Hypn03.xls
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ELECTRO-HYDRAULIC TRAINER KIT

MODEL: HYD03

R Model: Storage and Sliding Type Arrangement

S model: Flexible component mounting with storage

FEATURES

- Compact, comprehensive, sturdy design
- Smooth and silent operation
- Study of Hydraulic Circuits

DESCRIPTION

This trainer explains the essential physical principles of hydraulics. It demonstrates the construction and working of basic as well as advanced components and helps the students in the designing and building of basic and advanced hydraulic circuits.

Hydraulically driven devices can be regulated by electrical controls. Electro-hydraulics is widely used in all industries for a variety of applications. The combination of electrical controls and hydraulics is very effective in automation. The trainer aims at helping the students to make complex hydraulic circuits using input and output signals. Optionally, sliding arrangement for in-use component mounting can be provided along with component storage facility.

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

Fundamental principles of hydraulics	Study of safety aspects in hydraulic circuits.
Study of flow control	Study the solenoid valve actuation.
Application of hydraulics	Study of pressure control circuit.
Study of direction control valve	Study of hydraulic actuators
Study of symbols, schematic diagrams and standards	Study of proximity switches.
Study of force pressure area and volume relationship	Study of pressure measurement & control
Study of sources of hydraulic power	Study of timer based circuits
Building of simple hydraulic circuits.	Transmission and conditioning of oil

COMPONENTS

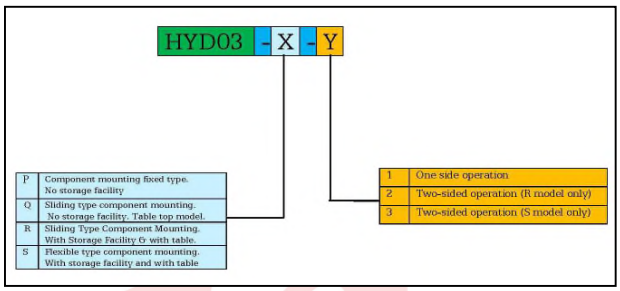
COMPONENTS	One sided operation	Two-Sided operation	COMPONENTS	One sided operation	Two-Sided operation
4/2 Way Double Solenoid Operated Valve	1	2	4/2 Way Solenoid Operated Spring Returned Valve	2	2
4/3 Way, H spool Double Solenoid Operated Valve,	1	2	4/2 Way Valve Hand Lever Operated Spring Return	1	1 X 2
4/3 Way Valve Hand Lever Operated, Detent	1	1 X 2	Pressure Regulating/Reducing Valve	1	2
Sequence Valve	1	2	Shut Off Valve	1	2
Pressure Relief Valve Pilot Operated	1	2	Unidirectional Flow Control Valve	1	2
Bi-directional Flow Control Valve	1	2	Non-Return Valve	1	2
Non-Return Valve Pilot Operated	1	2	Double Acting Cylinder	2	2 X 2
Pressure Gauge	1	2	Manifold Block	2	2 X 2
Hydraulic Motor Bi-directional	1	2	I/O Card with toggle & push button switch	1	2
Hose Set with Quick Release Coupling	1 set	1 set X 2	Proximity Sensor - Inductive	2	4
Limit Switch, Electrical	1	2	Power Supply with On/off Switch	1	1
Pressure Switch	1	2	Hydraulic power pack	1	1
Relay Card	1	2	Patch Chord	1 set	1 set
Electronic Timer Relay	1	2	Frame Structure	1	1
Digital RPM indicator	1	1			

OPTIONAL ADDITIONAL

1. PLC
2. Timer
3. Simulation software
4. An interface device for interface of trainer with Simulation Software.
5. Hydraulic components cut away models.
6. Transparent hydraulic
7. Magnetic Symbols

MODELS

Model No.	Dimension	Weight
HYD03P-1	1000 (W) X 600 (B) X 1200 (H)	300 Kg
HYD03Q-1	1000 (W) X 800 (B) X 900 (H)	300 Kg
HYD03R-1	1000 (W) X 800 (B) X 1700 (H)	300 Kg
HYD03R-2	1000 (W) X 800 (B) X 1700 (H)	300 Kg
HYD03-S	1000 (W) X 800 (B) X 1960 (H)	300 KG




P Model: Fixed type , No storge

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CE ISO9001:2015

(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.