

Introduction

Table 1-1. Model 405 Technical Data

1. Indicating Movement: Moving-coil movement with core magnet, shock-resistant, spring-loaded jewels.

2. Voltage Measurement: (1000 Volts Max.)

Mult.	RANGE	Approx. Internal Resistance AC and DC
x0.1	500 Volts AC/DC	1.25 MΩ
x0.2	1000 Volts AC/DC	2.5 MΩ

3. Short Circuit Current Values

0-500 MΩ Range	400 μA
40-2000 MΩ Range	95 μA
200-20000 MΩ Range	23 μA

4. Accuracy:

Megohm Ranges:
±1.5% of full scale length for test voltages 500V to 5000V providing the electrical zero adjustment was made on the corresponding test voltage range, and the battery supply voltage is between 5 and 10 volts.

A maximum error of ±2.5% of full scale length will occur on the 500V, 1000V and 5000V test voltage range, when the electrical zero adjustment is only made on the 2500 volt test voltage range.

Voltage Ranges:
±5% of full scale on AC and DC.

Influence of Temp.
±0.3% of scale length per 10°C variation within normal operating temperature range.

5. Temperature Characteristics:

Normal operating temp. range: 10 to 30°C
Reference temp: 23°C Instrument will function between -20° to +50°C.

Introduction

6. Power Requirements:

DC: Nominal 9 VDC supplied by six "D" size 1.5 volt batteries, NEDA type 13C.
Battery life: Approximately 100 hours with intermittent usage.

7. Lead Characteristics:

a. Two heavily insulated leads supplied. The plug end of each lead can be locked into the Model 405 by twisting the lead after it's insertion; the other end of each lead has an interchangeable probe and insulated alligator clip.

b. Negative lead; black

c. Positive lead; red

d. Lead length; approximately 40 inches (1 meter)

8. Rated Circuit-To-Ground Voltage:*

a. Resistance Measurement; 5000VDC (Model 405 internal voltage only)
b. Voltage Measurement; 1400 VDC or Peak, and 1000V RMS (sinewave).

9. Operating Position:

Accuracy is optimum when the Model 405 is operated in a horizontal (panel-up) position.

10. Dimensions:

9-5/8" x 5-1/2" x 4-1/8" (245 x 140 x 105 mm)

11. Weight:

4.8 lbs. (2.4 kg) with batteries

*RATED CIRCUIT-TO-GROUND VOLTAGE is defined as "The specified voltage with respect to ground which may be safely and continuously applied to the circuits of an instrument" by American National Standard C39.5 (April 1974), Safety Requirements for Electrical and Electronic Measuring and Controlling Instrumentation.