

## ASD(B)50-55 digital AC servo control systems

Product data manual (V2.2)

**ASD50-55** —Industrial interlock sewing machine of digital AC servo control systems(direct-driven)

**ASB50-55** —Industrial interlock sewing machine of digital AC servo control systems (motor backside-driven)

**ASU50-55** —Industrial interlock sewing machine of digital AC servo control system (Motor underside belt-driven)



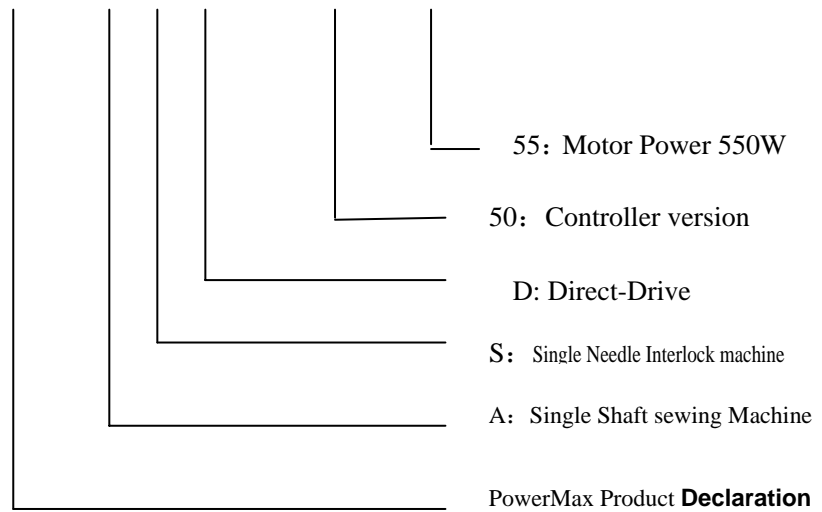
### ASD(B/U)50-55

PMX ASD50(B/U)50-55 digital AC servo control system is used for driving control for industrial interlock sewing machine, it can have stepless control for sewing speed, to complete all types of automatic sewing task in cooperation with interlock sewing machine. Sewing equipments with servo controller can be time-saving, labor-saving, highly efficient and energy conserving.

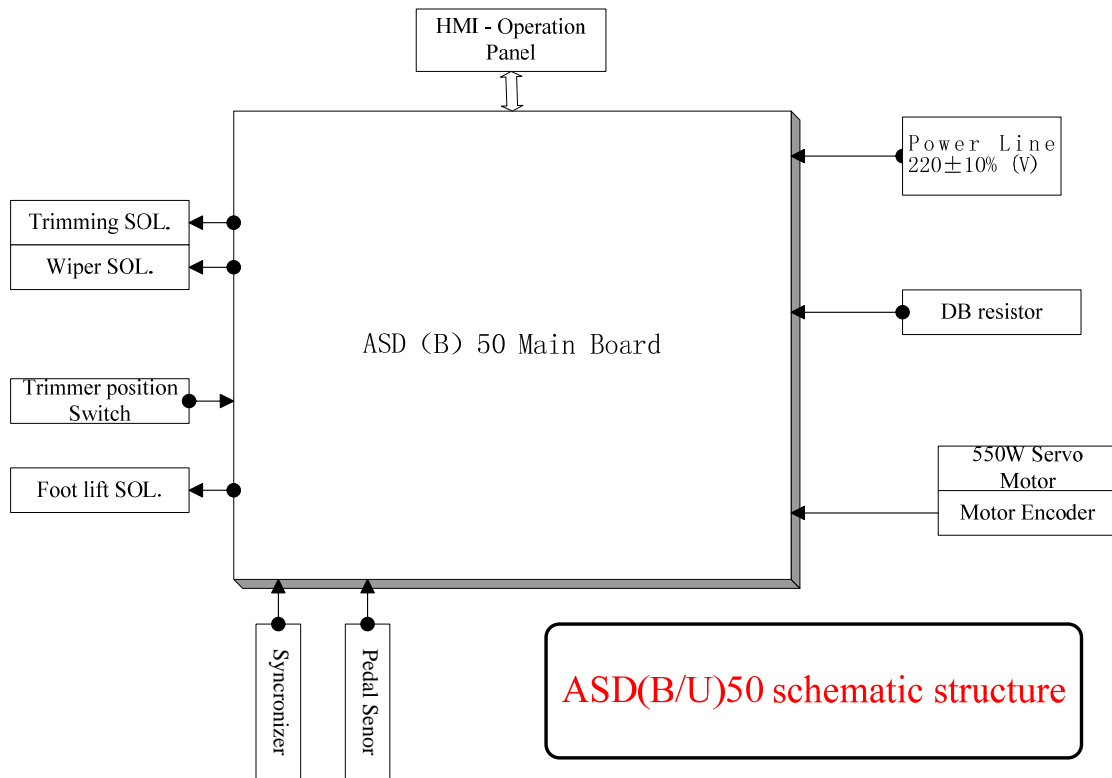


1. Model declaration

## PMX ASD (B/U) 50 - 55



2. System schematic diagram



3. Features table

<b>Controller type</b>	PMX ASD(B/U)50
Motor Type	AC Servo Motor
Voltage Range	AC 220±20% V 50/60HZ
Output Power	550W

Max. Sewing Speed	6000rpm
Max. Torque	3Nm
Nimble Positioning	★
Needle up/ Correction	★
Soft Start	★
Presser Foot Lift	★
Thread Trimming, Thread Wiping, Reserved output.	★
Overload Protection	★
Gross Weight	4.5Kg
Package Dimension	385x295x210mm

\* In PMX ASD50 model, (B) means motor backside mounted.

◆ Servo Controller Features:

- 1) .Low inertia, high speed, medium torque servo motor, precise torque control makes it applicable for all models of interlock sewing machine;
- 2) .One Needle Positioning: for both needle up and down, the system will locate it at the exact position;
- 3) . **Needle Position Accuracy:  $\pm 3^\circ$**
- 4) . Solenoid short circuit protection to make the power circuit can be more reliable;
- 5) . **Low noise, low vibration and high efficiency:**
- 6) .Hardware and software over current protection, hardware and software over-voltage / under-voltage protection to make the controller more reliable;
- 7) .Fool-proof design of controller exterior interface to make the connection safe, reliable, and unmistakable.
- 8) .easy installation and adjustment, unique digital analog signal logic, timely and reliable pedal action judgment;
- 9) .Controller fitting mode is side guided, so that the position for electric motor is flexible, as is shown in figures 3.1 –3.3

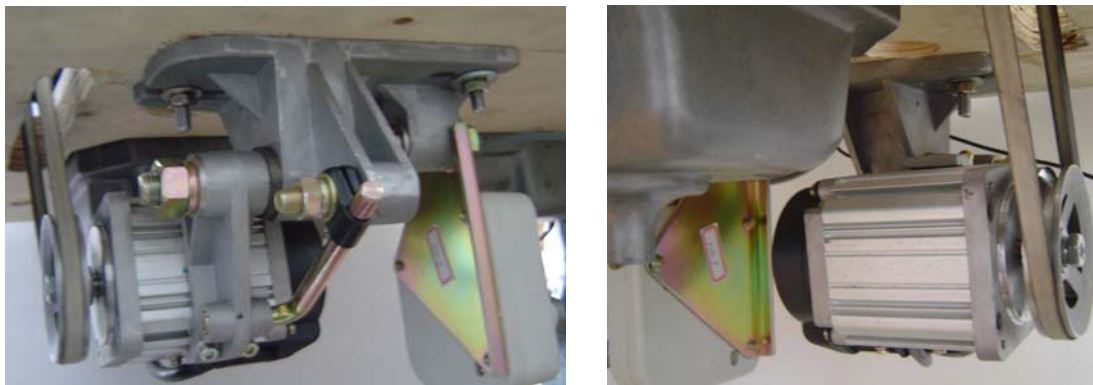


Fig. 3.1 Illustration drawing of motor under hitch for general interlock sewing machine applicable for ASU50 control system

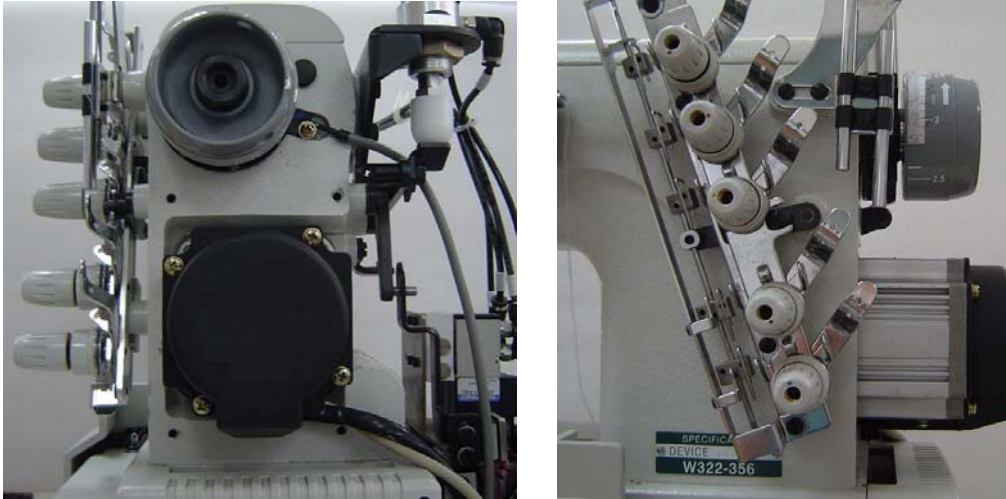
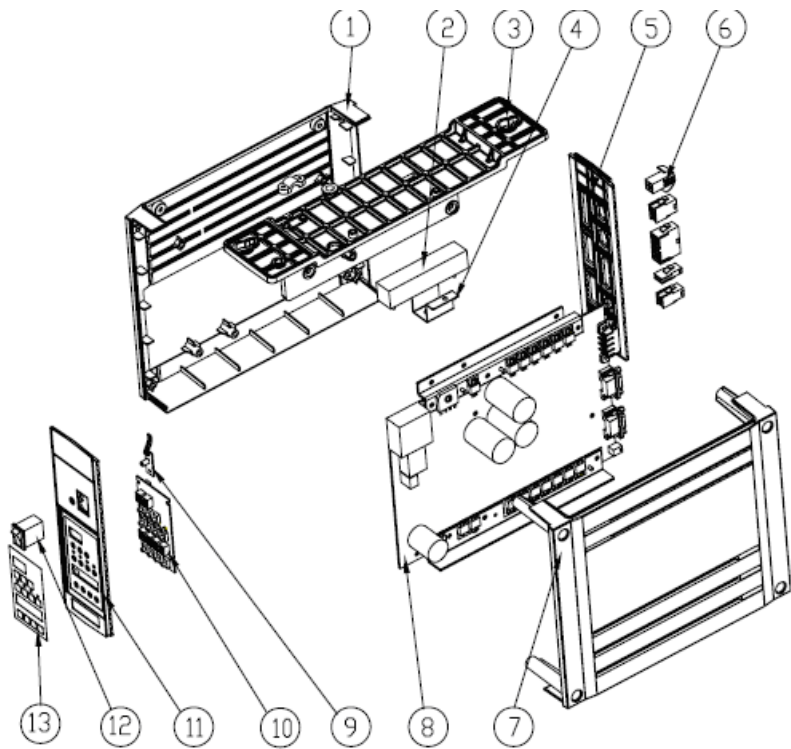


Fig. 3.2 Illustration drawing of motor internal installation for direct driven interlock sewing machine applicable for ASD50 control system

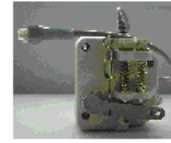


Fig.3.3 Illustration drawing of installation for back-mounted interlock sewing machine applicable for ASB50 control system

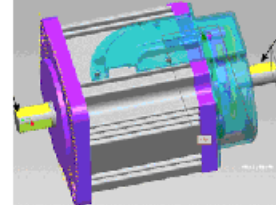
4. Figure of system parts



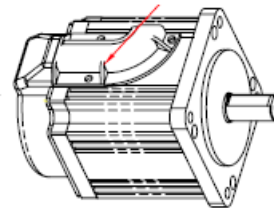
脚踏板



绷缝直驱电机



绷缝背驮电机



1——Left cover of the controller

2、4——Power resistor for braking and fixed bracket

3——Controller radiator bracket

5、6——Controller back cover and transfer connector

7——Right cover of the controller

8——Integrated circuit board of the controller

9——Controller condition indicating light board

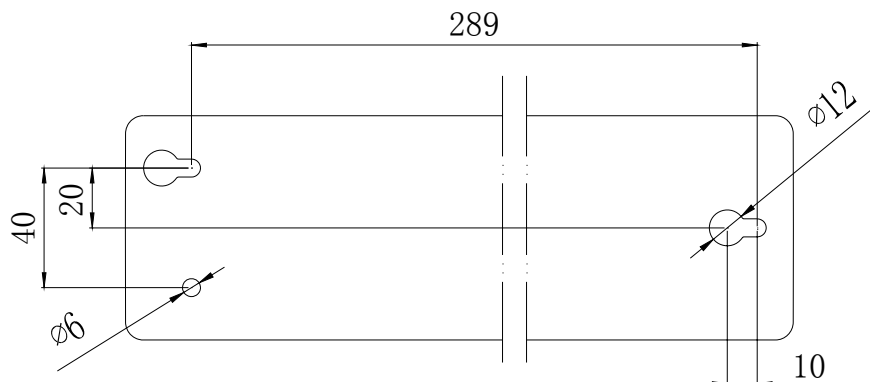
10——Simple operation panel circuit board

11——Front cover of the controller

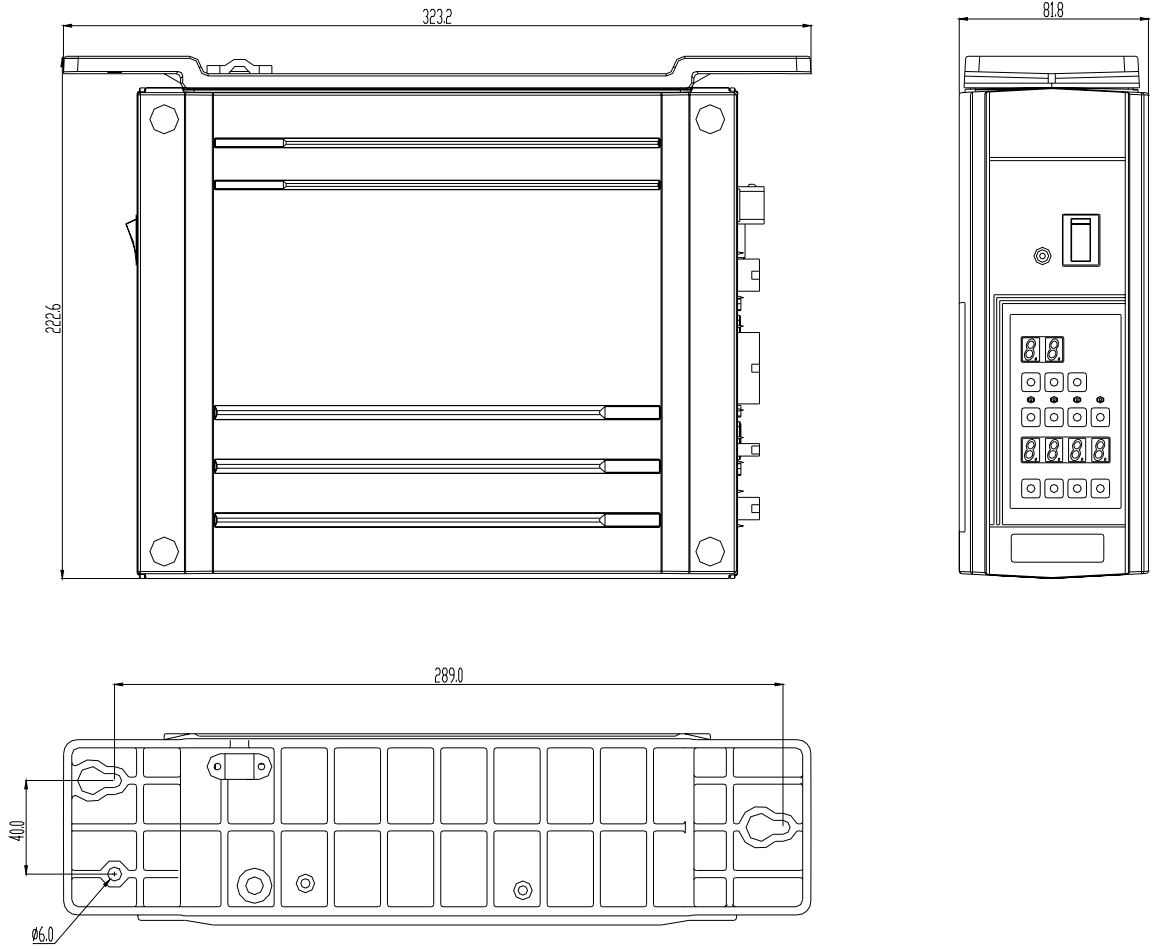
12——Power switch

13——Simple operation panel film

5. ASD(B/U)50-55 **controller** hoisting size



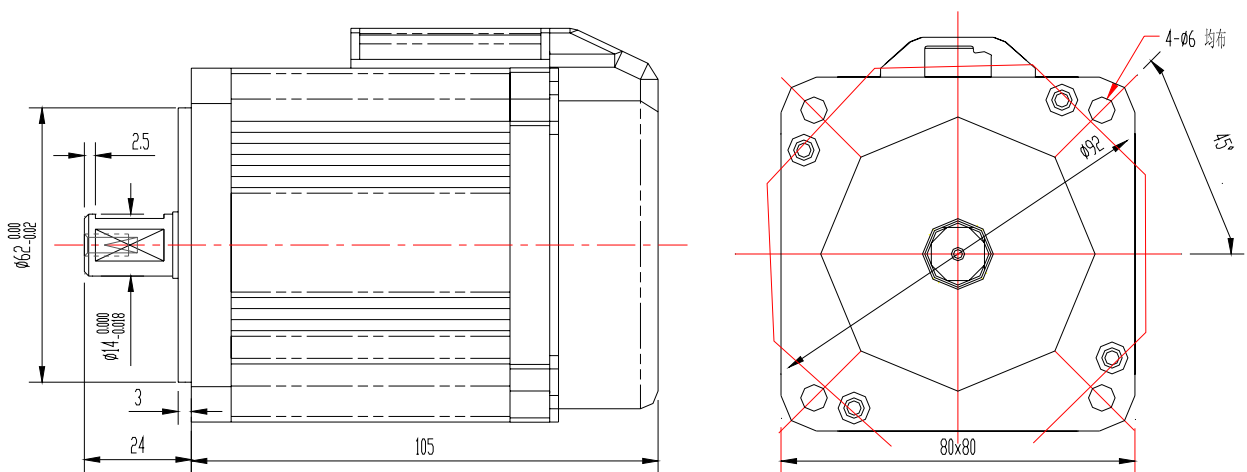
6. ASD(B)50-55 **controller** dimensions



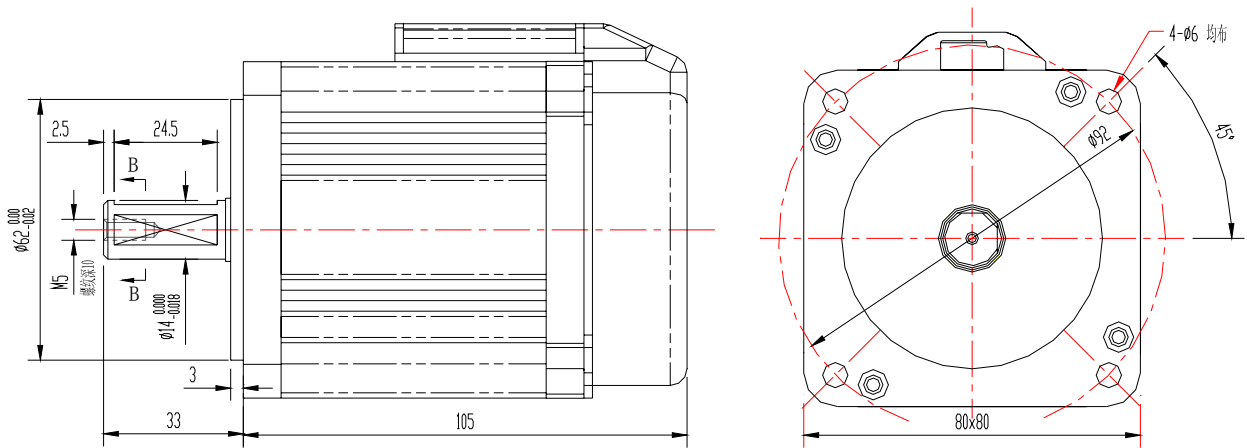
7. Optional parts for the machine head:

➤ Matching motor

■ Outline drawing of center shaft internal direct driven interlock sewing machine



■ Outline drawing of interlock sewing machine back-mounted motor



## 8. Accessory of Side Guide Interlock Sewing Controller Synchronous Sensor

- The external sensor (With internal connector)



2MU04C6509

- The external sensor (Without internal connectors):



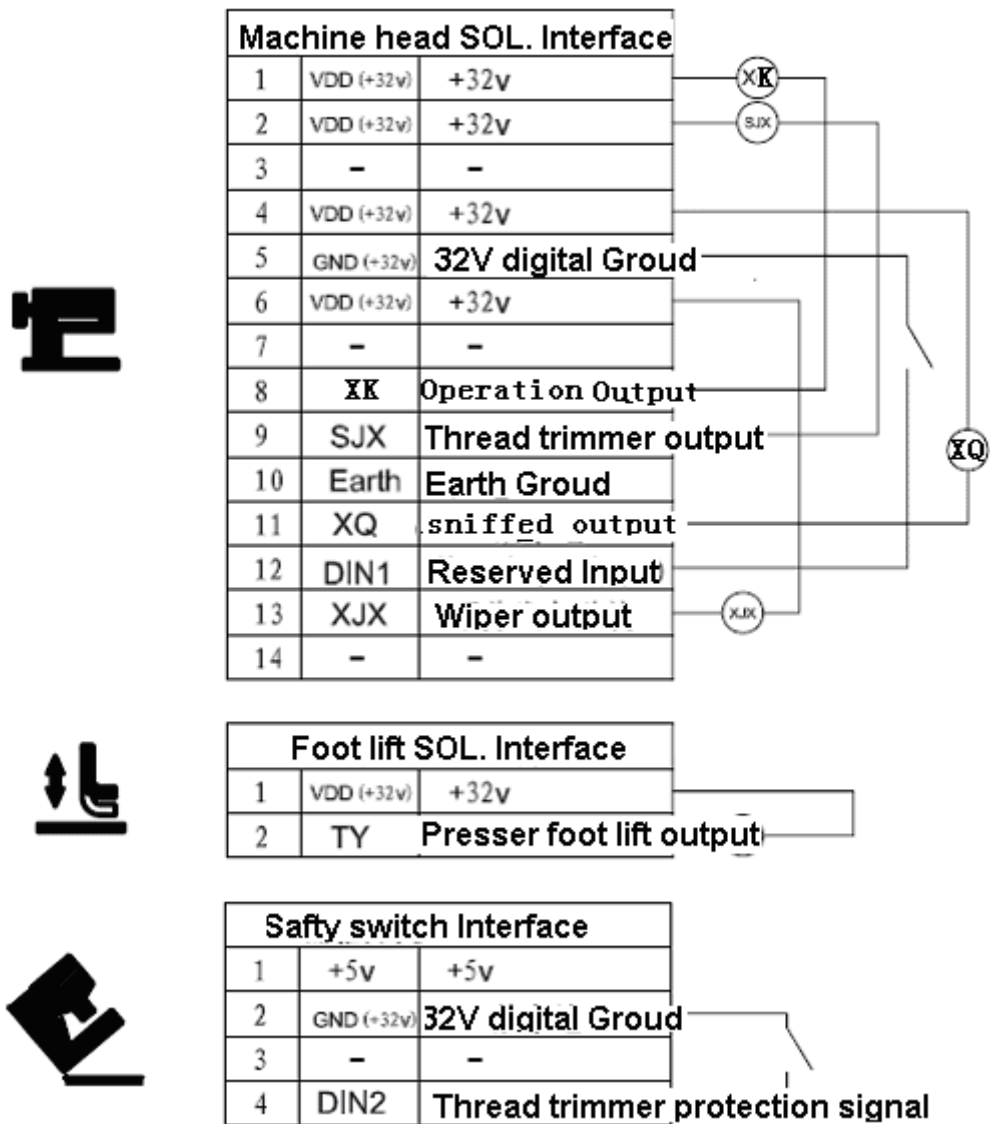
2MU04C7600

- Internal sensor for interlock sewing machine



2MU04C6510

Fig.1 The controller's SOL. Interface definition:



Updating record:

1. V2.0 issuing version -20070719;
2. V2.1 Change the solenoid interface definition.
3. V2.2 Modified products modal, added a new modal ASU50-55. ----20090104.