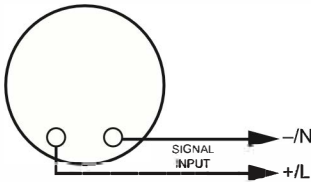


# AC and DC Ammeters, Voltmeters and Frequency Meters

This range of self contained, pivot and jewel moving iron meters feature 250° linear scale. AC instruments are available with true RMS converting circuit or RMS compensated rectifier. While types of frequency meters can be damaged by transient supply voltage spike, Crompton Instruments 007-41 frequency meters can withstand, without damage, 10 successive transient spikes of 1250 volts. The range offers c-UL-us certification.



Fig. AA 007-05/007-41



## Specifications-General

Manufactured in accordance with American National Standards ANSI C39.1, (1981)

|                                  |   |
|----------------------------------|---|
| <b>Accuracy</b>                  | ±1% full scale at 23°C (73°F)                             |
| <b>Scales arc</b>                | 250° full scale deflection                                |
| <b>Scale length</b>              | 007 and 078: 175.2 mm (6.9")                              |
| <b>Scale plate</b>               | 2 piece, platform type                                    |
| <b>Response time</b>             | 007 and 078: Approximately 2.5 seconds to full scale      |
| <b>Operating temperature</b>     | 0 to 40°C (32 to 104°F)                                   |
| <b>Storage temperature</b>       | -10 to +50°C (14 to 122°F)                                |
| <b>Extreme temperature range</b> | -20° to +65°C (-4° to 149°F)                              |
| <b>Terminals</b>                 | Standard 10-32 UNF stud. M5 screw clamp is optional       |
| <b>Dielectric withstand</b>      | 2300V AC for 1 minute between electrical circuit and case |
| <b>Overshoot</b>                 | 33% maximum   |
| <b>Enclosure code</b>            | 007: IP54, optional IP55 and 078: IP67                    |
| <b>Certification</b>             | c-UL-us   |

## Specifications-Ammeters and Voltmeters

|                        |  |
|------------------------|--|
| <b>Overload rating</b> | AC ammeters - 2 x continuous, 50 x for 1 second<br>AC voltmeters and frequency meters - 1.2 x continuous<br>DC ammeters - 2 x continuous 10 x for 1 second<br>DC voltmeters - 1.2 x continuous |
| <b>Frequency range</b> | AC calibration 50/60Hz ±20%  |

## Specifications-Frequency Meters

|  |  |
|--|--|
| <b>Response time</b>                       | 3 seconds maximum  |
| <b>External temperature influence</b>      | 0.6 times accuracy maximum with ±10°C from reference temperature |
| <b>External field influence</b>            | 2.0 times accuracy maximum with 0.5m T field                     |
| <b>Acceptable input harmonic influence</b> | up to 30% distortion   |

| Maximum Frequency - Hz | Center Scale - Hz | Error in Hz |
|------------------------|-------------------|-------------|
| 45-55                  | 50                | 0.15        |
| 46-54                  | 50                | 0.15        |
| 45-65                  | 55                | 0.25        |
| 50-70                  | 60                | 0.25        |
| 55-65                  | 60                | 0.15        |
| 56-64                  | 60                | 0.15        |

## RMS Reading AC Voltmeters

Product Codes – Self Contained 50/60Hz ± 20% - Accuracy ±1%\*\*\*



AC Voltmeter

| Rating | Scaling* | 4 1/2" square flange     |                                   |
|--------|----------|--------------------------|-----------------------------------|
|        |          | Std. case catalog number | Std. case hi-shock catalog number |
| 150V   | 0-150V   | •007-05GA-PZPZ-C7        | 078-05GJ-PZPZ-C6                  |
| 250V   | 0-250V   | •007-05GA-RSRS-C7        | 078-05GJ-RSRS-C6                  |
| 300V   | 0-300V   | •007-05GA-RXR-C7         | 078-05GJ-RXR-C6                   |
| 500V   | 0-500V   | •007-05GA-SFSF-C7        | 078-05GJ-SFSF-C6                  |
| 600V   | 0-600V   | •007-05GA-SJSJ-C7        | 078-05GJ-SJSJ-C6                  |
| 750V   | 0-750V   | 007-05GA-SMSM-C7         | 078-05GJ-SMSM-C6                  |

For AC rectified non-RMS compensated meter, please replace the -05G in the product code with -05W.

Product Codes – Transformer Rated 50/60Hz - Accuracy ±1%  
0.8VA @ 150V\*\*\*

|      |         |                   |                  |
|------|---------|-------------------|------------------|
| 150V | 0-300V  | •007-05GA-PZRX-C7 | 078-05GJ-PZRX-C6 |
| 150V | 0-600V  | •007-05GA-PZSJ-C7 | 078-05GJ-PZSJ-C6 |
| 150V | 0-750V  | •007-05GA-PZSM-C7 | 078-05GJ-PZSM-C6 |
| 150V | 0-3000V | •007-05GA-PZUA-C7 | 078-05GJ-PZUA-C6 |
| 150V | 0-5250V | •007-05GA-PZUL-C7 | 078-05GJ-PZUL-C6 |
| 150V | 0-6000V | •007-05GA-PZUP-C7 | 078-05GJ-PZUP-C6 |
| 150V | 0-9000V | •007-05GA-PZUY-C7 | 078-05GJ-PZUY-C6 |
| 150V | 0-15kV  | •007-05GA-PZWC-C7 | 078-05GJ-PZWC-C6 |
| 150V | 0-18kV  | •007-05GA-PZWD-C7 | 078-05GJ-PZWD-C6 |
| 150V | 0-45kV  | •007-05GA-PZWJ-C7 | 078-05GJ-PZWJ-C6 |
| 250V | 0-600V  | •007-05GA-RSSJ-C7 | 078-05GJ-RSSJ-C6 |

For AC rectified non-RMS compensated meter, please replace the -05G in the product code with -05W.

Rating Scaling\* 4 1/2" square flange  
Product Codes – Expanded Scale - Moving Coil Zener Diode \*\*\*  
Accuracy ±0.3% of Mid-scale Value Self Contained, 20-1000Hz

|          |            |                  |                  |
|----------|------------|------------------|------------------|
| 110-130V | 110-130V   | 007-05YA-PNPN-C6 | 078-05YJ-PNPN-C6 |
| 110-130V | To suit PT | 007-05YA-PN**-C6 | 078-05YJ-PN**-C6 |

- \* Other scales are available.
- \*\* Scaling information provided at time of order.
- \*\*\* For case types 007/078 use 10-32 UNF terminals.
- c-UL-us listed.



AC Voltmeter - Expanded Scale