{V_o}{I_i}$$

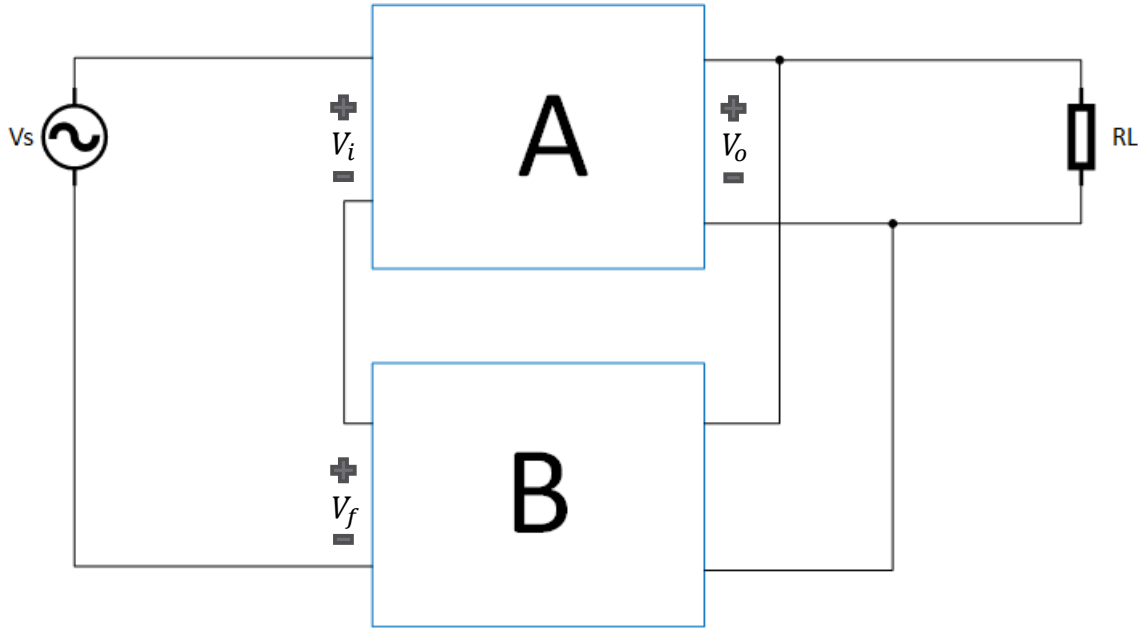
$$B = \frac{I_f}{V_o}$$

$$A_V = \frac{V_o}{I_s}$$

$$A_V = \frac{A}{1 + AB}$$

## GERİBESLEMELİ YÜKSELTEÇLER

Çıkış geriliminin girişe seri olarak geribeslenmesi:



$$A = \frac{V_o}{V_i}$$

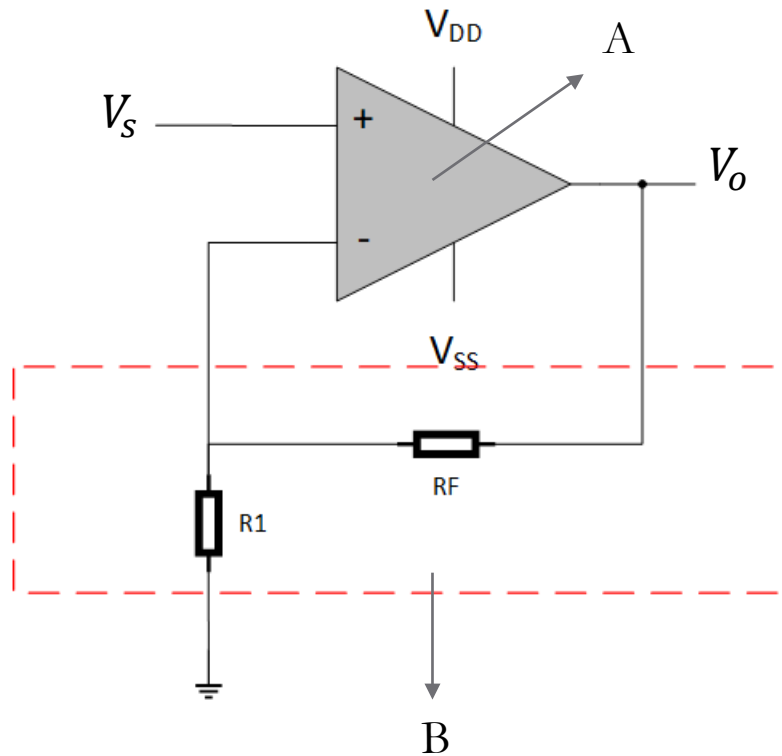
$$B = \frac{V_f}{V_o}$$

$$A_V = \frac{V_o}{V_s}$$

$$A_V = \frac{A}{1 + AB}$$

# GERİBESLEMELİ YÜKSELTEÇLER

Çıkış geriliminin girişe seri olarak geribeslenmesi:



$$B = \frac{R_1}{R_1 + R_F}$$

$$A_V = \frac{A}{1 + AB}$$

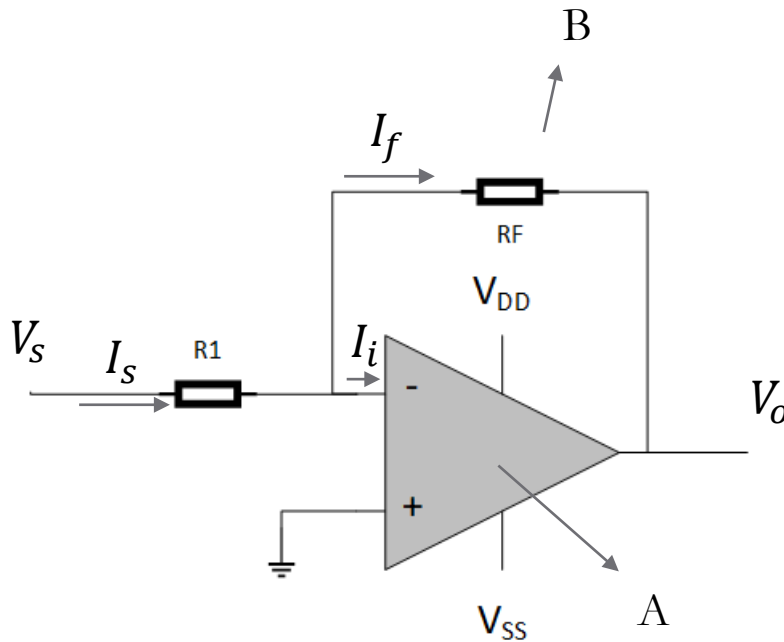
$$AB \gg 1$$



$$A_V \cong \frac{1}{B}$$

## GERİBESLEMELİ YÜKSELTEÇLER

Çıkış geriliminin girişe paralel olarak geribeslenmesi:



$$A = \frac{V_o}{I_i} \quad B = \frac{I_f}{V_o}$$

$$A_f = \frac{V_o}{I_s} = \frac{A}{1 + AB}$$

$$AB \gg 1$$



$$A_f \cong \frac{1}{B} = -RF$$

$$A_v = \frac{V_o}{V_s} = -\frac{RF}{R1}$$



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