

the ONE page
APPLICATION IDEA FROM **MOTOROLA**



- Accuracy
 - ± 0.05% FS ± 1 count (DC)
 - ± 0.2% FS ± 1 count (AC)
- Resolution
 - 3½ digit
- Consumption 200 mW
- Display UP-dating (hold)

- Auto-Selection of AC and DC
- Auto-Ranging up to 199.9 V
200 to 1999 V
- Auto-Polarity

AC or DC voltages Up to 1000 V can be measured without manual intervention using an AC detector circuit (OVER FLOW INTEGRATOR).

When an AC voltage is applied to the input, the AC detector circuit (MC14022, MC14013) switches the inputs signal through a decoupling capacitor onto a rectifier and an integrator (MC1458SP2). At the same time the sign on the display is removed. The minimum AC voltage to be detected by the circuit is about 0,5 VAC.

The conversion rate is about 4 Hz with provision for holding the display value by means of the switch (hold).

CALIBRATION PROCEDURE

Step	Condition	Input parameter	Pot. adjust	Display reading	Remarks
1		0 V	P1	000.0	
2		+ 190 VDC	P2	190.0	VIN ± 0.02%
3		+ 1000 VDC	P3	1000	Sign + is on
4		2 VAC	P4	2.0	VIN ± 0.1%
5		190 VAC	P5	190.0	Signs are off

