

#### **Correction Reissue**

# OMRON

# Product Discontinuation Notices

March 2, 2009

**Temperature Controllers** 

No.2009076E

# Discontinuation Notice of E5GN series Due to the renewal

#### REQUEST

There was modification in portion of product discontinuation notices of Product News No.2009076E of March 2, 2009 issue. Please abolish old edition, replace the latest No.2009076E.

#### **Product Discontinuation**

Temperature Controller



E5GN-[][][]TC E5GN-[][][]P



#### Recommended Replacement

Temperature Controller

### E5GN-[][][]T

(Thermocouple and platinum resistance thermometer can be switched by parameters) (Sale schedule in October 2009)

Discontinuation date: The end of March, 2010

#### Caution on recommended replacement

- The model number is changed due to universal input types. The default value of Input Type parameter is modified from platinum resistance thermometer: Pt100 to thermocouple: K on the E5GN-[][][P (models with platinum resistance thermometer). Change the setting of the Input Type to match the sensor that is used.
- Wiring and terminal arrangement are changed due to the modification of the terminal block. Be sure to wire properly.

#### Difference from discontinued product

Model	Body Color	Dimen sions	Wire connection	Mounting Dimensions	Charact eristics	Operation ratings	Operation methods
E5GN		*	*	*	**	**	*

- \*\* : Fully compatible
- \* : The change is a little/Almost compatible
- -- : Not compatible
- : No corresponding specification

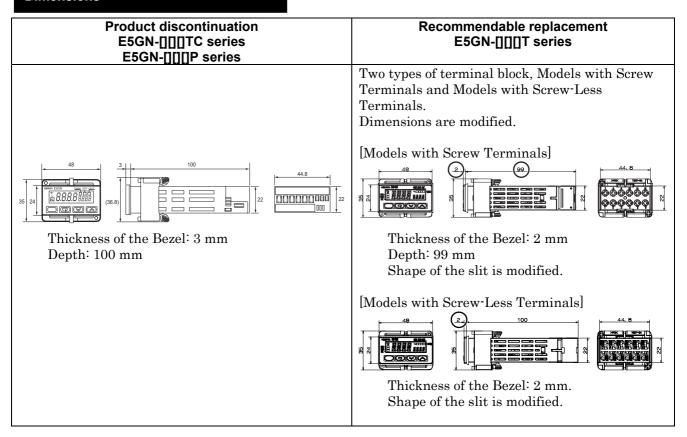
### **Product Discontinuation and recommended replacement**

Product discontinuation	Recommended replacement
E5GN-RTC AC100-240	E5GN-RT AC100-240
E5GN-RP AC100-240	E5GN-RT-C AC100-240
E5GN-QTC AC100-240	E5GN-QT AC100-240
E5GN-QP AC100-240	E5GN-QT-C AC100-240
E5GN-R1TC AC100-240	E5GN-R1T AC100-240
E5GN-R1P AC100-240	E5GN-R1T-C AC100-240
E5GN-Q1TC AC100-240	E5GN-Q1T AC100-240
E5GN-Q1P AC100-240	E5GN-Q1T-C AC100-240
E5GN-R03TC-FLK AC100-240	E5GN-R103T-FLK AC100-240
E5GN-R03P-FLK AC100-240	E5GN-R103T-C-FLK AC100-240
E5GN-Q03TC-FLK AC100-240	E5GN-Q103T-FLK AC100-240
E5GN-Q03P-FLK AC100-240	E5GN-Q103T-C-FLK AC100-240
E5GN-RTC AC/DC24	E5GN-RTD AC/DC24
E5GN-RP AC/DC24	E5GN-RTD-C AC/DC24
E5GN-QTC AC/DC24	E5GN-QTD AC/DC24
E5GN-QP AC/DC24	E5GN-QTD-C AC/DC24
E5GN-R1TC AC/DC24	E5GN-R1TD AC/DC24
E5GN-R1P AC/DC24	E5GN-R1TD-C AC/DC24
E5GN-Q1TC AC/DC24	E5GN-Q1TD AC/DC24
E5GN-Q1P AC/DC24	E5GN-Q1TD-C AC/DC24
E5GN-R03TC-FLK AC/DC24	E5GN-R103TD-FLK AC/DC24
E5GN-R03P-FLK AC/DC24	E5GN-R103TD-C-FLK AC/DC24
E5GN-Q03TC-FLK AC/DC24	E5GN-Q103TD-FLK AC/DC24
E5GN-Q03P-FLK AC/DC24	E5GN-Q103TD-C-FLK AC/DC24

### Case color

Product discontinuation E5GN-[][][]TC series E5GN-[][][]P series	Recommendable replacement E5GN-[][][]T series	
Case color: Smoky Gray	Case color: Black	

#### **Dimensions**



#### **Terminal Arrangement /Wire Connection**

Product discontinuation E5GN-[][][]TC series E5GN-[][][]P series	Recommendable replacement E5GN-[[[][]T series
Terminal blocks [Screw Terminals] Terminals 1 to 6 for M2.6 screws Terminals 7 to 9 for M2 screws	[Screw Terminals] Terminals 1 to 12 for M3 screws
>POINC	
	[Screw-Less Terminals] Terminals 1 to 12 for non-screws
	X D X X X X X X X X X X X X X X X X X X

#### **Terminal Arrangement /Wire Connection**

#### Product discontinuation E5GN-[][][]TC series E5GN-[][][]P series

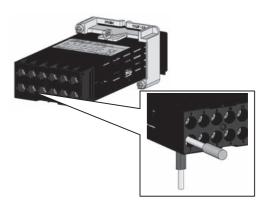
#### **Wiring Connections**

Which way to draw out:
Vertically against the terminal block

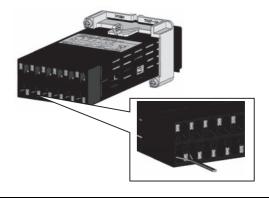


# Recommendable replacement E5GN-[][][]T series

[Models with Screw Terminals] Which way to draw out: Horizontally against the terminal block



[Models with Screw-Less Terminals] Which way to draw out: Vertically against the terminal block



#### **Terminal Arrangement /Wire Connection**

#### Product discontinuation E5GN-[][][]TC series E5GN-[][][]P series

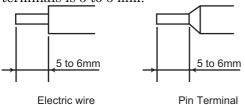
#### **Wiring Terminals**

[Screw Terminals]

Terminals are connected as described below.

Connected		Electric Wire	Pin Terminals		
ı	Terminals				
ı	Terminals 1 to 6	AWG24 to AWG14	φ2.1mm max.		
	Terminals 7 to 9	AWG28 to AWG22	φ1.3mm max.		

The stripping length that is inserted into the terminals is 5 to 6 mm.



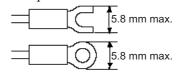
Tighten the terminal screws firmly.

Connected Terminals	Screw that is used	Tightening Torque
Terminals 1 to 6	M2.6	0.23 to 0.25 N·m
Terminals 7 to 9	M2	0.12 to 0.14 N·m

# Recommendable replacement E5GN-[][][]T series

[Models with Screw Terminals]
Modified from pin terminals to crimp
terminals for M3 screws.

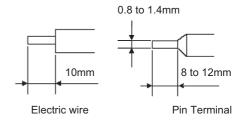
Tighten Torque 0.5N·m



[Models with Screw-Less Terminals] Electric wire:

changed from "5 to 6 mm" to "10 mm" Pin Terminals:

changed from "5 to 6 mm" to "8 to 12 mm"  $\,$ 



#### **Terminal Arrangement /Wire Connection**

#### Product discontinuation E5GN-[[[[[]TC series E5GN-[[[][]P series

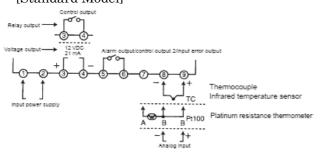
#### **Terminal Arrangement**

Number of Terminals: 9 terminals (1) to (9)

Input terminals: (7) to (9)

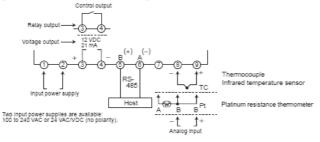
RS-485 communications terminals: (5)(6)

#### [Standard Model]



Two input power supplies are available: 100 to 240 VAC or 24 VAC/VDC (no polarity)

#### [Communication Model]



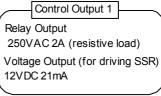
	FROM
Input Power Supply	(1)(2)
Control Output	(3)(4)
Alarm output/	(5)(6)
Control output 2/	
Input error output	
Input Terminal	(7)(8)(9)
RS-485	(5)(6)
Communication	

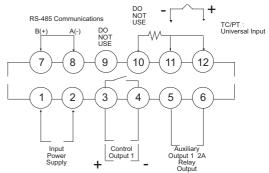
# Recommendable replacement E5GN-[][][]T series

Number of Terminals: 12 terminals (1) to (12)

Input terminals: (10) to (12)

RS-485 communications terminals: (7)(8)





Two input power supplies are available: 100 to 240 VAC or 24 VAC/VDC (no polarity).

Models depend on the power supply specification.

	TO
Input Power Supply	(1)(2)
Control Output	(3)(4)
Auxiliary output	(5)(6)
Input Terminal	(10)(11)(12)
RS-485	(7)(8)
Communication	

### Ratings, Performance

Product discontinuation E5GN-[][][]TC series E5GN-[][][]P series	Recommendable replacement E5GN-[][][]T series	
Types of Thermocouple Input Thermocouple: K,J,T,E,L,U,N,R,S,B	The following types are added. Thermocouple: W, PLII	
Input Ranges E sensor: 0 to 600 °C	E sensor: -200 to 600 °C	
Input Accuracy  Thermocouple: (±0.5% of PV or ±1°C, whichever is greater) ±1 digit max.  Platinum resistance thermometer: (±0.5% of PV or ±1°C, whichever is greater) ±1 digit max.  Analog input: ±0.5%FS ±1 digit max.	Thermocouple: (±0.3% of PV or ±1°C, whichever is greater) ±1 digit Platinum resistance thermometer: (±0.2% of PV or ±0.8°C, whichever is greater) ±1 digit Analog input: ±0.2%FS ±1 digit	
Affect of Signal Source Resistance Thermocouple: $0.1^{\circ}\text{C}$ $(0.2^{\circ}\text{F})/\Omega$ max. $(100~\Omega)$ max.) Platinum resistance thermometer: $0.4^{\circ}\text{C}$ $(0.8^{\circ}\text{F})/\Omega$ max. $(10~\Omega)$ max.)	Thermocouple: 0.1°C/ $\Omega$ max. ( for all Spec.) Platinum resistance thermometer: 0.1°C/ $\Omega$	
Input Sampling Period 500ms	250ms	
Dielectric Strength 2,000 VAC, 50 or 60 Hz for 1 min (between terminals with different charge)	2,300 VAC, 50 or 60 Hz for 1 min (between terminals with different charge)	
Memory protection  Non-volatile memory (number of writes: 100,000 times)	Non-volatile memory (number of writes: 1,000,000 times)	
EMC Radiated Interference Electromagnetic Field Strength: EN61326 class A Noise Terminal Voltage: EN61326 class A	Radiated Interference Electromagnetic Field Strength: EN55011 Group 1, class A Noise Terminal Voltage: EN55011 Group 1, class A	
Alarm output Output ratings 250VAC, 1A	Output ratings are improved. After modification: 250VAC, 2A	
Communications Baud Rate 1200, 2400, 4800, 9600, 19200	1200, 2400, 4800, 9600, 19200, 38400, 57600bps	

#### Ratings, Performance

### **Product discontinuation** Recommendable replacement E5GN-[][][]TC series E5GN-[][][]T series E5GN-[][][]P series Indication method PV sv sv Segment of Display Segment of Display PV: 7 segment SV: 7 segment PV: 11 segment SV: 11 segment Height of the Character Height of the Character PV: 7 mm SV: 3.5 mm PV: 7.5 mm SV: 3.6 mm Marks that are indicated are modified. No indicator for single-lighting of AL Single-lighting is added. Key mark is added. **Safety Standard** UL61010C-1 UL61010-1 **Water or Dust Proofing Standard** Conforms to NEMA4X IP66 Equivalent to IP66 Removing and Attaching the Terminal Block (1) Press down hard on the fasteners on both How to remove and attach the terminal block sides of the terminals to unlock the terminal is changed as follows. plate and pull upwards. (1) Insert a flat-blade screwdriver into the two tool insertion holes(one on the top and one on the bottom) to release the hooks. Flat-blade (2) Draw out the terminal plate as it is. (2) Carefully pull it out toward you. (3) Before you insert the terminal plate again, make sure that the pins match the positions of the holes in the terminal plate.

Note: Both models with screw terminals and models with screw-less terminals can

use the same method.

#### Labels

#### Product discontinuation E5GN-[][][]TC series E5GN-[][][]P series

# Recommendable replacement E5GN-[[[[[]]] series

#### **Front Label**





Design is modified.

The following printed characters are added: MANU, SUB1, SUB2, HA

Size of the indicator frame:

Wide: 36.8 mm Long:10.1 mm

#### Size of the indicator frame

Wide: 36.1 mm Long: 9.8 mm

#### Side Label

- (1) Number of Labels: 3
- (2) Model Number: Refer to Model Number Legend.
- (3) Lot No.:

Production year: Last 1 digit in the year

(1)(2)(3)(4)(5)(6)

(1)(2): Production day 01 to 31

- (3): Production month 1 to 9, X, Y, Z X=10, Y=11, Z=12
- (4): Production year: Last 1 digit in the year
- (5) (6): Production factory that is abbreviated.

- (1) Number of Labels: Summarized in 1
- (2) Model Number: Refer to Model Number Legend.
- (3) Lot No.:

Production year: Last 2 digits in the year

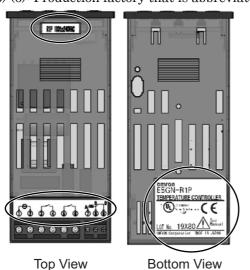
 $\begin{smallmatrix}0&0&0&0&0&0&0\end{smallmatrix}$ 

(1)(2)(3)(4)(5)(6)(7)

(1)(2): Production day 01 to 31

(3): Production month 1 to 9, X, Y, Z X=10, Y=11, Z=12

- (4) (5): Production year: Last 2 digits in the year
- (6) (7): Production factory that is abbreviated.





Top View

#### Labels

#### Product discontinuation E5GN-[[[[[]]TC series E5GN-[[[[]]P series

#### Label for packing case

- (1) Model Number: Refer to Model Number Legend.
- (2) Lot No.: (4 digits)

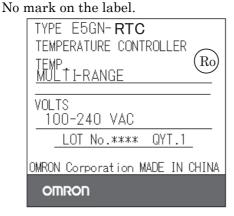
Production year: Last 1 digit in the year

(1)(2)(3)(4)(5)(6)

(1)(2): Production day 01 to 31

(3): Production month 1 to 9, X, Y, Z X=10, Y=11, Z=12

- (4): Production year: Last 1 digit in the year
- (5) (6): Production factory that is abbreviated.
- (3) Identification mark



# Recommendable replacement E5GN-[][][]T series

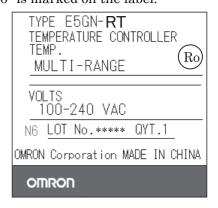
- (1) Model Number: Refer to Model Number Legend.
- (2) Lot No.: (5 digits)
  Production year: Last 2 digits in the year

(1)(2)(3)(4)(5)(6)(7)

(1)(2): Production day 01 to 31

(3): Production month 1 to 9, X, Y, Z X=10, Y=11, Z=12

- (4) (5): Production year: Last 2 digits in the year
- (6) (7): Production factory that is abbreviated.
- (3) Identification mark
  "N6" is marked on the label.



## Model Number Legend

Product discontinuation E5GN-[][][]TC series E5GN-[][][]P series	Recommendable replacement E5GN-[][][]T series
Parameters  EG5N- [] [] []-[]  (1)(2)(3)(4)(5)  (1) Control Output  R: Relay Q: Voltage Output (for driving SSR)  (2) Alarm Outputs Blank: None 1:One output  (3) Option Blank: None 03: RS-485 communications  (4) Input Type TC: Thermocouple P: Platinum Resistance Thermometer	EG5N- [] [] [] [] -[] -[] (1)(2)(3)(4)(5) (6) (7)  (1) Control Output R: Relay Q: Voltage Output (for driving SSR)  (2) Auxiliary Outputs Blank: None 1:One output  (3) Option Blank: None 03: RS-485 communications  (4) Input Type T: Universal Thermocouple/Platinum Resistance Thermometer  (5) Input Power Supply Blank: 100 to 240 VAC D: 24 VAC/VDC  (6) Terminal Block Blank: M3 terminal C: Screw-less terminal
(5) CompoWay/F is supported. Blank: None FLK: CompoWay/F is supported.	(7) CompoWay/F is supported. Blank: None FLK: CompoWay/F is supported.

### **How to Operate**

Product discontinuation E5GN-[][][]TC series E5GN-[][][]P series	Recommendable replacement E5GN-[][][]T series
Parameters	
Parameters	Parameters are added due to additional functions. Parameters are modified as follows. SP ramp set value:  Move from advanced function setting level to adjustment level. MV upper limit:  Move from advanced function setting level to adjustment level. MV lower limit:  Move from advanced function setting level to adjustment level. Alarm hysteresis:  Move from advanced function setting level to initial setting level.
Functions	Functions
Alarm output	Auxiliary output
Default Values of Parameters [E5GN-[][][]P] Input Type for models with platinum resistance thermometer  Default value: Platinum resistance thermometer Pt100	[E5GN-[][][]T] Input Type for models with universal thermocouple /platinum resistance thermometer  Default value: Thermocouple K
3	Universal input type changes the default value of Input Type parameter from platinum resistance thermometer Pt100 to thermocouple K. Change the setting of the Input Type to match the sensor that is used.

### **Operation Manual**

Product discontinuation E5GN-[][][]TC series E5GN-[][][]P series	Recommendable replacement E5GN-[][][]T series	
Operation Manual is also updated due to the renewal products.		