

BK-2007A Position Controller

Manual

. Main Characteristics:

1. Self-counting Curve energy
2. To stop at high position of absolute position.
3. Big current out when use punch signal And so on
4. Easier to use

Wuxi Bokin Auto Control Tech Co.,LTD, China.

Pass Iso9001:2016 Quality Certification

[http:// www.bjzdkz..com](http://www.bjzdkz..com)

Brief Introduction

We have founded in 2003, is located in the scenic and prosperous city -wuxi ,in wuxi National industrial design park of convenient transportation. Of strong tech, advanced design Tech also Machine, we manufacture ,sales of many area of industrial controlling machine.

BK-2007A use 5" high contrast ratio LCD, suit for strong light environment , can directly for servo-system controller,high anti-interference ,for almost all kinds of tech environments ,can reach 80KHZ, suit for 12 kinds of machine also it's feed speed can automaticly control according to machine speed.

Bk2007A digest merit of controllers from domestic and foreign controlsystem, Adapt high-efficiency ,high anti-interference also easy to amend which enjoy praise of our customers from all over the world.

CH.1. Feature :

1. Power : 220v/50Hz, 100W
2. Speed:10-500bags/min
3. Working :for 12 kinds of machine
4. Weight:3.5kg
5. Outline size:280mm*140mm
6. Hole-out size:262mm*127mm
7. 5'' LCD ,Chinese /English show

CH.2 OUTLINE



CH.3 PARAMETER

3.1 Normal Parameter

Name	Unit	Range	(default value)	remark
Feed length	mm	0.1-9999.9	440.0	
BatchNUM	bags	10-9999	100	
PunchTim	seconds	0-999	0	when zero,not punch.
FeedSpeed		0-99	0	when 0,speed is auto

Remark :

ONE, When power-on ,display " press "-" for English" ,enter main page.

Press " setup" key for more than 3 seconds ,then set ENGINEER parameter ("11") ,Press "Setup" key to enter secondary menu 3.2 as below (remark, set correct engineer parameter ,enter using NUM.(poppedom), line is 0--9999.)

3.2 Engineer parameter

Name	Unit	Range	Default	Remark			
Perimeter	0.1mm	10～9999	2200	Roller diameter (mm)*31.416			
Machine Type		1～12		val	function	val	function
				1	Normal	7	Same as 1
				2	Halt&drop	8	Same as 2
				3	Back& drop	9	Same as 3
				4	Quantify stop	10	Same as 4
				5	Halt&drop2	11	Same as 5
				6	Back&drop2	12	Same as 6
				<i>Note:up 6type, feed after start main motor</i>			<i>Note:up 6 type, feed before start main motor</i>
(DoffSackT)	0.1s	0～999	0				
(PreALarmN)		0～20	5	Buzz alarm from this number to N			
MaxSpeed		1～520	520				
(SteadyN)		1～9	3	Curve 1:fastest, 9--lowest			
(PLugTime)	0.5s	0～5	0	0:No Plug.			
(BoundN)		0～99	0	0:find color all time			
(HoLLowCut)	times	0～20	0	Heat-seal-cut machine use			
(FeedAngle)		50～300	150	“speed” =0 enable.			

CH.4 Analysis of parameter:

Name:

- 1.FeedLength: to control length for step motor or servo motor to feed
2. BatchNum: to control number of every batch of bags , according to setting Number that remind in buzzer signal and doff sack signal.
3. PunchTim: time that punch signal output.

4. FeedSpeed: (a) choose 99 ascend curves of different acceleration, the smaller the number choose, the higher speed is.

(b) when choose number 0, the step motor speed is according to main machine.

5. Perimeter: ROLL D*31.416

6. TYPE of machine.

(1) common type: when come to batch number, step motor and main motor work to output off-bag signal.

(2) stop to off bag 1: when come to batch number, the main motor stop to output off-bag signal, then open automatically.

(3) off sack bags: when come to batch N, the main motor still work then step motor turn back 30 steps, the signal of off bag output in same time, when feed, add 30 steps at first feed.

(4) balance stop: when come to batch number, output off-bag signal, turn to stop mood, can't reopen automatically.

(5) stop to off bags: almost the same to the two, every time when feed turn back 3mm.

(6) off sack to off bags: almost the same to three, every time when feed turn back 3mm.

(7) The same to 1 (8). the same to 2 (9). same to 3

(10). same to 4 (11). Same to 5 (12). same to 6 (total 12 types of machine)

7. DoffSackT: 0-9.9seconds

8. PreAlarmN: the number we want to alarm before every batch,
we must use number smaller than batch number.

9. Maxspeed: limit the max speed.

10. SteadyN: curve number smaller, servo motor runs faster.

11. PlugTime: 0 have no plug protection.

1-5 open plug time, will stop in 0.5 to 2.5 seconds

12. BoundN: set 0 will no restrict to find sack.

13. Hollow cut; change batch number, this number means the main motor's hollow cut Number.

14. Feed angle; when set 0 is useful, set motor_(step or servo) motor's feed angle

Ch.6 Press Key

Num	Name	explain
1	RESET	system reset
2	RUN	to work (press 1second)
3	STOP	SYstem to pause
4	CLEAR	press short to clear COUNT Press long than 3s, clear TOTAL.
5.	COL/WH	to change ways of making bag,

	WHITE: motor work according to designed length.
	DARK: motor work according to GK3-LED light.
	LIGHT: motor work according to GK3-LED dark.
6. SETUP:	press this key for 3 sec enter engineer parameter set, when set OK, press this key 1 second for return.
7. +	Press one time, add one
8. -	Press one time, minus one
9. FOR(→)	Press then step/Servo motor feed regularl ,after 3 Seconds ,to feed acceleratedly.
10. BACK(←)	Press this key for bags back.
11. SERSM	Find color and stop when in color mode.
12. AUTO	Press this key then show "MAKE" STATE, measure the length which Step motor work when FOR or BACK
13. ◀	Move to left bit of parameter
14. ▶	Move to right bit of parameter
15. ▲	Move to before parameter
16. ▼	Move to next parameter

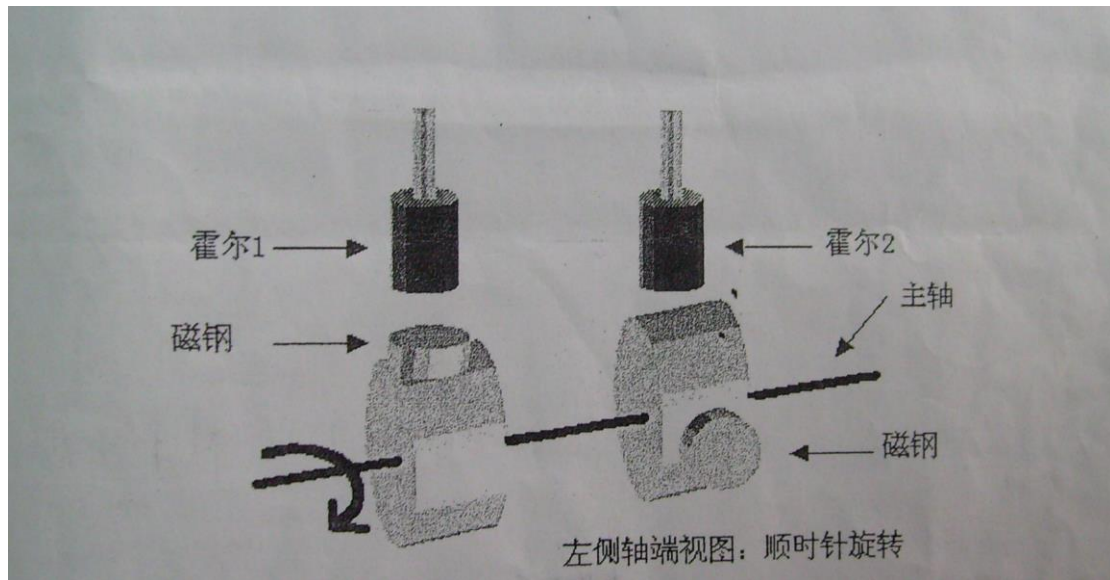
CH.7 means of system mood

1. WORK: system is working
2. STOP: system stop.
3. AUTO : Measure length .
4. Off-bag: system is operating batch bag -off.
5. Ultra-speed :means the main motor' speed is too quick,
6. ultra-unfound: not found bound three times because of unprecise length -control or printing system error.

CH.8. ways of working

- 1: white bags ; Make white Bags .
- 2 : dark color: when make colored bags ,meeting dark color then useful.
- 3: light color: when make colored bags,useful when meeting light color.

CH.9 . Logics of hall switch sensor's signals



GK1/Hall 1: the side of signal down is feed position, up side is stop position.
GK2/Hall 2: the down of signal side is ultra -speed position

Hall 1 and 2 receive a signal when cut or seal once, hall 1 will receive signal when cut or seal blade leave base, hall 2 can receive signal when cut or seal blade touch base; machine receive signal of hall 2 after turn 120 degree receiving signal of hall 1.

CH.10 WIRE GRAPH.

1、CH1 (2EDG/8P)

PIN NO.	Name	Detail
CH1-1	Senser1	Logic signal 1。 (JK8002D-YELLOW WIRE)
CH1-2	Senser 2	Logic signal 2 (JK8002D)
CH1-3	Opto-Ele 1	Color bag use。
CH1-4	Opto-Ele 2	No bag or bag juged。
CH1-5	Stop	Out-stop button, open for GND。
CH1-6	run	Out-run button, open for GND。
CH1-7	+12V	+12VDC ,max 1.5A
CH1-8	GND	+24V/ +12V Common..

2、CH2 (2EDG/10P)

PIN	NAME	DETAIL
CH2-1	For	Out-for button, open for GND Enable。
CH2-2	back	Out-back button, open for GND Enable。
CH2-3	GND	+24V/ +12V Common。
CH2-4	Main motor down speed	OC. for servo driver
CH2-5	Servo-clr	OC. for servo. driver
CH2-6	CW-	Servo sign-。 [Motor driver]
CH2-7	CW+	Servo sign+。 [Motor driver]
CH2-8	CP-	Servo pulse-。 [Motor driver]
CH2-9	CP+	Servo pulse+。 [Motor driver]
CH2-10	+12V	+12VDC, max 1.5A。

3、CH3 (2EDG/12P)

PIN	NAME	DETAIL
CH3-1	ZJKI	To control Main motor.
CH3-2	GND	
CH3-3	+12V	+12V POWER. (max 1.5A)
CH3-4	BUZZER	BUZZER -。
CH3-5	PULL	magnetic valve control – (other pos. can link +24V)
CH3-6	(NC)	
CH3-7	punch	magnetic valve control – (other pos. can link +24V)
CH3-8	+24V	+24VDC /1.8A。
CH3-9	Open SW2	Open-Switch for Control main motor .
CH3-10	Open SW1	
CH3-11	~220VN	~220V/50HZ Power in。
CH3-12	~220VL	