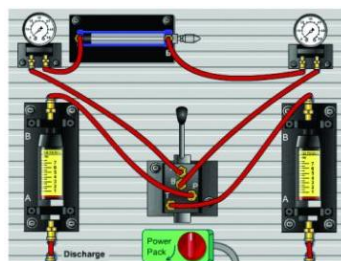
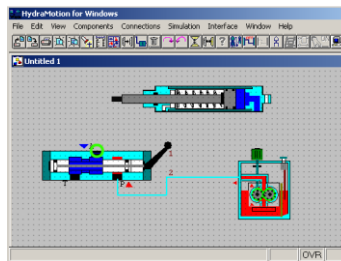


Hydraulics and Electro-Hydraulics Training Set

YESC-6000EH



Main system



s/w practice sample (Option)

Benefit

- Application of hydraulics
- Physical principles of hydraulics
- Hydraulic symbols and standards
- Types and properties of hydraulics fluids
- Measurement and calculation the characteristic curve of a hydraulic pump
- Measurement of the characteristic curve of a pressure relief valve
- Characteristic curve of a flow control valve
- Flow control valves, directional control valves, non-return valve
- Measurement of times and pressures during advancing and retracting of a cylinder
- Calculations of force and speed
- Basic circuits with single and double acting cylinders
- Difference between pressure relief valves and pressure regulators
- Using 4/3-way valves with different mid-positions
- Using the flow control valve in adjusting the speed
- Design and operation of a differential circuit
- Use of pilot operated non-return valves
- Commissioning and maintenance hydraulic system
- Pressure sequence control
- Counter balance circuit for tractive loads
- Use of hydraulic motors
- Rapid feed with various directional valves, flow control valves
- Synchronous control of forward and return strokes
- Function of electrical pushbuttons switches and limit switches
- Function and use of hydraulic solenoid valves
- Design and mode of operation of a relay
- Recognizing and reading of electrical and hydraulic diagrams
- Design, construction and operation of basic circuits
- Selecting solenoid valves according to the technical control requirements

- Using and designing of basic logic functions
- Direct and indirect control of actuators
- Explaining and designing an electric latching circuit
- Electrically a locking of signals in a relay control system
- Manual and automatic operation
- Interlocking circuits
- Rapid traverse circuits
- Using of a pressure switch
- Fault finding in electro-hydraulic control system
- Function and use of electric sensors
- Comprehensive sequence controls
- Combined position and pressure-dependent controls
- Electrical controls with several actuators
- Sequence controls with peripheral conditions
- Controls with on-delay and off-delay time relays
- Creating sequence control as a displacement-step diagram
- Single cycle and continuous cycle
- Counter control with preset counter
- Manual/automatic, Emergency Stop
- Using of different proximity sensors
- Identifying signal overlaps in a sequence control and taking the appropriate action

Specification

No.	Q'ty	Hydraulics Training Set
1	1	1.1 Basic Set Comprising the Following
	1	Hydraulic basic working table (single side) Include – Aluminum profile plate: 1200 × 750 mm at least – Drawers Unit with a lock-key – Mounting bar for fixing electric devices – All Components Must be one Touch Clamp
	1	Stainless steel Oil tray
	1	Power Unit Pump: 1.5KW with Tank capacity: 30L
	1	Overload protector for Power unit with power LED display 15A
	1	Flow measuring unit: 2L with flow limit sensor and hand lever valve
	1	Hydraulic Oil: 40L
	2	1
1		Single-acting cylinder, stroke: 200mm
1		Double-acting cylinder, stroke: 200mm
1		Weight: 9Kg
1		Hydraulic motor 1900 rpm, CW / CCW rotary
1		Transparent double-acting cylinder, stroke: 200mm
1		4/2- way hand lever valve
1		4/3- way hand lever valve (ABT connected)
1		4/3- way hand lever valve (PT connected)
2		Pressure relief valve (directly actuated)
1		Pressure relief valve (pilot actuated)
1		Counter balancing valve
1		3-way pressure reducing valve

No.	Q'ty	Hydraulics Training Set
2	1	Shut-off valve
	1	Flow control valve
	1	One-way flow control valve
	1	Flow control valve (pressure compensative)
	3	Check valve (1 bar)
	1	Pilot actuated check valve
	3	Pressure gauge
	2	Pressure gauge with distributor
	2	T connector
	1	Accumulator
	2	Hydraulic Hose 1500mm
	6	Hydraulic Hose 1000mm
	10	Hydraulic Hose 600mm
	1	Hydraulic hose hanger
	1	Pressure remover
3	1	1.3 Advanced Hydraulics Training Set (Supplementary to Basic Hydraulics Training Set) Comprising the Following
	1	Flow meter
	1	Measuring display unit
	1	3/2- way hand lever valve
	1	4/3- way hand lever valve (PABT blocked)
	1	2/2-way limit valve
	1	Cylinder guide
	1	One-way flow control valve
	1	Flow dividing valve
	1	Check valve (5bar)
	1	Pressure gauge with distributor
	2	T connector
	2	Hydraulic Hose 600mm
1	Pressure sequence valve	
4	1	1.4 Basic Electro-Hydraulics Training Set (Supplementary to Basic Hydraulics Training Set) Comprising the Following
	1	One-way flow control valve
	1	3/2-way solenoid valve
	1	4/2-way solenoid valve
	1	4/2-way double solenoid valve
	1	4/3-way double solenoid valve (PABT blocked)
	1	4/3-way double solenoid valve (PT connected)
	1	Power supply: 24VDC
	1	Pressure switch
	1	Push-button switch set (3-fold)
	1	Pilot lamp & buzzer unit
	2	Relay unit (3-fold)
	1	Digital time relay ON/OFF with Delay time : 1~99 sec
	2	Electric limit switch (left)
2	Electric limit switch (right)	
1	Inductive sensor	

No.	Q'ty	Hydraulics Training Set
4	1	Capacitive sensor
	1	Optical sensor
	1	4mm Electrical Cable set
	1	PLC Unit: 18 DI /12 DO
5	1	1.5 Advanced Electro-Hydraulics Training Set (Supplementary to Basic Electro-Hydraulics Training Set) Comprising the Following
	1	Double-acting cylinder
	1	Flow dividing valve
	1	Check valve (5bar)
	1	Pilot actuated check valve
	1	Pressure gauge with distributor
	2	T connector
	2	Hydraulic Hose 1000mm
	1	2/2-way solenoid valve (Normally closed)
	1	4/2-way solenoid valve
	1	4/3-way double solenoid valve (ABT connected)
	1	Relay unit (3-fold)
	1	Digital counter 4digit, counter pulse: 20sec
	1	Emergency switch