



## 7020 COMPENSATED CURRENT TRANSFORMER



### Featuring

- ▶ Single Range
- ▶ Highest Permeability
- ▶ Wide Measurement Range
- ▶ Negligible Current Errors
- ▶ High Accuracy

### Overview

The Model 7020 Compensated Current Transformer was originally developed as an extender for MIL 2010A and 7010B Models, where the accuracy over the full range is important. It is also suitable to be used as a Standard Current Transformer for CT Test Sets, or for measuring range extension for Tan Delta measurements of high capacitance & low-inductance values using the Model 7010C High Voltage Capacitance Bridge. The Model 7020, using two-stage compensated technology, has 50% overrange capability. The main advantage of a two-stage compensated CT is that the effective burden is

low when feeding into another compensated CT, such as the current input on the Model 2020A Wattmeter or Cx & Cxp input to MI 7010C HV Capacitance Bridge. As a result, the errors of the CT are effectively reduced to zero in both magnitude and phase. Lead length becomes unimportant and there is no further concern for any additional active components. The Model 7020 CT housing consists of a ruggedized enclosure for the strength and protection required in industrial environments. Output connections are provided by 5-way binding posts on the top for easy and quick connections and a locking connector on the side for a permanent connection.

| Feature                  | Benefit   |
|--------------------------|---|
| Two stage compensated CT | Effectively reduces the CT errors and cabling effects to zero           |
| Passive compensation     | Does not require any power supply or internal electronics               |
| Wide current range       | Allows same accuracy within large current span, without range switching |



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**Specifications:** Rev 2

| Model 7020 Compensated Current Transformer         |   |
|--|---|
| <b>Current Range (A)</b><br>(allows 50% overrange) | 2000 down to 10                             |
| <b>Nominal Ratio</b>                               | 2000 : 1 or 1000:1                          |
| <b>Magnitude Error (parts per 10<sup>6</sup>)</b>  | < ± 20                                      |
| <b>Phase Error (µrad)</b>                          | < ± 20                                      |
| <b>Maximum Burden (Ω)</b>                          | 1   |
| <b>Input Connection</b>                            | 4-inch (102 mm) window                      |
| <b>Output Connection</b>                           | 5-way Binding Post or Locking Connector     |
| <b>Mechanical</b>                                  | CT is mounted on wheels for maneuverability |

The 7020 CT can be used as an IEC/IEEE compliant standalone standard current transformer for tests in National Laboratories, Accredited Laboratories or in transformer manufacturers facilities. The Model 7020 is supplied as single 2000:1 or 1000:1 ratio device. For other ratios please contact Measurements International at [sales@mintl.com](mailto:sales@mintl.com).

### Ordering Information

Model 7020 Current Transformer

Model 7020 CAL STD (Certificate of Calibration)

Model 7020 CAL - 17025 (ISO/IEC 17025 Accredited Certificate of Calibration)

### Optional Equipment

Model 7010C High Voltage Capacitance Bridge

Model 2020A Wattmeter

Model 7070A Ratio Bridge

**Dimensions (L × W × H):**  
635 x 330 x 584 (mm)

**Weight:**  
64 kg

**Shipping Weight:**  
82 kg

**Mains Power:**  
N/A

**Temperature:**  
15°C to 40°C

**Relative Humidity, non-condensing:**  
10% to 80%

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