



The Process Simulator (52379) is useful for understanding the Basic Principles of Data Acquisition System. This Setup gives idea about Data analysis of Different Process Parameters.

#### **Features**

- · Compact Ergonomic Design.
- · User Friendly, Self Explanatory Systems.
- Robust Construction...
- Enhanced Electrical Safety Considerations.
- Training Manuals, Mimic Charts for Operation Ease.
- Inbuilt Safety Measures to avoid improper usage.
- Computer Interface & SCADA Application software connectivity for analysis

#### **Experiments**

- Study of characteristics of Temperature Sensors
- Study of Various types of Pressure Sensors & Pressure Transmitter
- Data analysis using SCADA Application Software
- Study of Process Simulator Setup

### **Services Required**

- Electric Supply of 230 VAC.
- Clean, Dry, Compressed Air Supply. Working Pressure: 5-6Kg/cm2.

Note: Specifications are subject to change.

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| Tech | Technical Specification |  |  |  |  |
|------|-------------------------|--|--|--|--|
| (A)  | (A) CONTROL PANEL       |  |  |  |  |
| No.  | Item Name               | Technical Specifications   |  |  |  |
| 1    | Data Logger             | <b>Input</b> : Universal type, 8 channel.; <b>Display</b> : Dual, 3½ digit (for parameter & Channel display); <b>Communication</b> : RS232/USB PC Communication port <b>Dimensions</b> : (92×92) mm, Communication cable |  |  |  |
| 2    | Current Source          | Supply 230V AC, O/P: 0-20mA.   |  |  |  |
| 3    | Control Panel           | MS Powder coated control panel, Dimension: 1.5'X0.75'X1.5'   |  |  |  |
| 4    | SCADA Application Soft. | SCADA Application Software, Data Storage, Offline Data Analysis Online Data Acquisition, Simulation and Printing of Data in Graphical &Tabular Format, Interactive Graphical User Interface (GUI)                        |  |  |  |
| 5    | Computer (Optional)     | PC with color monitor: 15", PC Pentium Dual Core, with serial communication ports, 160/300 GB HDD, 512 MB / 1 GB RAM   |  |  |  |
| 6    | BS 5 Female Connectors  | Red & Black  |  |  |  |

| ( | B) I | HYDRAULIC PUMP            |  |
|---|------|---------------------------|--|
| N | 0.   | Item Name                 | Technical Specifications               |
| 1 |      | Hydraulic Pump (Optional) | Manually Driven with weighing Platform |

| (C) I | C) PRESUURE TRANSDUCER / TRANSMITTER MODULE |  |  |
|-------|---|--|--|
| No.   | Item Name                                   | Technical Specifications   |  |
| 1     | Pressure Transmitter                        | Input: 0-2.5 Kg/cm2/ 0-4 Kg/cm2, Output: 4-20 mA   |  |
|       |   | Type: 2-wire Piezoresistive type, Mounting: Top ½" BSP connection  |  |
| 2     | Pressure Vessel                             | Shape: Cylindrical, Material: CRCC, Diameter: 6 inch,<br>Length: 12 inch; Capacity: 15 Kg/cm2, with ½"BSP connection |  |
| 3     | A.F.R. / F.R.L. Unit                        | 0-10 Kg/cm2, with pressure gauge   |  |
| 4     | Current Indicator                           | Input: 4-20 mA, 3 ½ digit display, 1j 230 V AC Supply  |  |
| 5     | Bellows Gauge                               | 0-300 mm Hg  |  |
| 6     | Diaphragm Gauge                             | 0-2.5 Kg/cm2/ 0-4 Kg/cm2   |  |
| 7     | Bourdon Tube Pressure<br>Gauge              | Dial size: 4", Range 0-4 Kg/cm2<br>Bottom connection: ½" BSP Connection.   |  |
| 8     | Air Compressor (Optional)                   | Tank capacity: 25 Liters, Discharge: 2 CFM<br>Motor: 2 H.P. 230 V AC Operated, Working pressure: 5-6 kg/cm2          |  |

| (D) ( | (D) CHARACTERISTICS OF TEMPERATURE SENSOR SETUP                             |  |  |
|-------|---|--|--|
| No.   | Technical Specifications  |  |  |
| 1     | Temperature range: 0-500°C.   |  |  |
| 2     | Calibration facility for Thermocouple & RTD.                                |  |  |
| 3     | 7-segment LED display for temperature Indicator controller.                 |  |  |
| 4     | Test point for Thermisters, RTD (Resistance Measurement).                   |  |  |
| 5     | Test point for voltage measurement for Thermocouple.                        |  |  |
| 6     | 3-½-digit display.  |  |  |
| 7     | Muffle furnace with insertion points for RTD, Thermocouple and Thermisters. |  |  |

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