

# 2001 2

\* (1), (2) 10 , 20

(1)

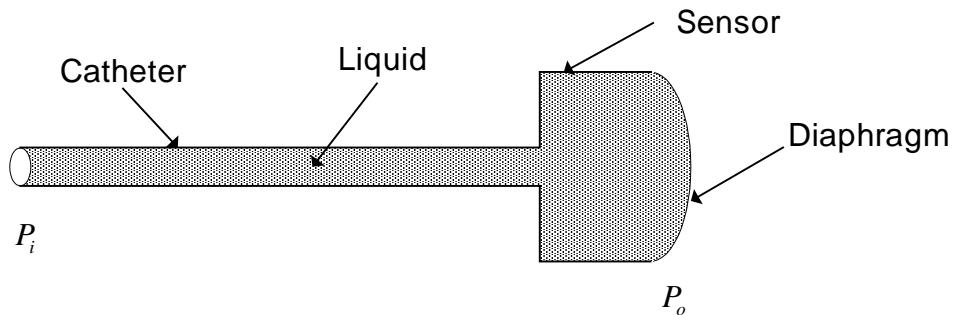
- (a) Let-go current
- (b) Macroshock
- (c) Microshock
- (d) GFCI

(2) Tonometry

(3)

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

(4)



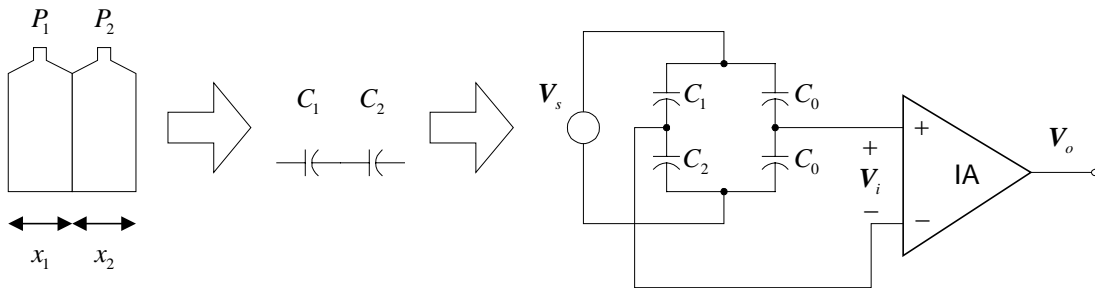
- (a) RLC 가 , R, L, C  
 가
- (b) R, L, C (P), (F), (V) .
- (c)  $P_i$   $v_i$  ,  $P_o$   $v_o$
- (d) Catheter 가 , 가  
 가?

(5)

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

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

1kHz .



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

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

가 0.1 [V/mmHg] 가

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