



R1 - PullUp Resistor for 12v/0-5v output
 R2 - Timer Resistor
 R3 - Fuel Tank Sender
 C1 - Timer Capacitor
 LM324 - OP-AMP (4 OFF on IC)

63% Time Decay = $R2 * C1$

VALUES:

R1 = 400 ohms

R3 = 25 ohms Full, 267 ohms Empty

C1 = 100uF

$R2 = \frac{27 \text{ sec}}{100\text{uF}} = \frac{27}{0.0001} = 270\text{k ohms}$

Effective output is 0.7v - 4.9v. This can be adjusted via R1

The 63% time value is explained thus:

63% of a 0-5v output would give a 3.15v change in 27 seconds.

The next 63% (1.98v) would take a further 27 seconds, and so on.

Timed change from full to empty was over 120 seconds.