

Changsha Fanli Edusupports Co.,Limited

Add:No.137, Yuelu Street, Changsha City, 410000, Hunan, China

Tel: 0086-731-82201784 Fax: 0086-731-82201784

Email:sales@edusupports.com Web:<https://www.edusupports.com/>

PLC and Transparent Hydraulic System Trainer

PN:0401010030

PLC and Transparent Hydraulic System Trainer Features

PLC and Transparent Hydraulic System Trainer is a professional hydraulic circuit design and demonstrating of hydraulic experimental platform. The internal structure and working principle of various hydraulic components can be convenient studied in the hydraulic teaching class. All transparent hydraulic components are made according to actual internal structure of industrial hydraulic components which can reflect tectonic principle and work principle of industrial hydraulic components. All hydraulic components are made of imported transparent plexiglass with performance of high diaphaneity, small volume and light weight etc. Students can learn the structure, work principle and function of each single hydraulic components, and also can constitute any fundamental hydraulic circuit to survey movement situation of spool in the loop tank and flow direction of fluid in the spool body. It can meet the teaching of the different hydraulic disciplines.

1. The training panel is designed as T-slot and all hydraulic components use rapid joint which can be inserted for easy operation.

3. The hydraulic components are made of transparent plexiglass, the structure and the working process of the hydraulic components are vividly demonstrated.

4. Circuit experiment adopts leak proof fast inserted interface makes experiment circuit assembly simple, quick, clean

5.All hydraulic components fixed floor adopts quick type slab fixed

6,The are two control methods:PLC control and relay control.Using the programmable controller control (PLC), optimizing the control plan.By comparison the two control methods,trainees can understand the superiority and advanced of PLC control.

7,To use the combination of PLC and hydraulic in the system can achieve automatic hydraulic control experiment teaching.

PLC and Transparent Hydraulic System Trainer Training contents

1.Direction Control Circuits

1.1 Reversing action circuits

1.1.1 Reversing circuit of reversing valve

1.2 Lock circuits

1.2.1 Lock circuit of reversing valve("O"-type function)

1.2.2 Lock circuit by pilot check valve

1.3 Sequence action circuits

1.3.1 Sequence action circuit of sequence valve

1.3.2 Sequence action circuit of pressure relay

1.3.3 Sequence action circuit of position switch

1.3.4 Sequence action circuit of stroke valve

1.3.5 Sequence action circuit of PLC controlled position switch

1.3.6 Sequence action circuit of PLC controlled pressure relay

2.Pressure Control Circuits

2.1 Pressure regulated circuits

2.1.1 Pressure regulating/setting circuit

2.1.2 Two-stage pressure regulated circuit

2.2 Pressure reducing circuits

2.2.1 Pressure reducing circuit of pressure reducing valve

2.3 Booster circuits

2.3.1 Booster circuit of booster cylinder

2.4 Pressure relief circuit(Pressure-venting circuit)

2.4.1 Pressure relief circuit by reversing valve

3.Speed Control Circuits

3.1 Throttle speed regulating circuits

3.1.1 Oil-inlet throttle speed regulating circuit

3.1.2 Oil-inlet throttle speed regulating circuit

3.1.3 Speed regulating circuit of variable pump

3.1.4 Complex speed regulating circuit by joint variable pump and speed regulating valve

3.1.5 Secondary feed circuit

3.2 Speed shift circuits

3.2.1 Speed shift circuit of flow valve short-contact

PLC and Transparent Hydraulic System Trainer Main Technical Parameters

Nos	Items		Specification
1	Motor	Power	310W
		Voltage	DC220V
2	Power supply		AC220V/50Hz
			DC 24V/3A
3	Fuel tank	volume	31L
4	Bench dimension	L*W*H	1550×630×1820 mm

PLC and Transparent Hydraulic System Trainer

Configuration List

Nos	Items	Quantity
Hydraulic Station		
1	Motor	1
2	Pump station unit	1
3	Digit tachometer	1
4	Pilot oriented pressure relief valve/overflow valve	1
5	Oil tank	1
6	Tundish	1
7	Oil pan (plastic tray)	1
8	Hydraulic oil	None
9	Auxiliary oil tank	1
Hydraulic Control Components		
10	Double-acting cylinder	1
11	Pressurized cylinder	1

Nos	Items	Quantity
12	Spring return cylinder	1
13	Three position and four-way solenoid directional/reversing valve(O-type)	1
14	Three position and four-way solenoid directional/reversing valve(M-type)	1
15	Three position and four-way solenoid directional/reversing valve(H-type)	1
16	Three position and four-way solenoid directional/reversing valve(P-type)	1
17	Two position and four-way solenoid directional/reversing valve	1
18	Two position and two-way solenoid directional/reversing valve	1
19	Three position and five-way manual directional/reversing valve	1
20	Three position and four-way manual travel/reversing valve	1
21	Relief valve/overflow valve	1
22	Sequence valve	2
23	Pressure reducing valve	1
24	Throttle valve	1
25	Speed regulating valve	1
26	Pilot check valve	2
27	Pressure Relay	1
Monitoring and Control Components		
28	Control button module	1
29	Relay module	1
30	Limit switch(normally open, normally closed)	2
31	power supply module	1
32	PLC	1
33	PLC communication cable	1

Nos	Items	Quantity
34	Pressure relay plug wire	1
35	Safety connecting wire	40pcs
36	Power Line	2
Software and Documentation		
37	PLC programming software	1
38	Experimental instructions	1
Auxiliary Components		
39	Tee	10
40	Transparent compression resistant hose	1 roll
41	Pressure gauge	3
Tools		
42	Phillips screwdriver	1
43	Screwdriver	1
44	Allen wrench	2
45	Adjustable wrench	1
46	Scissor	1
47	Needle-nose pliers	1
48	Inner ring pliers	1
49	Snap ring pliers	1
50	Oil plug	5
51	Tool box	1
Spare Parts and Worn Parts		
52	Quick connector	5
53	O-ring(various size)	1 pack
Bench&Cabinet		

Nos	Items	Quantity
54	Training bench	1
55	Training cabinet	1

*Products and configuration list described herein are subject to changes without notice.