

## Round Style Analog Panel Meters



- UL Recognized - File # E91015  
Except for the Wattmeters & Frequency Meters
- Glass Window for optimum viewing
- Rugged black plastic case
- Black spade-type pointer for easy distant reading



### Ordering Information

| AC Microammeter Rectifier Type Self-Shielding Movement |                          |                              |
|--|--------------------------|------------------------------|
| Range  | Approx. Impedance (Ohms) | Model / Size and Catalog No. |
|  |                          | 3 - 1/2" Model 45            |
| 0 - 100  | 3400                     | 04080                        |

| AC Milliammeters Iron Vane & Rectified Movement * |                                 |                              |                   |                     |
|---|---------------------------------|------------------------------|-------------------|---------------------|
| Range   | Approx. Impedance (Ohms) @ 60Hz | Model / Size and Catalog No. |                   |                     |
|   |                                 | 2 - 1/2" Model 155           | 3 - 1/2" Model 55 | 3 - 1/2" Model 45 * |
| 0 - 1   | 600                             | <>                           | <>                | 06820 *             |
| 0 - 5   | 200                             | <>                           | <>                | 06840 *             |
| 0 - 15  | 887.0                           | <>                           | 05380             | <>                  |
| 0 - 50  | 80.0                            | <>                           | 05400             | <>                  |
| 0 - 100   | 717.2                           | <>                           | 05410             | <>                  |
| 0 - 150   | 8.76                            | <>                           | 35069             | <>                  |
| 0 - 250   | 3.1                             | 06080                        | 05420             | <>                  |
| 0 - 500   | .9                              | <>                           | 05430             | <>                  |

\* Rectified Models

## Round Style Analog Panel Meters

### Ordering Information


| <b>AC Ammeters Iron Vane Movement</b>                         |                                  |                              |                   |
|---|----------------------------------|------------------------------|-------------------|
| Range   | Approx. Impedance (Ohms) @ 60 Hz | Model / Size and Catalog No. |                   |
|   |                                  | 2 - 1/2" Model 155           | 3 - 1/2" Model 55 |
| 0 - 1   | .213                             | 02100                        | 00950             |
| 0 - 1.5   | .105                             | < >                          | 00960             |
| 0 - 2   | .065                             | 02120                        | 00970             |
| 0 - 3   | .028                             | 02130                        | 00980             |
| 0 - 5   | .008                             | 02140                        | 00990             |
| 0 - 10  | .004                             | 02150                        | 01001             |
| 0 - 15  | .0025                            | 02160                        | 01010             |
| 0 - 25  | .002                             | 02170                        | 01020             |
| 0 - 30  | .0015                            | 02180                        | 01030             |
| 0 - 50  | .001                             | 02190                        | 01040             |
| 0 - 75  | .0002                            | < >                          | 03432             |
| 0 - 75  | .008                             | 02200 *                      | < >               |
| 0 - 100   | .008                             | 02210 *                      | 01060 *           |
| 0 - 150   | .008                             | 02220 *                      | 01070 *           |
| 0 - 200   | .008                             | < >                          | 01080 *           |
| 0 - 250   | .008                             | 02240 *                      | 01090 *           |
| 0 - 300   | .008                             | < >                          | 01100 *           |
| 0 - 500   | .008                             | 02260 *                      | 01110 *           |
| < > Available on special order                                |                                  |                              |                   |
| * These meters require use of an external current transformer |                                  |                              |                   |


| <b>AC Voltmeters Iron Vane Movement</b>   |                                  |                              |                   |
|---|----------------------------------|------------------------------|-------------------|
| Range   | Approx. Impedance (Ohms) @ 60 Hz | Model / Size and Catalog No. |                   |
|   |                                  | 2 - 1/2" Model 155           | 3 - 1/2" Model 55 |
| 0 - 5   | 33                               | < >                          | 08410             |
| 0 - 10  | 133                              | < >                          | 08420             |
| 0 - 15  | 300                              | < >                          | 08430             |
| 0 - 25  | 833                              | < >                          | 08440             |
| 0 - 50  | 3,333                            | 09290                        | 08450             |
| 0 - 100   | 16,166                           | < >                          | 08460             |
| 0 - 150   | 25,000                           | 09310                        | 08470             |
| 0 - 250   | 41,166                           | 09320                        | 08480             |
| 0 - 300   | 50,000                           | 09330                        | 08490             |
| 0 - 500   | 83,333                           | 09340 *                      | 08500 *           |
| 0 - 750   | 125,000                          | < >                          | 08510 *           |
| < > Available on special order  |                                  |                              |                   |
| * External multipliers (Model 183) are furnished on AC meters having a range of 500 volts or higher |                                  |                              |                   |

### Ordering Information

| AC Voltmeter Rectifier Type Self-Shielding Movement |                                  |                              |
|---|----------------------------------|------------------------------|
| Range   | Approx. Impedance (Ohms ) @ 60Hz | Model / Size and Catalog No. |
|   |                                  |                              |
| 0 - 150   | 300K                             | 08010                        |

| 4-20mA Process Meters Dial indicates 0-100 Percent |                          |                              |
|--|--------------------------|------------------------------|
| Range  | Approx. Impedance (Ohms) | Model / Size and Catalog No. |
|  |                          |                              |
| 4- 20  | 5.0                      | 35022                        |

| Wattmeters - Dynamometer Type |         |      | Not  |
|-------------------------------|---------|------|---|
| Range                         | Maximum |      | Model / Size and Catalog No.  |
|                               | Volts   | Amps | 3 - 1/2" Model 75   |
| 0 - 300                       | 150     | 4.0  | 10600   |

| Frequency Meters Self-Shielding Movement |         |                              |                      | Not  |
|--|---------|------------------------------|----------------------|---|
| Range                                    | Voltage | Model / Size and Catalog No. |                      |   |
|  |         | 2 - 1/2"<br>Model 185        | 3 - 1/2"<br>Model 85 |   |
| 45 - 55 Hz                               | 120V    | 35154                        | 35160                |   |
| 55 - 65 Hz                               | 120V    | 35156                        | 35162                |   |
| 380 - 420 Hz                             | 120V    | 35158                        | 35164                |   |
| 45 - 55 Hz                               | 240V    | 35155                        | 35161                |   |
| 55 - 65 Hz                               | 240V    | 35157                        | 35163                |   |
| 380 - 420 Hz                             | 240V    | 35159                        | 35165                |   |

| DC Microammeters Self-Shielding Movement |                                  |                              |                      |
|--|----------------------------------|------------------------------|----------------------|
| Range                                    | Approx. Impedance (Ohms ) @ 60Hz | Model / Size and Catalog No. |                      |
|  |                                  | 2 - 1/2"<br>Model 125        | 3 - 1/2"<br>Model 25 |
| 0 - 50                                   | 1800                             | 04210                        | 03760                |
| 0 - 100                                  | 1800                             | 04220                        | 03770                |
| 0 - 200                                  | 1100                             | 04230                        | 03780                |
| 0 - 500                                  | 90                               | 04240                        | 03790                |
| 50-0-50                                  | 1800                             | 04194                        | 03810                |
| 100-0-100                                | 1100                             | 04196                        | 03820                |
| 500-0-500                                | 43                               | < >                          | 03830                |
| < > Available on special order           |                                  |                              |                      |

**Ordering Information**

| <b>DC Taut-Band Microammeters Self-Shielding Movement</b> |                                  |                              |                    |
|---|----------------------------------|------------------------------|--------------------|
| Range   | Approx. Impedance (Ohms ) @ 60Hz | Model / Size and Catalog No. |                    |
|   |                                  | 2 - 1/2" Model 125T          | 3 - 1/2" Model 25T |
| 0 - 10  | 4900                             | 04197                        | < >                |
| 0 - 15  | 1960                             | < >                          | 03741              |
| 0 - 25  | 1960                             | 04201                        | 03751              |
| 0 - 50  | 960                              | < >                          | 03761              |
| 0 - 100   | 500                              | < >                          | 03771              |
| < > Available on special order                            |                                  |                              |                    |

| <b>DC Milliammeters Self-Shielding Movement</b> |                                  |                              |                   |
|---|----------------------------------|------------------------------|-------------------|
| Range   | Approx. Impedance (Ohms ) @ 60Hz | Model / Size and Catalog No. |                   |
|   |                                  | 2 - 1/2" Model 125           | 3 - 1/2" Model 25 |
| 0 - 1   | 43.0                             | 05580                        | 04610             |
| 0 - 1.5   | 43.0                             | < >                          | 04620             |
| 0 - 5   | 2.0                              | 05610                        | 04640             |
| 0 - 10  | 10.0                             | 05620                        | 04650             |
| 0 - 15  | 6.6                              | 05630                        | 04660             |
| 0 - 25  | 4.0                              | 05650                        | 04680             |
| 0 - 50  | 2.0                              | < >                          | 04690             |
| 0 - 75  | 1.3                              | 05670                        | < >               |
| 0 - 100   | 1.0                              | 05680                        | 04710             |
| 0 - 150   | .66                              | 05690                        | 04720             |
| 0 - 200   | .5                               | 05700                        | 04730             |
| 0 - 250   | .5                               | 05710                        | < >               |
| 0 - 300   | .33                              | < >                          | 04750             |
| 0 - 500   | .2                               | 05730                        | 04760             |
| 0 - 1000  | .05                              | < >                          | 04780             |
| < > Available on special order                  |                                  |                              |                   |

### Ordering Information

| DC Ammeters Self-Shielding Movement   |                                 |                              |                   |
|---|---------------------------------|------------------------------|-------------------|
| Range   | Approx. Impedance (Ohms) @ 60Hz | Model / Size and Catalog No. |                   |
|   |                                 | 2 - 1/2" Model 125           | 3 - 1/2" Model 25 |
| 0 - 1   | .050                            | 01460                        | 00005             |
| 0 - 2   | .025                            | < >                          | 00030             |
| 0 - 3   | .0166                           | 01490                        | 00040             |
| 0 - 5   | .010                            | 01500                        | 00050             |
| 0 - 10  | .005                            | 01510                        | 00060             |
| 0 - 15  | .0033                           | 01520                        | 00070             |
| 0 - 25  | .002                            | 01530                        | 00080             |
| 0 - 30  | .0017                           | 01540                        | 00090             |
| 0 - 50  | .001                            | 01550                        | 00099             |
| 0 - 75  | 10.0                            | 01560 *                      | 00110 *           |
| 0 - 100   | 10.0                            | 01570 *                      | 00120 *           |
| 0 - 150   | 10.0                            | 01580 *                      | 00130 *           |
| 0 - 200   | 10.0                            | 01590 *                      | 00140 *           |
| 0 - 250   | 10.0                            | < >                          | 00151 *           |
| 0 - 300   | 10.0                            | 01610 *                      | 00160 *           |
| 0 - 500   | 10.0                            | 01620                        | 00170 *           |
| 0 - 750   | 10.0                            | < >                          | 00177 *           |
| 0 - 1000  | 10.0                            | < >                          | 00188 *           |
| 15-0-15   | .0033                           | < >                          | 00200             |
| 30-0-30   | .0017                           | 01660                        | 00210             |
| 50-0-50   | .001                            | 01670                        | 00220             |
| 75-0-75   | 20.0                            | 35066                        | 35037 *           |
| * DC current meters are self-contained for ranges up to and including 50 amperes                            |                                 |                              |                   |
| Higher range DC current meters (50 mV) listed above are calibrated for 5' leads and require external shunts |                                 |                              |                   |
| < > Available on special order  |                                 |                              |                   |

### Ordering Information

| DC Millivoltmeters Self-Shielding Movement |                                  |                              |                   |
|--|----------------------------------|------------------------------|-------------------|
| Range                                      | Approx. Impedance (Ohms ) @ 60Hz | Model / Size and Catalog No. |                   |
|  |                                  | 2 - 1/2" Model 125           | 3 - 1/2" Model 25 |
| 0 - 50                                     | 10.0                             | 06970                        | 06910             |
| 0 - 100                                    | 20.0                             | < >                          | 35093             |
| < > Available on special order             |                                  |                              |                   |

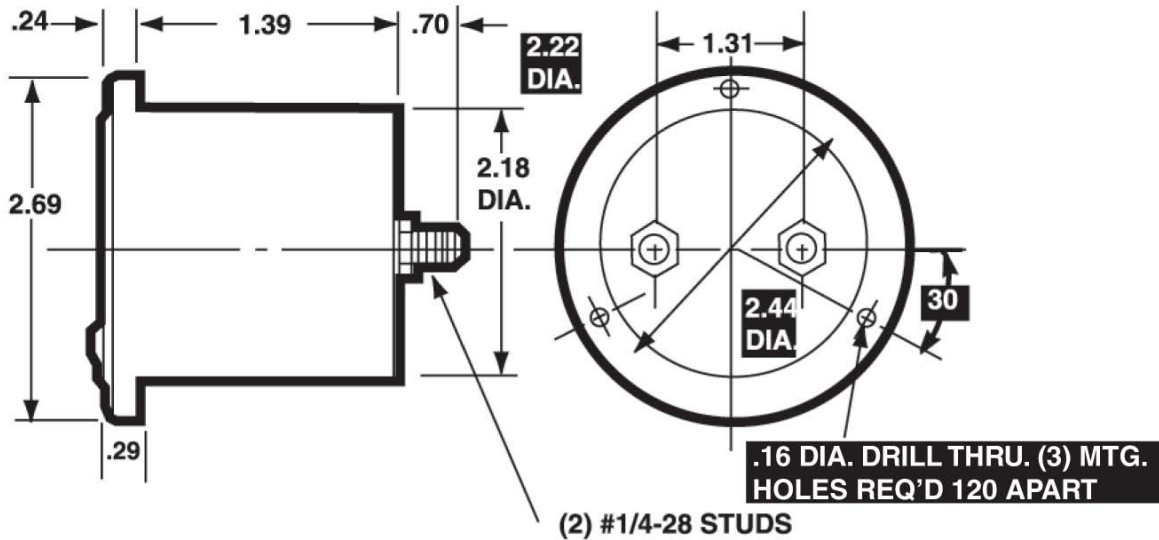
| DC Voltmeters Self-Shielding Movement  |                                  |                              |                   |
|--|----------------------------------|------------------------------|-------------------|
| Range  | Approx. Impedance (Ohms ) @ 60Hz | Model / Size and Catalog No. |                   |
|  |                                  | 2 - 1/2" Model 125           | 3 - 1/2" Model 25 |
| 0 - 1.5  | 1000 Ohms Per Volt               | 08850                        | < >               |
| 0 - 3  |                                  | < >                          | 07070             |
| 0 - 5  |                                  | 08870                        | 07080             |
| 0 - 10   |                                  | 08890                        | 07100             |
| 0 - 15   |                                  | 08900                        | 07110             |
| 0 - 25   |                                  | 08910                        | 07120             |
| 0 - 30   |                                  | 08920                        | 07130             |
| 0 - 50   |                                  | 08930                        | 07140             |
| 0 - 100  |                                  | 08940                        | 07150             |
| 0 - 150  |                                  | 08950                        | 07160             |
| 0 - 200  |                                  | 08960                        | 07170             |
| 0 - 250  |                                  | 08970                        | 07180             |
| 0 - 300  | 2000 Ohms Per Volt               | < >                          | 07190             |
| 0 - 500  |                                  | < >                          | 07200             |
| 0 - 750  |                                  | < >                          | 07210             |
| 0 - 1000   |                                  | < >                          | 07220 *           |
| 0 - 2000   |                                  | < >                          | 07240 *           |
| 0 - 3000   |                                  | < >                          | 07260 *           |
| 0 - 5000   |                                  | < >                          | 07280 *           |
| *External multipliers, Model 183, are furnished on 3-1/2" DC meters 1000 volts or higher |                                  |                              |                   |
| < > Available on special order   |                                  |                              |                   |

## Round Style Analog Panel Meters

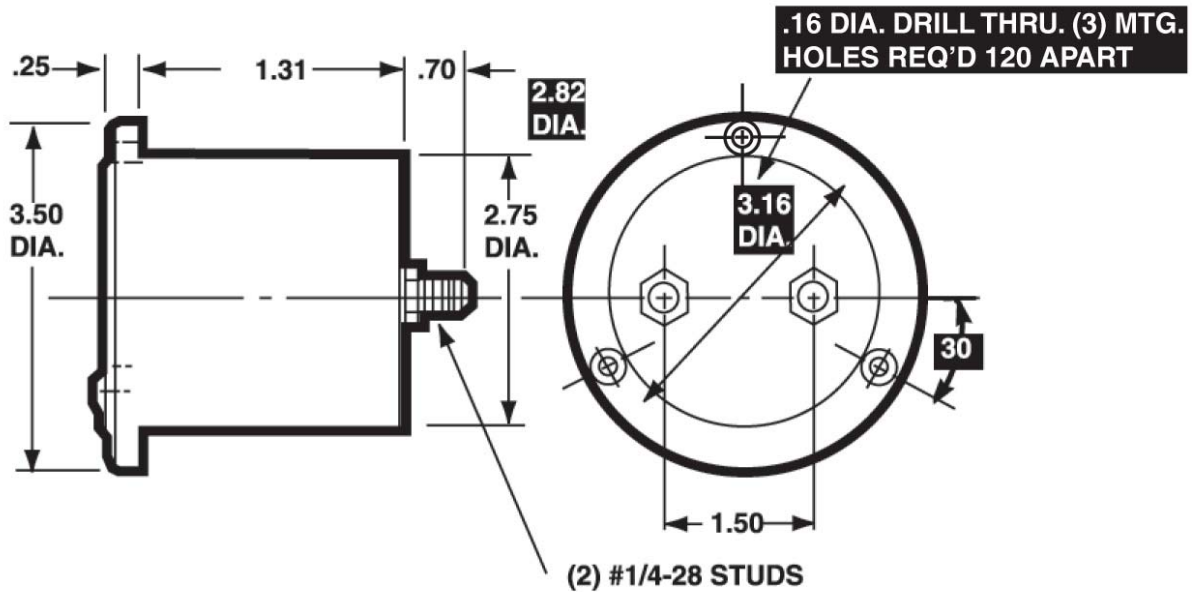
| <b>Specifications</b>        |  |
|------------------------------|--|
| <b>Accuracy</b>              | ± 2% F.S. (Iron-Vane), ± 3 F.S. (Rectifier)  |
| <b>Frequency models</b>      | 45-55Hz ±0.3Hz (120V-240V)<br>55-65Hz ±0.3Hz (120V-240V)<br>380-420Hz ±1.2Hz (120V-240V)   |
| <b>Wattmeters</b>            | +2% F.S.; Compensated Meters: +3% F.S.   |
| <b>Movement</b>              | Models 55, 155: Iron-vane, magnetically damped<br>Models 45, 145: Annular, rectifier type<br>Models 85 & 185: small core magnet, self-shielding<br>Models 25, 27, 29, 125: Annular, self-shielding |
| <b>Tracking</b>              | ± 3%   |
| <b>Shielding</b>             | Calibration is unaffected by magnetic field or panel mounting  |
| <b>Response Time</b>         | 1.5 seconds maximum  |
| <b>Overload (1 sec.)</b>     | 10 times F.S.  |
| <b>Overload (Continuous)</b> | 1.5 times F.S.   |
| <b>Repeatability</b>         | 2%   |
| <b>Dial</b>                  | Sharp clear scale. Each dial arc is calibrated to track the specific type of movement used   |
| <b>Case</b>                  | High density black plastic   |
| <b>Resistance</b>            | ± 15%  |
| <b>Operating Temperature</b> | - 4°F to + 149°F (- 20°C to + 65°C)  |
| <b>Pointer</b>               | Models 85 & 185: Knife edge, black finish<br>All others: Spade pointer with black matte finish   |
| <b>Scale Length</b>          | Model 155 & 185: 1.6" (40.6mm)<br>Models 125 & 145: 1.8" (45.7mm)<br>Model 55: 2.3" (58.4mm)<br>Models 25, 27, 45 & 85: 2.5" (63.5mm)<br>Model 29: 3.80" (96.5mm)                                  |
| <b>Net Weight</b>            | Models 55, 155 & 185: 5oz (0.14kg)<br>Models 85, 125, 145 & 45: 7oz (0.20kg)<br>Models 25 & 27: 8oz (.23kg)<br>Model 29: 11oz. (.31kg)   |

**Dimensions**

**2 - 1/2" Models 125, 125T, 145, 155 & 185**



**3 - 1/2" Models 25, 25T, 55, 85 & Model 45 AC Rectified Meter**



NOTE: "T" model suffix used for Taut-Band Movement



**Round Style  
 Analog Panel Meters**

**Dimensions**

**3 - 1/2" Model 75 Wattmeter**

