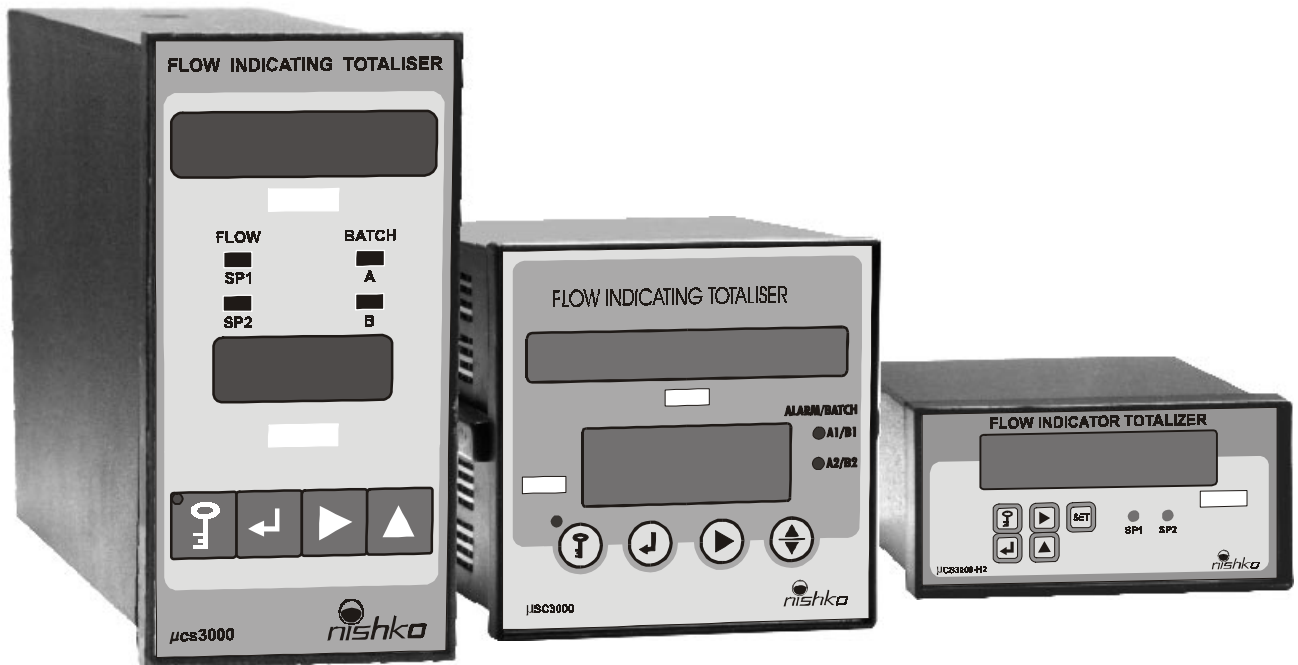


# Flow Computing Units

Series  $\mu$ CS 3100



JAS-ANZ



Flow Computing Unit is used for measuring corrected flow of steam / gases. It is well known that the flow of any gas varies substantially with the change in temperature or pressure. As a result normal flow measuring techniques do not give the proper flow measurement. To obtain the proper / corrected flow, one has to take into consideration the changes in temperature and pressure. It is specifically for this application that our Flow Computing Unit has been designed.

**The Flow Computing Unit will accept three inputs :**

- 1) From Differential Pressure Transmitter (or any flowmeter) corresponding to uncorrected flow
- 2) From Gauge Pressure Transmitter corresponding to actual pressure
- 3) From Temperature Sensor or Temperature Transmitter

The Flow Computing Unit utilizes the following formula for correction :

$$Q = Q' \times \text{Sq.rt.}(DP * P/T)$$

Where,

- Q = Corrected Flow
- Q' = Uncorrected Flow
- DP = Input from DP Transmitter (4 to 20 mA DC)
- P = Input from Pressure Transmitter (4 to 20 mA DC)
- T = Input from RTD, Th/C sensor or Transmitter (4 to 20 mA DC)

