

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

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