



Dendrometer MIJ-02 LML measure L2 plus dL NOT dr.
 Use equation below, when you convert from dL to dr or Vout to dr.

Vout : measured voltage mV

Vpre : Pre heat voltage to LML mV

r, L, r1, r2, L1, L2 : see figure

dr : radius deviation

dL : Length deviation of LML detection

$dL(\mu\text{m}) : 11000 \cdot (V_{\text{out}} / V_{\text{pre}})$

$$L = r \cdot (1 + \text{SQR}2)$$

therefore

$$r = L / (1 + \text{SQR}2)$$

$$dr = r_2 - r_1$$

$$= L_2 / (1 + \text{SQR}2) - L_1 / (1 + \text{SQR}2)$$

$$= (L_2 - L_1) / (1 + \text{SQR}2)$$

$$dr = dL / (1 + \text{SQR}2)$$

$$dr = 11000 \cdot (V_{\text{out}} / V_{\text{pre}}) / (1 + \text{SQR}2)$$

H.Katayama EMJ