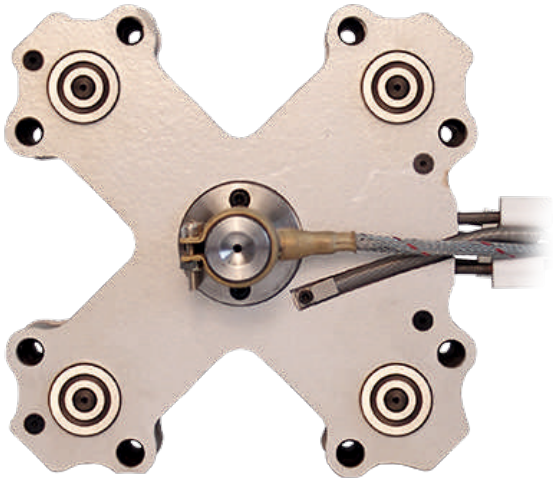
LEDER

HOT RUNNER CONTROLLER USER GUIDE



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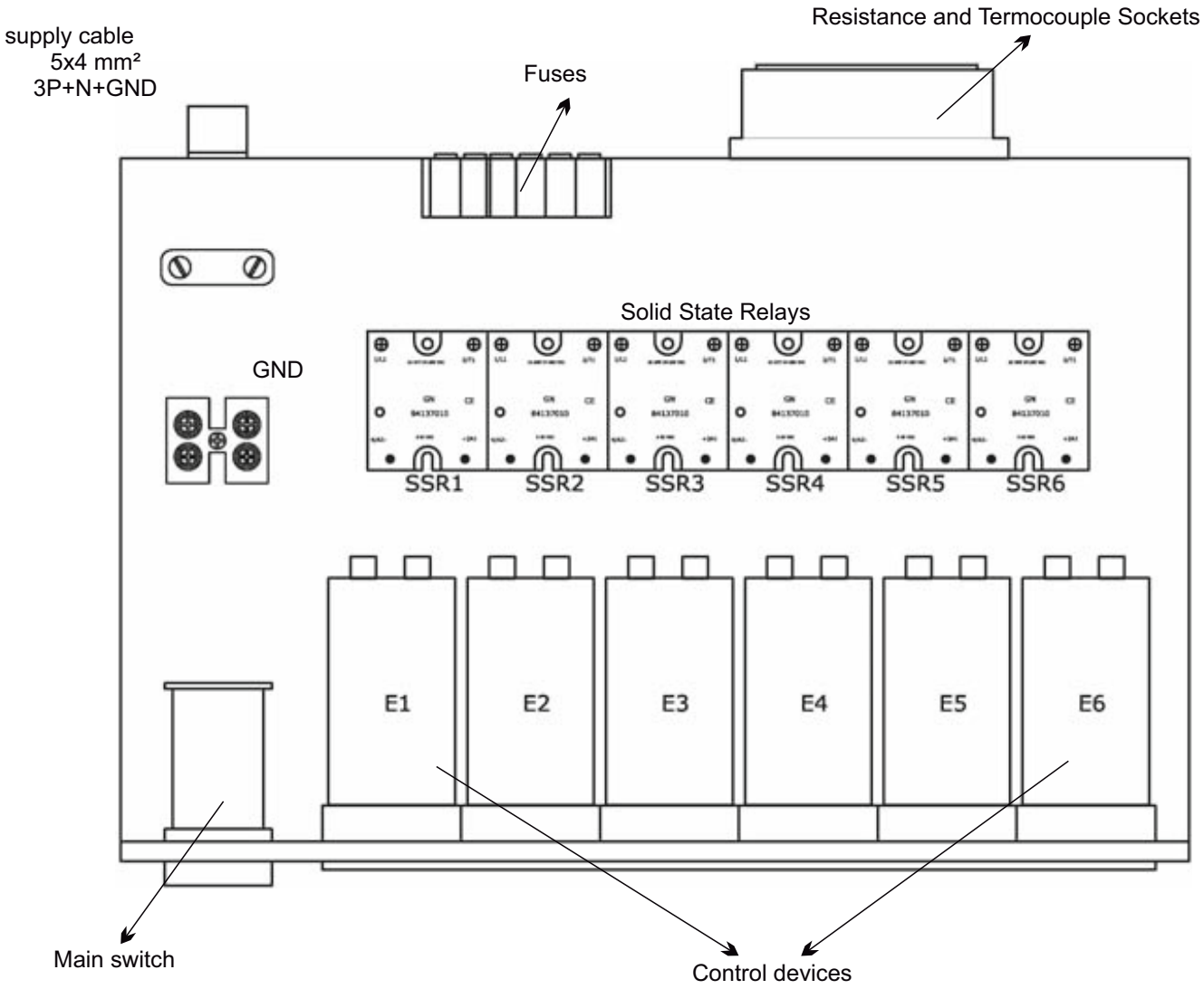
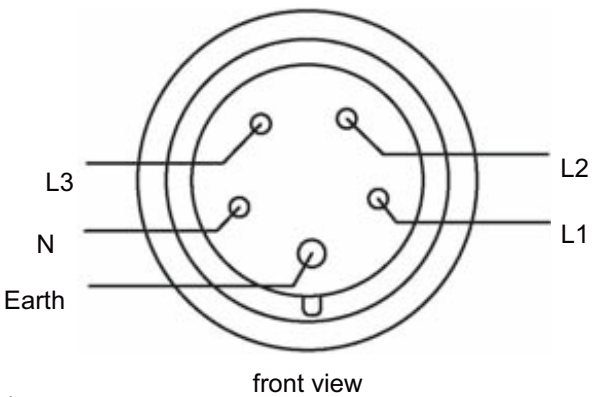
TECHNICAL SPECIFICATIONS

Supply Voltage	: (3~) + (N) + ⏚ (380 - 400 V~,50 Hz)
Power per channel	: 2200 Watt max (220 V, 10A)
Termocouple Type	: Fe-Const (J tipi)
Overload protection	: 10A automatic fuse for each channel
SSR overload current	: 25A max
Control range	: 0-600 ºC
Soft start range	: 0-110ºC adjustable
Control method	: PID or proportional control(operation without thermocouple)
IP Protection class	: IP2x (for indoor areas only)

In-panel layout plan :



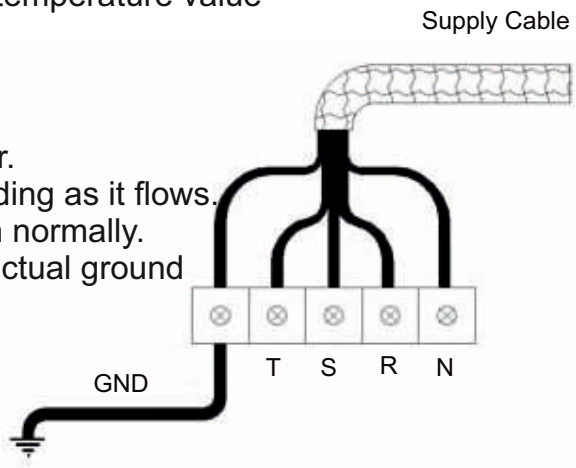
Supply cable socket



WARNINGS

Things to do before starting:

Before connecting the hot runner control module to the mold, make sure that the mains is grounded and your mold is connected to the mains ground line. Also connect the ground of the device to the mains ground line.
Due to the absence of a ground line, leaks that may occur in the resistances in the mold can be life-threatening. Additionally, these leaks can damage resistors and thermocouples. Leaks that occur may be transferred to the device via the thermocouple cable, causing incorrect readings of the temperature value or damage to the device.



ATTENTION :

Neutral (N) and ground (GND) are different from each other.
Current from the neutral line. Do not use this line for grounding as it flows.
in order to avoid any danger and for your device to function normally.
Check that the ground terminal on the supply cable is the actual ground in your network. It must be connected to the line.

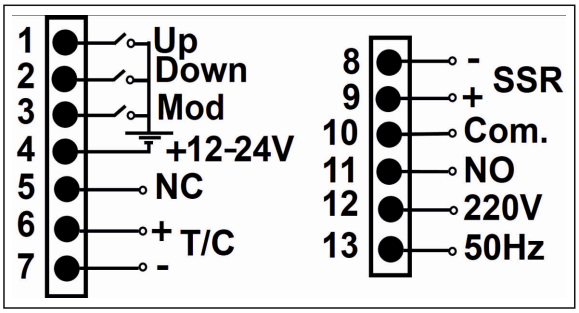
OPERATION :

Before operating, install the resistance in accordance with the on-mold socket connection diagram given to you. And connect your thermocouples. Make sure that your socket connection complies with the diagram given to you. After this, plug the interconnection cables into the sockets on the mold. Before applying power to the control module, turn off the fuses behind it. Main switch to "0". position. Plug the power plug into the appropriate socket and turn the main switch to "1" position. Turn on the fuses one by one and make sure that the temperature in the compartment where you opened the fuse increases. Set the desired temperature value by entering the program menu.

NOTE:

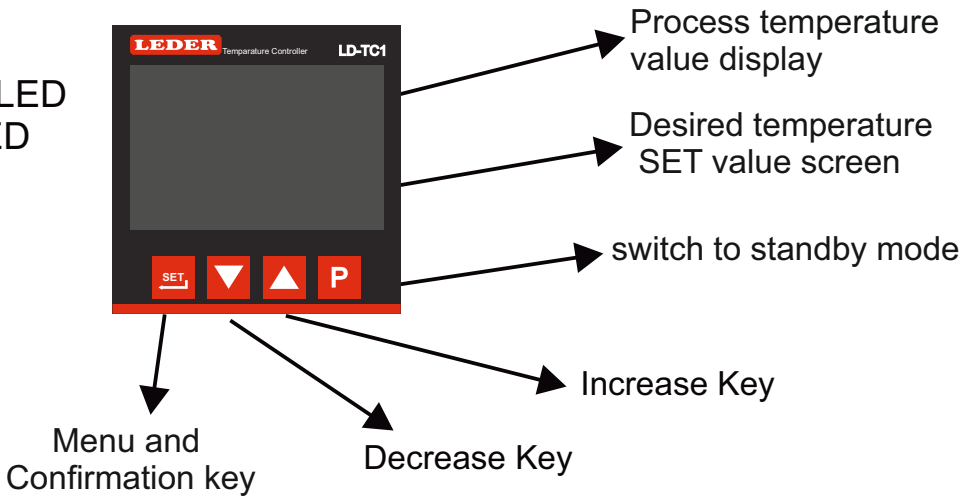
If the fuses blow when you turn them on, check your on-mould socket connection.
If you cannot see the temperature increase in the compartment whose fuse you opened on the screen of the device, use the socket on the mold. Your connection may be different or your resistor or SSR in the module may be faulty. De-energize the module and check it.

Device socket connections :



Descriptions of the device's indicators, buttons and LEDs :

ºC : Degree operating status LED
PO: Process output status LED
PS: Process set value
AO: Alarm output status LED
AS: Alarm set value



SETTING SET VALUES

The devices in the hot runner control module operate independently of each other.
So separately for each channel programming is required. The device has 5 set values. These:

SEtb :It is the target temperature value. The temperature value at which you want to work.
SEtP :It is the target temperature value. The temperature value at which you want to work.
AL L :When this value is lowered, the device pulls the alarm contact.
AL H :When this value is exceeded, the device pulls the alarm contact.
oPo :This is the value at which the adjustment is made as a percentage in operation without a thermocouple.

1)While on the main screen, press the SET button.

2) Standby temperature value(SEtb), increasing and decrement
It is adjusted to the desired value using the keys.

3)Adjusted standby temperature set value (SEtb), It is saved by pressing the confirmation button.
The operating temperature set value appears (SEtP) on the screen.
After setting this value with the arrow keys It is saved by pressing SET the button.

4) Lower and upper alarm temperatures appear on the operating screen respectively.
Similarly, the values are adjusted with the arrow keys and the Set button is pressed.

5)Finally, the operating value with percentage appears on the screen. (oPo)
In cases where the thermocouple is faulty, manual control can be made with this value. To exit the menu, press the P key.

Entering the device parameter screen :

-When the P key is pressed for 5 seconds, the device goes into standby mode.
-If we continue pressing the button, the PROG parameter screen will appear.
You can enter the parameter screen by pressing the SET button.
-The PrPs screen for entering the password to enter the parameters appears.
-To access the parameter screen, the display value is set to **19** with the arrow keys and the SET button is pressed.

Parameter Menus :

-ProS Menu : This is the menu where the digital filter and modulation parameters are set.

-Fltr : The factory value of the digital filter is 4. In cases where instantaneous changes on the screen are very rapid, the value can be increased and filtered.
It has values between 0-20.Digital filter value 4

-Fn1 : The factory value of the Modulation parameter 0. Modulation mode reduces the output period, allowing SSR to be triggered at faster frequencies. More precise control is achieved by activating modulation, especially in molds where it is difficult to control the nozzle temperature.

-Cont Menu:

-CntS : To set the control method, it can be selected as P or Pıd.
Pıd must be selected for automatic control.

-Prbn : The proportional band value is set to 10.0 at the factory.
t ınt : The integral parameter is factory set to 100.
tder : The derivative parameter is set to 5.0 at the factory.
tCon: The control period is factory set to 1.0 seconds.
bAnd: If a temperature much higher than the Set value is reached at first startup, bAnd paremetry is increased to prevent this. The factory value is set to 20.
Fst: Sets the modulation period. It works if modulation mode is active. Factory default value is 4.0. This value means that the control period should be divided by 4 when the modulation mode is active. As the value decreases, the frequency decreases.

SoST Menu:
SSET: Used to set where the soft start temperature ends. Factory value is 110.
This means that the device operates proportionally with a specified percentage and heats up slowly, up to 110 degrees. Softstart must be used in resistance for long life.
SSCo: It is used to adjust the soft start proportional value. Factory value is 40.0.
As the value increases, rapid heating occurs. The value can be increased up to 70 in manifolds. This allows the manifold to heat up faster. For nozzles, this value should be reduced.
In this way, the system heats up evenly.
SSCt: Soft start period. Factory default value is 1.0. It is used to adjust the SSR trigger frequency during soft start.

PROBLEM	POSSIBLE ERROR
Output led (PO-Process out led) is on, but the temperature value does not rise	The resistance cable in the mold interconnection cable may be broken.
	The connections on the sockets on the mold may be faulty or broken.
	SSR may be faulty (SSR open circuit)
	Resistance may be defective
Output LED (PO-Process out LED) does not light, but the temperature value constantly rises	The socket connection may be incorrect. (The controlled resistance and the thermocouples whose temperature is read may belong to different regions.)
The device gives a -T/C alarm	Thermocouple is faulty
	There is a lack of contact in the thermocouple line
	The connections on the sockets on the mold are faulty.

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