



The **Electro Pneumatic Trainer (SAP – 20)** outlines basic of pneumatic control systems along with its components and their applications. It demonstrates the design, construction and applications of Electro-Pneumatic components and circuits.

FIG. ELECTRO-PNEUMATIC TRAINER

Technical Specification:-

No.	Item Name	Technical Specifications
1	Single Acting Cylinder-	Bore: 25 mm × Stroke: 100mm, Mounting: Foot
2	Double Acting Cylinder-	Bore: 25 mm × Stroke: - 100mm, Mounting: Foot
3	A.F.R. / F.R.L. Unit-	¼" Connection, 0-10 Kg/cm ²
4	Solenoid Valve-	2 Nos, 5/2 way, ¼" , 230VAC/24 V & 3/2 way, ¼" , 230 VAC/24 V DC
5	Flow Control Valve-	¼" (F), Square Body.
6	Non Return Valve-	¼" connection
7	Block Manifold-	¼" , 6 ways.
8	AND Valve-	Dual Pressure Valve, ¼" connection.
9	Shuttle Valve-	OR Valve, ¼" connection.
10	Sintered Silencer-	¼" connection.
11	Male Connector-	¼" connection.
12	Indicating Lamp-	24 VDC Operated.
13	Proximity Sensors-	Type: Inductive 2 wire, Diameter: 18 mm, Sensing Distance: 5 mm.
14	Pressure Gauge-	0-7 Kg/cm ² , connection ½" BSP, Dial Size: 100 mm

15	Pneumatic Motor-	Unidirectional, Air pressure: 0-90 psi,
16	Electrical control panel-	MS Powder coated panel with switches, indicator, Test Points, controller on front fascia, UK 2.5 Terminal Connectors mounted on DIN rail channel, Use of 1sq mm multistrand wire with proper insulated Lugs, Ferruling & neat wire dressing & clamping Wires & power cables are seated through 1''×1'' PVC cable tray. Dimension: 1ft (L) ×1ft (W) ×1ft (H)
17	Quick Push-Pull connectors-	Sufficient shall be supplied for branching of the tubing for making of the circuitry.
18	Plastic Tubing-	PUN 4×0.75, Exterior Diameter-6mm, Interior Diameter- 4mm, Transparent – 10mtr/Blue-10mtr
19	Relay Module-	24V DC supply, 2 NO/NC contacts, panel mounting type.
20	Air Compressor (Optional)-	Tank capacity: 25 Liters, Discharge: 2 CFM Motor: 1 H.P. 230 V AC Operated, Working pressure: 5-6 kg/cm ²
21	Mounting Plates.	
22	Quick Connectors, T-Connectors.	
23	5/2 Hand Lever Valve (Optional).	
24	Pneumatic indicators (Optional).	
25	Quick Exhaust Valve, Hand Slide Valve, Time Delay Valve (optional).	

Range of experiments-

- ❖ Study of pneumatic actuator & reciprocating cylinder trainer kit with different logicalCircuits such as OR, AND etc. operations
- ❖ Study of pneumatic cylinders, single acting, double acting.
- ❖ Study of construction & operation of pneumatic equipments such as 5/2-way Solenoid valve, 3/2-way valve, limits switches, pneumatic motor etc
- ❖ Study of pneumatic control systems.

Features-

- ❖ Compact Ergonomic Design.
- ❖ ISO Symbol for each mounted components
- ❖ User Friendly, Self Explanatory Systems.
- ❖ Leak proof Safety Measures, sturdy piping & Robust Construction.
- ❖ Enhanced Electrical Safety Considerations.
- ❖ Training Manuals mimic Charts for Operation Ease.
- ❖ M.S. powder coated cubical plant with standard Instrument Assemblies.
- ❖ Inbuilt Safety Measures to avoid improper usage.
- ❖ Relay board logic circuit operation.
- ❖ Profile Plate.
- ❖ Caster wheel mounted movable frame

Services Required-

- ❖ Compressed clean, dry air supply at 7-8 Kg/cm².
- ❖ Electric Supply of 1 ϕ 230 VAC motor.

Note-

All descriptive matter and illustrations are intended to give only a general idea of the equipment Detailed specifications may be altered at the company's discretion without any notice.

