

OPERATING MANUAL FOR CONTROL SYSTEM OF BLOW MOLDING MACHINE

Business Mission

Streamline Controls Pvt. Ltd. (SCPL) is in the business of providing electronic & computerized automation solution for different industries so as to enhance the quality and productivity. Our motto is to provide indigenous, reliable and proven products & hence to ensure consistent performance. Our concept of value to the customers is to supply indigenous control systems designed with latest technology, developed through extensive R & D, incorporating state of art technology (world technology trend), manufactured under strictest quality control system and duly tested, at competitive prices, delivered in time and supported by service teams.

We feel it to be our responsibility to ensure that our business operates at a reasonable profit, as profit provides opportunity for R&D, growth and job security. Therefore we are dedicated to profitable growth - growth as a company and growth as an individual.

For detailed inquiry and trouble shooting please contact:

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PREFACE

BLOkon is multi functional controller incorporating micro controller, making it most versatile and cost effective solution optimally designed to best suit the automation needs of blow molding machines.

For better usage and maintenance of control system, detail study of this operating manual will be helpful.

We would be glad to assist your queries.

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(A) SPECIFICATIONS:

Input

Power:

Voltage	--	0-24Vac
Frequency	--	49-50 Hz
Consumption	--	30 VA Max.

Control:

Thermocouple	--	J / K type - Isolated
Proximity/ Limit switches	--	NPN (NO type) 10-30Vdc - 50mA Max.

Output

For Solenoids	--	For 230VAC - 2Amp. Max. - SSR Output or
	--	For 24VDC - 2 Amp. Max. – MOSFET Driver Output
For Heater	--	For 230VAC - 2Amp. Max. - SSR Output or
	--	For 24VDC - 2 Amp. Max. – MOSFET Driver Output

Environment

Temperature	--	0°C to 55°C
Humidity	--	5 to 95% RH non condensing

MECHANICAL DIMENSIONS (All are in MM)

Box Cut Out Dimensions	--	Depth X Width X Height 95 mm X 135 mm X 287 mm
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(B) INTRODUCTION

BLOkon is a complete proven & reliable control system for Blow Molding Machine.
System consists of two units.

- (1) MMI unit
- (2) SMPS

(1) Operating Panel:

This is small lightweight Display unit with soft touch keypad & LCD display, digital input, digital output and temperature section.

This package has some obvious advantages over existing conventional Electrical Systems. This occupies lesser space than conventional system. The simplicity of wiring from solenoids to systems or limit switches to system and from Thermocouples to system makes it easier and less time consuming for commissioning. This system has no moving parts, so periodical maintenance is drastically reduced and there for reliability is definitely improved. Function like Heating ON-OFF and Cycle Time Interlock makes this system much more superior than the conventional system.

(C) FEATURES

- Inherently reliable Micro controller based technology 8051 / 100MHz CPU.
- Offers up to 64 digital inputs, Up to 64 digital outputs, 8zone time Proportional controlled Temperature Controllers, timers, Extensive feather touch membrane keypad for user interface for manual/Set/fully auto functions of the machine.
- Latest E2PROM Technology ensures security of programmed parameters.
- User friendly programming through an extensive membrane keypad for easy operator interface (Details of manual mode operations available is appended on separate sheet)
- Five digit counters to count Number of Pieces.
- Facility for counting cycle time helpful in production analysis.
- Thermocouple "Open" & "Reverse" conditions are self detected and are displayed as "Opn" and "rev" respectively.
- Programmable High & Low limits for all temperature zones.
- Automatic cold junction compensation for Thermocouple inputs.
- Inbuilt interlocks for Low & High temperature, Right and/or Left doors, Maximum Cycle Time, Emergency stop, Hydro motor overload and many others.
- Built in 25 nos. mold memory.
- Operating Input/Output diagnosis.

(D) SCOPE OF SUPPLY

SCPL to provide:

- 1 Hand Panel.
- 2 Input & Output cards.
- 3 Inter connecting cables.
- 4 Operating Manual.

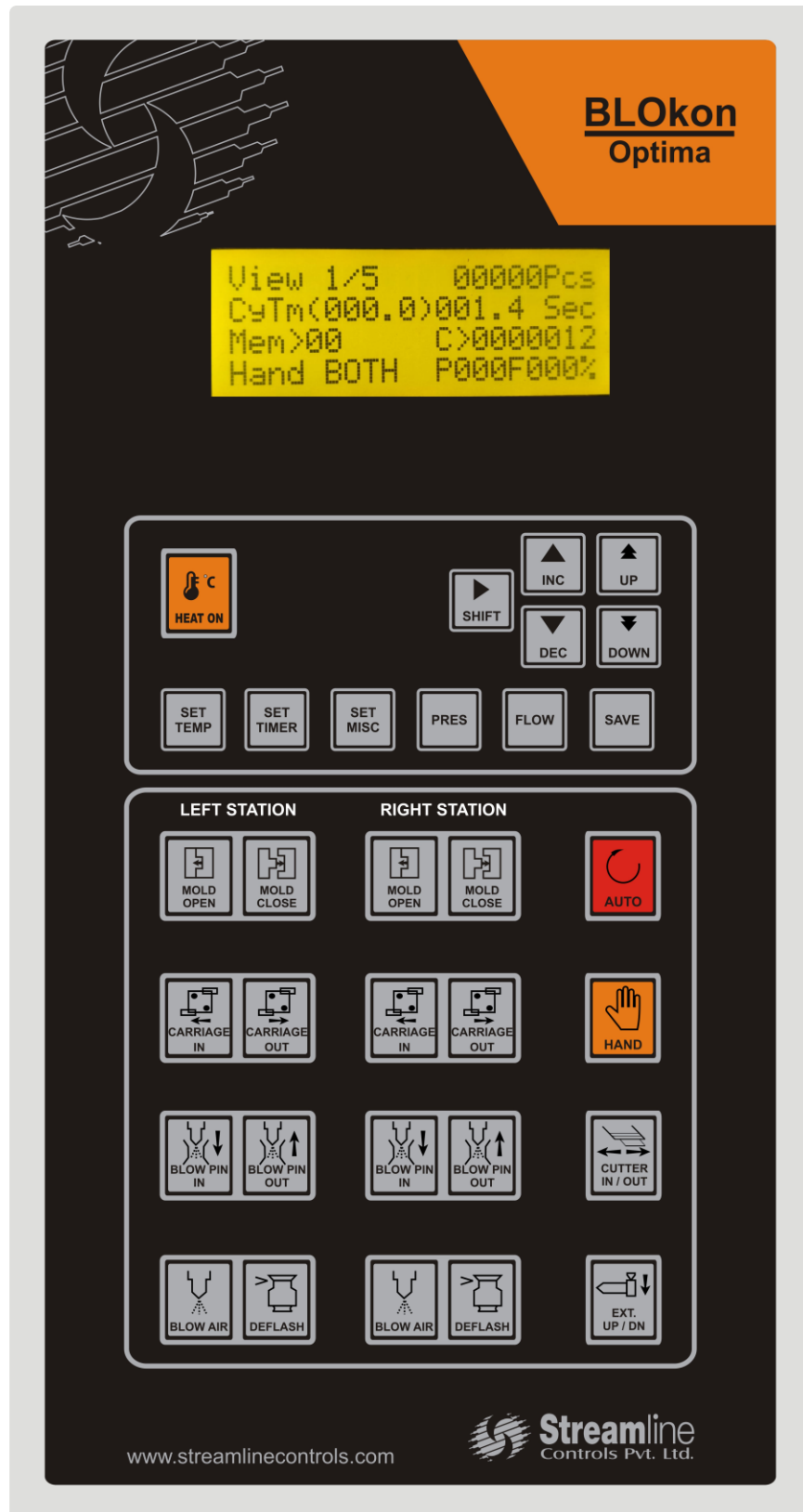
(E) PROGRAMMING OF THE SYSTEM

The system will be programmed to suit your application by us.

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Operating Panel Description:

Front key board Sticker



1. CURSOR KEY

-  **SHIFT** **PROG. MODE:** Push this key to move cursor from left to right direction for parameter setting in any menu.
ONLINE MODE: Also use for open the password menu in online display.
-  **INC** **PROG. MODE:** To increase parameter value in any menu
Also use for function on/off.
-  **DEC** **PROG. MODE:** To decrease parameter value in any menu.
Also use for function on/off.
ONLINE MODE: Alarm reset for all mode.
-  **UP** **PROG. MODE:** For shift to previous parameter.
-  **DOWN** **PROG. MODE:** For shift to next parameter.

2. MENU SELECTOR

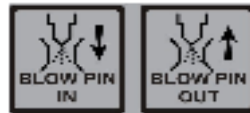
-  **SET TEMP** Set temperature key to set all zones set point.
-  **SET TIMER** Set timer key to set all function's timer.
-  **SET MISC** Set misc key to set On/ Off for selectable function.
-  **PRES** Set pressure key to set all function's proportional pressure.
-  **FLOW** Set flow key to set all function's proportional flow.
-  **SAVE** Save key to save set parameter.
Also use for scroll online display

OPERATING MODE SELECTOR

-  Push this key to start or stop the heating.
-  Machine operating at fully automatic production mode.
Restarted by cycle delay timer.
-  Operating machine by manual key.

Manual Operation Key

Left Station

- 
 - Left Mold Open Key
Push to activate of left mold opening action manually.
 - Left Mold Close Key
Push to activate of left mold clamping action manually.
- 
 - Left Carriage In Key
Push to activate of left Carriage In action manually.
 - Left Carriage Out Key
Push to activate of left Carriage Out action manually.
- 
 - Left Blow Pin In Key
Push to activate of left blow pin in action manually.
 - Left Blow Pin Out Key
Push to activate of left blow pin out action manually.
- 
 - Left Blowing Key
Push to activate of left blowing action manually.
 - Left Deflash Key
Push to activate of left deflash action manually.

Right Station

-   Right Mold Open Key
Push to activate of right mold opening action manually.
Right Mold Close Key
Push to activate of right mold clamping action manually.
-   Right Carriage In Key
Push to activate of right Carriage In action manually.
Right Carriage Out Key
Push to activate of right Carriage Out action manually.
-   Right Blow Pin In Key
Push to activate of right blow pin in action manually.
Right Blow Pin Out Key
Push to activate of right blow pin out action manually.
-   Right Blowing Key
Push to activate of right blowing action manually.
Right Deflash Key
Push to activate of right deflash action manually.

Common Functions

-  Cutter In/Out Key
Push to activate of cutter in/out action manually.
-  Extruder Up/Down Key
Push to activate of extruder up/down action manually.

(G) MANUAL MODE OF OPERATIONS

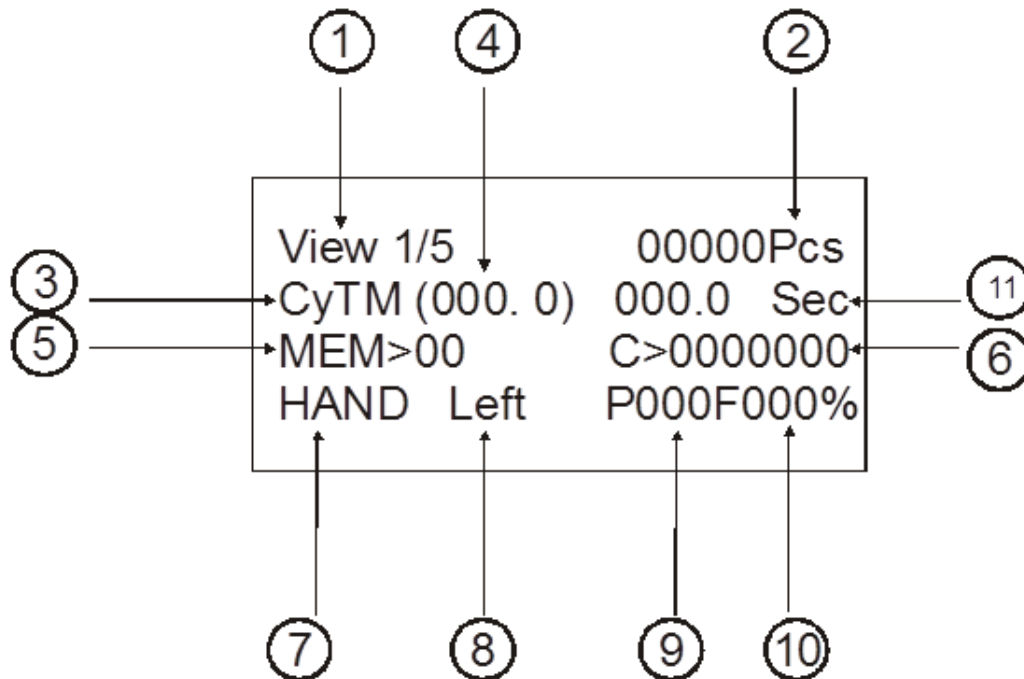
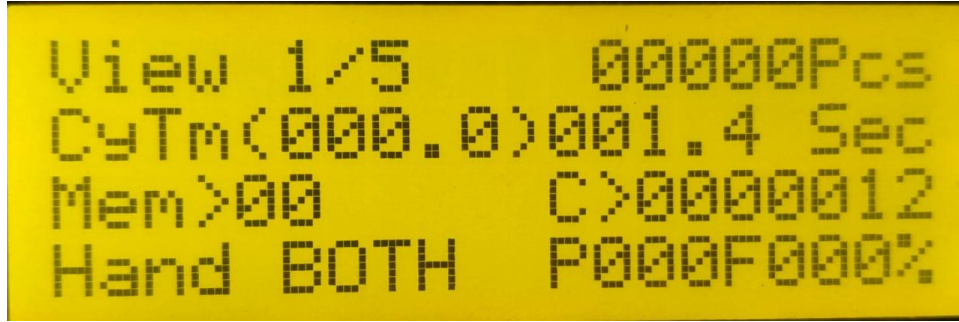
1. Left Mould Open
2. Left Mould Close
3. Left Carriage In
4. Left Carriage Out
5. Left Blow Pin In
6. Left Blow Pin Out
7. Left Blowing
8. Left Deflash
9. Right Mould Open
10. Right Mould Close
11. Right Carriage In
12. Right Carriage Out
13. Right Blow Pin In
14. Right Blow Pin Out
15. Right Blowing
16. Right Deflash
17. Cutter in/out
18. Extruder up/down

(H) PRECAUTIONS

To prevent damage from human and machine, please obey the following safety caution.

- Equipment must be operating under correct power. (Install a voltage stabilizer while need)
- Earth terminal must be connected to qualified terminal.
- All electrical elements with EARTH terminal, it is necessary for users to connect with the EARTH terminal.
- The high-power cables should be separated from the low power cables to avoid interfere.
- To prevent fire or hazard shock, do not expose the unit to rain or moistly place.
- Please understand the operating process before use.
- When system shut down, wait 10seconds for re-start.
- Thermocouples used for this system must be isolated (ungrounded) Fe/k type.
- The wiring of each zone starting from thermocouple of heater must be verified.
For ex: first zone thermocouple must be connected to first channel of the system and heater of first zone must be connected to heater 1of the system.
- The limit switch and solenoids wiring must be done as per given wiring diagram.
- If the proximity switches are used then use only PNP-NO type proximity switches.

View Screen 1



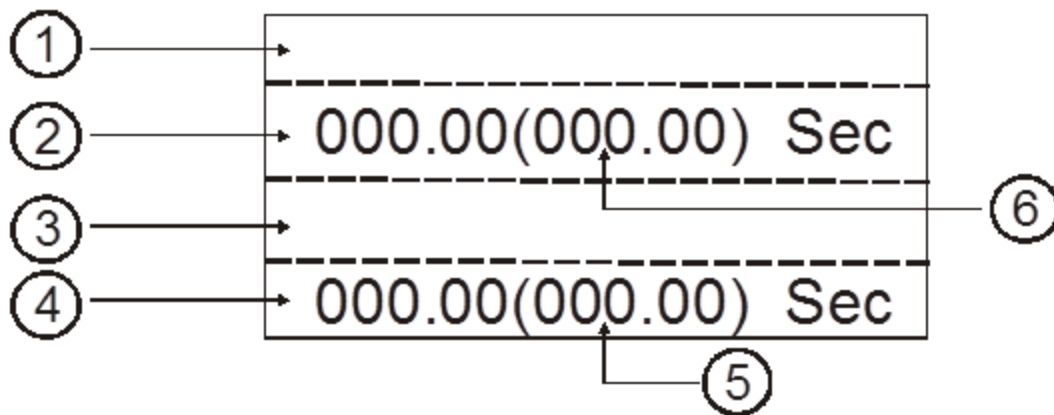
Description of Page

Screen Number	Display View	Description
1	View 1/5	No. of Display View
2	00000Pcs	Display Batch Counter
3	CyTM	Display Cycle Time
4	(000.0)	Display Previous cycle time
5	MEM>00	Display Memory count
6	C>0000000	Display Totlizer counter
7	HAND	Display select mode
8	LEFT	Display select station
9	P000	Display pressure setting
10	F000%	Display flow setting
11	000.0 SEC	Display current cycle time

View Screen 2



To go this page press save key in view screen 1



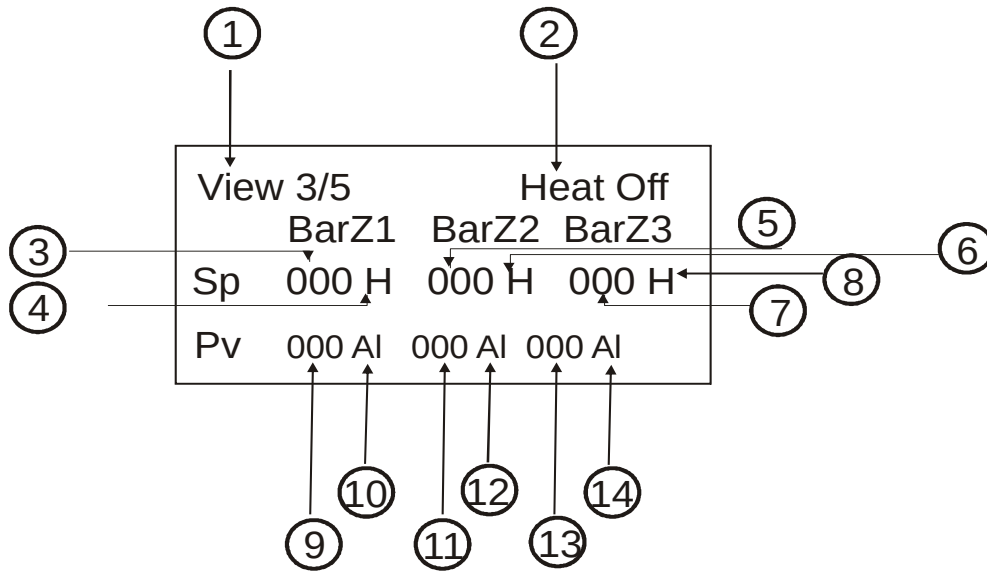
Description of Page

Screen Number	Display View	Description
1		Display online function's message Or Display left station interlock message
2	000.00	Display actual time of left station's function
3		Display online function's message Or Display right station interlock message
4	000.00	Display actual time of right station's time
5	(000.00)	Display set time of left station's function
6	(000.00)	Display set time of right station's function

View Screen 3



To go this page press save key in view screen2



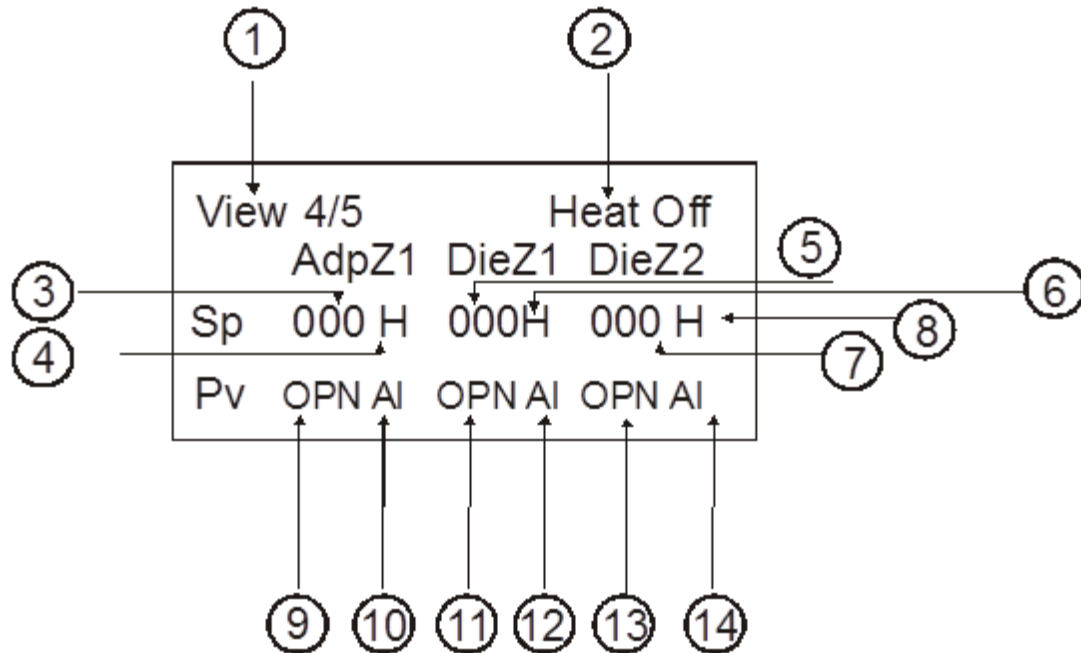
Description of Page

Screen Number	Display View	Description
1	View 3/5	No. of Display View
2	Heat Off	Display heating off or on
3	BarZ1	Display barrel zone 1 set temperature
4	Sp	Display heater or blower on status
5	000	Display barrel zone 2 set temperature
6	H	Display heater or blower on status
7	000	Display barrel zone 3 set temperature
8	H	Display heater or blower on status
9	000	Display barrel zone 1 actual temperature
10	AI	Display alarm low or high status
11	000	Display barrel zone 2 actual temperature
12	AI	Display alarm low or high status
13	000	Display barrel zone 3 actual temperature
14	AI	Display alarm low or high status

View Screen 4



To go this page press save key in view screen3



Description of Page

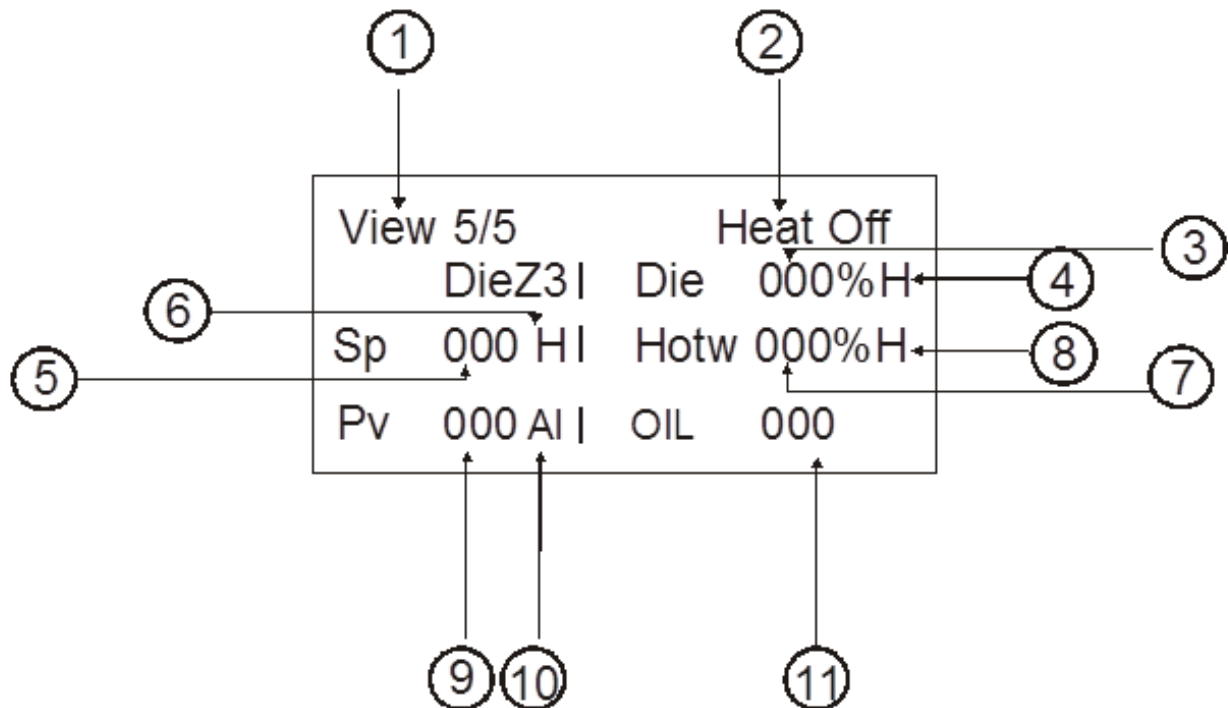
Screen Number	Display View	Description
1	View 4/5	No. of Display View
2	Heat Off	Display heating off or on
3	000	Display adapter zone 1 set temperature
4	H	Display heater or blower on status
5	000	Display die zone 1 set temperature
6	H	Display heater or blower on status
7	000	Display die zone 2 set temperature
8	H	Display heater or blower on status
9	000	Display adapter zone 1 actual temperature
10	AI	Display alarm low or high status
11	000	Display die zone 2 actual temperature
12	AI	Display alarm low or high status
13	000	Display die zone 3 actual temperature
14	AI	Display alarm low or high status

Figure 1

View Screen 5



To go this page press save key in view screen4



Description of Page

Screen Number	Display View	Description
1	View 5/5	No. of Display View
2	Heat Off	Display heating off or on
3	000%	Display die ring set temperature
4	H	Display heater or blower on status
5	000	Display die zone 3 set temperature
6	H	Display heater or blower on status
7	000	Display hot wire set temperature
8	H	Display heater or blower on status
9	000	Display die zone 3 actual temperature
10	AI	Display alarm low or high status
11	000	Display oil temperature

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Password Entry

Press **Shift** key in any of online display.
 It is require to exit from any menu at the time of password entry.
 First line of LCD will show " Enter Password".
 Second line of LCD show Enter Password and it's value.
 Set require password value using INC, DEC and SHIFT key.
 On pressing SAVE key the set value will be saved.
 List of password entry parameter is given below.

No.	Message	Description	Range	Level
1	Entr Paswd	Enter Password	0-9999	User

(J)List of Programmable Parameters

Set Temperatures

Press set **TEMP** key.
 First line of LCD will show " Set Temperatures".
 Second, third and forth lines of LCD show zone number and set temp.
 Select require zone using UP/ DOWN key.
 Set require temperature using INC, DEC and SHIFT key.
 On pressing SAVE key the set value will be saved.
 List of temperature parameter is given below.

No.	Message	Description	Range	Level
1	SetTmp Z1 C	Set Temperature of Barrel Zone 1	0-400 C	User
2	SetTmp Z2 C	Set Temperature of Barrel Zone 2	0-400 C	User
3	SetTmp Z3 C	Set Temperature of Barrel Zone 3	0-400 C	User
4	SetTmp Z4 C	Set Temperature of Adapter Zone 1	0-400 C	User
5	SetTmp Z5 C	Set Temperature of Die Zone 1	0-400 C	User
6	SetTmp Z6 C	Set Temperature of Die Zone 2	0-400 C	User
7	SetTmp Z7 C	Set Temperature of Die Zone 3	0-400 C	User
8	SetTmp DR %	Set Temperature of Die Ring	0-100 %	User
9	SetTmp HW %	Set Temperature of Hot Wire	0-100 %	User
10	SetTmp Ol C	Set Temperature of Oil	0-100 C	User
11	Zone 1	Zone 1 On/Off	On/Off	User
12	Zone 2	Zone 2 On/Off	On/Off	User
13	Zone 3	Zone 3 On/Off	On/Off	User
14	Zone 4	Zone 4 On/Off	On/Off	User
15	Zone 5	Zone 5 On/Off	On/Off	User
16	Zone 6	Zone 6 On/Off	On/Off	User
17	Zone 7	Zone 7 On/Off	On/Off	User
18	Die Ring	Die Ring On/Off	On/Off	User
19	Hot Wire	Hot Wire On/Off	On/Off	User
20	Oil Temp	Oil Temperature On/Off	On/Off	User
21	LoAlrm Z1	Low Alarm of Zone 1	0-400 C	User

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22	LoAlrm Z2	Low Alarm of Zone 2	0-400 C	User
23	LoAlrm Z3 C	Low Alarm of Zone 3	0-400 C	User
24	LoAlrm Z4 C	Low Alarm of Zone 4	0-400 C	User
25	LoAlrm Z5 C	Low Alarm of Zone 5	0-400 C	User
26	LoAlrm Z6 C	Low Alarm of Zone 6	0-400 C	User
27	LoAlrm Z7 C	Low Alarm of Zone 7	0-400 C	User
28	HiAlrm Z1 C	High Alarm of Zone 1	0-400 C	User
29	HiAlrm Z2 C	High Alarm of Zone 2	0-400 C	User
30	HiAlrm Z3 C	High Alarm of Zone 3	0-400 C	User
31	HiAlrm Z4 C	High Alarm of Zone 4	0-400 C	User
32	HiAlrm Z5 C	High Alarm of Zone 5	0-400 C	User
33	HiAlrm Z6 C	High Alarm of Zone 6	0-400 C	User
34	HiAlrm Z7 C	High Alarm of Zone 7	0-400 C	User
35	BloPont Z1 C	Blower Point of Zone 1	0-100 C	User
36	BloPont Z2 C	Blower Point of Zone 2	0-100 C	User
37	BloPont Z3 C	Blower Point of Zone 3	0-100 C	User
38	BloPont Z4 C	Blower Point of Zone 4	0-100 C	User
39	BloPont Z5 C	Blower Point of Zone 5	0-100 C	User
40	BloPont Z6 C	Blower Point of Zone 6	0-100 C	User
41	BloPont Z7 C	Blower Point of Zone 7	0-100 C	User
42	ProBand Z1 C	Proportional Band of Zone 1	0-100 C	Supervisor
43	ProBand Z2 C	Proportional Band of Zone 2	0-100 C	Supervisor
44	ProBand Z3 C	Proportional Band of Zone 3	0-100 C	Supervisor
45	ProBand Z4 C	Proportional Band of Zone 4	0-100 C	Supervisor
46	ProBand Z5 C	Proportional Band of Zone 5	0-100 C	Supervisor
47	ProBand Z6 C	Proportional Band of Zone 6	0-100 C	Supervisor
48	ProBand Z7 C	Proportional Band of Zone 7	0-100 C	Supervisor
49	IntGain Z1 S	Integral Gain of Zone 1	0-1000 Sec	Supervisor
50	IntGain Z2 S	Integral Gain of Zone 2	0-1000 Sec	Supervisor
51	IntGain Z3 S	Integral Gain of Zone 3	0-1000 Sec	Supervisor
52	IntGain Z4 S	Integral Gain of Zone 4	0-1000 Sec	Supervisor
53	IntGain Z5 S	Integral Gain of Zone 5	0-1000 Sec	Supervisor
54	IntGain Z6 S	Integral Gain of Zone 6	0-1000 Sec	Supervisor
55	IntGain Z7 S	Integral Gain of Zone 7	0-1000 Sec	Supervisor
56	CyTime Z1 S	Cycle Time of Zone 1	0-100 Sec	Supervisor
57	CyTime Z2 S	Cycle Time of Zone 2	0-100 Sec	Supervisor
58	CyTime Z3 S	Cycle Time of Zone 3	0-100 Sec	Supervisor
59	CyTime Z4 S	Cycle Time of Zone 4	0-100 Sec	Supervisor
60	CyTime Z5 S	Cycle Time of Zone 5	0-100 Sec	Supervisor
61	CyTime Z6 S	Cycle Time of Zone 6	0-100 Sec	Supervisor
62	CyTime Z7 S	Cycle Time of Zone 7	0-100 Sec	Supervisor
63	CyTime DR S	Cycle Time of Die Ring	0-100 Sec	Supervisor
64	CyTime HW S	Cycle Time of Hot Wire	0-100 Sec	Supervisor

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Set Timers

Press set **TIMER** key.

First line of LCD will show " Set Timers'.

Second, third and forth lines of LCD show timer's name and it's set value.

Select require timer using UP/ DOWN key.

Set require timer using INC, DEC and SHIFT key.

On pressing SAVE key the set value will be saved.

List of timer parameter is given below.

No.	Message	Description	Range	Level
0	Lt Blo Tim	Left Blow time	000.00 -100.00 S	User
1	Rt Blo Tim	Right Blow time	000.00 -100.00 S	User
2	Lt Exhaust	Left Exhaust Time	000.00 -100.00 S	User
3	Rt Exhaust	Right Exhaust Time	000.00 -100.00 S	User
4	Lt Seal Tm	Left Seal time	00.00 - 99.99 S	User
5	Rt Seal Tm	Right Seal time	00.00 - 99.99 S	User
6	Lt Cyc Dly	Left Cycle Delay	00.00 - 10.00 S	User
7	Rt Cyc Dly	Right Cycle Delay	00.00 - 10.00 S	User
8	Paris OnTm	Parison Time	00.00 - 99.99 S	User
9	Cutter Dly	Cutter Delay	00.00 - 10.00 S	User
10	Cutr Impls	Cutter Impulse Time	00.00 - 10.00 S	User
11	Lt Cin Fas	Left Carriage IN Fast Time	00.00 - 10.00 S	User
12	Rt Cin Fas	Right Carriage In Fast Time	00.00 - 10.00 S	User
13	L Cout Fas	Left Carriage Out Fast Time	00.00 - 10.00 S	User
14	R Cout Fas	Right Carriage Out Fast Time	00.00 - 10.00 S	User
15	L Cout End	Left Carriage Out End Time	00.00 - 10.00 S	User
16	R Cout End	Right carriage Out End Time	00.00 - 10.00 S	User
17	L MClS Fas	Left Mold Close Fast Time	00.00 - 10.00 S	User
18	R MClS Fas	Right Mold Close Fast Time	00.00 - 10.00 S	User
19	L MOPn Fas	Left Mold Open Fast Time	00.00 - 10.00 S	User
20	R Mopn Fas	Right Mold Open Fast Time	00.00 - 10.00 S	User
21	Lt Mcls D1	Left Mold close Delay Time	00.00 - 10.00 S	User
22	Rt Mcls D1	Right Mold Close Delay Time	00.00 - 10.00 S	User
23	Lt Tong Tm	Left Tonnage time	00.00 - 10.00 S	User
24	Rt Tong Tm	Right Tonnage Time	00.00 - 10.00 S	User
25	Lt Bpin D1	Left Blow pin In Delay	00.00 - 99.99 S	User
26	Rt Bpin D1	Right Blow pin In Delay	00.00 - 99.99 S	User
27	Lt Bpin Fa	Left Blow pin Fast time	00.00 - 09.99 S	User
28	Rt Bpin Fa	Right Blow Pin Fast Time	00.00 - 09.99 S	User
29	Lt Bpin In	Left Blow pin IN Time	00.00 - 09.99 S	User
30	Rt Bpin In	Right Blow pin IN Time	00.00 - 09.99 S	User
31	Lt Bpin S1	Left Blow pin in Slow Time	00.00 - 09.99 S	User
32	Rt Bpin S1	Right Blow pin IN Slow Time	00.00 - 09.99 S	User
33	L BPOut D1	Left Blow pin Out Delay Time	000.00 -010.00 S	User
34	R BPOut D1	Right Blow Pin Out Delay Time	000.00 -010.00 S	User
35	Lt Blo Dly	Left Blow Delay	000.00 -099.99 S	User
36	Rt Blo Dly	Right Blow Delay	000.00 -099.99 S	User
37	Lt Ejct Tm	Left Ejector Time	000.00 -099.99 S	User
38	Rt Ejct Tm	Right Ejector Time	000.00 -099.99 S	User
39	Lt BPOt Re	Left Blow pin Out Release Time	00.00 - 09.99 S	User

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40	Rt BPOt Re	Right Blow Pin Out Release Time	00.00 - 09.99 S	User
				User
41	Lt Dfsh In	Left Deflash In Time	00.00 - 50.00 S	User
42	Rt Dfsh In	Right Deflash IN Time	00.00 - 50.00 S	User
43	L DfOut D1	Left Deflash Out Delay	00.00 - 50.00 S	User
44	R DfOut D1	Right Deflash Out Delay	00.00 - 50.00 S	User
45	L Dfsh Mov	Left Deflash Move Time	00.00 - 50.00 S	User
46	R Dfsh Mov	Right Deflash Move Time	00.00 - 50.00 S	User
47	ExtrUp Dly	Extruder UP Delay Time	00.00 - 50.00 S	User
48	ExtrUp Tim	Extruder time	00.00 - 50.00 S	User
49	ExtrDn Dly	Extruder Down Delay Time	00.00 - 50.00 S	User
50	ExtrDn Tim	Extruder Down Time	00.00 - 50.00 S	User
51	Cy Ovr Tim	Cycle Over Time (Limit for Total Cycle Time)	00.000 - 599.99 S	Supervisor

Set Miscellaneous

Press set **MISC** key.

First line of LCD will show " Set Miscellaneous'.

Second, third and forth lines of LCD show function's name and it's value/status.

Select require function using UP/ DOWN key.

Set require value/ status using INC, DEC and SHIFT key.

On pressing SAVE key the set value will be saved.

List of miscellaneous parameter is given below.

No.	Message	Description	Range	Level
1	Station	Select Station	Left/Right	User
2	Set Mode	Set Mode to activate	On / Off	User
3	Cutter	Cutter Operation On/Off	On / Off	User
4	Memory No	Active Memory No.	0-25	Supervisor
5	Motor Cont	Motor count activate	On / Off	User
6	Deflash	Deflash Operation On/Off	On / Off	User
7	Batch Count	Batch Counter On/Off	On / Off	User
8	Batch Count	5 Digit Batch Counter	0-65535	User
9	Reset Count	Deflash Operation On/Off	On / Off	User
10	Test Mode	To Test Input and Output	On / Off	User
11	BPOut Option	Select Blow pin Out function to operate	After Opn/Before Opn	Supervisor
12	Password	5 Digit Password	0-65535	Supervisor

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(N) INTERLOCKS

It is a one type of alarm system which activate when cycle or any other function does not operate properly because of those abnormal condition it indicate INTERLOCK

Following are the different interlock messages.

Sr.No.	Operation	Interlocks Messages On Screen	Description Of Messages	Type Of Mode	
				Hand	Fully Auto
1	Left Mold Open	IL.Lt MOpen End	Left Mold fully open end	y	y
		IL.Lt Mold Not Open	Left Mold is not fully open		y
		IL.Lt Mld Opn/Cls On	Left Mold open and close input on	y	y
2	Left Mold Close	IL.Lt Mclose End	Left Mold fully Close end	y	y
		IL.Lt Blow Pn no Out	Left Blow pin is not out	y	y
		IL.Lt Mld Opn/Cls On	Left Mold open and close input on	y	y
3	Left Carriage In	IL.Lt Cariage In End	Left Carriage in end	y	y
		IL Lt Blo Pn no Out	Left Blow pin is not out	y	y
		IL.Rt Station no Out	Right station is not out	y	y
		IL.Lt Carr In/Out On	Left carriage in and out input is on	y	y
4	Left Carriage Out	IL.Lt Carige Out End	Left Carriage out end	y	y
		IL.Lt Cariage no Out	Left Carriage is not out	y	y
		IL Lt Blo Pn no Out	Left Blow pin is not out	y	y
		IL.Lt Carr In/Out On	Left carriage in and out input is on	y	y
5	Left Blow Pin In	IL Lt Cariage no Out	Left Carriage is not out	y	y
6	Left Blow Pin Out	IL.Lt Blo Pn Out End	Left Blow pin out end	y	y
7	Right Mold Open	IL.Rt MOpen End	Right Mold fully open end	y	y
		IL.Rt Mold Not Open	Right Mold is not open		y
		IL.Rt Mld Opn/Cls On	Right Mold open and close input on	y	y
8	Right Mold Close	IL.Right Mclose End	Right Mold fully Close end	y	y
		IL.Rt Blo Pin no Out	Right Blow pin is not out	y	y
		IL.Rt Mld Opn/Cls On	Right Mold open and close input on	y	y
9	Right Carriage In	IL.Rt Cariage In End	Right Carriage in end	y	y
		IL R Blo Pn no Out	Right Blow pin is not out	y	y
		IL.Lt Station no Out	Left station is not out	y	y
		IL.Rt Carr In/Out On	Right carriage in and out input is on	y	y
10	Right Carriage Out	IL.Rt Carige Out End	Right carriage out end	y	y
		IL.Rt Cariage no Out	Right carriage is not out	y	y
		IL Rt Blo Pn no Out	Right Blow pin is not out	y	y
		IL.Rt Carr In/Out On	Right carriage in and out input is on	y	y
11	Right Blow Pin In	IL Rt Cariage no Out	Right Carriage is not out	y	y
12	Right Blow Pin Out	IL.Rt Blo Pn Out End	Right Blow pin out end	y	y
13	Emergency	IL.Emergency Press	Press Emergency Push Button	y	y
14	Hydro Motor	IL.Hyd Motor Not On	Hydro motor is not on	y	y
15	Hydro Motor Overload	IL.Hyd Motr Ovr load	Hydro motor is overload	y	y
16	Left Safety Door	IL.Lt Safty door Opn	Left safety door open	y	y
17	Right Safety Door	IL.Rt Safty door Opn	Right safety door open	y	y

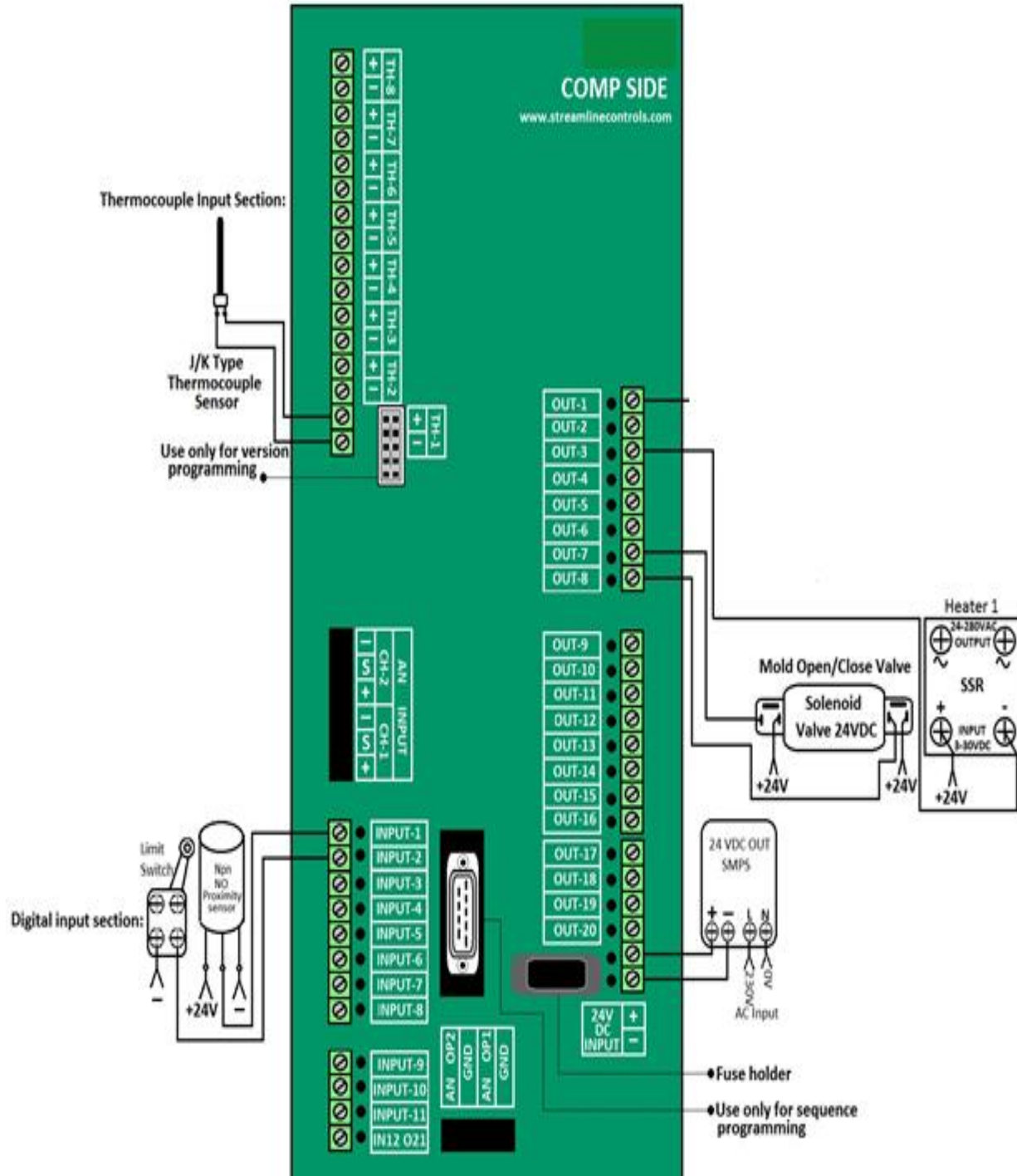
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18	Cycle Time Over	IL.Cycle Time Exceed	Actual cycle time is exceed from set cycle time		y
19	Batch Count	IL.Batch Count Over	Set batch count is over		y
20	Extruder	IL.Extruder Up End	Extruder up end	y	y
		IL.Extruder Dn End	Extruder down end	y	y
		IL.Extruder Motr Trip	Extruder motor is trip	y	y
21	Heating	IL.Low Temperature	Temperature is Low	y	y
		IL.High Temperature	Temperature is High	y	y
		IL.Oil Temp High	Oil Temperature is high	y	y

Wiring Diagram

Wiring Diagram: Below is an example of how to do wiring.

(View Digital output name, digital input name, analog input name, analog output name and thermocouple input name according to programming sequence code.)



OUR PRODUCT RANGE

- Dedicated Controller for Plastic Injection/Blow molding Machines
- DC Stepper Drives
- PID Temperature Controllers - 6 CH/1CH
- Profile Generator
- Pre Programmable Logic Controllers - PPLCs
- Digital Timers & Counters
- Dedicated Controller for Plastic Bag /Pouch Making Machines
- Dedicated Controller for Food / Pharma labeling Machines
- Dedicated Controller for Grinding Machines
- 2/3/4 Axes Motion Controller (Using DC Stepper / AC Servo Drives)

AUTOMATION... PRODUCTIVITY THROUGH TECHNOLOGY.