

# SOLO Basic Temperature Controllers



## SLB4848 Series Overview

AutomationDirect's SOLO Basic is a single loop temperature controller that can control heating or cooling processes. Depending upon the particular model of controller, the available outputs include relay, voltage pulse or current. On select models there are two alarm outputs available with nine selectable alarm types. SOLO Basic controllers have a single control output that can be used for control of a heating or cooling application. Models with alarm outputs can also be configured to use one of the alarm outputs as a second control output allowing both heating and cooling control or two stage heating or two stage cooling control. There are three types of control modes: PID, ON/OFF and Manual. SOLO Basic can accept various types of thermocouple and RTDs.

## Features

- Auto Tuning (AT) function with PID control
- 1/16 DIN panel size
- 2 line x 4 character 7-segment LCD display for Process Value (PV): Red color, and Set Point (SV): Green color
- Selectable display decimal point XXX.X or XXXX
- Selectable between °C and °F
- UL, CUL and CE agency approvals



Selection Guide					
Part Number	Price	Input Voltage	Output #1	Alarm #1* / Output #2**	Alarm #2*
<b>SLB4848-R0</b>	\$39.00	100 - 240 VAC	Relay - SPST	-	-
<b>SLB4848-V0</b>	\$39.00	100 - 240 VAC	Voltage Pulse	-	-
<b>SLB4848-C0</b>	\$39.00	100 - 240 VAC	Current	-	-
<b>SLB4848-R2</b>	\$46.00	100 - 240 VAC	Relay - SPST	Relay - SPST	Relay - SPST
<b>SLB4848-V2</b>	\$46.00	100 - 240 VAC	Voltage Pulse	Relay - SPST	Relay - SPST
<b>SLB4848-C2</b>	\$46.00	100 - 240 VAC	Current	Relay - SPST	Relay - SPST

\*Alarm #1 and Alarm #2 have a shared common  
 \*\* Alarm #1 can be configured to function as Alarm #1 or as Control Output #2  
 Note: A mounting clip is included.

User Configurable Output Options	
Control Output #1	*Alarm #1 / Output #2
Heating	Alarm #1
Cooling	**Heating
	**Cooling

\* Note: Alarm #1 / Output #2 options are only available on models with alarm outputs.  
 \*\*Heating and cooling options on Alarm #1 are only available in dual output modes. There are six configuration combinations. See manual for details.



Click on the above thumbnail or go to <https://www.automationdirect.com/VID-PS-0017> for a short introductory video on the SOLO Basic Temperature Controllers.

# SOLO Basic Temperature Controllers

Specifications	
<b>Input Power Requirements</b>	100 to 240 VAC 50 / 60 Hz
<b>Operation Voltage Range</b>	85 to 264 VAC
<b>Power Consumption</b>	5 VA Max
<b>Control Mode</b>	PID, ON/OFF or Manual
<b>Input Accuracy</b>	TC temperature indication accuracy: $\pm(0.3\%$ of span + 1 digit) at 25°C ambient after 20 minutes warm up. Including NIST conformity, cold junction effect, A/D conversion errors and linearization conformity RTD temperature indication accuracy: $\pm(0.2\%$ of span +1 digit)
<b>Vibration Resistance</b>	10 to 55 Hz, 10 m/s <sup>2</sup> for 10 min, each in X, Y and Z directions
<b>Display</b>	2 line x 4 character, 7-segment LED display PV: 11mm red SV: 9.2 mm green
<b>Shock Resistance</b>	Max. 300 m/s <sup>2</sup> , 3 times in each 3 axes, 6 directions
<b>Ambient Temperature Range</b>	32°F to 122°F (0°C to 50°C)
<b>Storage Temperature Range</b>	-4°F to 149°F (-20°C to 65°C)
<b>Altitude</b>	2000m or less
<b>Relative Humidity</b>	35% to 80% (non-condensing)
<b>IP Rating</b>	IP66: Complete protection against dust and powerful water jets from all directions. (**inside suitable enclosure)
<b>Agency Approvals</b>	UL, CUL, CE (UL file number E311366)
<b>Pollution Degree</b>	Degree 2 - Normally, only non-conductive pollution occurs. Temporary conductivity caused by condensation is to be expected.
<b>Input Types</b>	
• <b>Thermocouple*</b>	K, J, T, E, N, R, S, B, L, U, TXK (Sampling Rate: 100 ms / per scan)
• <b>Platinum RTD</b>	3-wire Pt100, JPt100 (Sampling Rate: 100 ms / per scan)
• <b>Copper, Nickel RTDs</b>	Cu50, Ni120 (Sampling Rate: 100 ms / per scan)
<b>Control Output Options</b>	
• <b>Relay (R)</b>	SPST max. 5A @ 250 VAC resistive load
• <b>Voltage Pulse (V)</b>	DC 12V $\pm$ 15%, output current 40mA Max
• <b>Current (C)</b>	DC 4-20 mA output (sourcing) (Load resistance: Max 600 $\Omega$ )
<b>Alarm Output Option</b>	(2) SPST relays with shared common, 3A @ 250VAC resistive load
<i>*Note: Use only ungrounded thermocouples.</i>	
<i>** No corrosive gases</i>	

## Input Types

Thermocouple* Type and Temperature Range	
Input Temperature Sensor Type	Temperature Range
<b>Thermocouple TXK type</b>	-238 ~ 1472°F (-150 ~ 800°C)
<b>Thermocouple U type</b>	-328 ~ 932°F (-200 ~ 500°C)
<b>Thermocouple L type</b>	-328 ~ 1562°F (-200 ~ 850°C)
<b>Thermocouple B type</b>	212 ~ 3272°F (100 ~ 1800°C)
<b>Thermocouple S type</b>	32 ~ 3092°F (0 ~ 1700°C)
<b>Thermocouple R type</b>	32 ~ 3092°F (0 ~ 1700°C)
<b>Thermocouple N type</b>	-328 ~ 2372°F (-200 ~ 1300°C)
<b>Thermocouple E type</b>	32 ~ 1112°F (0 ~ 600°C)
<b>Thermocouple T type</b>	-328 ~ 752°F (-200 ~ 400°C)
<b>Thermocouple J type</b>	-148 ~ 2192°F (-100 ~ 1200°C)
<b>Thermocouple K type</b>	-328 ~ 2372°F (-200 ~ 1300°C)
RTD Type and Temperature Range	
Input Temperature Sensor Type	Temperature Range
<b>Platinum (Pt100)</b>	-328 ~ 1562°F (-200 ~ 850°C)
<b>Platinum (JPt100)</b>	-148 ~ 752°F (-100 ~ 400°C)
<b>Copper (Cu50)</b>	-58 ~ 302°F (-50 ~ 150°C)
<b>Nickel (Ni120)</b>	-112 ~ 572°F (-80 ~ 300°C)
<i>*Note: Use only ungrounded thermocouples.</i>	



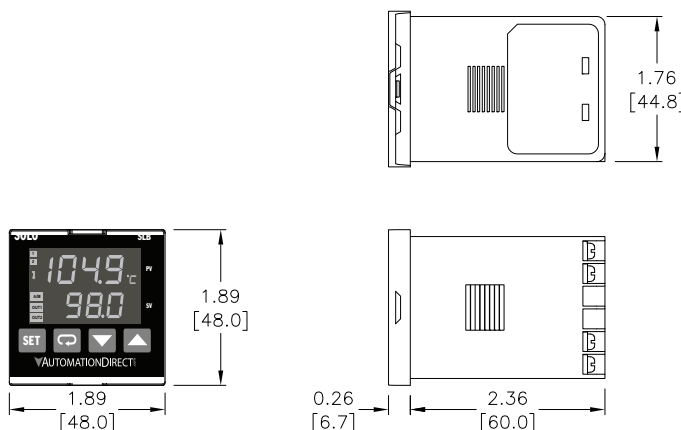
Scan or click the above QR code to be taken to the SOLO Basic Quick Start Guide



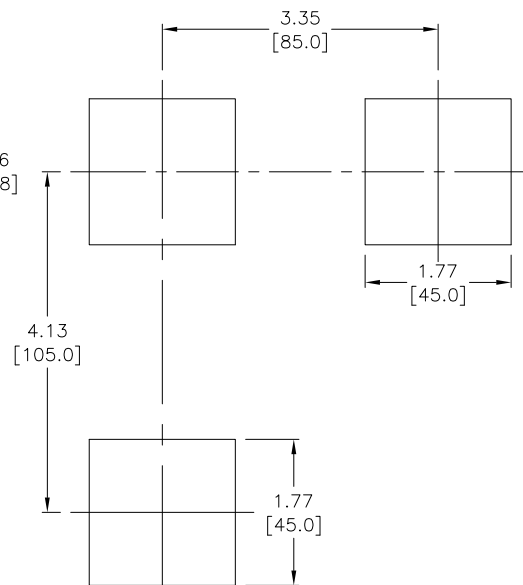
Scan or click the above QR code to be taken to the SOLO Basic Manual

## Dimensions

inches [mm]



## Minimum Cutout and Spacing



See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings.