

Hypn12.xls Revision No: 06 Date: January 22, 2021

TRANSPARENT PNEUMATIC TRAINER KIT

MODEL: PNE 12



FEATURES

- Compact, comprehensive, sturdy design
- Smooth and silent operation
- Study of Pneumatic Circuits
- All components have quick release coupling

DESCRIPTION

This trainer explains the essential physical principles of pneumatics. It demonstrates the construction and working of basic pneumatics with the help of transparent components and helps the students in the designing and building of basic pneumatic circuits.







INSTRUCTION MANUAL

Self -explanatory operating manuals are provided with each system. Detailed theory as well as practical exercises is also included in the manual.

LIST OF EXPERIMENT

- 1. Fundamental principles of pneumatics
- 2. Application of pneumatics
- 3. Study of symbols, schematic diagrams and standards
- 4. Study of sources of pneumatic power
- 5. Study of direction control valve
- 6. Study of pneumatic actuators
- 7. Building of simple pneumatic circuits
- 8. Study of safety aspects in pneumatic circuits
- 9. Study of pneumatic fluid conditioning accessories
- 10. Study of an air compressor

* List o<mark>f expe</mark>riment may vary depending on model selected. Some of the experiments are theore<mark>tical o</mark>nly.

COMPONENTS

- 5/2 Double external pilot operated valve, qty 1 no.
- Transparent Distributor Block, qty 1 no.
- Transparent Double Acting Cylinder, qty 1 no.
- Transparent Pressure Relief valve, qty 1 no.
- PU-4 tubes (1 Set)
- 3/2 Roller Lever valve, qty 1 no.
- Single acting cylinder, qty 1 no.
- Flow control valve, in line type, qty 1 no.
- 5/2 External Pilot operated valve with spring return, qty 1 no.
- OR Valve, qty 1 no.
- 3/2 push-pull valve, qty 2 nos.
- Transparent Pressure gauge, qty 1 no.
- FRL with gauge, qty 1 no.
- Transparent Non return valve 1
- 5/2 Hand lever with spring return, qty 1 no.
- AND Valve, qty 1 no.



OPTIONAL ADDITIONAL

• Air Compressor

- Simulation Software
- Cut away (sectioned) components
- Transparent components

2/2-way solenoid valve	Check Valve OR Non-Return Valve (NRV)		
3/2-way Push button valve	Pressure Gauge		
3/2-way Pilot Operated Spring Return Valve	Pneumatic Pressure Regulator with Gauge		
3/2-way hand lever valve	Time Delay Valve		
3/2-way Palm operated valve OR 3/2 Push	5/2-way Mushroom head valve with lock and		
Pull Operated Valve	key		
3/2-way Mushroom Button Operated Spring	3/2-way solenoid valve OR 3/2 single		
Return Valve OR Mushroom Head Push	solenoid pilot operated valve with spring		
Function Valve	return		
3/2-way Roller Lever Actuated Valve	Pneumatic Screw driver		
Single Acting Cylinder	Proximity Sensor -Reed Switch OR		
3/2-way Foot operated valve	Magnetic sensor OR Magnetic Reed switch"		
5/2-way Roller Lever Actuated Valve	Proximity Sensor -Optical		
5/2-way Hand Lever Operated Valve (With or	5/2-way Mushroom head-push turn/push		
without detent/With or without spring) OR	valve		
5/2 Hand Lever operated valve with Detent	5/2-way Hand Lever Operated valve with		
OR	spring return		
Manifold	Pressure Switch		
5/2-way Valve with Selector Switch/Lever	5/2-way Solenoid Operated Spring Return		
head/with or without spring return	Valve		
OR Function shuttle valve	AND Valve		
5/2-way Double Solenoid Valve	Electrical limit switch		
5/2-way Pilot Operated Spring Return Valve	Double Acting Cylinder		
5/2-way D <mark>ouble</mark> pilot Valve	5/2-way Foot operated valve		
5/2-way P <mark>ush b</mark> utton valve	Hand slide valve		
5/2-way <mark>Tip H</mark> ead/ <mark>T</mark> oggle switc <mark>h hea</mark> d valve	Quick Exhaust Valve		
One-Wa <mark>y Flow</mark> C <mark>on</mark> trol Adjust <mark>able V</mark> alve			

SERVICES REQUIRED

• Electric supply

MODELS

PNE12-P: Component mounting fixed type. No storage facility. PNE12-Q: Sliding type component mounting. No storage facility. Table top model. PNE12-R: Sliding type component mounting. With storage facility & with table.

Model No.	Dimension	Weight
PNE 12	800 (W) X 500 (B) X 1200 (H)	200 Kg

1. Since research and development is an on-going activity, the specifications mentioned herein are subject to change without notice

2. Photographs are indicative only.

ISO9001:2015

NiYo Engineers

Unit 1B, Devgiri Industrial Estate, S. No. 17/1B Plot No. 14, Kothrud, Pune 411 029 INDIA Tel-91 20 25465004, 2546 8051, 2546 7296 Telefax - 91 20 2546 8051 e-mail- <u>sales@niyoindia.com</u> Web: www.niyoindia.com