

SST-9203

Solid-State Digital Timer



- Versatile timing instrument for many utility applications
- Rugged design for years of daily field use
- ± 0.0001 -second accuracy
- Battery or line operated

DESCRIPTION

The SST-9203 Solid-State Digital Timer combines ruggedness and reliability with state-of-the-art technology to make it an accurate and versatile timing instrument available for utility applications.

APPLICATIONS

Designed specifically to measure the operating time of solid-state and electromechanical relays, circuit breakers, contactors or similar switching devices, Model SST-9203 can be easily used in the field, shop or laboratory.

FEATURES AND BENEFITS

- **Timing versatility:** All necessary start and stop gates are incorporated — applying or removing ac or dc potentials, opening or closing contacts.
- **Accuracy:** ± 0.0001 second
- **Resolution:** measures from 0.0001 to 9999.99 seconds **OR** 0.1 to 99999.9 cycles
- **Noise immunity:** Shielding and noise-suppression circuitry ensures reliable operation even in typically “noisy” utility environments such as EHV substations and switchyards.
- **Rugged design:** built tough to provide years of daily field use
- **Built-in rechargeable battery:** Long battery life allows testing in remote locations.

SPECIFICATIONS

Input

115/230 V, 50/60 Hz, 3 VA

Display

0.3-in. (7.6-mm) LED, 6 digits

Battery Capacity

Six hours of continuous usage on a single, full charge. Low battery indication lamp. (Recharge time is twice the time used on battery power. Battery charger is built-in.)

Counter

The specially designed Multi-Amp solid-state digital counter measures the elapsed time of the test in either seconds or cycles. It has extensive shielding and noise-suppression circuitry to ensure accurate and reliable operation under the most demanding field conditions. Incorporating a crystal-controlled oscillator, its accuracy is independent of the power-line frequency.

Ranges (switch-selected)

0.0001 to 99.9999 s

0.01 to 9999.99 s

0.1 to 99999.9 cycles

Start and Stop Gates

Two identical, independent start and stop gate circuits permit simple switch selection of the desired operating modes. The following modes are provided for both the start gate and the stop gate:

Dry Contact Closure (N.O.): Timer starts or stops at the closure of a normally open contact or upon conduction through a semiconductor device, such as an SCR, triac or transistor.

Dry Contact Opens (N.C.): Timer starts or stops at the opening of a normally closed contact or when conduction through a semiconductor device, such as an SCR, triac or transistor is interrupted.

Application of ac or dc Potential (AC/DC APPLIED): In latched mode, timer starts or stops when an ac potential (5 to 300 V rms) or dc potential (6 to 300 V) is applied. In nonlatched mode, timer starts or stops when an ac potential (65 to 300 V rms) or dc potential (6 to 300 V) is applied/removed.

Removal of ac or dc Potential (AC/DC REMOVED): Timer starts or stops when an ac potential (65 to 300 V rms) or dc potential (6 to 300 V) is removed.

START Latch

When on, the START latch allows timing to be initiated by any start gate and to be stopped only by the selected stop gate. When off, the START latch allows timing to be initiated by any start gate and to be stopped when that start gate is reversed (such as when timing the closing and opening of a single contact while measuring the trip-free operating time of a circuit breaker).

STOP Latch

When on, the STOP latch allows timing to be stopped at the first operation of any stop gate (thus ignoring contact bounce, for example). When off, the STOP latch allows timing to be stopped by any stop gate, then restarted if the stop gate reverses (provided a start gate is still energized) and then again stopped when the gate again reverses.

Accuracy

The overall accuracy of the instrument, including start and stop gate errors at 25° C is:

Seconds Mode: ± least significant digit (0.0001 or 0.01 depending on range selection) or ±0.005% of reading whichever is greater, when initiated by a dry contact, a DC potential above 5 volts, or by an AC potential above 115 V*.

Cycles Mode: ±0.5 cycles or ±0.005% of reading whichever is greater, when initiated by a dry contact, a DC potential above 5 volts, or by an AC potential above 115 V*.

* AC voltage accuracy gets worse at lower voltages and is ±8 mS in worst case (6 volts rms applied just following wave-shape peak).

Environment

Operating temperature is from 32 to 100° F (0 to 38° C)

Enclosure

The instrument is housed in a high-impact plastic case with lead compartment and equipped with carrying handle and removable cover.

Dimensions

13.5 H x 9.6 W x 9.5 D in. (344 H x 245 W x 242 D mm)

Weight

12 lb (5.5 kg)

ORDERING INFORMATION

Item (Qty)	Cat. No.
Solid-State Digital Timer	SST-9203
Included Accessories	
Line cord (1)	6828
Fuses	
0.25A, 250 V (5)	14692
0.5A, 250 V (5)	14693
Test leads (1 pr)	1282
Pouch (1)	14694
Instruction manual (1)	15027



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