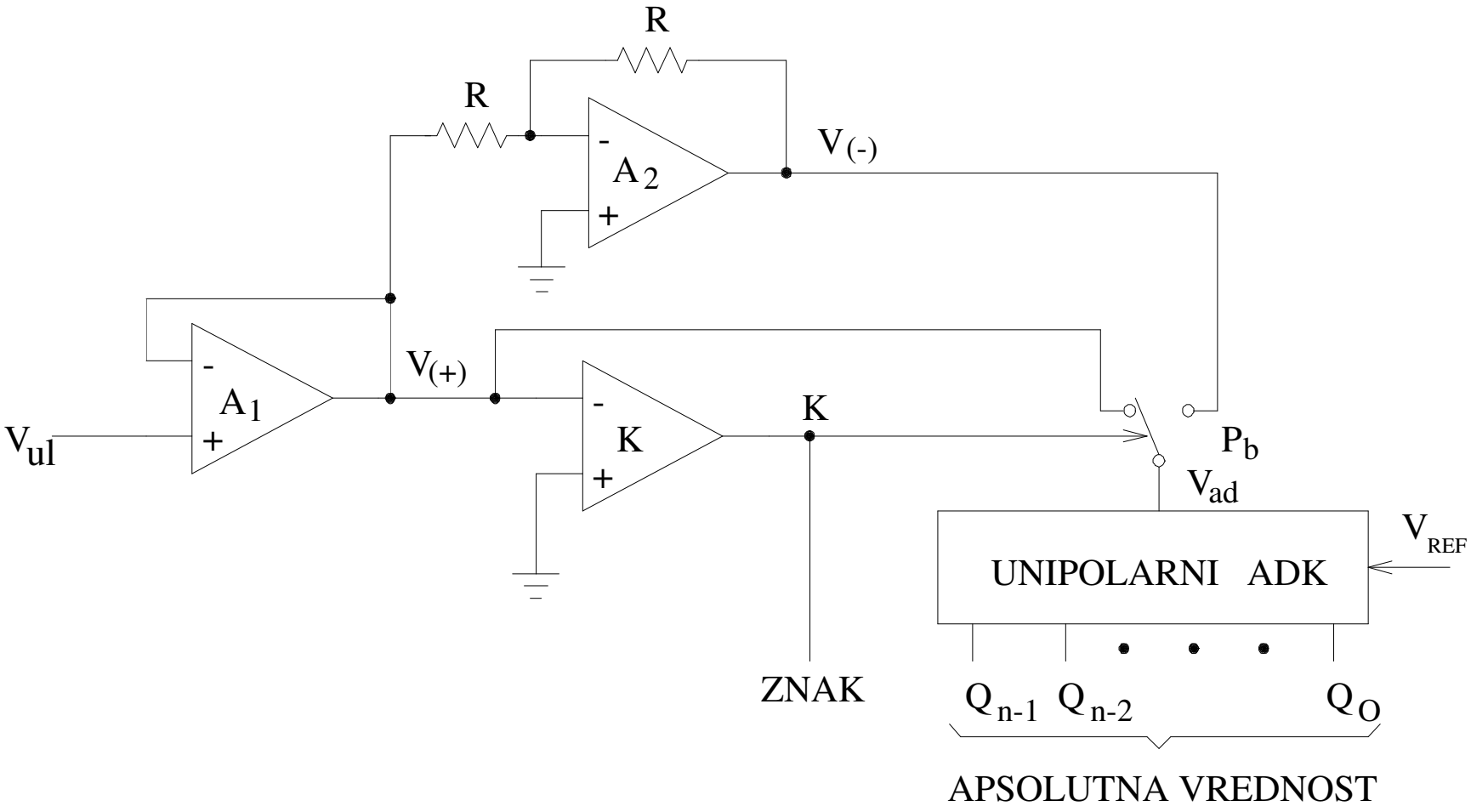
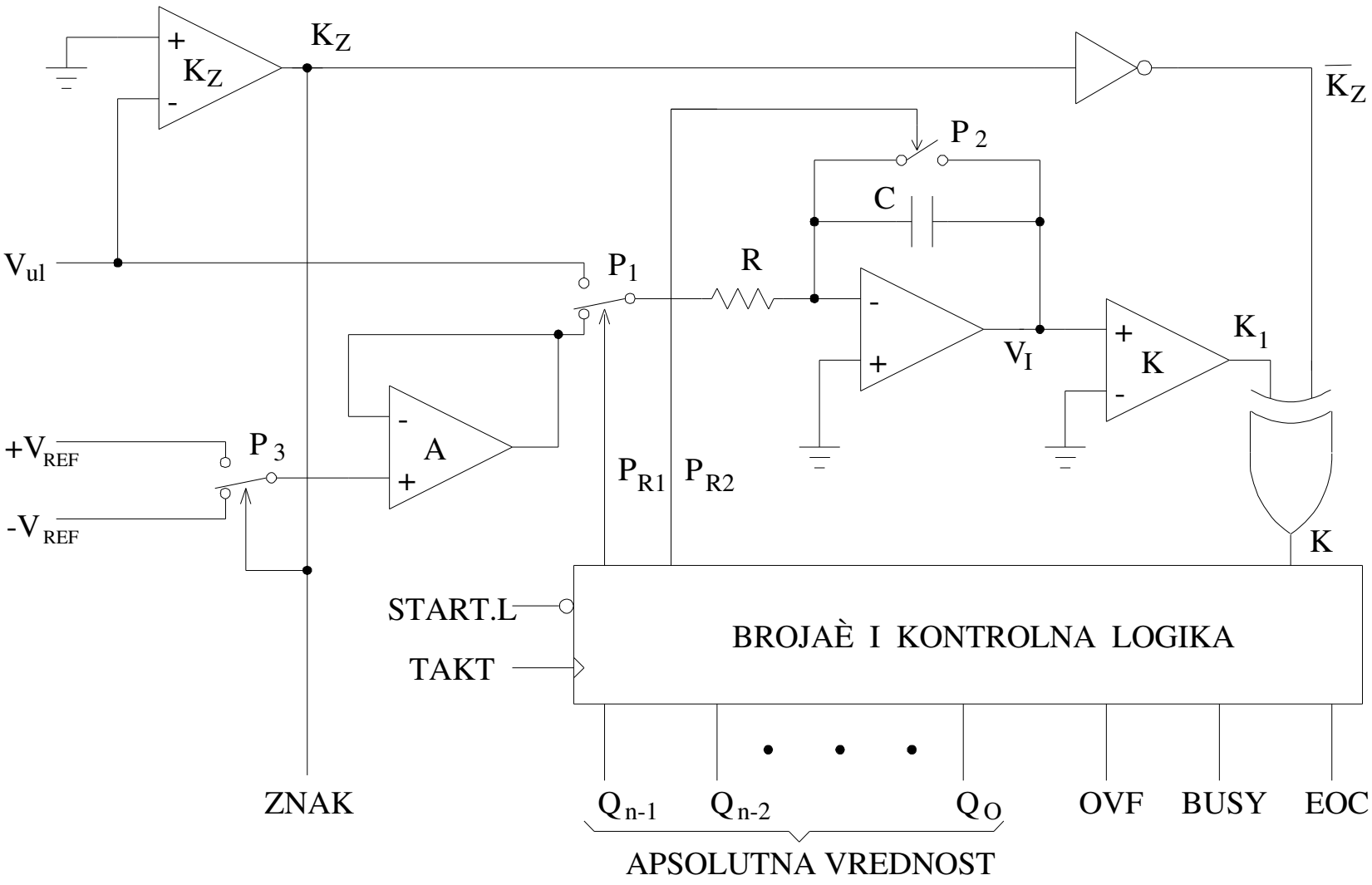
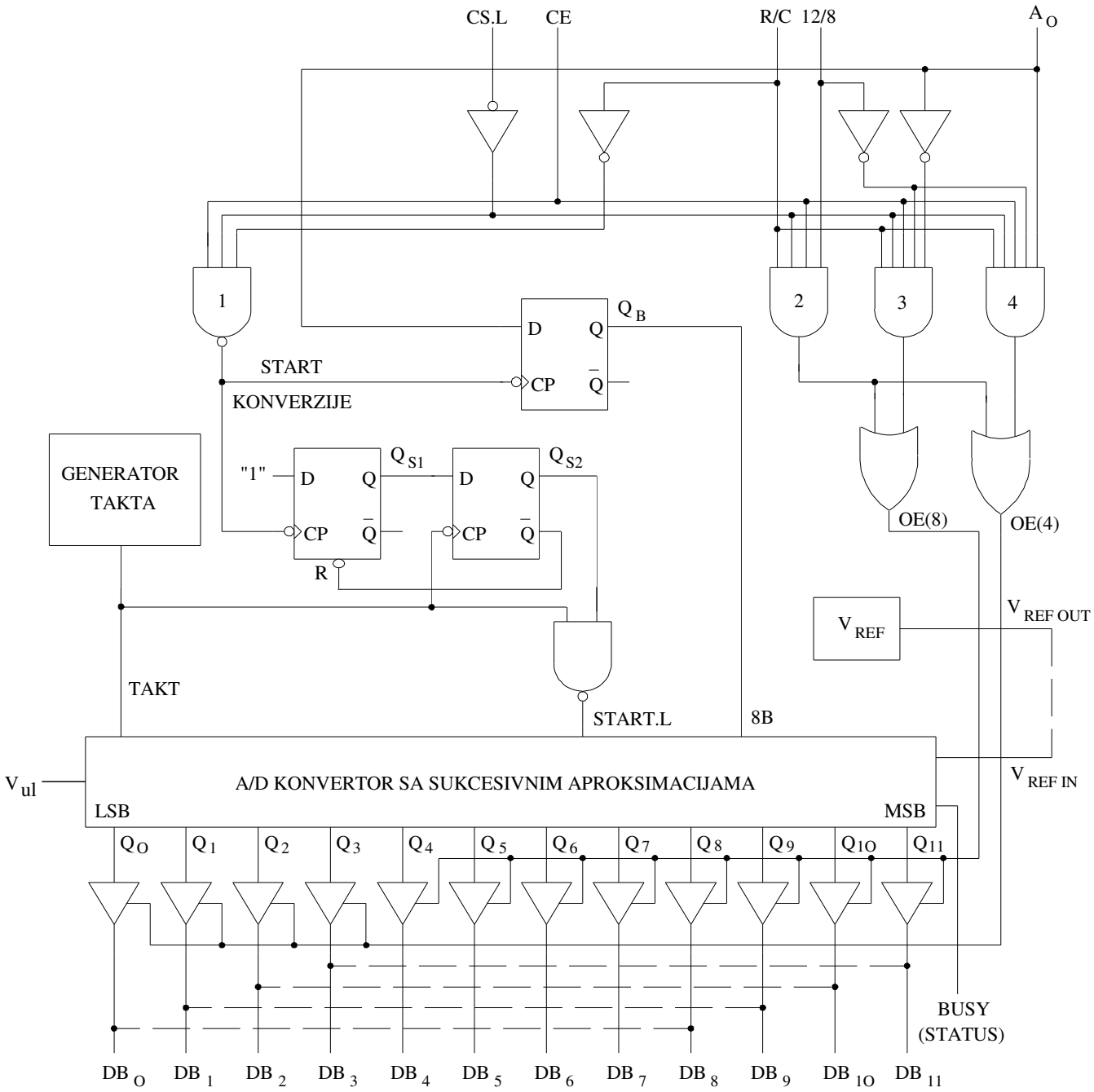
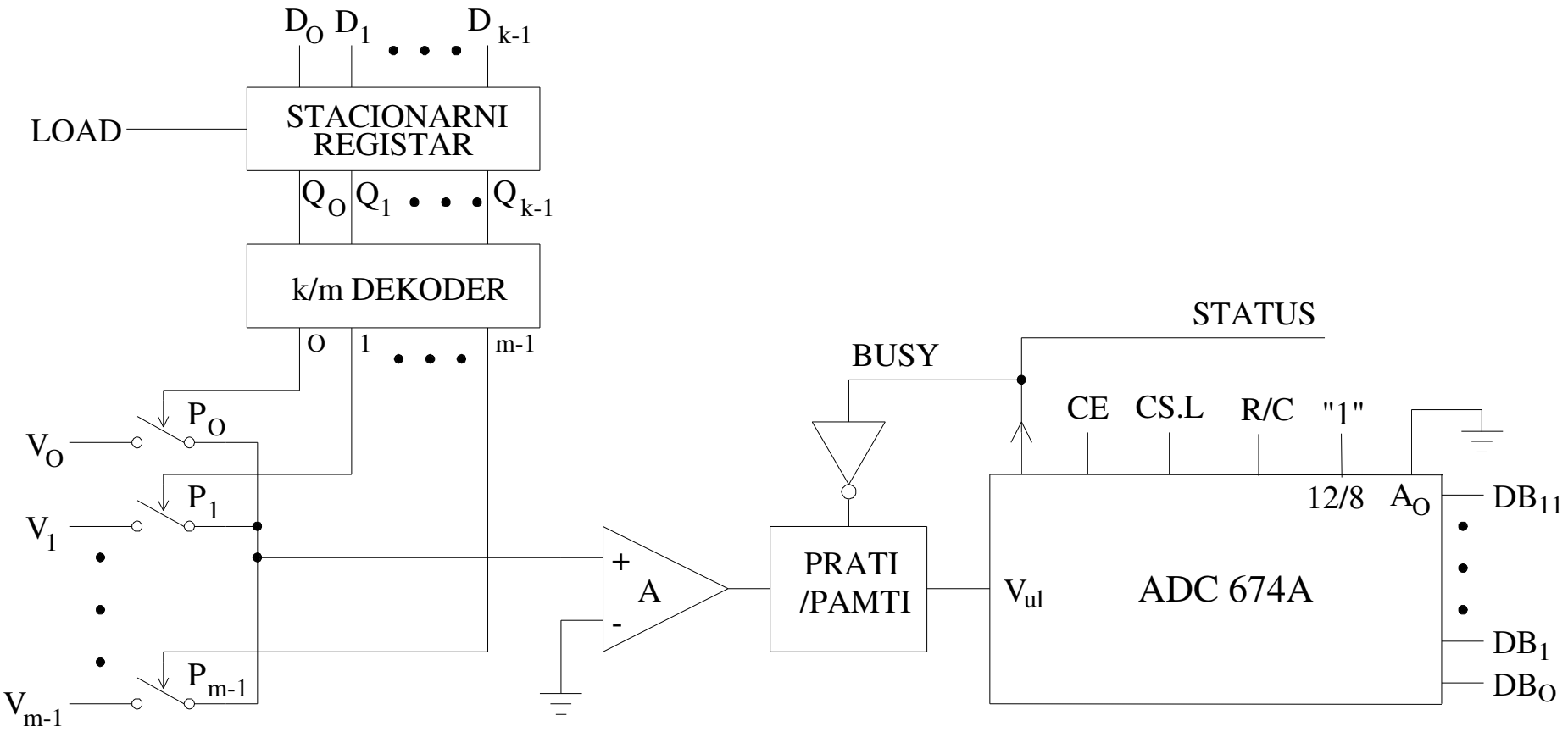
BIPOLARNI A/D KONVERTORI

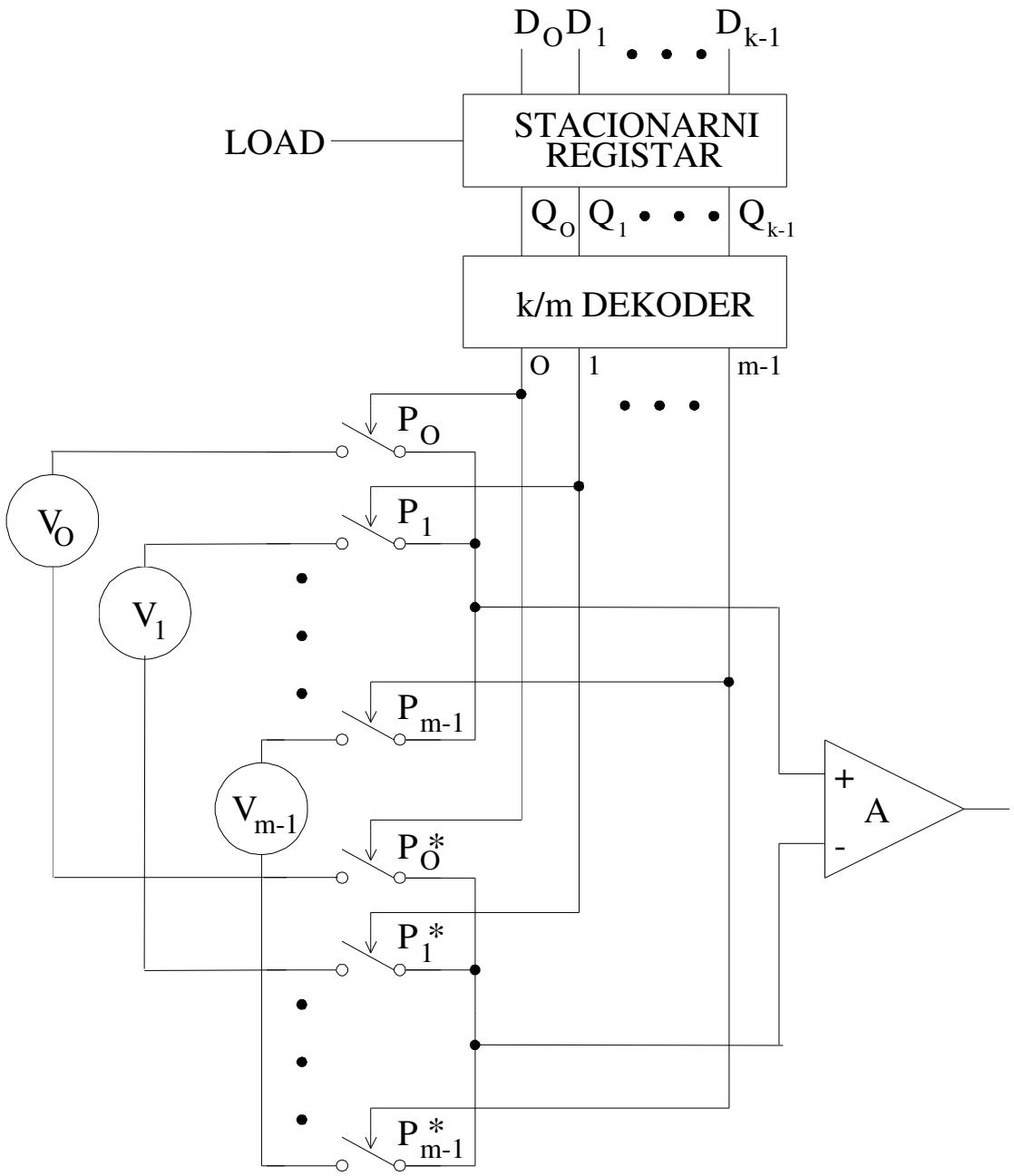


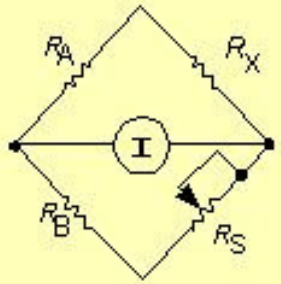
- Flash: $+REF = V_{ref}/2$, $-REF = -V_{ref}/2$. Izlazni kôd je sa binarnim ofsetom, a ako se invertuje MSB bit, izlazni kôd je u komplementu do dva
- A/D konvertor sa sukcesivnim aproksimacijama: bipolarni DAK sa binarnim ofsetom ->. Izlazni kôd u binarnom ofsetu, komplement MSB bita, izlazni u komplementu do 2


+
K_Z
-
K_Z
K_Z
P 2
C
V_ul
P_1
R
-
+
V_I
+
K
-
K_1
-
A
+
+V_REF
P 3
-V_REF
P_R1
P_R2
K
START.L
TAKT
BROJAÈ I KONTROLNA LOGIKA
ZNAK
Q_n-1
Q_n-2
Q_O
OVF
BUSY
EOC
APSOLUTNA VREDNOST

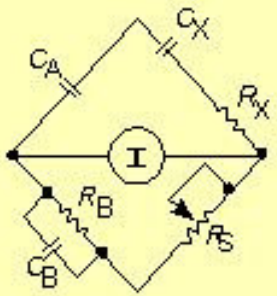

CS.L
CE
R/C
12/8
A O
1
2
3
4
D
Q
CP
Q
Q B
START
KONVERZIJE
GENERATOR
TAKTA
"1"
Q S1
Q S2
R
OE(8)
OE(4)
V REF
V REF OUT
V REF IN
TAKT
START.L
8B
V ul
A/D KONVERTOR SA SUKCESIVNIM APROKSIMACIJAMA
LSB
MSB
Q O
Q 1
Q 2
Q 3
Q 4
Q 5
Q 6
Q 7
Q 8
Q 9
Q 1O
Q 11
BUSY
(STATUS)
DB O
DB 1
DB 2
DB 3
DB 4
DB 5
DB 6
DB 7
DB 8
DB 9
DB 1O
DB 11


D_O D_1 D_k-1
LOAD
STACIONARNI REGISTAR
Q_O Q_1 Q_k-1
k/m DEKODER
O 1 m-1
P_O
V_O
P_1
V_1
P_m-1
V_m-1
+
A
-
BUSY
STATUS
CE CS.L R/C "1"
12/8 A_O
DB_11
PRATI /PAMTI
V_ul
ADC 674A
DB_1
DB_O

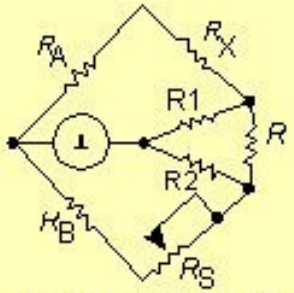

D O D 1 D k-1
LOAD
STACIONARNI REGISTAR
Q O Q 1 Q k-1
k/m DEKODER
O 1 m-1
P O
P 1
P m-1
P O*
P 1*
P *m-1
V O
V 1
V m-1
+
-
A



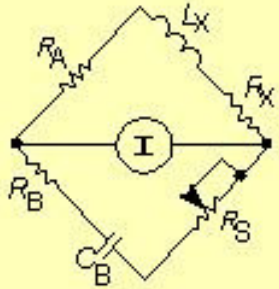
WHEATSTONE BRIDGE



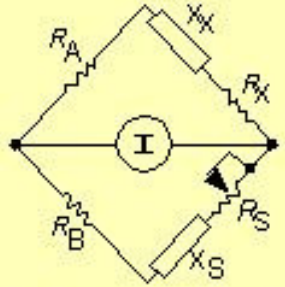
SCHERING BRIDGE



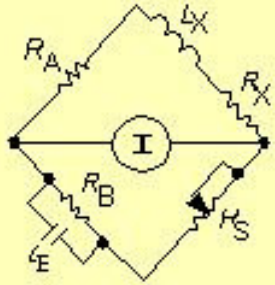
KELVIN BRIDGE



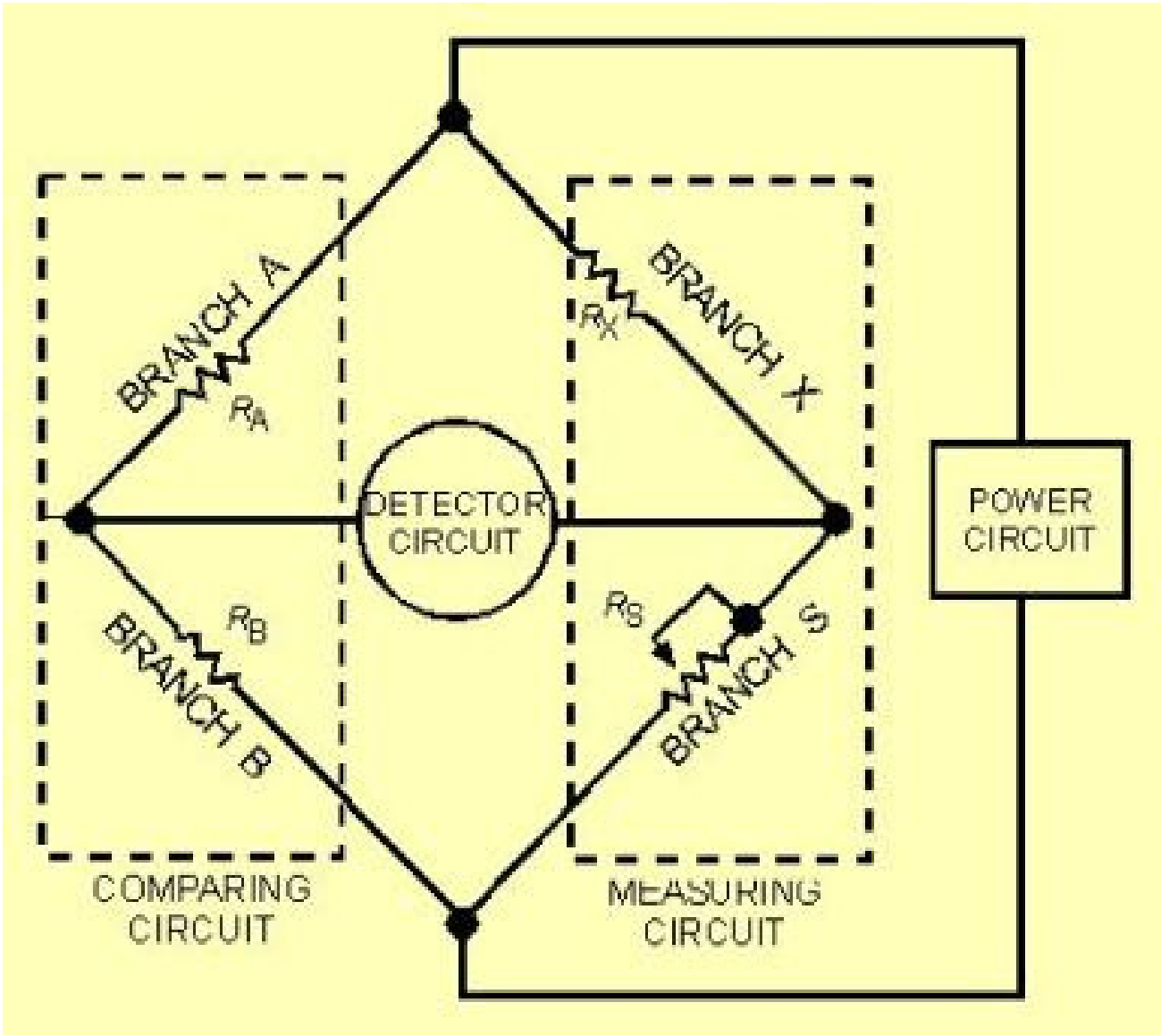
HAY BRIDGE



RESISTANCE-RATIO BRIDGE



MAXWELL BRIDGE


BRANCH A
R_A
R_X
BRANCH X
DETECTOR CIRCUIT
POWER CIRCUIT
R_B
BRANCH B
R_S
BRANCH S
COMPARING CIRCUIT
MEASURING CIRCUIT

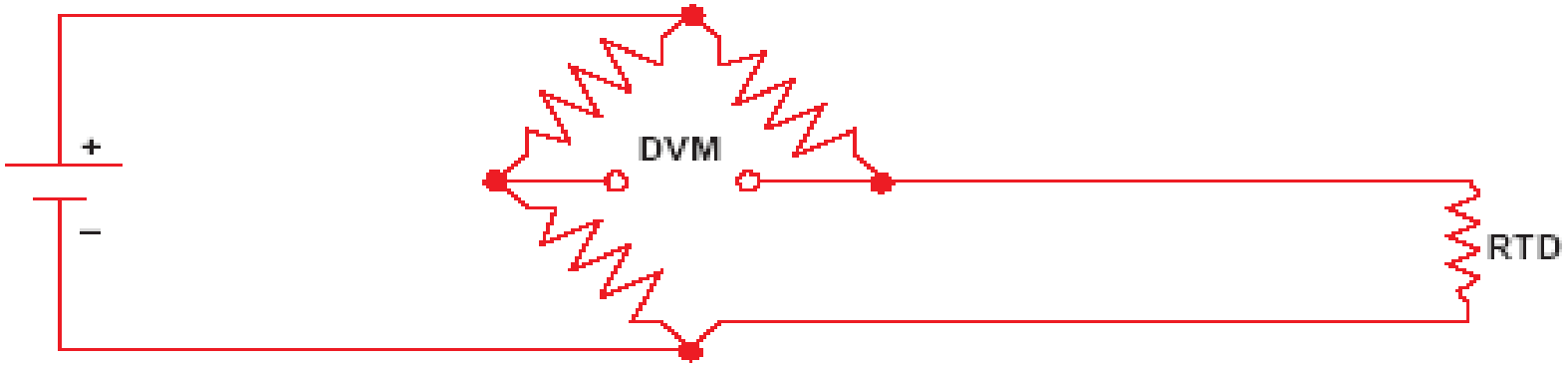
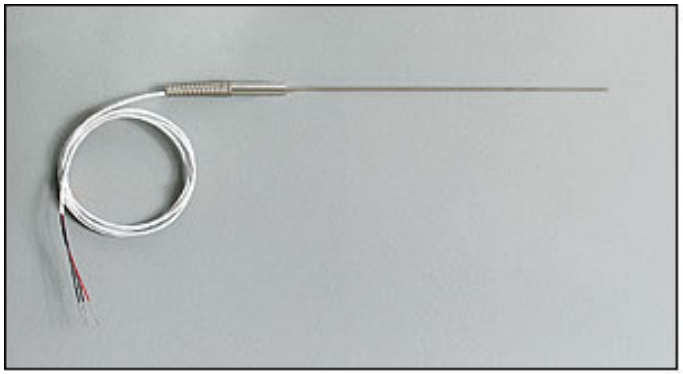
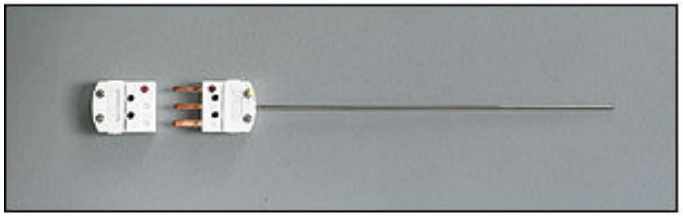


Figure 40

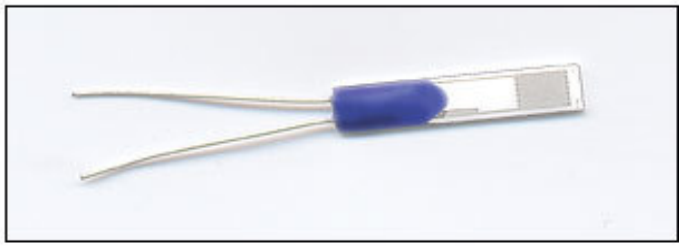




Typical RTD Probes

Thick Film Omega Film Element

Glass sealed Biflar Winding



Thin Film Omega TFD Element

GUILDLINE
INSTRUMENTS

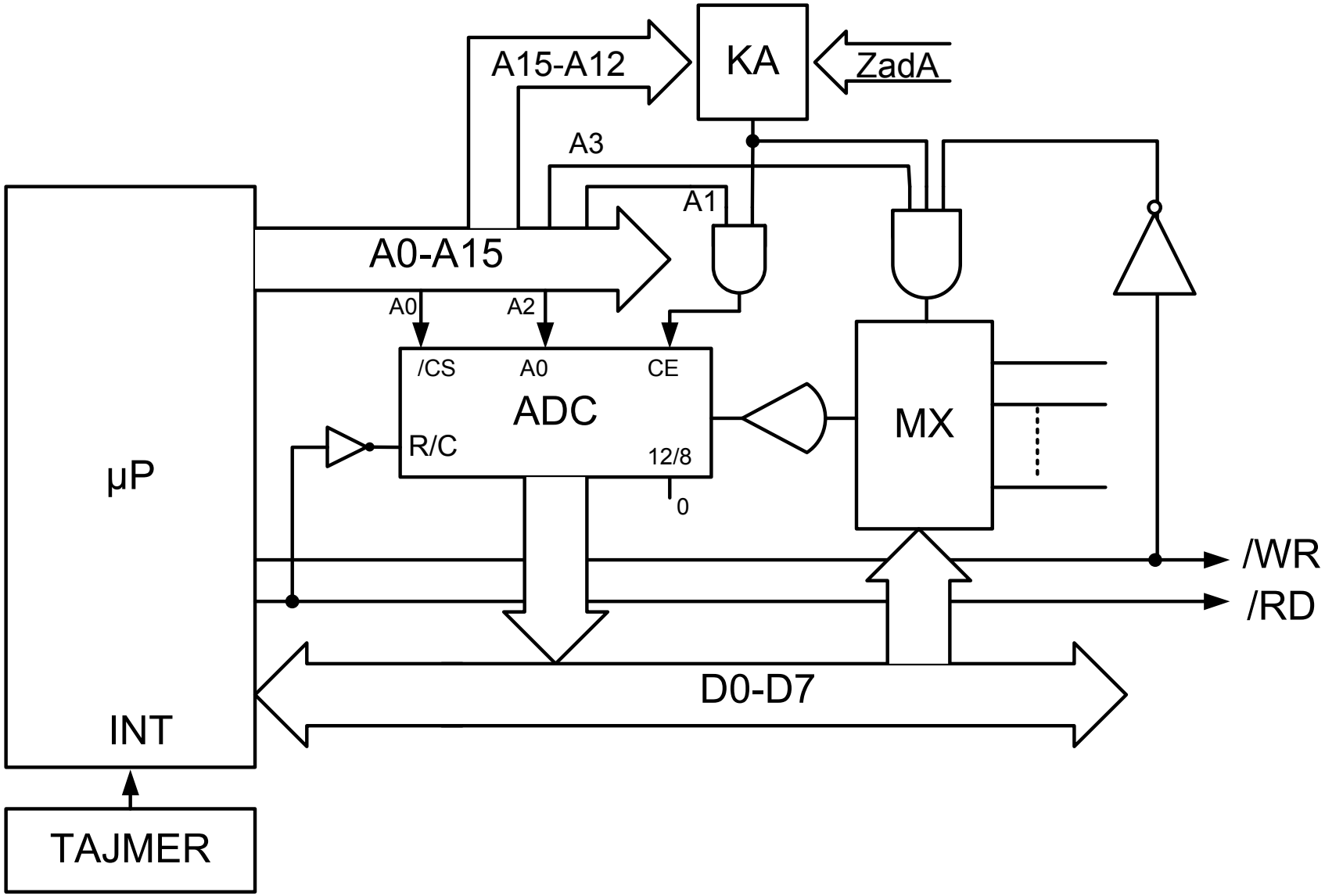
MODEL 6675A AUTOMATIC DCC

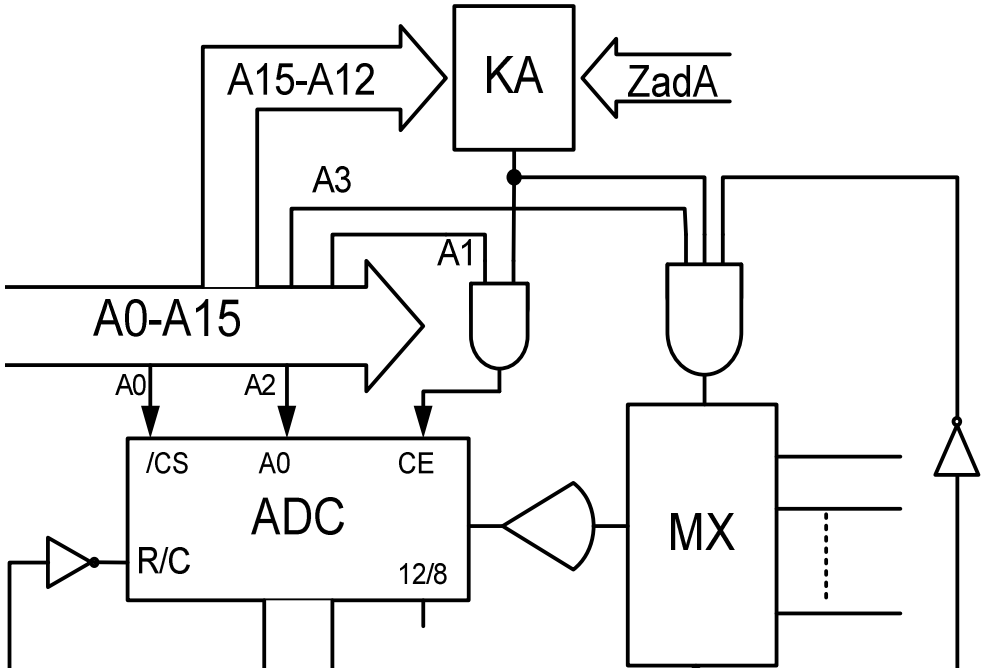
RESISTANCE/TEMPERATURE BRIDGE

COMPLETE WITH RESCAL™ THE BEST JUST GOT BETTER!

The Guildline 6675A is an Automatic Direct Current Comparator (DCC) Resistance and Temperature Bridge, complete with ResCal™ Data Acquisition Software. The automatic bridge has a front panel keypad and a built-in menu driven display. It is micro-processor based and enables the ratio measurement of two resistances, or PRT's, to an accuracy of better than 0.1 ppm. The linearity of the bridge is better than 0.01 ppm of full scale and the resolution is one part in 10^9. It has a measurement range of 1m Ωto 1G Ω, or with the use of the 6623 range extender, 1μ Ωto 1G Ω.Direct reading in ohms or degrees Celsius can be selected on the front panel display or through ResCal™ Software. These impressive specifications make the 6675A state-of-the-art and provide the best performance available in a wide range commercial instrument of this type.

Povezivanje na magistralu bez S/H i bez provere *Busy*





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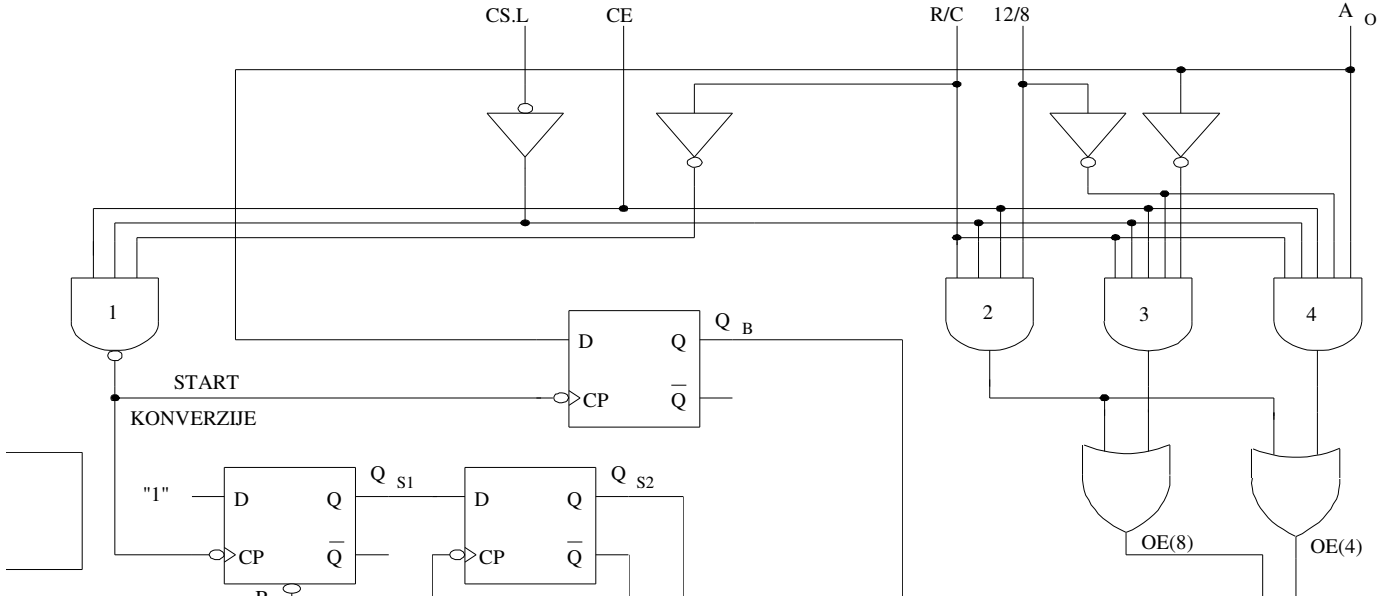
MXaddr=F008

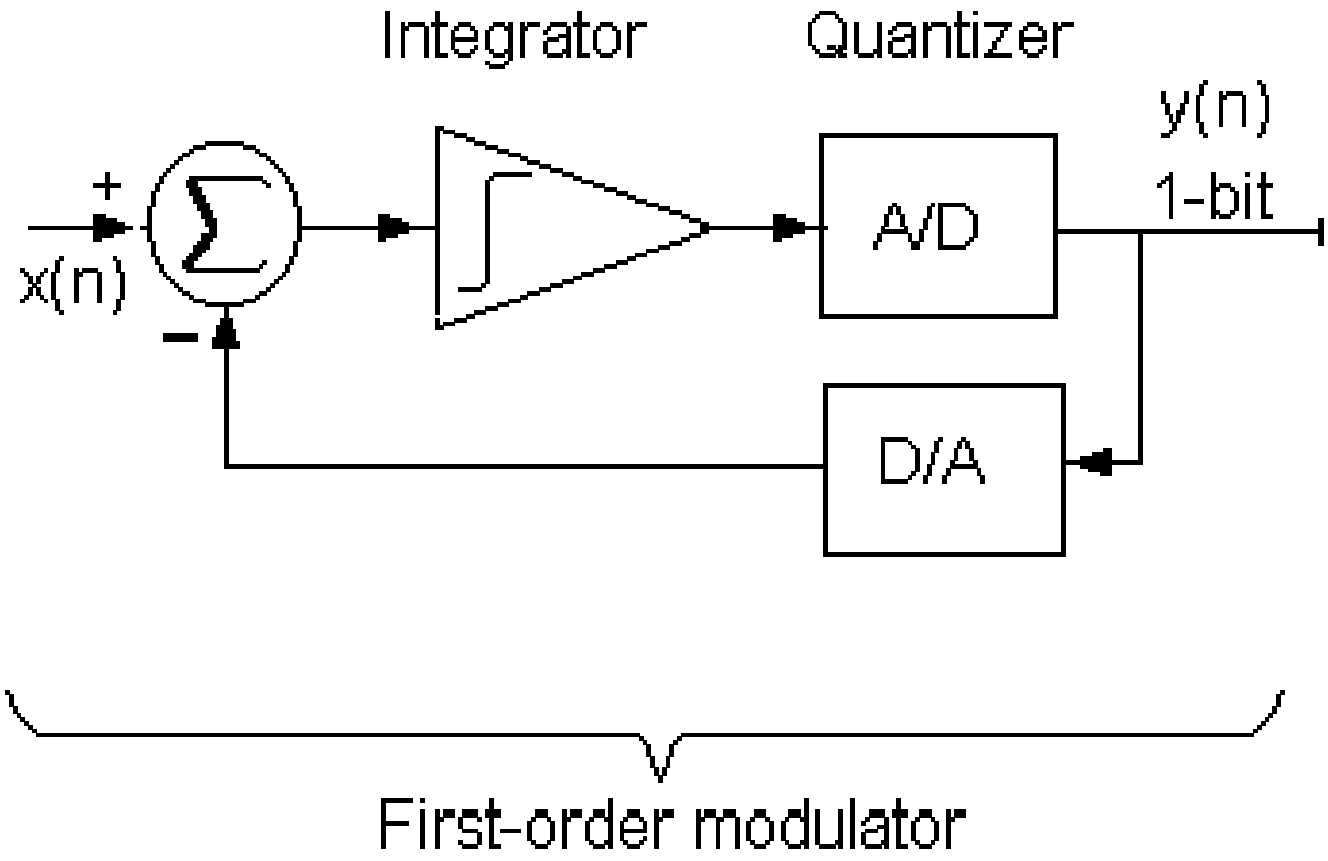
StartAdr=F002

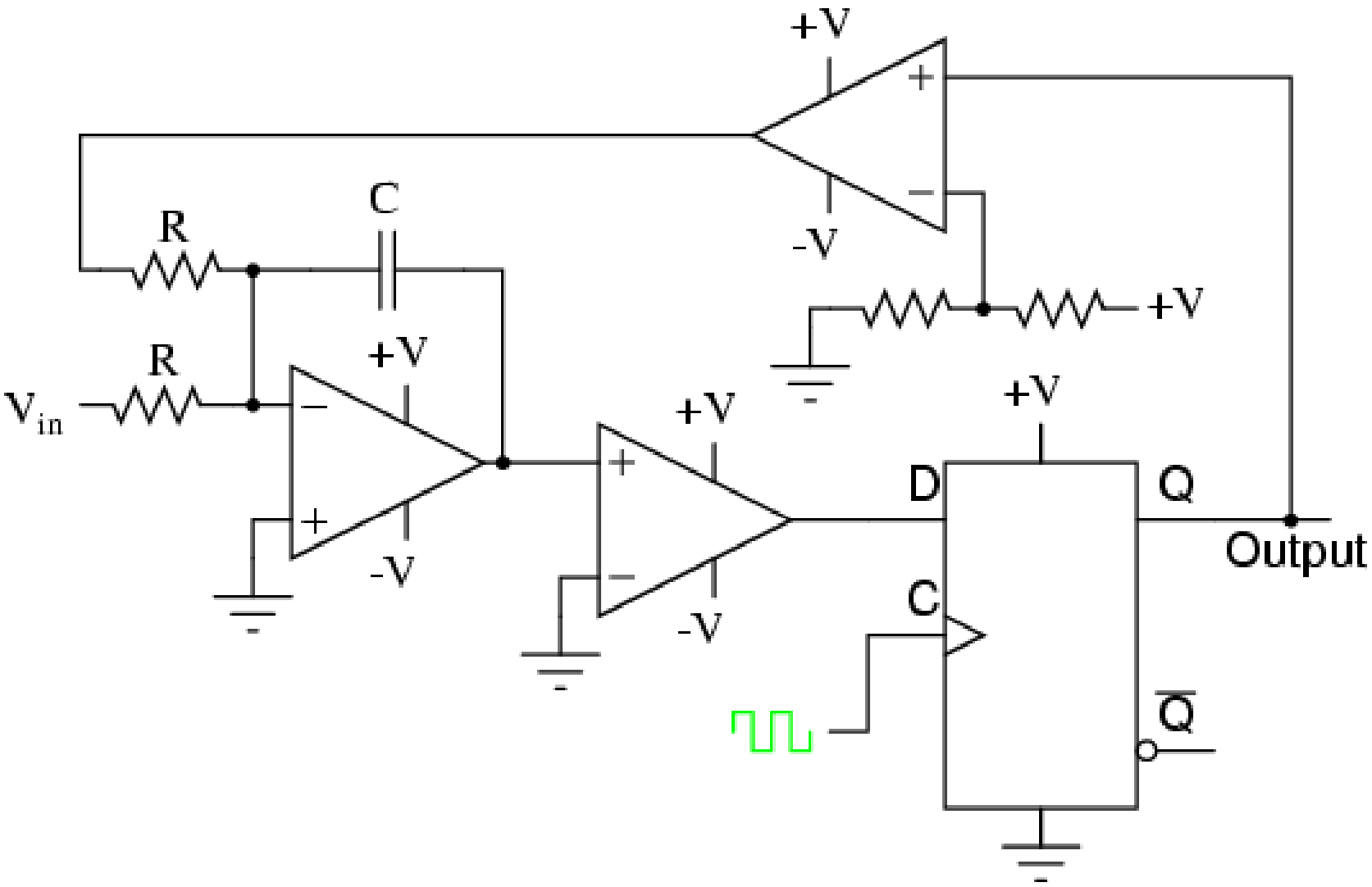
RD4Adr=F006

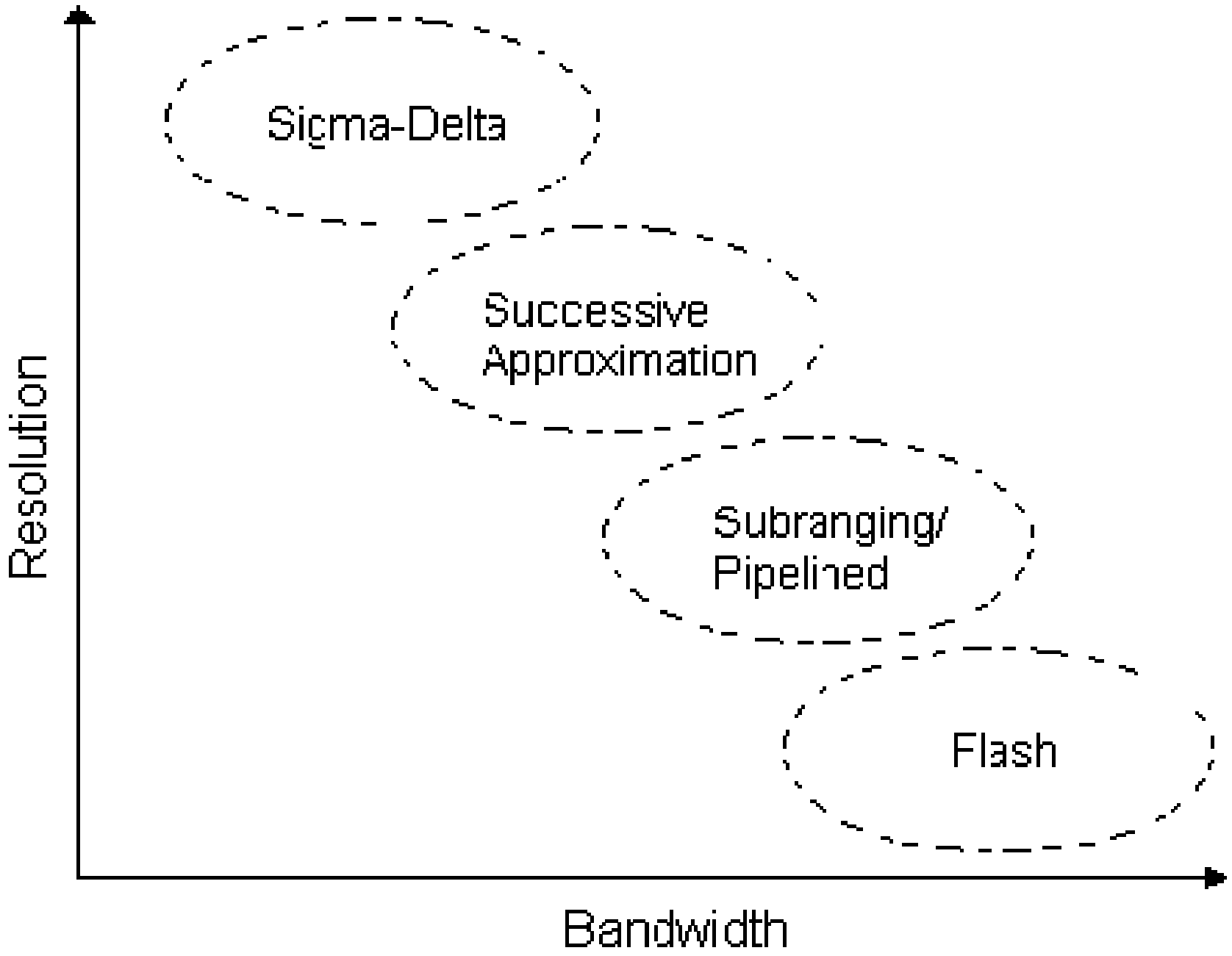
RD8Adr=F002



Sigma Delta AD




+V
-V
R
C
R
+V
V_{in}
-V
+V
-V
+V
D
Q
Output
C
$\overline{Q}$


Sigma-Delta
Successive
Approximation
Subranging/
Pipelined
Flash
Resolution
Bandwidth