

DIGITAL PANEL METERS

1. INTRODUCTION

digital panel meter is basically a voltage measuring device. It consists of analog switches, integrator, comparator, control circuitry with display unit. with the modern technique of production in the field of chemical refineries and fertilizers, it is expected that yearly requirement is high. The requirement of the country for this item at present is being met through imports. It has a very good export market.

2. RAW MATERIALS

Hole printed circuit boards, chips, electrolytic capacitors, poly carbonate capacitors, metal film resistors, low leakage transistors, switching transistors, zenor diodes, transformers etc.

3. MANUFACTURING PROCESS

Various electronic components such as resistors, capacitors, chips and transistors are soldered on printed circuit board. Sub assemblies of power supply, switching circuit, integrator, comparator circuit and counter are assembled and tested for resolution, accuracy, drift, operational amplifier characteristics, input impedance, common mode rejection etc. The output is checked on a jig fitted with nixie tubes. The standard voltages are fed to the input circuit and it is again calibrated and tested.

4. MANPOWER REQUIREMENT : 6

5. PROJECT COST

A. Fixed Capital	Rs.
Land & Building	Rental
Plant & Machinery	2,00,000
B. Working Capital (per month)	
Raw Material & Packing	43,750
Salary & wages	12,000

Other expenses	15,000
Working capital (per month)	70,750
Working capital (3 months)	2,12,250
Total (A+B)	4,12,250

6. COST OF PRODUCTION / ANNUM

	Rs.
Total recurring cost per year	8,49,000
Depreciation on machinery	18,000
Interest on investment	23,000

	8,90,000
7. PROFITABILITY	
Sales turnover	10,50,000
Annual cost of production	8,90,000
Annual profit	1,60,000
Return on investment	39 %

Annual Production capacity :

It is envisaged to produce goods worth ` .10,50,000/-

List of Plant, Machinery & equipment :

- 1 Digital voltage standard
- 2 Drilling machine
- 3 Shearing machine
- 4 Bending machine
- 5 Instrument lathe painting unit
- 6 Oscilloscope
- 7 Signal generator
- 8 Multimeter
- 9 LCR bridge
- 10 PCB