

.
 .
 .
 , 가
 .
 가
 .
 .
 .
 (Evenness Tester) t f(t)
 CV , f(t) .
 (
) f(t) CV .

.
 O T f(t) (CV)

$$CV = \frac{1}{\bar{x}} \sqrt{\frac{1}{T} \int_0^T \{f(t) - \bar{x}\}^2 dt} \dots\dots\dots(1)$$

$$(1) \quad \bar{x} \quad O \quad T \quad f(t)$$

$$\bar{x} = \frac{1}{T} \int_0^T f(t) dt$$

$$. \quad (1) \quad O \quad T$$

$$\bar{x} \quad . \quad CV$$

가 . , .

$$CV = \frac{1}{\bar{x}} \sqrt{\frac{1}{T} \int_0^T \{f(t)\}^2 dt - \bar{x}^{-2}} \dots\dots\dots(2)$$

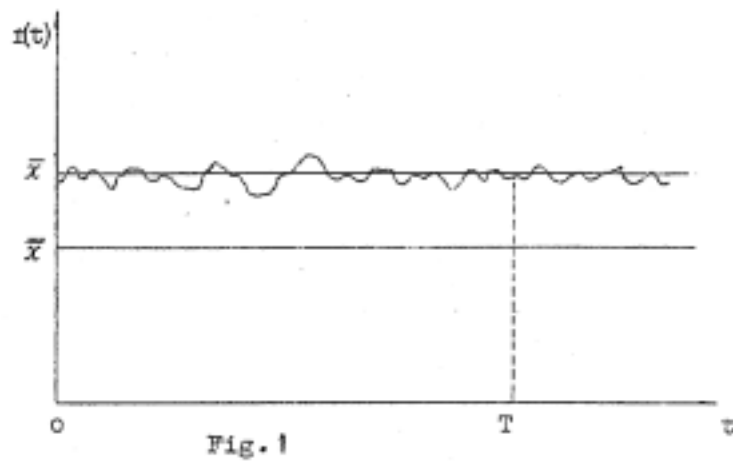
$$CV = \frac{1}{\bar{x}} \sqrt{\frac{1}{T} \int_0^T \{f(t) - \bar{x}\}^2 dt - (\bar{x} - \bar{x})^2} \dots\dots(3)$$

(3) $\bar{x}$ 가 .(Fig.1)

CV 가 .

(2) 가 .

1% , 0.1~0.01%



(2) 가 (3)

가 1~0.1%

1%

가 ,

(1) 가 가 .

$$CV = \frac{1}{x} \sqrt{\frac{1}{T} \int_0^T \{f(t) - \bar{x}\}^2 dt} \dots\dots\dots = \frac{1}{x} \sqrt{\frac{1}{T} \int_0^T \{f(t) - y(t)\}^2 dt} \dots\dots\dots (4)$$

,

$$y(t) = \frac{1}{t} \int_0^t f(t) dt$$

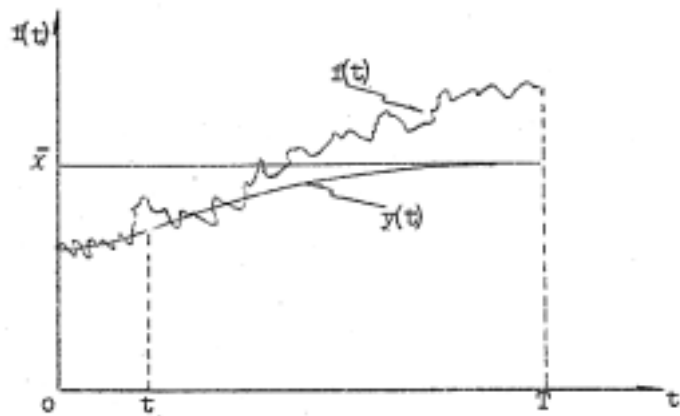


Fig- 2

(4) 가 가 .(Fig.2). $y(t)$ t

O t $f(t)$, $f(t)$ $y(t)$ 가

1%

$f(t)$
 가 ,
 Fig. 3 (4)
 RC (RC=t) $f(t)$
 $y(t)$ difference
 comparator $f(t) - y(t)$ $\{f(t)-y(t)\}$

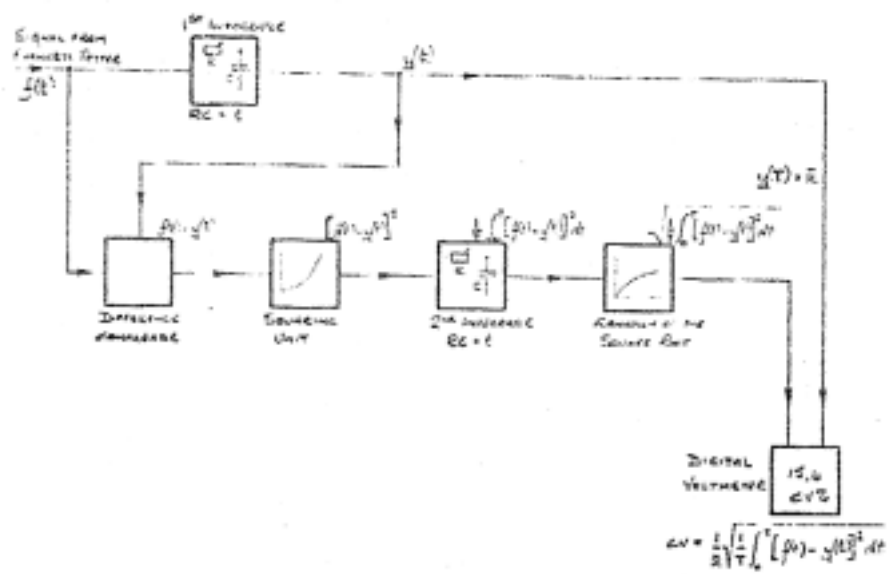


Fig. 3

가 가
 $f(t)$ $\{f(t)-y(t)\}$

$y(t)$ (digital voltmeter) 가 ,

$$\sqrt{\frac{1}{T} \int_0^T \{f(t) - y(t)\}^2 dt} / y(t)$$

. $t = T$,

$y(t) = \bar{x}$ 가 , CV .

.
 1. (1) ,

가 $\bar{x}$

. 가

가 가 .

(3) 가 .

가 $(\bar{x})$.

$f(t) - \bar{x}$.

$$\therefore \{f(t) - \bar{x}\}^2$$

$$: \frac{1}{T} \int_0^T \{f(t) - \bar{x}\}^2 dt$$

$$\bar{x} : \bar{x} = \frac{1}{T} \int_0^T f(t) dt$$

