



SCR ELEKTRONIKS

SALES PRESENTATION FOR

RELAYS, CONTACTORS & MOTOR STARTER TESTING EQUIPMENTS





LIST OF TEST EQUIPMENT

- **Relay Test Bench:**

1. FIVE STATION BIMETAL OVERLOAD RELAY TEST BENCH
2. TWENTY FOUR STATION RELAY HEATING ROUTINE TEST BENCH
3. PC BASED THERMAL OVERLOAD RELAY TEST BENCH

- **Contactor Test Bench:**

1. PC BASED ROUTINE TEST FOR CONTACTORS
2. CONTACTOR PROTOTYPE R&D TEST BENCH

- **Motor Starter Test Bench:**

1. PC BASED MOTOR STARTER ROUTINE TEST BENCH



***1.* FIVE STATION BIMETAL OVERLOAD RELAY TEST BENCH**

- **What It Is?**

- The bench is mainly to be utilized for the production testing of bimetal overload relays used to break current using an overload current operated bimetal device, typically for motors and pumps.
- The circuit employs a typically designed servo controlled current source which pumps the required current at a convenient low voltage.

- **Models Available :**

- The bench can be customized for the maximum testing current range and the number of stations.
- It can be made PC based with data logging if necessary.



- **Salient Features :**

- Easy to use low cost bench
- Servo controlled current source for line and load regulation (1%)
- Timer to measure the trip time per station.
- User defined (as well as IEC specified) current can be set.
- Customized fixture
- Works well even for an unskilled operator

- **Basic Specifications :**

- Output Current : 2-50 ADC
- Input Supply : AC 230V +/-10%, 50 Hz
- CT Taps: Discretely spread across throughout the range

• Key Photos :



Bimetal Overload Relay Test Bench

2. TWENTY FOUR STATION RELAY HEATING ROUTINE TEST BENCH

- **What It Is?**

- The SCR Elektroniks make relay heating test bench is a low cost heating test bench to test the continuity of bimetallic overload relays against over current.
- The bench is customizable for 5, 6, 12, 24 and 48 stations as per the customer requirement.

- **Models Available :**

- The current range and number of stations can be customized.
- Also, fixture will be designed as per the customer product.



● Salient Features :

- Easy to use low cost bench.
- Servo controlled current source for line and load regulation (1%).
- Continuity Indication.
- Manual Operation possible.
- In built timer to pre set the total time of the test: Universal for all stations.
- NO / NC indication on each fixture

● Basic Specifications :

- **Customizable number of stations:** 5, 6, 12, 24, 48 stations.
- **CT range:** 2.5, 10, 25, 50, 100 A (Depending upon the current source).
- **Range of Current source:** Customizable 0-25 A, 0-50 A, 0-100 A.
- **Pneumatic pressure:** 6 bar

- Key Photos :



Relay Heating Routine Test Bench



3. PC BASED THERMAL OVERLOAD RELAY TEST BENCH

- **What It Is?**

- SCR Elektroniks presents you the thermal overload relay test bench in a sophisticated testing topology like never before!
- The bench has a facility to test multiple relays simultaneously and independently of each other in a modular fashion.

- **Models Available :**

- The system can be chosen as AC current based or DC current based. Also, the number of stations and current range can be customized.
- The PC software and pneumatic fixture are designed as per the customer specifications



● Salient Features :

- The system is available with individual current source available in different ranges from DC 0.2A to 40 A/24V max (with regulation of 0.2%).
- Specially designed jigs for ease and operator safety (can be integrated on an automated assembly).
- No risk to operator as max voltage is 24V DC; does not require skilled operator.
- Pneumatic fixtures to quick load/unload all stations by one operator.
- Customizable to suit any production load : 1 Station, 2 Station 48 Stations.
- Reporting for Data Analysis.
- Modular design for easy maintenance & to ensure zero break down.
- Lower power consumption as each station goes in sleep mode automatically after trip.



● Basic Specifications :

- Input supply 415V AC 3 phase 20 Amp max.
- Programmable test times from 000.1 Sec to 999.9 Secs.
- Programmable current range from 0.200 Amp to 40.00 Amp DC.

• Key Photos :



Thermal Overload Relay Test Bench



4. PC BASED ROUTINE TEST FOR CONTACTORS

- **What It Is ?**

- The SCR Elektroniks production test bench for factory testing of contactors is used to test a variety of electrical parameters and compliance verification for the contactors.
- This single bench conducts nearly all of the electrical tests that are relevant to the contactor prescribed by various versions of IEC 60947.
- The tests are conducted in a sequential manner on more than one station at a time thus testing multiple contactors simultaneously.

- **Models Available :**

- The product can be customized w r t voltage, coil current and wattage range, HV value as well as number of stations.
- Additionally, millivolt drop can be measured across contacts.



● Salient Features :

- Can test 6 contactors in less than 3 minutes on a 6 station test bench.
- PC based Testware enables the entire test sequence and test parameters to be programmed and controlled by customizable Testware running on PC
- Report generation in excel format
- Specially designed test jigs for ease and operator safety (can be integrated on an automated assembly)
- Hardware interlock provided for H.V. and L.V.
- Semi skilled operator friendly
- Reporting for Data Analysis

● Basic Specifications :

- Test Bench suitable for testing contactors (3/4 pole contactor with or without an auxiliary contact) with coil voltage customizable for 24 V, 42 V, 48 V, 110 V, 220 V, 240 V, 360 V, 380 V, 415 V, 440 V & 525 V AC.
- Pick up, Drop off voltage go, no-go values settable in the above range3.H.V. Source module customizable for upto 3 kV, 50 mA



● Key Benefits :

- The test bench tests and measures various parameters of the given tests: Flashing and continuity test, coil current and wattage measurement test, pick up and drop off test, and high voltage test

• Key Photos :



Routine Test For Contactors



5. CONTACTOR PROTOTYPE R&D TEST BENCH

- **What It Is?**

- All-in-one hybrid bench covering 4 tests
- Multi faceted testing and measurement options
- Easy to use, easy to read values
- Typically suited for R&D engineers
- MCB protection
- Robust mechanism
- Modular design allowing the user to carry multiple tests simultaneously.

- **Models Available :**

- Each test parameter can be customized as per the customer wish



● Salient Features :

- All-in-one hybrid bench covering 4 tests
- Multi faceted testing and measurement options
- Easy to use, easy to read values
- Typically suited for R&D engineers
- MCB protection
- . Robust mechanism
- Modular design allowing the user to carry multiple tests simultaneously



● Basic Specifications :

- Test Bench suitable for testing contactors (3/4 pole contactor with or without an auxiliary contact) with coil voltage customizable for 24 V, 42 V, 48 V, 110 V, 220 V, 240 V, 360 V, 380 V, 415 V, 440 V & 525 V AC
- Pick up, Drop off voltage go, no-go values settable in the above range
- H.V. Source module customizable for upto 3 kV, 50 mA

● Key Benefits :

- The test bench is useful in conducting various manual tests mainly for prototype and R&D test.
- Start up companies / project groups can buy this equipment as a R&D test bench and can later on convert it into a production (routine) tester

• Key Photos :



Contactor Prototype R&D Test Bench



6. PC BASED MOTOR STARTER ROUTINE TEST BENCH

- **What It Is?**

- Generate High Voltage across the Output terminal and measure the Leakage current flowing across the Earth Terminal Generate High Voltage across the Output terminal and measure the Leakage current flowing across the Earth Terminal Generate High Voltage across the Output terminal and measure the Leakage current flowing across the Earth Terminal.

- **Key Benefits :**

- The test bench is used to test motor thermal overload starters capable of interrupting overload current



• Salient Features :

- 3 relays can be at a time checked for continuity and reliability to heat. (The number of relays to be tested can be customized).
- The panel can work in:
 - a) Manual mode: Here all the settings for current and primary voltage are done manually. The test would only start when the Heating Test On, dual push button is pushed ON.
 - b) Timer mode: Here too all the settings for current and primary voltage are to be done manually. Here the timer is set, to enter the time, for which the current is to be passed and the test would only start when the dual start push button is pressed.
- PC mode, where it performs all the operations automatically using TESTWARE, without manually entering the settings again and again.
- If the particular station is to be left empty, the
- it can be bypassed using a toggle switch present on the panel.
- PC USB port is used for PC interface.



• Basic Specifications :

- Input 230 V, 50 Hz, 3 phase
- Output current 5 – 200 A at conveniently low voltage
- Pneumatic pressure: 6 – 8 Bar

• Key Photos :




Pc Based Motor Starter Routine Test Bench

• Some Typical Software Screenshot :

MASTER SETTINGS

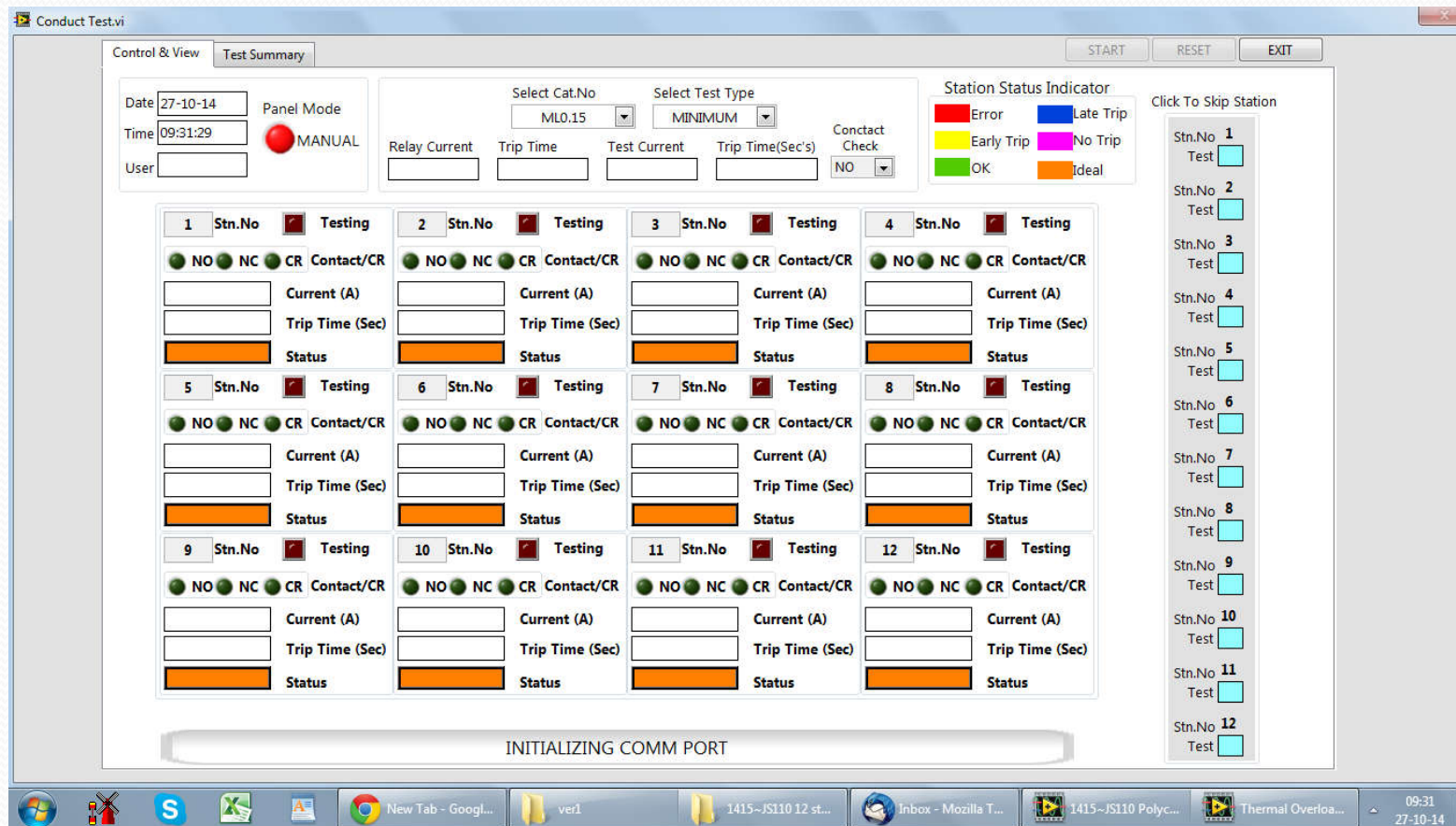
OVERLOAD RELAY MASTER

	CAT.No	RELAY RANGE(A)	Minimum Test			Verification Test			Maximum Test			CHECK CONTACTS
			TEST CURRENT(A)	TRIP TIME RANGE T1 & T2(Sec)	TRIP TIME T3(Sec)	TEST CURRENT(A)	TRIP TIME RANGE T1 & T2(Sec)	TRIP TIME T3(Sec)	TEST CURRENT(A)	TRIP TIME RANGE T1 & T2(Sec)	TRIP TIME T3(Sec)	
<input type="checkbox"/> Delete ?	ML0.15	0.15-0.25	0.3	30-40	50	0.3	30-60	70	0.5	30-80	90	NO
<input type="checkbox"/> Delete ?	ML0.25	0.25-0.4	0.5	50-60	80	0.5	50-60	80	0.8	50-60	80	NC
<input type="checkbox"/> Delete ?	ML0.4	0.4-0.65	0.8	50-60	80	0.8	50-60	80	1.3	50-60	80	BOTH
<input type="checkbox"/> Delete ?	ML0.6	0.6-1.0	1.2	50-60	80	1.2	50-60	80	2	50-60	80	NO
<input type="checkbox"/> Delete ?	ML1	1.0-1.6	2	50-60	80	2	50-60	80	3.2	50-60	80	NC
<input type="checkbox"/> Delete ?	ML1.5	1.5-2.5	3	50-60	80	3	50-60	80	5	50-60	80	BOTH
<input type="checkbox"/> Delete ?	ML2.5	2.5-4.0	5	50-60	80	5	50-60	80	8	50-60	80	NO
<input type="checkbox"/> Delete ?	ML4.0	4.0-6.5	8	50-60	80	8	50-60	80	13	50-60	80	NC
<input type="checkbox"/> Delete ?	ML6.0	6.0-10.0	12	50-60	80	12	50-60	80	20	50-60	80	BOTH
<input type="checkbox"/> Delete ?	ML10.0	10.0-16.0	20	50-60	80	20	50-60	80	32	50-60	80	NO
<input type="checkbox"/> Delete ?			0		0	0		0	0		0	NO
<input type="checkbox"/> Delete ?			0		0	0		0	0		0	NO
<input type="checkbox"/> Delete ?			0		0	0		0	0		0	NO



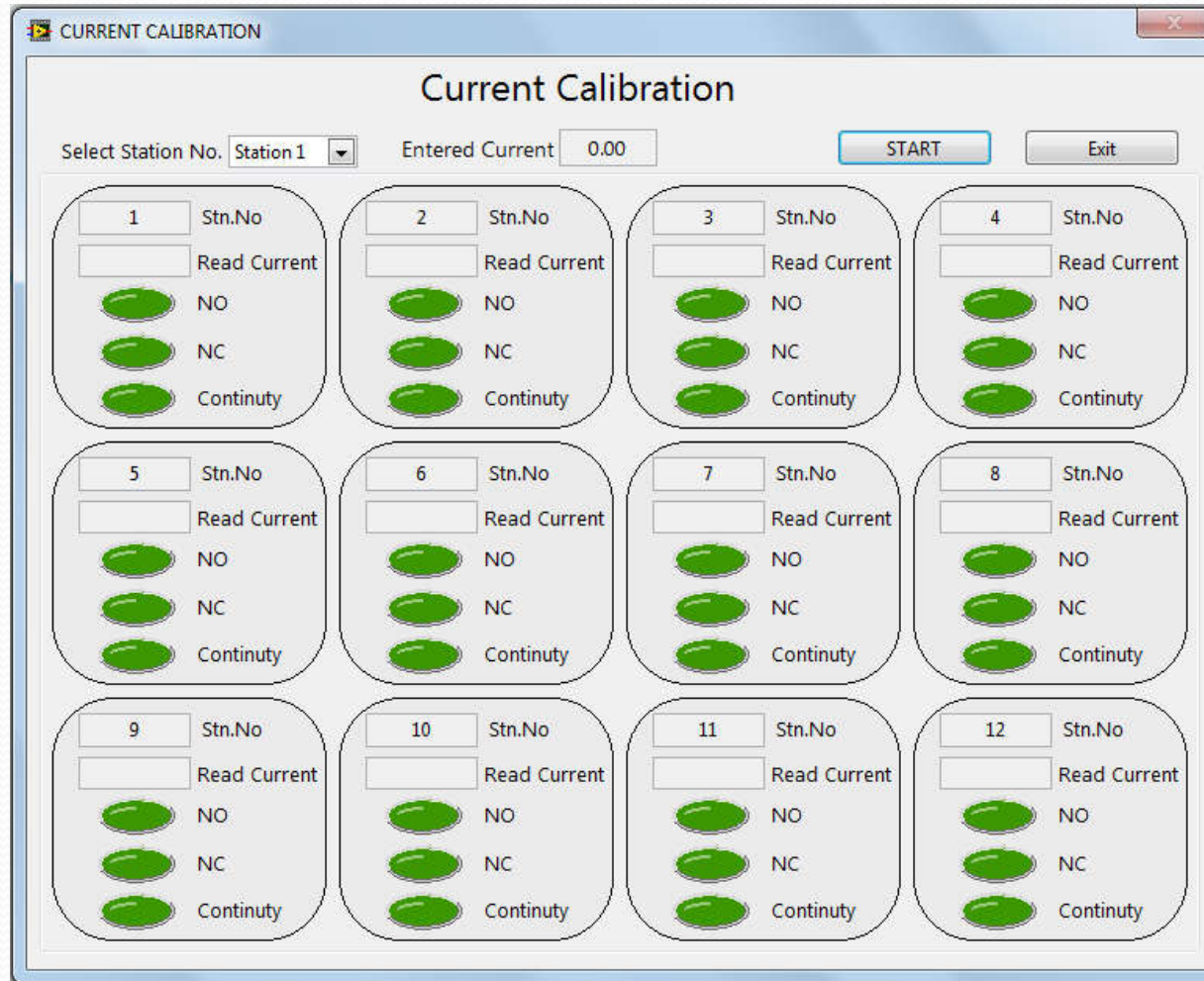
Master Settings Window

• Some Typical Software Screenshot :



Test Screen Window

- Some Typical Software Screenshot :



Current Calibration Window



- **Documentation That Will Be Provided With Product :**

- Layout (dimensions, etc.)
- Metering and PCB termination diagram
- Power wiring diagram
- Control wiring diagram
- User manual
- Data acquisition module details (for PC based variants)
- Signed warranty certificate
- Calibration certificates (NABL optional)



• Why SCR Elektroniks ?

- Since 1975: Rich Experience In Test And Measurement
- Customized Solution
- Dedicated After Sales Support Team
- Designed More Than 100 Different Products
- In- House Team Of Micro-controller Design, Electrical And Electronic Design, Micro Controller Development, LabVIEW (PC) Software And PLC Logic, Production, Testing And Commissioning And Support
- In-house Development Of Critical Electronic And Electrical Meters, Modules And Components
- ISO 9001 : 2015 Certified By Bureau Veritas – Maintaining High Quality In Our Internal Process
- Listed By IEC In The Past
- Fair And Consistent Pricing
- Our Ultimate Prize: Customer Delight

SCR ELEKTRONIKS

- For More Details Contact:

SCR ELEKTRONIKS

- Address: W 188, MIDC Phase 2, Dombivli (E),
Pin:421204 India
- Phone: +91 251 2871778
- Email: auto@screlektroniks.com
- Website: www.screlektroniks.com



THANK YOU