



- Compensated Wattmeters for Low Value Power Measurement
- $\pm 2\%$  F.S. Accuracy ( $\pm 3\%$  F.S. for Compensated Type)
- Calibration for Either Magnetic or Non-Magnetic Panels
- Three Popular Sizes: 2-1/2", 3-1/2", 4-1/2"
- Phenolic Cases With Glass Windows



| Model Number | Size   | Meter Movement |
|--------------|--------|----------------|
| 177          | 2-1/2" | Dynamometer    |
| 77           | 3-1/2" | Dynamometer    |
| 79           | 4-1/2" | Dynamometer    |

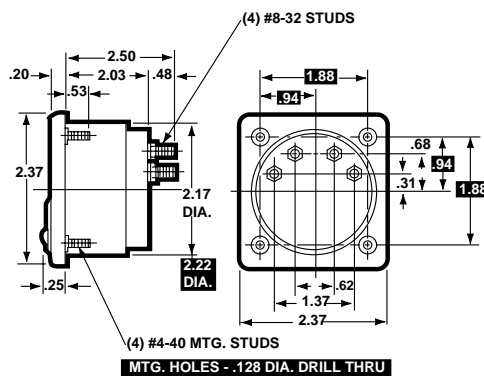
For unsurpassed stability and quality performance look to Simpson's rectangular style meters. The rectangular style offers an attractive look with sharp, beveled edges and glass windows for easy viewing. Available in 2-1/2", 3-1/2" and 4-1/2" sizes (3-1/2", 4-1/2" sizes only for Compensated type), this style can be ordered in ranges from 20 to 3000 watts. Due to power dissipation, errors are usually prevalent in standard wattmeters at low values of power. This error is corrected in Simpson's Compensated wattmeters. Standard wattmeters have a single phase accuracy of  $\pm 2\%$  of full scale (F.S.) ( $\pm 3\%$  of full scale for Compensated type). Wattmeters have the Simpson dynamometer movement that is calibrat-

ed for either magnetic or non-magnetic panels and for a frequency range of 25-125 Hz. The dynamometer movement is air-damped, using the same high quality pivots and jewels as the other fine Simpson meters to support the moving element. This style of meter is ideal for many other electrical functions. See the "Function Reference Table."

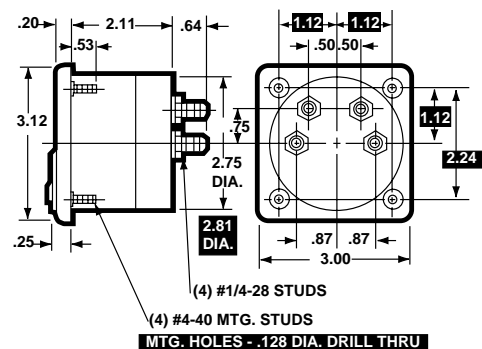
### Dimensions and Compatibility

2-1/2"-Model 177

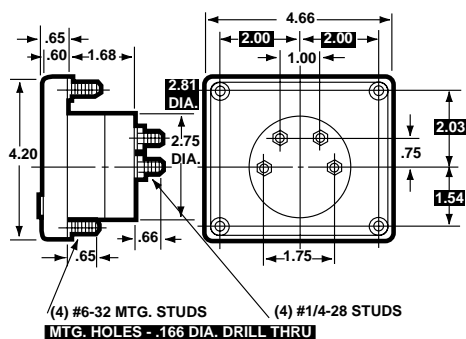
1 = Panel Meter Cut-out Dimensions



3-1/2"-Model 77



4-1/2"-Model 79



### Compatibility Reference Table

| Manufacturer       | Size/Model |
|--------------------|------------|
|                    | 3 1/2"     |
| Crompton<br>Fiesta | Model 016  |

## Specifications

|                               |   |
|-------------------------------|---|
| <b>Accuracy:</b>              | ±2% F.S; Compensated meters: ±3% F.S.   |
| <b>Movement:</b>              | Dynamometer   |
| <b>Suspension:</b>            | Pivot and jewel   |
| <b>Tracking:</b>              | ±3%   |
| <b>Shielding:</b>             | Calibration is unaffected by magnetic 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>Resistance:</b>            | ± 15%   |
| <b>Operating Temperature:</b> | -4°F to +149°F (-20°C to +65°C)   |
| <b>Case:</b>                  | High density black phenolic   |
| <b>Pointer:</b>               | Spade pointer, with black matte finish  |
| <b>Scale Length:</b>          | Model 177: 1.60" (40.60mm)<br>Model 77: 2.30" (58.40mm)<br>Model 79: 3.50" (89.0mm) |
| <b>Net Weight:</b>            | Model 177: 9oz (0.26kg)<br>Model 77: 9oz (0.26kg)<br>Model 79: 12oz (0.34kg)        |

## Ordering Information

### Wattmeters Dynamometer Type, Single-Phase

| Range  | Maximum |      | Model/Size and Catalog Number |                    |                    |
|--------|---------|------|-------------------------------|--------------------|--------------------|
|        |         |      | 2-1/2"<br>Model 177           | 3-1/2"<br>Model 77 | 4-1/2"<br>Model 79 |
|        | Volts   | Amps |                               |                    |                    |
| 0-75   | 150     | 1.0  | 10860                         | 10650              | 10720              |
| 0-150  | 150     | 2.0  | <>                            | <>                 | 10730              |
| 0-300  | 150     | 4.0  | <>                            | <>                 | 10740              |
| 0-600  | 300     | 4.0  | <>                            | 10680              | 10750              |
| 0-750  | 150     | 10.0 | 10900                         | 10690              | 10760              |
| 0-1500 | 300     | 10.0 | 10910                         | 10700              | 10770              |
| 0-3000 | 300     | 20.0 | 10920                         | 10710              | 10780              |

**Compensated Wattmeters\*** Accuracy  $\pm 3\%$

|      |     |      |   |    |       |
|------|-----|------|---|----|-------|
| 0-20 | 150 | .400 | — | <> | 10714 |
|------|-----|------|---|----|-------|

\* Wattmeters calibrated for either magnetic on non-magnetic panels and for a frequency range of 25-125 Hz.  
<> Available on special order.

## Function Reference Table

For your convenience, the table below lists Rectangular models for other electrical monitoring functions and page reference.

| Function   | Section | Page |
|------------|---------|------|
| AC Current | E       | 19   |
| AC Voltage | E       | 39   |
| DC Current | E       | 59   |
| DC Voltage | E       | 79   |

## Engineer's Notes

[illegible]