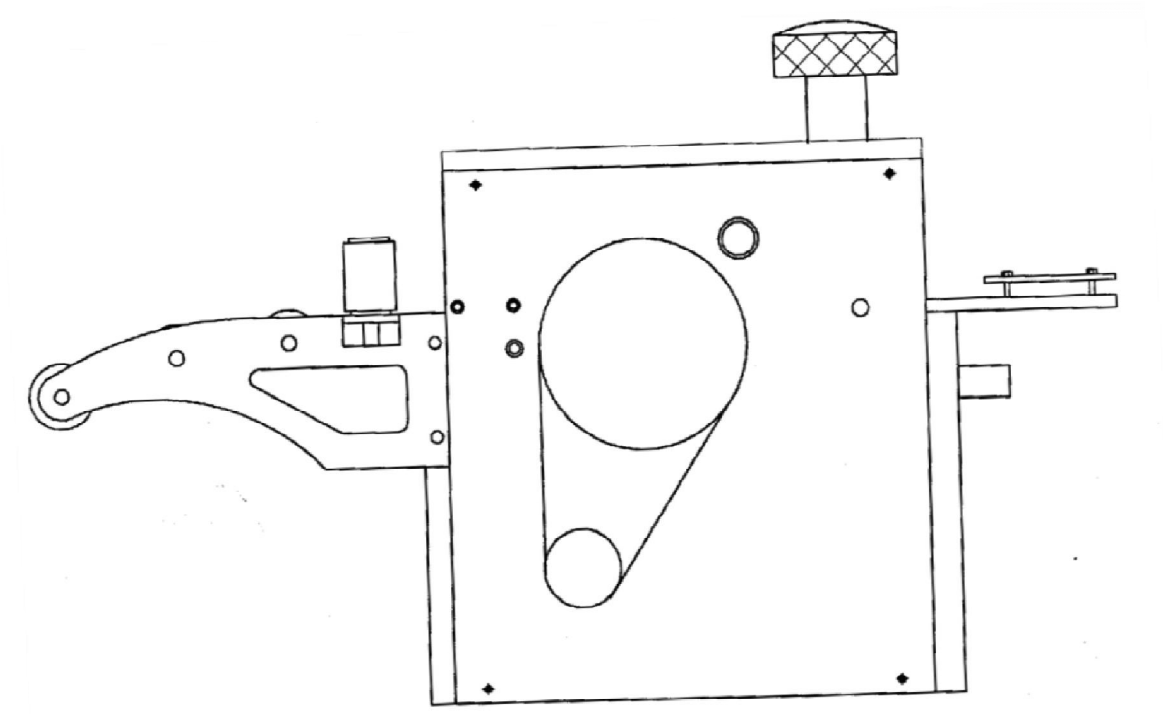
SKI

FEEDERS & ACCESSORIES

SERVOFEEDER

OPERATION –INSTRUCTIONS



SKIAUOTMATION PVT LTD

NEW DELHI, INDIA

www.skifeeder.com

Compliment

First of all,thanks forkindly choosing this SKI product as per ipheral equipment for press machine.We hope that this machine will bring great contribution for your production.

SKI is a professional manufacturer of press machine per ipheral equipment.With strong technical strength, excellent technical equipments, strict test instruments and perfect quality management system,we will make sure that our products meet your need.

Our products are tested and inspected strictly before sending out our company.But in order to make sure safety,safe running and durable usage,so before you use this machine,please must read this operation manual,we will inform you that all kinds of features,installing,operations Running, maintaining and so on

If you have any questions about this operation manual,please contact our company directly, we are glad to serve foryou.

SKI Automation Pvt Ltd

www.skifeeder.com

Email: info@skifeeder.com

Technical Specification

Item	:	ServoFeeder
Max.StripWidth	:	500mm
Max.FeedingLength	:	9999.99mm
MaterialThickness	:	2.5 mm
MoldLineHeight	:	
Max.FeedingSpeed	:	20m/min
Releasemethod	:	Air/Pneumatic
Machine UsingElectricalPower	:	440V
ServoMotor	:	Yaskawa

Section I Features

1. High precision feeding:tomeet the coming of hi-tech industry,controlled By computer closed circuit feed system,keep precision degree with in accuracy of 02.mm
2. Feeding function:input10sets of different feeding length
3. High efficiency release device,match with adjustment of cam signal
4. Setting of feeding length;directly input feeding length on the panel board
5. Operated by pneumatic or mechanical release, precision releasing, zero breakdowns.

Section II Structure of Machine

1. The unique hollow core construction for feeder rollers resulted in its light weight and hence produce very small rotational moment and minimizes circular and rotational inertia.
2. Equipped with high quality decoder,high precision for feedback.
3. The motor is in the body to avoid damage by carrying and shipping.
4. Moved by belt,it eliminate the backlash of gears and makes noiseless operation.

Section III Installation

1. Located in the side of the press working table,setting the position.
2. Hang up the main part forward to the key between sliding plate and installation board.The main part is fixed to installation by 2screws.
3. When the feeding level is not consistent with the press tool, you can adjust from the sliding plate,and then you can release the 2screws on the sliding plate adjust the screws on the installation board to change the feeding level until ideal position.

Section IV. Adjusting of the machine

1. Start the Straightener and uncoiler,let coil roll out slowly.
2. Adjust the width guiding rollers according to the strip width.
3. Release the rollers to put the coil strip in to the rollers,and put the roller down,now loosen the fixed screw on the adjusting handle. The releasing rack has 5mm space left to move and fix the screw tightly.
4. The function of the pressing spring is to press the upper roller so that the rolls can press the material tightly.Press the material tightly without slippage.The thicker material the large pressure.
5. After setting the feed length,you can set the feed speed. (Please refer to the screen menu)
6. When the pilot pin comes in to the pilot hole,adjust releasing stick to touch the gear of releasing rack until releasing completely.
7. Feeding is adjusted by the cam in the press,so the feeding is subject to the angle of the crank shaft in the press.The feeding angle should be 240-90 degree.
8. After finishing the setting,you should test the punch tool and adjust it.

Section V. Maintenance

1. The gear should be put the lubricating grease and the grease very often.
2. Clean out the dirty things between the rollers and gears.
3. The feed rollers should bebalance.
4. All parts should not be damage or deformation.
5. The control panel and screen should be normal.

Section VI. Regular Inspection

If the machine has worked for 6 months or 1000 hours, you should inspect:

1. Inspect the outside circuit and see if it was damaged, electric leakage and short circuit.
2. The keys on the control board should be normal, and cleaned out dirty things.
3. The electrical relays should be normal.
4. The dirty and dusty things should be clean out on the NC Servo system.
5. The temperature should not be too high outside.
6. There is a fan on the electric control panel box to cool the Servo drive. The filter on the fan prevents dust from coming in, but if the filter is blocked by dirt or dust, the function of the fan will not take effect and it may may cause damage to drive,transistors etc.
7. Occasional cleaning of metal dust and debris,cooling fans,and filters Paying attention to lose bolts, brasss havings, or missing pieces.Maintain a proper file of technical data and prints per Machine Proper alignment from press to feed rolls, to Straightener to un-coiler keeps material feeding straight and will not overwork you motor.

Cables, Connections and Power:

Check that all wiring is:
-Routed away from other AC voltage sources
-Properly shielded and grounded
-Tightly connected at the motor end and at the control terminal boards.
-Connectedto"clean"powercircuitsthatarenotinlinewithweldersorother high inductanceloads.
-TestyourmotorcableswithanOhm-metertobesuretherearenobrokenor shortedwires.

Section VII. Trouble Solutions

Trouble	Reason	Solution
Feeding error and only a fixed direction	1. Pressure is not enough from feeding rollers	Increase pressure
	2. Feeding length is too long.	Shorten the feeding length
	3. Feeding material is not enough.	Inspect material width and position of guiding board on the mould. CN Feeder and punch tools should be in line.
	4. There is some waste on the punch tools	See if inputting board and outputting board has waste.
There is a error suddenly when	1. The adjustment based on the material should be correct.	1.Speed of NC feeder should be match with press
	2. Big moving space between roller and motor	Tighten the belt on the motor.

feeding	3. Relative condition for the coil	The coil of Length, width and thickness should be standard.
The coil become bend.	1.Coil width doesn't match with the position of clamping wheel.	1.Readjust
	2.The pressure is not even.	2.Readjust
	3.Sliding	The guiding slot on punch tool should be in line with NC feeder see if punch tool and material have waste.
	4. roller pressure is big enough	Readjust
Electric appliance failure	1. NC feeder can't start.	See if electric input or reset after urgent stop last time.
	2. Out of operation at manual.	Inspect connected wire is correct.
	3. Can not Auto-start	Inspect the switch and connected wire at key Auto start
	4. NC program show failure	Reference to the Servo instruction book.

Feeding error and direction Are not the same	1. Feeding rollers and gears have metal waste.	Clean out
	5. feeding length is too long.	Shorten the feeding length
	2. Feeding, releasing and pressing interfere each other.	Readjust
	3. Rollers Slide	Readjust
	4. Servo motor is not normal	Reference to the Servo instruction book.
Poor Releasing	1. Fixing the pilot pin is poor	Inspect and revise
	1. Releasing time is not correct.	Readjust
	2. Feeding direction is bias	Operator should use punch tool correctly
	3. There is no oil or waste on the bias roll and releasing roll.	Cleaning and adding grease

Section VIII. Menu Introduction

Base

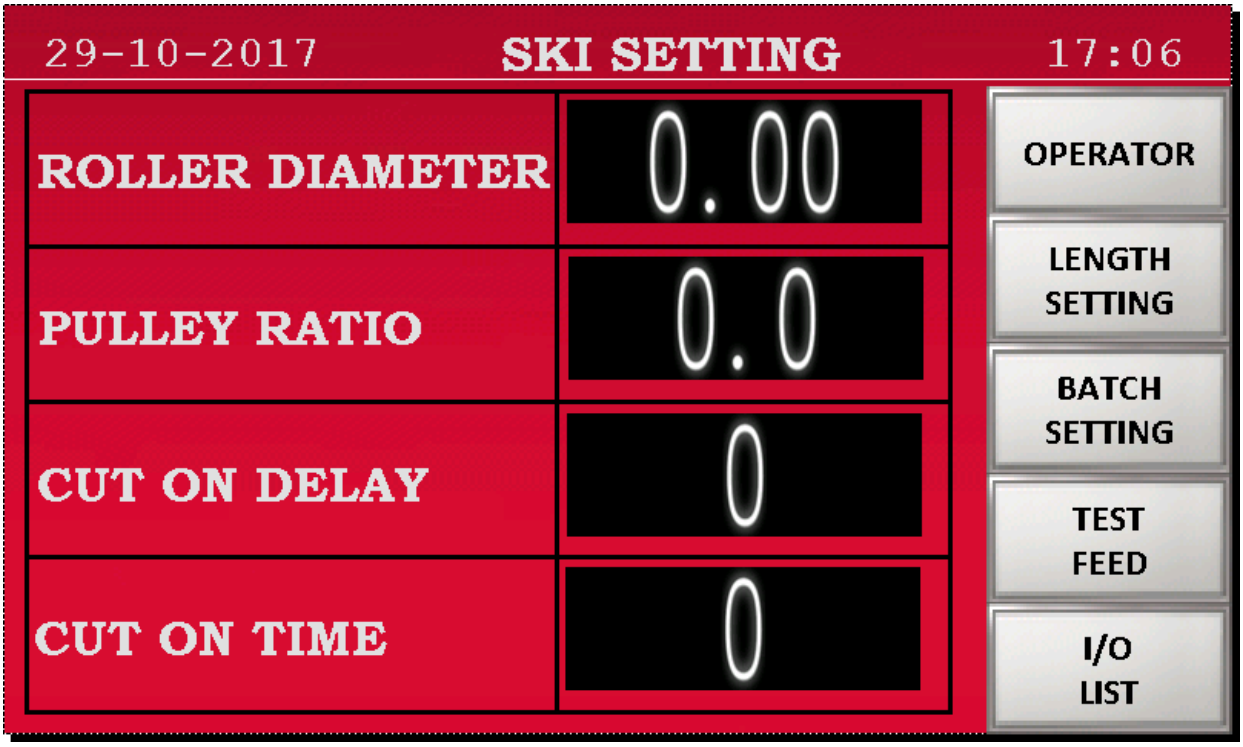
Screen Base1 HOME

1. This is the home page of the display.
2. It appears when panel turned on.
3. One touch at this page takes you to the new page i.e. “OPERATOR”.

Screen Base2 OPERATOR

1. This is the “Operator” Screen.
2. Here you will get about the running status of the feeder.
3. Feeding speed and feeding length will be shown here.
4. Auto/Manual Mode will be shown here.
5. Auto Start button will start the feeder in Auto Mode.
6. Auto Stop will stop the feeding operation.
7. Auto Pilot Release will release pilot in Auto if it is “ON”.
8. Buttons in the right will take you to the specified screens written on them.

Screen Base3 SKI SETTING



1. This is a secured page it contains mechanical details of machine like roller diameter, and pulley ration.
   These details are not allowed to change without manufacturers permission.
2. If a cutter is installed with the feeder then it can be operated with feeder.
3. CUT ON DELAY and CUT ON TIME are the settings of cutter.

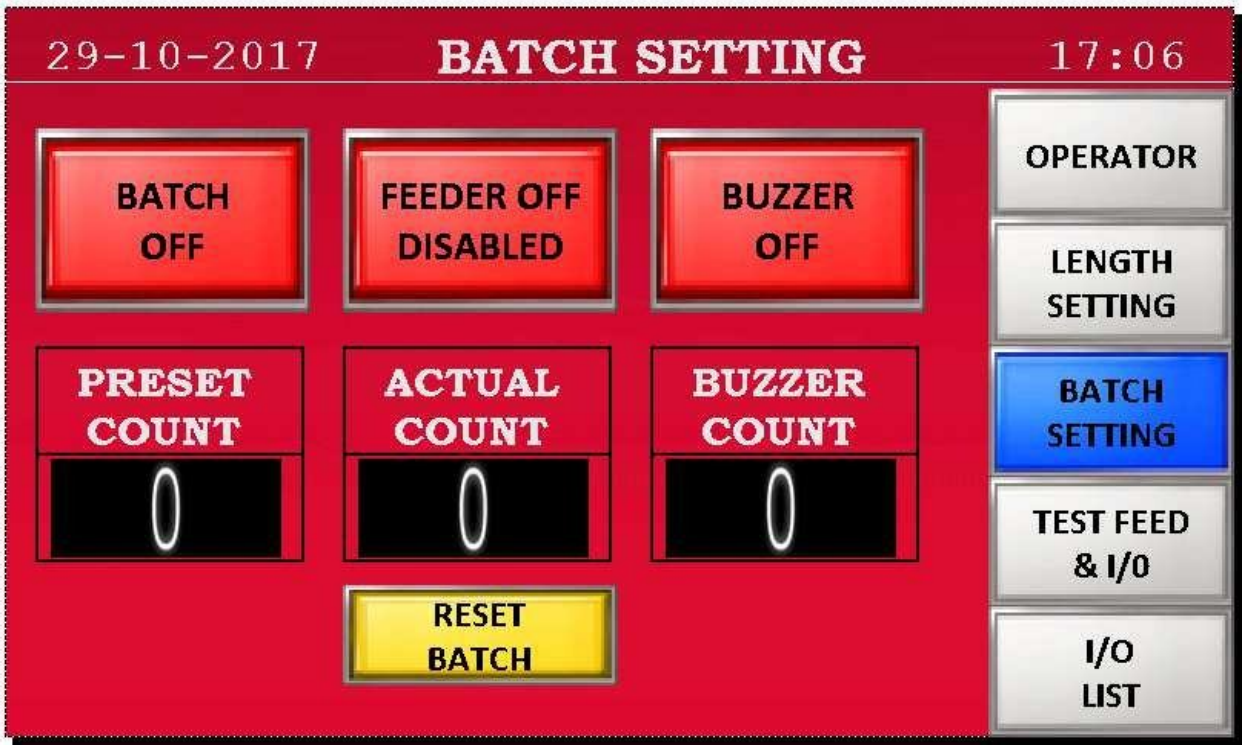
Screen Base4 LENGTH SETTING

1. This screen let you set your desired running length and speed of the feeder.

2. You can add five different lengths per five different stocks.

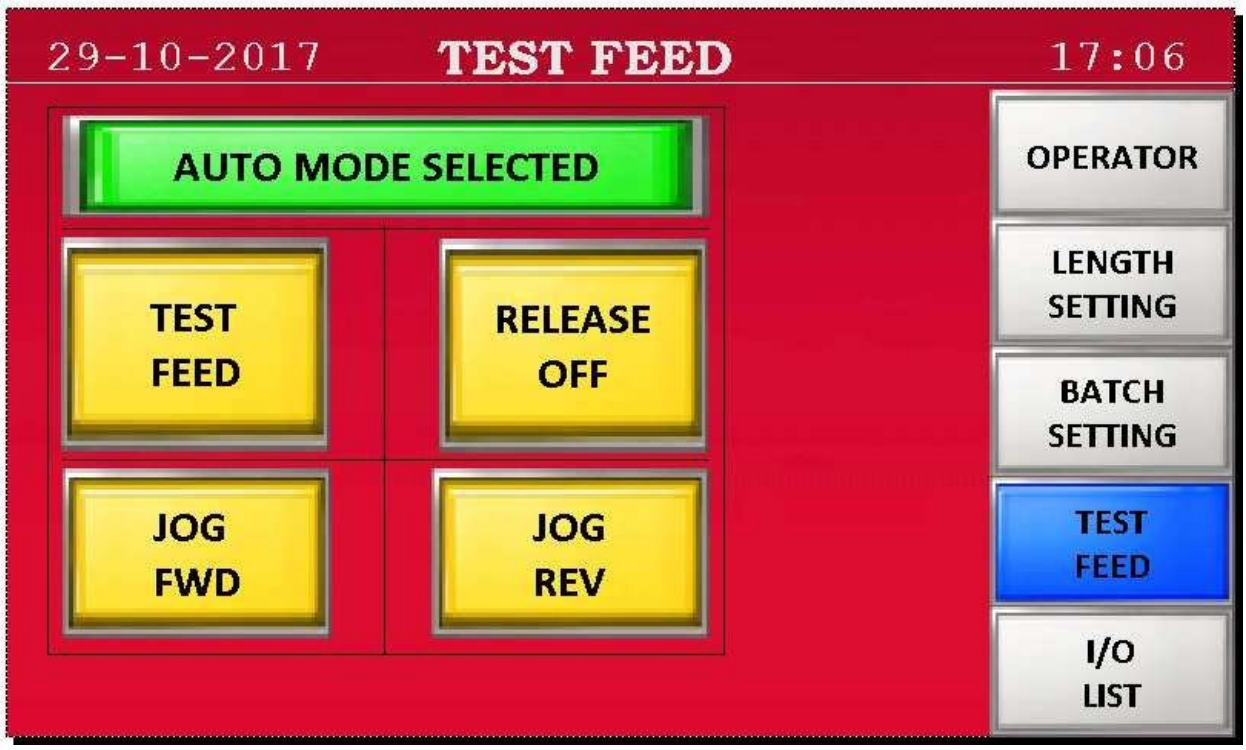
SET LENGTH	SET PHRASE
1. 50 mm	5 stocks
2. 100 mm	10 stocks
3. 200 mm	20 stocks
4. 300 mm	50 stocks
5. 400 mm	100 stocks

Screen Base5 BATCH SETTING



1. This screen is Batch Setting.
2. When the Batch Button is “ON” it will show the ACTAUL COUNT with respect to PRESET COUNT.
3. If FEEDER DISABLED turned “ON” then feeder will stop when the Preset Count entered becomes equal to Actual Count.
4. If FEEDER DISABLED turned “OFF” then feeder will not stop when Preset and Actual Count becomes equal.
5. Actual Count will reset after reaching preset value and start again from zero.

Screen Base5 TEST FEED & I/O



1. This is a Test screen
2. This is screen is made to test all the functions of the feeder whether they are working or not.
3. In Manual Mode when the Test Feed button is pressed it will feed the feeding length.
4. Release On/Off will make the Pilot Up and Down.
5. Jog Fwd Button is to move the Feeder in forward direction in slow speed until the button is pressed.
6. Jog Rev Button is to move the Feeder in reverse direction in slow speed until the button is pressed.

SectionIX. Spares List

ITEM	*QTY*	*Make*
Bearing		
No-6211	**01**	**SKF**
No-6007	**01**	**SKF**
No-6006	**02**	**SKF**
No-6301	**08**	**SKF**
No-6003	**20**	**SKF**

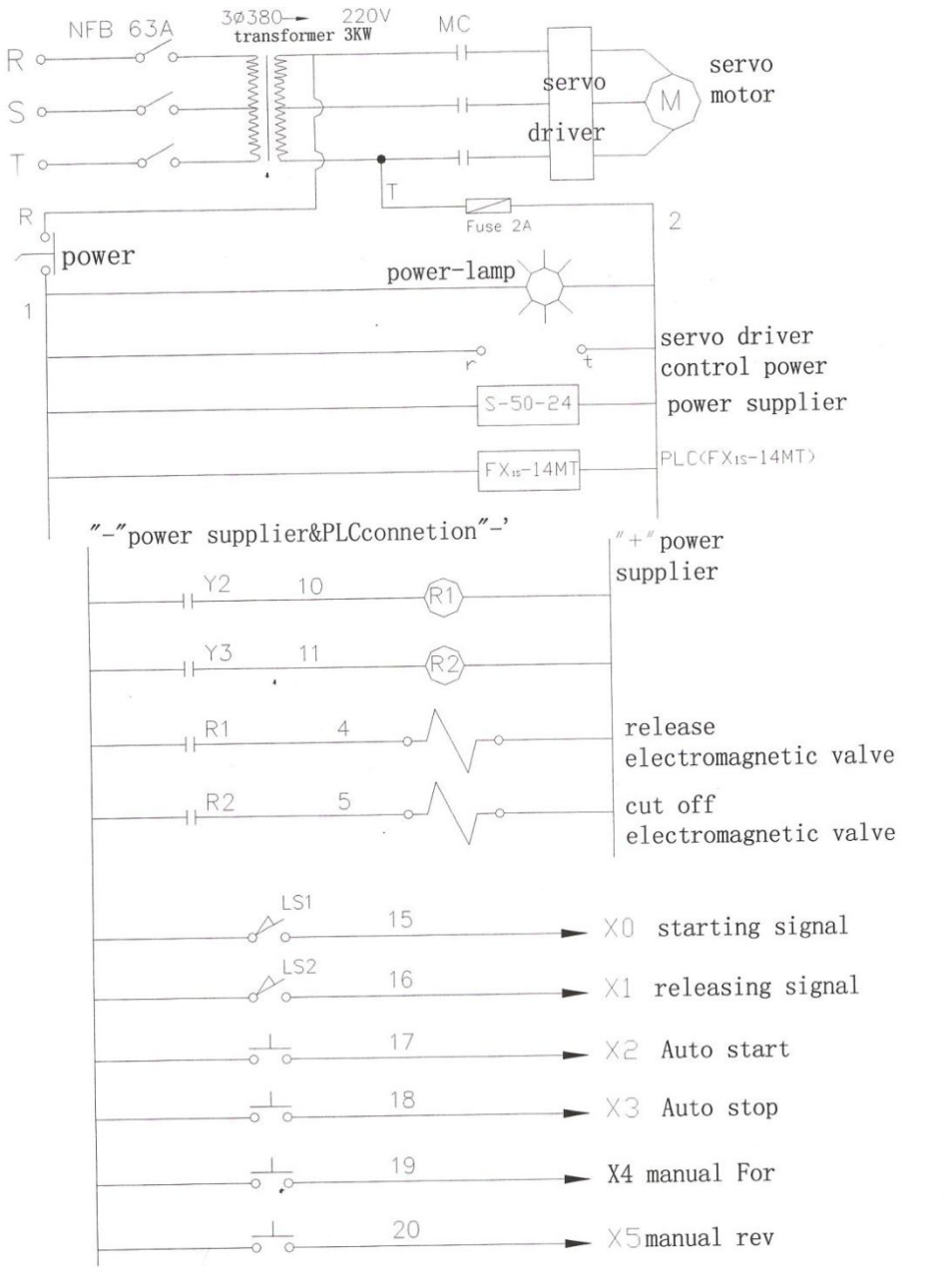
Pneumatic/ Air Fittings -Cylinder

Bore-80mmStroke-50mm	**02**
SolenoidValve	**02**

¼ bsp 5 * 2

24 V DC

Section X. Diagram of Circuit



R. S. T. 3Ø380V Input electic | R. S. T. 3Ø380V Input transformer | R. S. T. 3Ø380V output transformer | U. V. W. 3Ø servo motor input electric | +.-.15.16. PLC input signal | 4. 5. +. electromagnetic valve

- **The power connected to machine is three phase 380 V for alternating current**
- **The control box is single phase 220V for alternating current (offered by inverter)**
- **The sensor time is 12 voltage for directed current. (offered by inverter)**

Notes