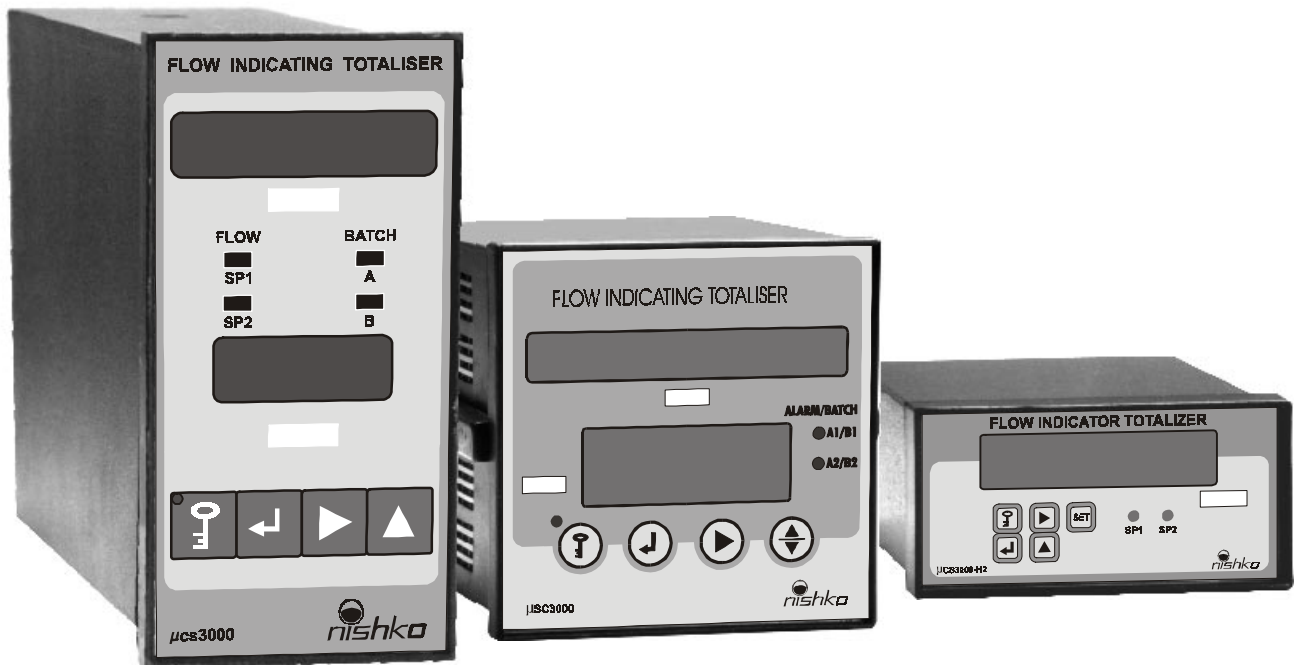


Flow Computing Units

Series μ 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)

