OPERATION

Functional Description - Electronics Refer to the block diagram

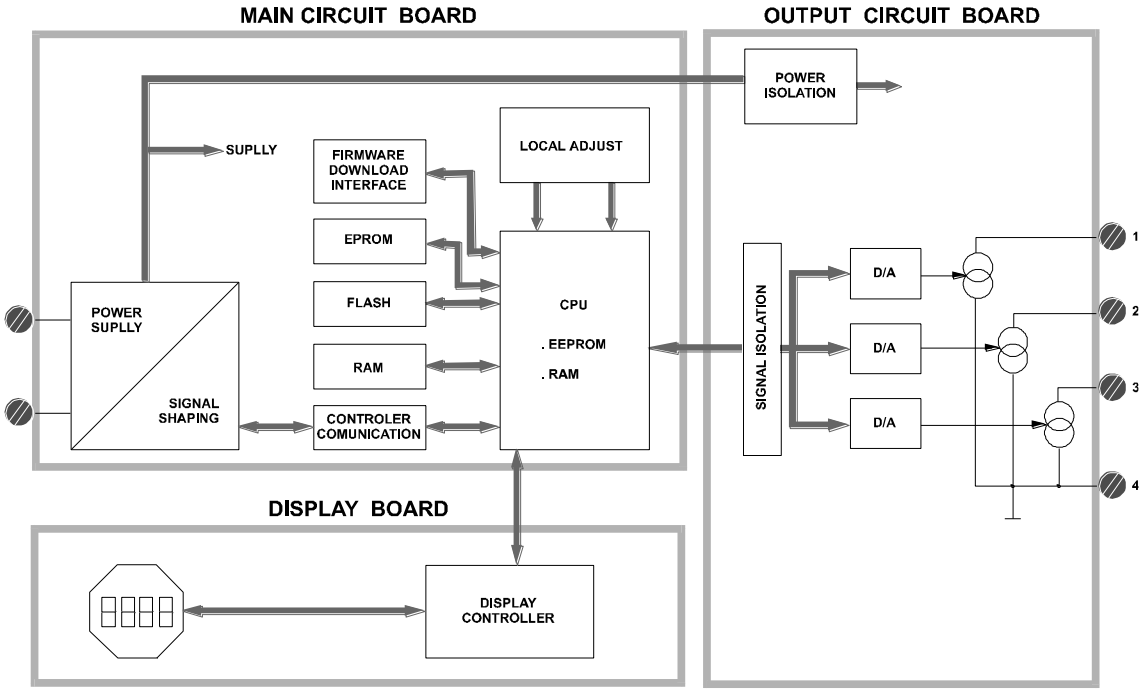

Figure 2.1 - FI303 Block Diagram

The function of each block is described below:

D/A
Receives the signal from the CPU and converts it to an analog voltage, used by the current control.

Current Control
Controls the current of the channel according the data received from the CPU.

Signal Isolator
Its function is to isolate the data signal between the output and the CPU.

(CPU) Central Processing Unit, RAM and PROM
The CPU is the intelligent portion of the converter, being responsible for the management and operation of block execution, self-diagnostics and communication. The program is stored in PROM. For temporary storage of data there is a RAM. The data in the RAM is lost if the power is switched off, however the device also has a nonvolatile EEPROM where data that must be retained is stored. Examples of such data are calibration, configuration and identification data.

Communication Controller
It monitors line activity, modulates and demodulates communication signals and inserts and deletes start and end delimiters.

Power Supply
Takes power of the loop-line to power the converter circuitry.

Power Isolation
Just like the signals to and from the output section, the power to the output section must be isolated.

Display Controller
Receives data from the CPU and drives the Liquid Crystal Display.

Local Adjustment

Two switches that are magnetically activated. They can be activated by the magnetic tool without mechanical or electrical contact.

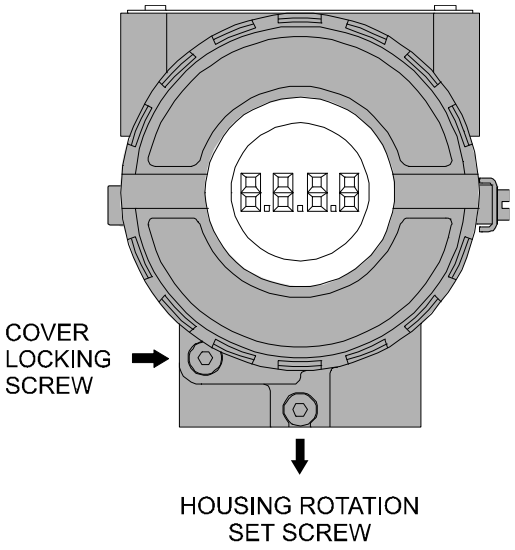

Figure 2.2 - LCD Indicator