

Product Discontinuation Notices

May 7, 2009

Temperature Controllers

No. 2009156E

Discontinuation Notice of Temperature Controller E5L-AS[]/AX[]/B[]/BS[]/BX[]

Product Discontinuation

Temperature Controllers



**E5L-AS[]/AX[]
B[]/BS[]/BX[]**

Recommended Replacement

Temperature Controllers

E5L-C []
(This series will be released
after April 2009.)
E5CS-RGU-W

Discontinuation date : The end of March, 2010

Difference from discontinued product

Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
E5L-C []	**	**	**	**		*	
Recommended replacement 1	See note 1.	See note 1.	See note 1.	See note 1.	--	See note 1.	--
E5CS-RGU-W	--	--	--	--	--	--	--
Recommended replacement 2							

** : Fully compatible

* : The change is a little/Almost compatible

-- : Not compatible

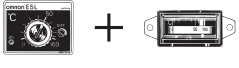
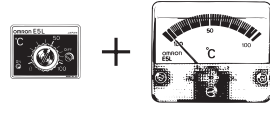
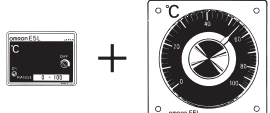

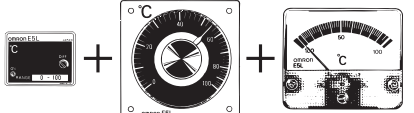
- : No corresponding specification


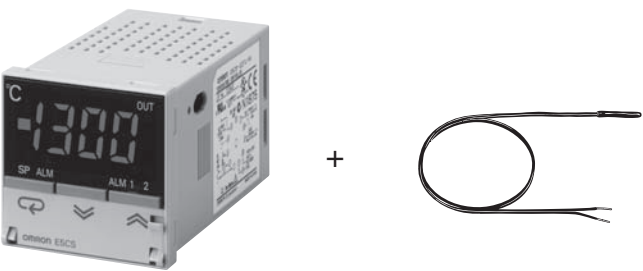
Note 1: Body color, dimensions and mounting dimensions are fully compatible. But there are no replacement of indicators, panel meters and external setters.

Caution on recommended replacement

Product discontinuation	Recommended replacement 1 E5L-C []	Recommended replacement 2 E5CS-RGU-W
Common Precaution	<ul style="list-style-type: none"> - Digital display for temperature display and set temperature on front panel. - Panel mounting is not possible for E5L-C [] - Temperature can be set by not setter (dial) but digital setting by key operation on front panel. - The rating for relay output is changed from SPDT to SPST-NO. Switching between direct operation (cooling control) and reverse operation (heating control) is made by key operation on front panel. 	<ul style="list-style-type: none"> - Digital display for temperature display and set temperature on front panel. - Panel mounting is possible for E5CS-RGU-W, however, panel cutout is different from the product to be discontinued. - Temperature can be set by not setter (dial) but digital setting by key operation on front panel. - The rating for relay output is changed from 10A to 3A. Switching between direct operation (cooling control) and reverse operation (heating control) is made by internal switch for changing control mode. - Thermistor is not attached. Order separately.
E5L-AS[]	- No indicator for panel mounting	- No indicator for panel mounting
E5L-AX[]	- No panel meter for panel mounting	- No panel meter for panel mounting
E5L-B[]	- No external setter for panel mounting	- No external setter for panel mounting
E5L-BS[]	- No external setter for panel mounting - No indicator for panel mounting	- No external setter for panel mounting - No indicator for panel mounting
E5L-BX[]	- No external setter for panel mounting - No panel meter for panel mounting	- No external setter for panel mounting - No panel meter for panel mounting

Product Discontinuation and recommended replacement

Product discontinuation E5L-AS[]/AX[]/B[]/BS[]/BX[]		
	Built-in Setter (with indicator) E5L-AS[]	Built-in Setter (with panel meter) E5L-AX[]
	 E5L Indicator	 E5L Panel meter
External Setter (without indicator) E5L-B[]	External Setter (with indicator) E5L-BS[]	External Setter (with panel meter) E5L-BX[]
 E5L External setter	 E5L External setter Indicator	 E5L External setter Panel meter

Recommendable replacement	
Recommended replacement 1 E5L-C □	Recommended replacement 2 E5CS-RGU-W + E52-THE5A
 <p>Mounting to the panel <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	 <p>Mounting to the panel <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>E52-THE5A</p>

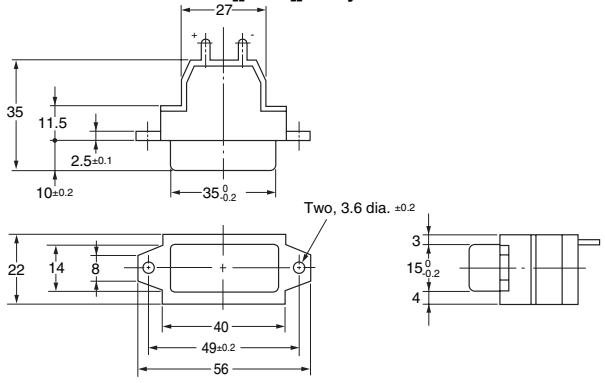
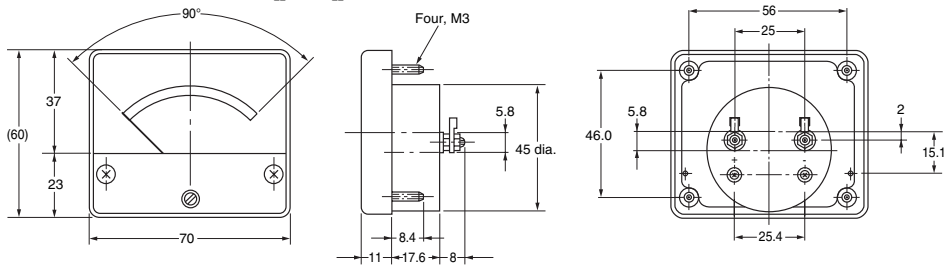
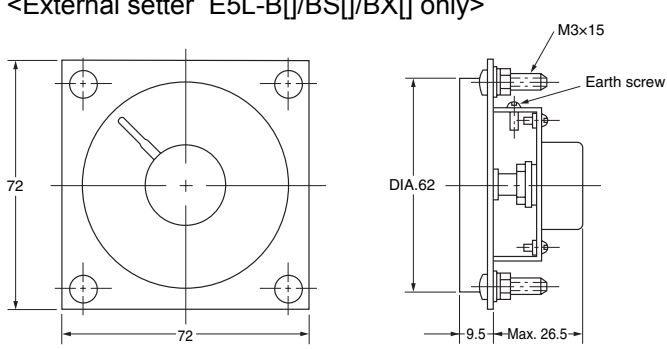
Product discontinuation Model	Recommended replacement			
	Recommended replacement 1	Recommended replacement 2		
E5L-AS1 -30 to +20°C (100VAC)	E5L-C -30-20	E5CS-RGU-W + E52-THE5A -50 to +50°C		
E5L-AS3 -30 to +20°C (200VAC)				
E5L-AS1 0 to +50°C (100VAC)	E5L-C 0-100	E5CS-RGU-W + E52-THE5A -50 to +50°C or + E52-THE5A 0 to +100°C		
E5L-AS2 0 to +50°C (110VAC)				
E5L-AS3 0 to +50°C (200VAC)				
E5L-AS4 0 to +50°C (220VAC)				
E5L-AS1 0 to +100°C (100VAC)				
E5L-AS2 0 to +100°C (110VAC)				
E5L-AS3 0 to +100°C (200VAC)				
E5L-AS4 0 to +100°C (220VAC)				
E5L-AS1 +100 to +200°C (100VAC)			E5L-C 100-200	E5CS-RGU-W + E52-THE5A +100 to +200°C
E5L-AS2 +100 to +200°C (110VAC)				
E5L-AS3 +100 to +200°C (200VAC)				
E5L-AS4 +100 to +200°C (220VAC)				
E5L-AX1 0 to +50°C (100VAC)	E5L-C 0-100	E5CS-RGU-W + E52-THE5A -50 to +50°C or + E52-THE5A 0 to +100°C		
E5L-AX2 0 to +50°C (110VAC)				
E5L-AX3 0 to +50°C (200VAC)				
E5L-AX4 0 to +50°C (220VAC)				
E5L-AX6 0 to +50°C (240VAC)				
E5L-AX1 0 to +100°C (100VAC)			E5L-C 100-200	E5CS-RGU-W + E52-THE5A +100 to +200°C
E5L-AX2 0 to +100°C (110VAC)				
E5L-AX3 0 to +100°C (200VAC)				
E5L-AX4 0 to +100°C (220VAC)				
E5L-AX6 0 to +100°C (240VAC)				
E5L-AX6 +100 to +200°C (240VAC)				
E5L-B1 0 to +50°C (100VAC)	E5L-C 0-100	E5CS-RGU-W + E52-THE5A -50 to +50°C or + E52-THE5A 0 to +100°C		
E5L-B2 0 to +50°C (110VAC)				
E5L-B3 0 to +50°C (200VAC)				
E5L-B4 0 to +50°C (220VAC)				
E5L-B1 0 to +100°C (100VAC)			E5L-C 100-200	E5CS-RGU-W + E52-THE5A +100 to +200°C
E5L-B2 0 to +100°C (110VAC)				
E5L-B3 0 to +100°C (200VAC)				
E5L-B4 0 to +100°C (220VAC)				
E5L-B6 0 to +100°C (240VAC)				
E5L-B6 0 to +100°C (240VAC)				

Product Discontinuation Model	Recommended replacement	
	Recommended replacement 1	Recommended replacement 2
E5L-B1 +100 to +200°C (100VAC)	E5L-C 100-200	E5CS-RGU-W + E52-THE5A +100 to +200°C
E5L-B2 +100 to +200°C (110VAC)		
E5L-B3 +100 to +200°C (200VAC)		
E5L-B4 +100 to +200°C (220VAC)		
E5L-B6 +100 to +200°C (240VAC)		
E5L-BS1 0 to +50°C (100VAC)	E5L-C 0-100	E5CS-RGU-W + E52-THE5A -50 to +50°C or + E52-THE5A 0 to +100°C
E5L-BS1 0 to +100°C (100VAC)		
E5L-BS1 +100 to +200°C (100VAC)	E5L-C 100-200	E5CS-RGU-W + E52-THE5A +100 to +200°C
E5L-BX1 -30 to +20°C(100VAC)	E5L-C -30-20	E5CS-RGU-W + E52-THE5A -50 to +50°C
E5L-BX6 -30 to +20°C(240VAC)		
E5L-BX1 0 to +50°C (100VAC)	E5L-C 0-100	E5CS-RGU-W + E52-THE5A -50 to +50°C or + E52-THE5A 0 to +100°C
E5L-BX2 0 to +50°C (110VAC)		
E5L-BX3 0 to +50°C (200VAC)		
E5L-BX4 0 to +50°C (220VAC)		
E5L-BX6 0 to +50°C (240VAC)		
E5L-BX1 0 to +100°C (100VAC)		
E5L-BX2 0 to +100°C (110VAC)		
E5L-BX3 0 to +100°C (200VAC)		
E5L-BX4 0 to +100°C (220VAC)		
E5L-BX6 0 to +100°C (240VAC)		
E5L-BX1 +100 to +200°C (100VAC)	E5L-C 100-200	E5CS-RGU-W + E52-THE5A +100 to +200°C

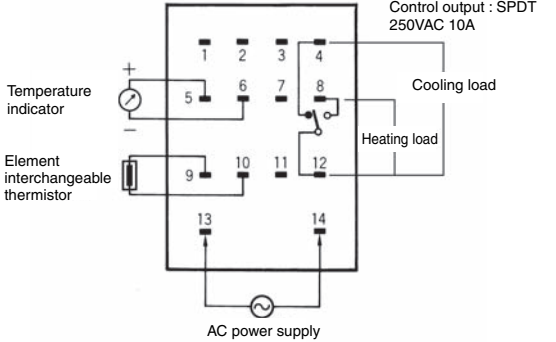
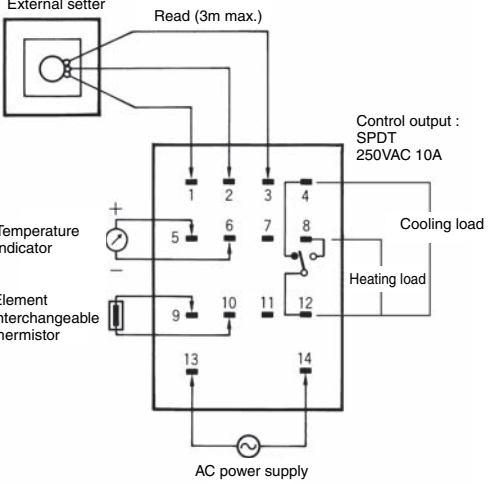
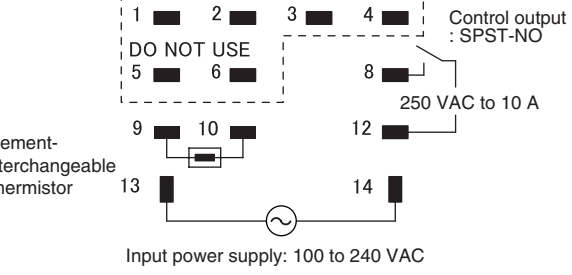
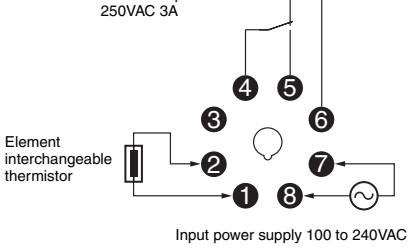
Dimensions for E5L series

Product discontinuation	Recommendable replacement
<p><E5L-AS[]/AX[]></p> <p>Operation indicators</p> <p>Hysteresis adjuster (DIFF.)</p> <p>35</p> <p>45</p> <p>(4.6)</p> <p>64</p> <p>75.0</p> <p>6.4</p>	<p><Recommended replacement 1 E5L-C []></p> <p>35</p> <p>45</p> <p>64</p> <p>70.4</p> <p>6.4</p>
<p><E5L-B[]/BS[]/BX[]></p> <p>Operation indicators</p> <p>Hysteresis adjuster (DIFF.)</p> <p>35</p> <p>45</p> <p>64</p> <p>70.4</p> <p>6.4</p>	<p><Recommended replacement 2 E5CS-RGU-W></p> <p>48</p> <p>94.45</p> <p>72.5</p> <p>6.25</p> <p>7.75</p> <p>44.8</p>

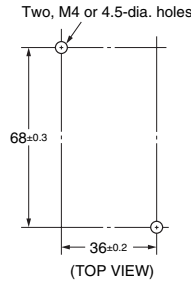
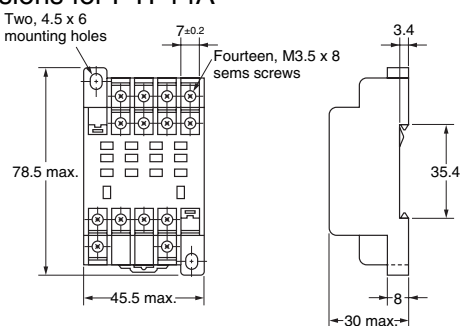
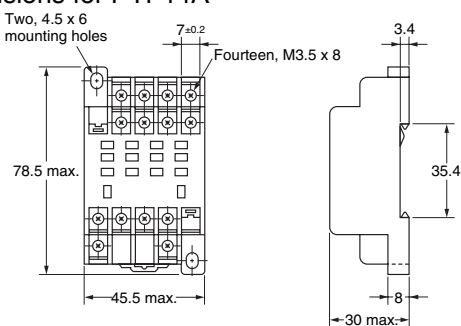
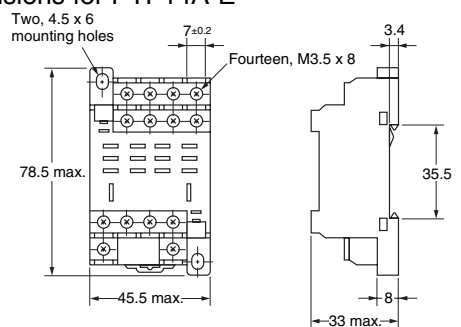
Dimensions for external setter and indicator

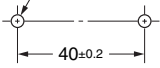
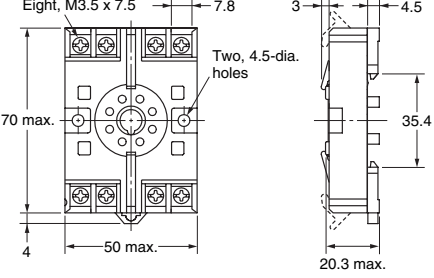
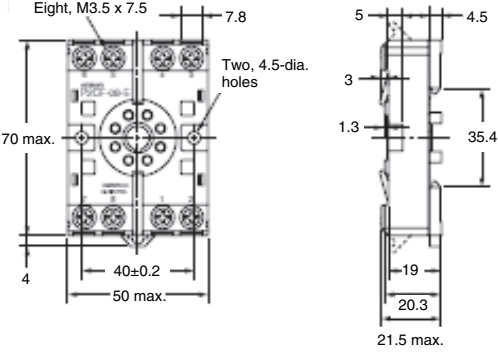
Product discontinuation	Recommendable replacement
<p><Indicator E5L-AS[]/BS[] only></p>  <p>Technical drawings of Indicator E5L-AS[]/BS[] showing front, side, and detail views with dimensions. Dimensions include: 27, 35, 11.5, 2.5±0.1, 10±0.2, 35_{0.2}, 27, 3, 15_{0.2}, 4, 22, 14, 8, 40, 49±0.2, 56, and Two, 3.6 dia. ±0.2.</p> <p><Panel meter E5L-AX[]/BX[]></p>  <p>Technical drawings of Panel meter E5L-AX[]/BX[] showing front, side, and detail views with dimensions. Dimensions include: 90°, 37, 23, 70, 70, 46.0, 5.8, 56, 25, 2, 15.1, 25.4, 8.4, 11, 17.6, 8, 45 dia., and Four, M3.</p> <p><External setter E5L-B[]/BS[]/BX[] only></p>  <p>Technical drawings of External setter E5L-B[]/BS[]/BX[] showing front and side views with dimensions. Dimensions include: 72, 72, DIA. 62, 9.5, Max. 26.5, M3×15, and Earth screw.</p>	<p><Recommended Replacement 1 E5L-C []> No indicator, panel meter, or external setter.</p> <p><Recommended Replacement 2 E5CS-RGU-W></p> <p>No indicator, panel meter, or external setter.</p>

Terminal arrangement / Wiring connection

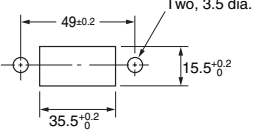
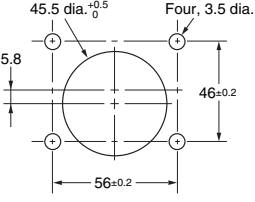
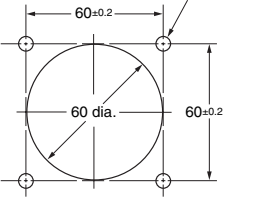
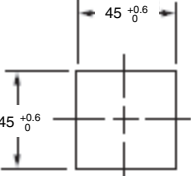
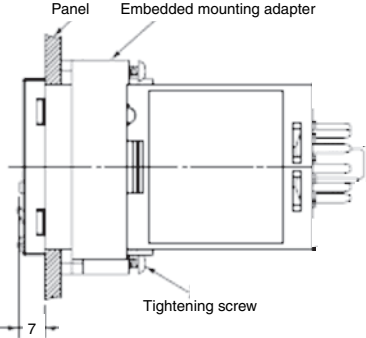
Product discontinuation	Recommendable replacement
<p data-bbox="188 353 384 385"><E5L-AS[]/AX[]></p>  <p data-bbox="188 862 424 893"><E5L-B[]/BS[]/BX[]></p> 	<p data-bbox="794 353 1305 385"><Recommended Replacement 1 E5L-C []></p>  <p data-bbox="794 750 1449 963"> Note 1: There are no external setter, temperature indicator (indicator and panel meter) and terminals for connection. Note 2: SPST-NO is specified for relay output. Switching between direct operation (cooling control) and reverse operation (heating control) can be made by key operation on front panel. </p> <p data-bbox="794 996 1369 1028"><Recommended replacement 2 E5CS-RGU-W></p>  <p data-bbox="794 1310 1481 1590"> Note 1: There are no external setter, temperature indicator (indicator and panel meter) and terminals for connection. Note 2: The rating for relay output is changed from 10A to 3A. Switching between direct operation (cooling control) and reverse operation (heating control) is made by internal switch for changing control mode. Note 3: Thermistor is not attached. Order separately. </p>

Mounting Dimensions for E5L series

Product discontinuation	Recommendable replacement
<p><E5L-AS[]/AX[]/B[]/BS[]/BX[]> Mounting with Front-connecting Socket PFT14A (order separately)</p> <p>Mounting Dimensions</p>  <p style="text-align: center;">Note: Thermostat can also be mounted to a DIN Track.</p> <p>Dimensions for PTF14A</p>  <p style="text-align: center;">Note: PTF14A-E socket (with finger protection) is not available.</p>	<p><Recommended replacement 1 E5L-C []> Mounting with Front-connecting Socket PFT14A or PFT14A-E (order separately) Mounting dimensions is the same as that of the product to be discontinued.</p> <p>Dimensions for PTF14A</p>  <p>Dimensions for PTF14A-E</p> 

Product discontinuation	Recommendable replacement
	<p data-bbox="810 293 1423 383"><Recommended replacement 2 E5CS-RGU-W> Mounting with Front-connecting Socket P2CF-08 or P2CF-08-E (order separately)</p> <p data-bbox="810 416 1070 450">Mounting Dimensions</p> <p data-bbox="810 450 1011 472">Two, 4.5 dia. or two, M4</p>  <p data-bbox="810 600 1107 633">Dimensions for P2CF-08</p>  <p data-bbox="810 936 1134 969">Dimensions for P2CF-08-E</p> 

Mounting Dimensions for indicator and external setter

Product discontinuation	Recommendable replacement
<p><Indicator E5L-AS[]/BS[] only> Panel cutout for mounting</p>  <p><Panel meter E5L-AX[]/BX[]> Panel cutout for mounting</p>  <p><External setter E5L-B[]/BS[]/BX[] only> Panel cutout for mounting</p> 	<p><Recommended replacement 1 E5L-C []> Panel mounting is not possible.</p> <p><Recommended replacement 2 E5CS-RGU-W> Panel cutout for mounting</p>  

Characteristics

Items	Product Discontinuation	Recommended replacement 1	Recommended replacement 2
	E5L-AS[]/AX[]/B[]/BS[]/BX[]	E5L-C []	E5CS-RGU-W
Power supply voltage	E5L-[]1[] : 100VAC E5L-[]2[] : 110VAC E5L-[]3[] : 200VAC E5L-[]4[] : 220VAC E5L-[]6[] : 240VAC	100 to 240VAC	100 to 240VAC
Power consumption	Approx. 1.8VA	3VA	5VA
Input	Element-interchangeable thermistor E52-THE-E5L (Accessory)	Element-interchangeable thermistor E52-THE-E5L (Accessory)	Element-interchangeable thermistor E52-THE5A (Order separately)
Control output	Contact: SPDT 250VAC 10A cos ϕ = 1 (resistive load)	Contact: SPST-NO 250VAC 10A cos ϕ = 1 (resistive load)	Contact: SPDT 250VAC 3A cos ϕ = 1 (resistive load)
Setting method	AS[]/AX[] Analog setting by internal setter B[]/BS[]/BX[] Analog setting by external setter	Digital setting by key operation on front panel	Digital setting by key operation on front panel
Indication method	B[]: No indication AS[]/BS[]: Indicator (external) AX[]/BX[]: panel meter (external)	LCD digital display (Character height: 12mm)	7-segment digital display (Character height: 13.5mm) and deviation indication
Indication accuracy	AS[]: $\pm 10\%$ FS max. AX[]: $\pm 3\%$ FS max. B[]: - BS[]: $\pm 10\%$ FS max. BX[]: $\pm 3\%$ FS max.	$\pm (1^{\circ}\text{C} + 1 \text{ digit})$ max.	(1%FS) ± 1 digit max. Note: Temperature indication range which exceeds $\pm 10\%$ FS in set temperature range is not covered under warranty in accuracy.
Setting accuracy	AS[]/AX[]: - B[]/BS[]/BX[]: $\pm 2\%$ FS max.	$\pm (1^{\circ}\text{C} + 1 \text{ digit})$ max.	(1%FS) ± 1 digit max. Note: Temperature indication range which exceeds $\pm 10\%$ FS in set temperature range is not covered under warranty in accuracy.
Hysteresis	Model with -30 to +20 $^{\circ}\text{C}$: can be changed from Approx. 0.5 to 2.5 $^{\circ}\text{C}$ Model with 0 to +50 $^{\circ}\text{C}$: can be changed from Approx. 0.5 to 4 $^{\circ}\text{C}$ Model with 0 to +100 $^{\circ}\text{C}$: can be changed from Approx. 0.5 to 4 $^{\circ}\text{C}$ Model with +100 to +200 $^{\circ}\text{C}$: can be changed from Approx. 0.7 to 4 $^{\circ}\text{C}$	1 to 9 $^{\circ}\text{C}$ (in units of 1 $^{\circ}\text{C}$)	0.2%FS

Items	Product Discontinuation	Recommended replacement 1	Recommended replacement 2
	E5L-AS[]/AX[]/B[]/BS[]/BX[]	E5L-C []	E5CS-RGU-W
Repeated accuracy	1%FS max.	Not specified	Not specified
Minimum scale value (Standard scale value)	AS[]/AX[] -30 to +20°C,0 to +50°C:5°C 0 to +100°C,+100 to +200°C:10°C B[]/BS[]/BX[] -30 to +20°C,0 to +50°C:1°C 0 to +100°C,+100 to +200°C:2°C	1°C	1°C
Insulation resistance	100MΩ min. (at 500 VDC)	100MΩ min. (at 500 VDC)	20MΩ min. (at 500 VDC)
Dielectric strength	1500VAC 50 or 60Hz for 1 min (between terminal with conductive part and metal part without charge) (between power terminal and input terminal) (between power terminal and output terminal) (between input terminal and output terminal)	2300VAC 50 or 60Hz for 1 min (between terminal with conductive part and metal part without charge) (between power terminal and input terminal) (between power terminal and output terminal) (between input terminal and output terminal)	2000VAC 50 or 60Hz for 1 min (between terminals with different charge)
Memory protection	Not specified	Non-volatile memory (number of write operations: 100,000 times)	Non-volatile memory (number of write operations: 1,000,000 times)
Weight	Thermostat: Approx. 130 g Indicator part :Approx. 20g Panel meter part :Approx. 50g External setter :Approx. 75g	Approx. 80g (Thermostat only)	Approx. 110g (Thermostat only)
Conformed standards	Not conformed	EMC directive (EMI/EMS):EN61326 Low-voltage directive: EN61010-1 (IEC61010-1) Pollution level 2, over current category II	EMC directive (EMI/EMS):EN61326 Low-voltage directive: EN61010-1 (IEC61010-1) Pollution level 2, over current category II
Approved standards	Not approved	Not approved	UL61010C-1 (UL Listed) CSA C22.2 No.1010-1

Operation methods

Items	Product discontinuation	Recommendable replacement
Temperature display and temperature setting	Analog (Indicator and setter (dial))	Digital