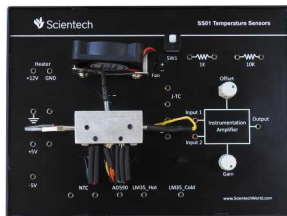
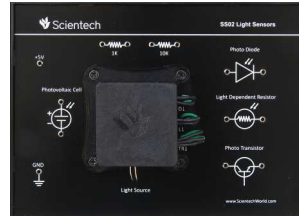




SS01 Temperature Sensors



SS02 Light Sensors



SS03 Infrared Sensors



Features

- IoT enabled Linux based 7" Graphical touch LCD with inbuilt cortex ARM processor & DAQ for acquiring analog data and software for viewing the output waveforms, reading the operating manual, tutorial etc, with USB storage and HDMI output. Ethernet port to connect real world.
- Inverting, Non-Inverting, Power, Current, Instrumentation and Differential Amplifier, Buffer, Frequency to Voltage, Voltage to Frequency, Current to Voltage, Voltage to current Converter, High Pass and Low Pass Filter, Buffer, LED , Buzzer, Relay, Square Wave generator.
- Inbuilt DAQ
- User can design any circuit on bread board and test
- Stand alone TechBook
- Onboard signal conditioning
- USB Port for Keyboard and Pendrive interface
- Ethernet Port
- HDMI Port
- PC Interface
- Data Login in .csv format
- On board Graph capture and store
- Office tools are inbuilt to view PDF and doc files
- Sensor real time graph using software
- Sensors data logging using software

Training platform following Technical features

- a. On board display: 7" capacitive touchscreen
- b. Connectivity: USB, Ethernet & HDMI
- c. Square Wave Generator: up to 40KHz
- d. Low Pass Filter: up to 30KHz
- e. High Pass Filter: After 40KHz
- f. Inverting Amplifier: Variable Gain 1-10
- g. Non-Inverting Amplifier: Variable Gain 2-10
- h. Differential Amplifier: Variable Gain 1-10
- l. Instrumentation Amplifier: Variable Gain 10-20
- j. Frequency to Voltage: Input: 1- 10KHz
- k. Converter range Output: 1-10Volt
- l. Voltage to Frequency: Input: 1- 10Volt
- m. Converter range Output: 1-10KHz
- n. Current to Voltage: Input: 4-20mA
- o. Converter range Output: 0-5Volt
- p. Voltage to Current: Input: 0-5Volt
- q. Converter range Output: 4-20mA
- r. Analog/Digital Converter: 4 Channel (0-5V)
- s. Digital/Analog Converter: 1 Channel (0-3.3V)
- t. Input/ Output Ports: 4-IP / 4-OP
- u. Operating Voltage Range: 0 – 3.3V
- v. Ready assignment and exercise manuals
- w. Robust construction.

This Training System has the following sensors of the given specifications**Temperature Sensors 1no**

1. LM35: 10mV/ °C
2. Platinum RTD: 100W at 0°C (Temp. coefficient 0.385 W /°C)
3. K Type Thermocouple: 0°C to 80°C
4. J Type Thermocouple: 0°C to 80°C
5. AD590: - 55°C to +150°C
6. NTC Thermistor: 4.7KO

Optical Sensors 1no

1. L14G1 Photo Transistor: 500nm – 1100nm
2. Photovoltaic Cell: 500mV – 580mV
3. Phot Diode: 500nm – 1100nm

IR Sensors 1no

1. TSOP 1738
2. IR LED

Pressure Sensor 1no

1. Pressure Transducer: 0 to 60 psi, differential input
2. Foot Pump: 0 to 60 psi
3. Supply Voltage- +5V DC

LVDT Coil 1no

1. Measurement Range: 20 mm (10 mm)
2. Excitation Frequency: 4 KHz (approximately)
3. Excitation Voltage: 4Vpp (approximately)
4. Micrometer Scale: 25 mm
5. Micrometer Least count: 0.01 mm

Load Cell 1no

1. Rated Load: 6 Kg
2. Supply Voltage: +12V DC
3. Resistance: 350 ± 30

Strain Gauge 1no

1. Strain Gauge (3500): 4 Nos.
2. Gauge Factor: 2:1
3. Maximum Bearable Weight: 500 Gms.
4. Cantilever Material: Stainless Steel/MS
5. Bridge Configuration: Full Bridge

Gas Sensor 1 no

1. Supply Voltage: +5V DC
2. Warm up Time: 10 Min
3. Calibrated Gas: 1000 ppm iso-butane

Alcohol Sensor 1no

1. Supply Voltage: +5V DC
2. Output Voltage: 0 to 5V DC
3. Warm up Time: 10 Mins

Optocoupler Sensor 1no

1. Input Voltage: +5V
2. Output Voltage: +5V (approximately)

Magnetic Reed Sensor 1no

1. Maximum Voltage: 5Vdc
2. Maximum Current: 0.5A at up to 10W
3. Magnetic Reed Switch Type: Normally

Level Sensor 1no

1. Transducer: Capacitive Type
2. Level Measurement Range : 2 -3 Liter

Accelerometer Sensor 1no

1. Supply Voltage: +3.3V DC
2. ADC channel (X, Y, Z): 3
3. Operating Current: 1ma
4. Zero G output voltage (X, Y, Z): Idle output is VDD/2
So $3.3V/2=1.65V$

Temperature Humidity Sensor 1no

1. Supply: +5V DC
2. Operating Humidity: 0 to 100 %RH
3. Output Signal: Analog Voltage
4. Temperature Range: 0 to 100 C
5. Output Signal: Analog Voltage.

Air Quality Sensor 1no

1. Supply: 3.3V to 5V
2. Output Signal: Analog Voltage
3. Detection Range: 10 - 300 ppm NH₃, 10 - 1000 ppm Benzene, 10–300ppm Alcohol
4. Heater Voltage: 5.0V

PIR Sensor 1no

1. Supply Voltage: +5V DC
2. Detection Range: 6 Meters

Atmospheric Pressure Sensor 1no

1. Supply Voltage: +5V
2. Pressure Range
3. Min.: 15kPa
4. Max.: 115 kPa