

2001 2

* (1), (2) 10 , 20

(1)

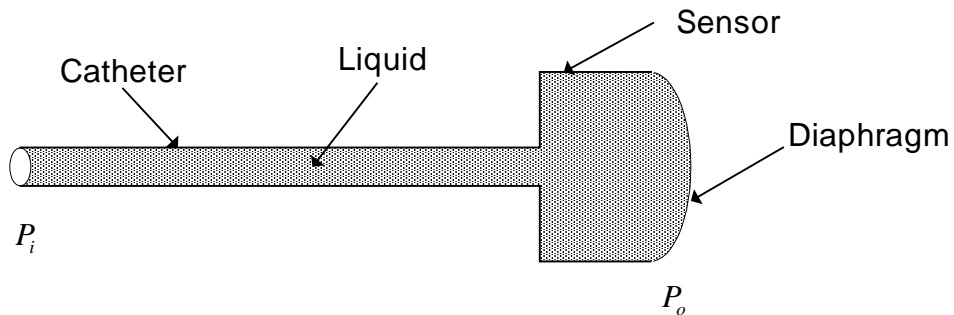
- (a) Let-go current
- (b) Macroshock
- (c) Microshock
- (d) GFCI

(2) Tonometry

(3)

, A/D , microprocessor
 Microprocessor PC
 earth ground 가 , , , PC
 , ADC, microprocessor, PC
 가 .

(4)



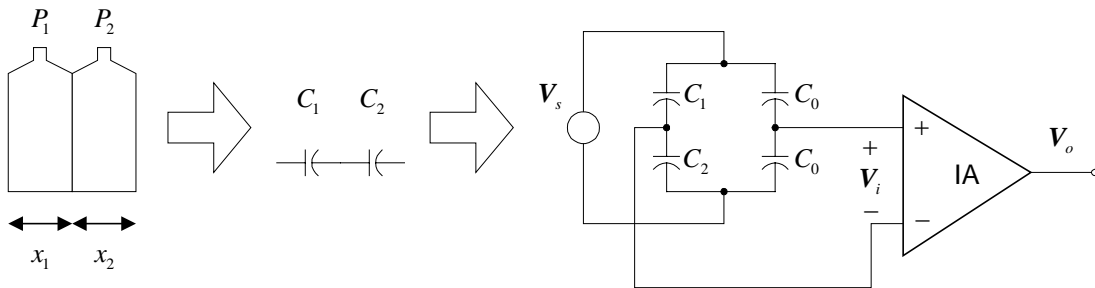
- (a) RLC 가 , R, L, C
 가
- (b) R, L, C (P), (F), (V)
- (c) P_i v_i , P_o v_o
- (d) Catheter 가 , 가
 가?

(5)

(6) capacitive pressure sensor 가 $x_1 = x_0 + \alpha(P_1 - P_2)$,

$$x_2 = x_0 - \alpha(P_1 - P_2), \quad C_1 = \epsilon \frac{A}{x_1}, \quad C_2 = \epsilon \frac{A}{x_2}, \quad C_0 = \epsilon \frac{A}{x_0} \quad . \quad V_s = V_s \angle 0^\circ \quad ,$$

1kHz .



(a) phasor V_i x_0 , α , $(P_1 - P_2)$ V_s

(b) $V_s = 1$ [V], $x_0 = 100$ [μm], $\alpha = 2$ [$\mu\text{m}/\text{mmHg}$] , phasor, V_o

가 0.1 [V/mmHg] 가

(c) V_o $(P_1 - P_2)$, phase-sensitive demodulator