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Hydraulic and PLC Control Trainer (High-Pressure)

PN:0401010080

Hydraulic and PLC Control Trainer (High-Pressure)

Features

Hydraulic and PLC Control Trainer (High-Pressure) is a professional hydraulic circuit design and demonstrating of hydraulic experimental platform.All transparent hydraulic components are made according to actual internal structure of industrial hydraulic components which can reflects tectonic principle and work principle of industrial hydraulic components. 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 inserted for easy operation.

2,the hydraulic components, execution modules, relay control unit, PLC and control component are all adopted from industrial physic components

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

4,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.

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Typical Training Contents

1.Direction Control Circuits

1.1Reversing circuits

1.1.1Reversing circuit of directional/reversing valve

1.2 Lock circuits

1.2.1 Lock circuit of solenoid reversing valve(mid position function,O-type)

1.2.2 Lock circuit by pilot check valve

1.3 Sequence action circuit

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 limit switch

1.4 Synchronization circuit

1.4.1 Synchronization circuit of speed regulating valve

2.Pressure Control Circuits

2.1 Single-stage pressure regulated circuit

2.2 Multi-stage pressure regulated circuit

2.3 Pressure reducing circuit

2.4 Pressure relief circuit(Pressure-venting circuit)

3.Speed Control Circuits

3.1 Throttle speed regulating circuit

3.1.1 Oil-inlet throttle speed regulating circuit

3.1.2 Oil-return/back throttle speed regulating circuit

3.1.3 Oil-bypass throttle speed regulating circuit

3.1.4 Hydraulic cylinder differential connection fast movement circuit

3.2 Speed shift circuit

3.2.1 Speed shift circuit of speed regulating valve

3.2.2 Speed shift circuit of series speed regulating valve

3.2.3 Speed shift circuit of parallel speed regulating valve

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Main Technical Parameters

Nos	Items	Specification	
1	Motor	Rated power	0.75KW
		Power supply	AC380V
2	Variable vane pump	Displacement	8mL / r
		Maximum pressure	7MPa
		Speed	1410r/min
3	Hydraulic pump station	Volume	90L
4	Power supply		380V50Hz

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Configuration List

Nos	Items	Quantity
Hydraulic Station		
1	Motor	1
2	Variable vane pump	1
3	High precision Digit tachometer	1
4	Pilot oriented pressure relief valve/overflow valve	1

Nos	Items	Quantity
5	Oil tank	1
6	Hydraulic station board	1
7	Pressure gauge	1
8	Oil level gauge	1
9	Oil filter	1
10	Air filter	1
11	Hydraulic oil	10L
Hydraulic Control Components		
12	Cylinder	2
13	Two-way flow valve	2
14	Three position and four-way solenoid directional/reversing valve	1
15	Three position and four-way solenoid directional/reversing valve	1
16	Two position and three-way solenoid directional/reversing valve	2
17	Two position and four-way solenoid directional/reversing valve	1
18	Two position and four-way solenoid directional/reversing valve	1
19	Pilot oriented pressure relief valve/overflow valve	1
20	Direct-acting pressure relief valve/overflow valve	1
21	Direct-acting sequence valve	1
22	Direct-acting pressure reducing valve	1
23	One-way throttle valve	1
24	Pilot check valve	2
25	One-way valve	1
26	Pressure Relay	2
Monitoring and Control Components		

Nos	Items	Quantity
27	Control button module	1
28	Power module	
29	Relay control module	1
30	Limit switch(normally open, normally closed)	4
31	PLC	1
32	PLC communication cable	1
33	Pressure relay plug wire	1
34	Solenoid cable	3
Software and Documentation		
35	PLC programming software	1
36	Experimental instructions	1
Auxiliary Components		
37	Tee	4
38	Four-way connection	3
39	Compression resistant hose	20pcs
40	Pressure gauge	1
41	Motor cable	1
Tools		
42	Phillips screwdriver	1
43	Screwdriver	1
44	Allen wrench	2
45	Adjustable wrench	1
46	Scissor	1

Nos	Items	Quantity
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)	5
Bench&Cabinet		
54	Training bench	1
55	Training cabinet	1

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