SA100s

Switchgear Analyser

Breaker Timing Test Set

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Introduction

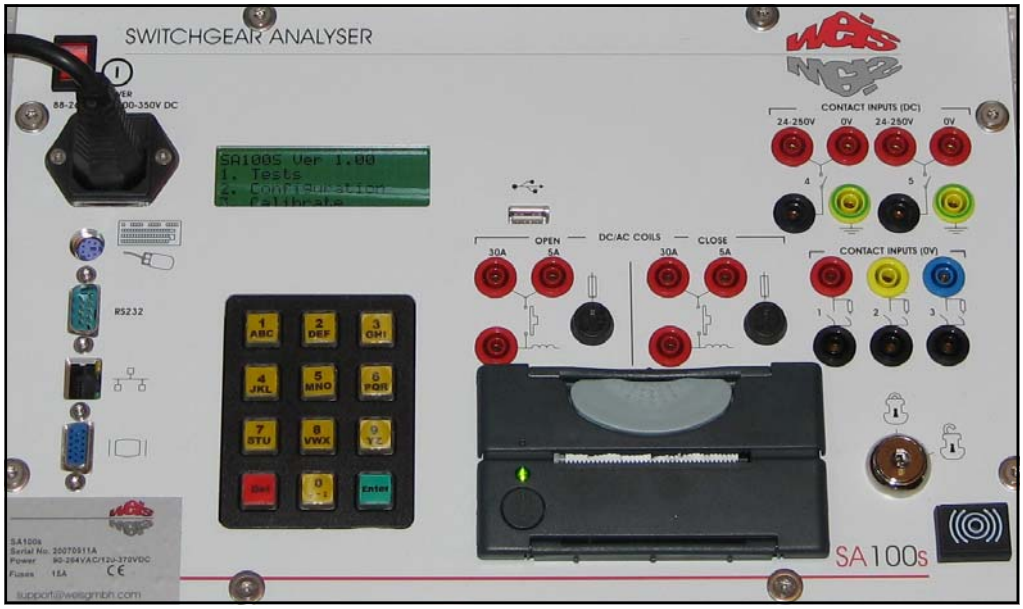
Weis is a specialist company with over 40 years of experience in the commissioning, testing & maintenance of switchgear and power network fault monitoring within the Power Utility Industry.

The SA100s Switchgear Analyser is an extremely light-weight & quick tool to check basic Circuit Breaker Timing and is an instrument intended for use in Power Station, Substation & industrial environments.

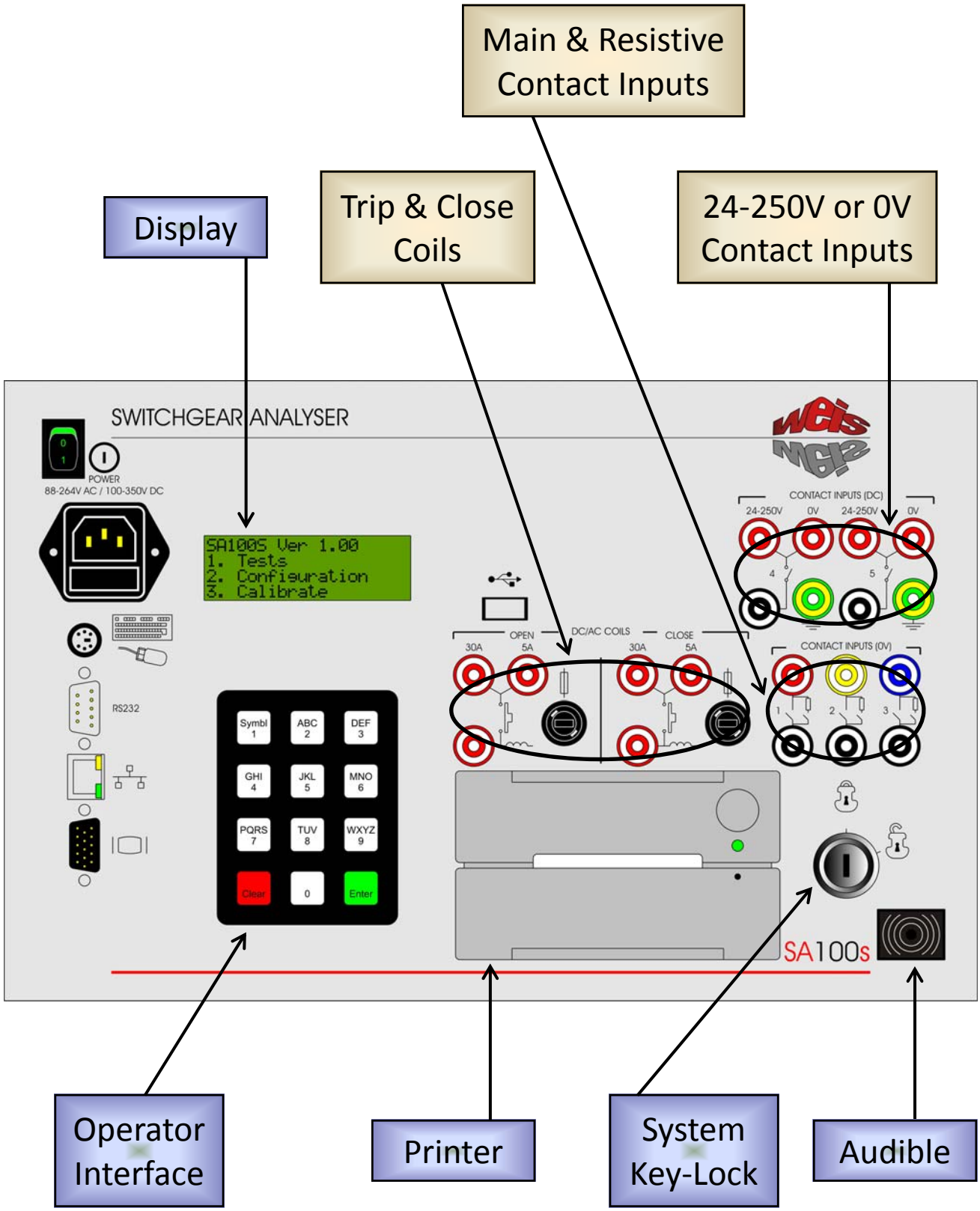
As the latest addition to our SA100 series, the s version is based on well established and proven technology used worldwide. Results are printed out and viewable on a built-in display, which also serves as a backup should printer paper not be immediately available.

Also available within our range of switchgear test equipment:

- ► SA100, Switchgear Analyser
- ► SA100R, Switchgear Analyser
- ► PS100, Power Supply
- ► MM100, Micro-ohm Meter
- ► RT100, Secondary Injection Relay Test Set
- ► SA200, Automated Factory Test System



Operation & Connections



Switchgear Analyser SA100s

Specifications

INPUTS

Analogue: 1 x Independently controlled trip (open) and close coil current inputs.
Analogue Accuracy: <0.5% of fullscale.
Digital: 6 x Contact status inputs providing timing of up to 3 main contacts and 3 resistive contacts ('dry' contacts). 2 x User configurable input for 'wet' or 'dry' contact timing (24 - 250V DC or 0V DC).
Contact Threshold: 15 - 10,000 ohms.
Digital Resolution: 100µSec.
Connectors: 4mm safety socket.

OUTPUTS

Coil Operation: Solid state outputs for trip (open) and close.
Coil Peak Current: 5A (accuracy 2.5mA) or 30A (accuracy 15mA) AC/DC measurement ranges selectable via input sockets. Other measurement ranges possible via optional external shunt; for example 50A Peak (up to 75mS duration) or 100A Peak (up to 50mS duration).
Coil Max. Voltage: 400V peak.

RECORDING

Resolution: 12 bit A/D (1:4096) and 10 kHz sampling rate.
Recording Time: Selectable up to 1 second.
Synchronisation: All inputs sampled simultaneously.
Start trigger: Coil current or selectable on any digital input.

GENERAL SYSTEM

Backlit 4 line x 40 character LCD display. Built in printer. Alpha / numeric keypad. RJ45 network port. RS232 serial port. Audible buzzer. Safety keyswitch to enable / disable coil operation. PS2 socket. VGA port.

REAL-TIME CLOCK

Range: Time, date, leap year and day of the year with internal battery backup. 100mS resolution.

PROGRAMMING - SETTABLE PARAMETERS

User strings: Site name, breaker number, breaker type, line name and operator name.
Test times: Close, Open, Trip Free, Close-Open, Open-Close, Open-Close-Open.
Coil operate times: Initial delay, trip coil "on-time", close coil "on-time", delay time between closing and opening, delay time between opening and closing.

COMPUTED RESULTS

Up to a sequence of 3 operations detailing 3-phase information:
Peak coil current, operate times and operate time spread (main / resistive), bounce time.

OPERATING VOLTAGES

Prime Power: 100 to 370V DC, 90 to 264V AC auto-sensing via IEC power connection. Burden <20 VA.

ENVIRONMENTAL

Operating Temp.: -20ºC to +70ºC (-4ºF to +158ºF)
Humidity: 0 to 97% RH non-condensing.
Isolation: 2kV rms for 1 minute (channel to channel, channel to earth).
Surge Withstand: To IEC 801-5. 1.2/50µS.
(Transient) Common Mode: Severity level class 4. Series Mode: Severity level class 3.
Fast Transient Burst: To IEC 801-4 level 3.
RFI Immunity: To IEC801-3 level 3. 10V/m 26-1000MHz.
Emissions: To EN50081-1: 1992.

MECHANICAL DETAILS

Enclosure: Reinforced aluminium, 370mm(W) x 245mm(H) x 180mm(D).
Weight: <4kg.

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