

IAT12PSV2 injection pump test platform control terminal

user's manual

Safe guard and matters needing attention:

The this aircraft working voltage is AC 220V 5%, must have the reliable earth;

Biology and so on guard mouse create the harm, the attention waterproofing is moisture-proof;

The laymen and agreed without the plant that do not turn on the engine case and the modification connection.

1/Summary:

The PS12-III injection pump test platform control terminal, designs specially for the diesel engine injection pump laboratory bench's function, is composed of a high performance's monolithic integrated circuit and an industry computer, the hardware designs according to the industry environment, realizes the performance, the function and the value perfect union. Its high standard's structural design guarantees can in the high temperature, the multi-dusts, the vibration and so on under the adverse circumstance the normal work. The engine case structure, conforms to NEMA4 and the IP65 standard, conforms to the bad motor repair factory environmental protection standard; The operating system uses the independent research and development the embedded LINUX operating system, and some may according to need to carry on the system module which by a volume very small essence has custom-made to be composed. Its core Kernel has takes the space to be small, and has real-time, the multi-duties, the multi-thread system characteristic, guaranteed that the system had the outstanding stability and the extension, the system big reduction to the hardware performance request; The control bench application software acts according to your request to carry on has custom-made, guarantees the function to be formidable, simple easy to use, conforms to your operation custom completely.

2 Technical parameter:

1st, supply voltage: 0 - 220V 10%;

2, main engine rotational speed: 50 - 4000 revolution of/minutes;




- 3, machine oil temperature: 0 - 110 degrees;
- 4, negative pressure: -0.1 - 0.6Mpa; (match)
- 5, pinion rack traveling schedule: 0 - 25MM; (match)
- 6, oil pumping number of times: 0 - 9999 times;
- 7, printing debugging parameter;
- 8, the parameter establish

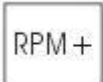
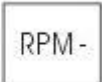
3 The operation showed

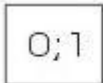


The test platform operation separable main engine, the counting, the oil pump, the temperature control, the angle of advance, the pressure and the pinion rack traveling schedule, the inquiry print six partial contents, the pressure only make the demonstration, does not have the control section. Various part of operations may separately also carry on through the measuring appliance and the industry computer's keyboard, both sides operating mode basic same, by the measuring appliance introduction primarily, the industry computer keyboard not separately introduced.


3.1 Main engine


1.    controls the main engine to reverse, between the clockwise and the reverse may not cut mutually directly, must stop the key through the main engine. When clockwise or reverse, the system automatic control initialization rotational speed value;


- 2,   , the revision pre-placed rotational speed value, when the long time presses down, each second adds and subtracts ten revolution, after the revision pre-placed rotational speed has not preserved, if needs to preserve, under for details sees “the rotational speed value lock to save”;

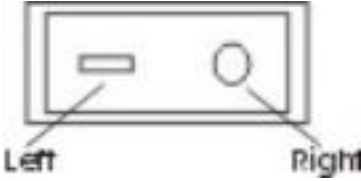
- 3,     

The rotational speed value's lock saves: When current main engine clockwise

through presses  the key lock to save the current rotational speed

once more, the current main engine reverses when through presses  the key lock to save the current rotational speed once more, the main engine



stops when is unable the lock to save the rotational speed value.  cuts the potentiometer to carry on the manual regulation main engine rotational



speed. 

attention: Before each time closure power source, please first according to

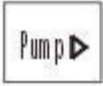
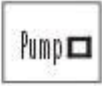
 key.

3.2 Counting


 , uses in starting and the closure;

  the adjustment counting establishment value, each time adds and subtracts 5.

3.3 Oil pump presses

  the oil pump to start ,the oil pump to stop.

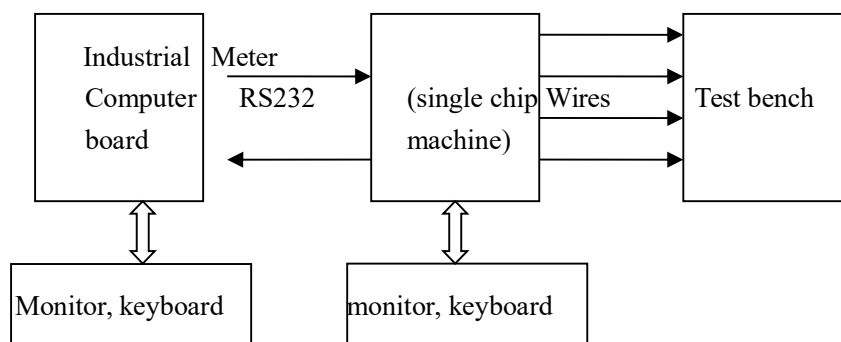
3.4 Temperature control

, shines according to a lamp for the temperature control opens, presses the lamp to close again for the temperature control closure.

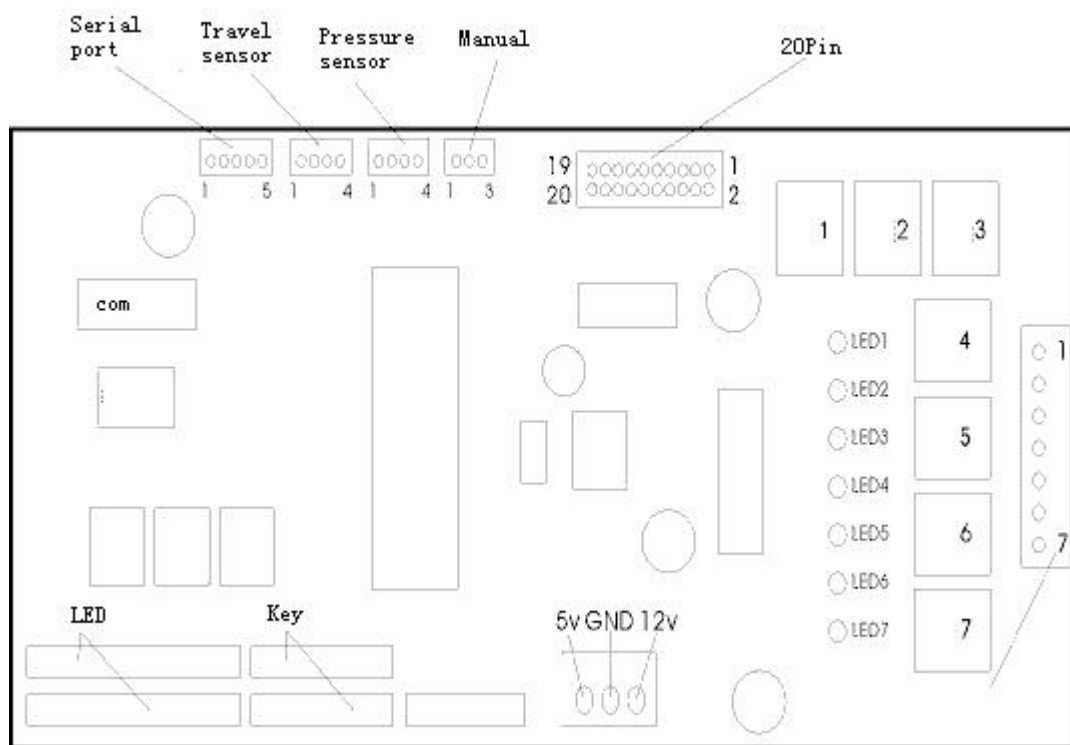


adds and subtracts controls the predetermined value warm.

4. Overall structure



Note: Connect the industrial computer with instrument via ports to realize mutual communication. The control cable connector with the test bench realizes the control function. You can operate the two keyboards at the same time, and you can choose according to your own requirement.



Measuring appliance exterior aviation plug wiring diagram

20PIN

19/ Null	17/ temp 12V	15/ temp GND	13/ angel signal	11/ hall GND	9/ manual Adjustment end (right)	7/ manual GND	5/ Frequency 10V	3/ FWD	1/ Frequency AVI
20/ Null	18/ temp 5V	16/ temp signal	14/ hall 5V	12/ speed signal	10/ manual +10V	8/ manual Adjustment end (left)	6/ FWD&REV com	4/ REV	2/ Frequency GND

1、Temp sensor (3pin):

Function explanation	Aviation plug	20PIN	Sensor end	Wiring reference color
Temp GND	1	15	3	Blue
Temp signal	2	16	2	Yellow
Temp 12V	3	17	1	Red

2、 Hall sensor (4pin):

Function explanation	Aviation plug	20PIN	Wiring reference color

Hall GND	1	11	Blue
Speed signal	2	12	Yellow
Angel signal	3	13	White
Hall 5V	4	14	Red

3、 manual (5pin):

Function explanation	Aviation plug	20PIN	Wiring reference color
GND	1	7	Green
Manual Adjustment end (left)	2	8	Blue
Manual Adjustment end (right)	3	9	Yellow
+10V	4	10	Red
Null	Null		

4、 Frequency changer (6 针):

Function explanation	Aviation plug	20PIN	Wiring reference color
AVI	1	1	Yellow
GND	2	2	Green
FWD	3	3	Blue
REV	4	4	White
10V	5	5	Red
FWD&REV COM	6	6	Black

5、 Pressure /Travel (8Pin):

Function explanation	Aviation plug	4pin	Wiring reference color
Travel GND	1	1	
Travel signal	2	2	
Travel 12V	3	3	
Travel 5V	4	4	
Pressure GND	5	1	
Pressure signal	6	2	
Pressure 12V	7	3	
Pressure 5V	8	4	

6、 pump/counting/temp control (7 针):

Function explanation	Aviation plug	7pin	Wiring reference color
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Pump&temp control com	1	1	Green
Pump	2	2	White
Heating	3	3	Blue
Cooling	4	4	Red
Counting off	5	5	Yellow
Counting com	6	6	Black
Counting on	7	7	Gray/light green