

ELECTRO PNEUMATIC TRAINER (a family of Training system)

(Model : TMS-ElectroPneumatics)

Electropneumatic Trainer



Double sided Pneumatic & Electropneumatic Trainer [optional]



Side view

SALIENT FEATURES

- ◆ Choice of 2 table top models Pneumatic / Electro Pneumatic trainer (optionally PLC may be supplied.)
- ◆ The trainer is mounted on sturdy light weight Aluminum profile grooved plate experiment board (1070 x 700 mm) mounted slant. Optionally table with drawers arrangement and caster wheel may be supplied. Optionally double sided trainer supplied Electro on one side & other pneumatic.

Technical Specification

Items	Model II: Electro-Pneumatic Trainer	Qty.
Air distribution & manual control	Flow & Pressure Regulator (FRL) unit with pressure gauge (10 bar), 1/4" BSP (F)	1
	Manifold 4 way, 1/4" BSP (F) with 4 ball on/off valve.	1
	One-way flow control adjustable valve 1/4" BSP (F)	1
	Silencer	1
Control Element	5/2 way DC valve spring return 1/4" BSP (F) 24VDC single solenoid	1
	5/2 way DC valve BSP (F) 24VDC double solenoid	1
	3/2 way single solenoid 24VDC	1
Actuating devices (O/P)	Single acting cylinder - Bore 25 mm, Stroke 100mm	1
	Double acting cylinder Bore 25 mm, Stroke 100mm	2
Logic Control	Limit switches NC/NO	3
	Proximity switch (Inductive)	1
Resource Panel	24V DC power supply. 8 Relay card PLC interfaceabl with NO NC contact & 24Vdc coil, Dual Timer OR with NO-NC contacts or	1
	Optionally Siemens PLC (12 input + 8 Out put)	1
Electrical connectons	Electrical circuit 4 mm banana patch cord	
	1 mtr.	12
	500 mm	10
	100mm	05
Pneumatic	Polyurethane 6 x 4 = 1 meter	10 pcs
Quick change couplers	1/4" BSP Female socket	35
	1/8" BSP Female socket	11
Mechanical Dimensions	• Aluminum Profile Rack (table top) system with Aluminum profile T groove experiment board optionally double sided. • Total dimension : 1165 mm (L) x 300 mm (W) x 800/990mm (H), Net weight : 75 kg. /45 kg. (Electro), Gross Weight : 85 kg. /60 kg. (Electro) • Aluminum Profile Grooved T bolt Board : L = 1070 mm, W =70 mm. Reclining at 0°, 20°, 30°, Height : 700 mm, Groove Pitch : 25mm.	
Air compressor	Air Compressors Displacement 3 cfm, Working pressure 7 kg / cm ² (7 bar) with 0.5 HP 1440 rpm electric motor 230 V/ 50Hz, 1 ph. with 10 bar gage	
[optional]	(Optional) & shut off valve with 8 mm brass male connector hose, safety valve, storage tank 35-50 Ltr.	

List of Experiments

A] Working with electric control

- To operate 3/2 single solenoid with single acting cylinder.
- To operate 3/2-way single solenoid with limit switch & S.A. cylinder
- To operate 5/2 single solenoid with double acting cylinder.
- To operate 5/2 single solenoid with limit switch & D.A. cylinder
- To operate 5/2 double solenoid with double acting cylinder
- To operate 5/2 double solenoid with limit switch & D.A. cylinder
- To operate solenoid valve using proximity switch & D. A. cylinder.

B] Working with PLC

- Study of Cylinder In and out
- Study of Cylinder push to out, push to In double acting cylinder (C2)
- Study of Cylinder with delayed returns
- Study of Double cylinder
- Study of Sequential operation of cylinder
- Study of Cylinder In and out using proximity switch

◆ Control Elements with experiment [Optional] : (1 no. each)

- Pneumatic motor, Pneumatic air indicator 1 No.

◆ Transparent Elements [Optional] : (1 no. each)

- 3/2 hand lever valve, • 5/2 hand lever valve, • Flow control valve, • Manifold, • Quick exhaust valve, • Double acting cylinder

◆ Cut section elements [optional] :

- 3/2 hand lever valve, • 5/2 hand lever valve, • 5/2 double pilot valve
- 3/2 solenoid valve, • Flow control valve, • Double acting cylinder,
- Single acting cylinder