



Output resistance: Current output; 500 k $\Omega$  or more  
 Voltage output other than below: 1  $\Omega$  or less  
 0 to 10 mV DC, 0 to 100 mV DC: 100  $\Omega$  or less  
 Zero adjustment: -5 to +5%  
 Span adjustment: 95 to 105%

## ■ Standard Performance

Accuracy rating:  $\pm 0.1\%$  of span or  $0.1^\circ\text{C}$ , whichever is greater; for Pt50,  $\pm 0.2\%$  of span or  $0.2^\circ\text{C}$ , whichever is greater; accuracy is not guaranteed for output level less than 0.5% of the span of a 0 to X mA output range type.  
 Response speed: 150 ms, 63% response (10 to 90%)  
 Burnout function: One of the three options is selected  
 - Up, Down or Off; the maximum burnout time is specified as 60 seconds.  
 Effect of power supply voltage fluctuation: Within the accuracy range of span for power supply voltage fluctuation.  
 Effect of ambient temperature change:  $\pm 0.15\%$  of span for change of  $10^\circ\text{C}$   
 Effects of leadwire resistance variations:  $\pm 0.2^\circ\text{C}$  per 10  $\Omega$ /leadwire

## ■ Safety and EMC Standards

CE:

EMC directive

EN 61326-1 Class A Table 2<sup>\*1</sup> compliance  
 EN 61326-2-3 compliance  
 EN 61000-3-2 compliance  
 EN 61000-3-3 compliance  
 EN 55011 Class A Group 1 compliance

Low voltage directive:

EN 61010-1, EN 61010-2-030  
 Overvoltage category II<sup>\*2</sup>, Pollution degree 2<sup>\*3</sup>,  
 Measurement category O (other)

CSA: CAN/CSA C22.2 No. 61010-1

CAN/CSA C22.2 No. 61010-2-030  
 Overvoltage category II<sup>\*2</sup>, Pollution degree 2<sup>\*3</sup>,  
 Measurement category O (other)

UL: UL 61010-1 (CSA NRTL/C)

UL 61010-2-030 (CSA NRTL/C)  
 Overvoltage category II<sup>\*2</sup>, Pollution degree 2<sup>\*3</sup>,  
 Measurement category O (other)

RCM: EN 55011 Class A Group 1 compliance

KC: Electromagnetic wave interference prevention standard, electromagnetic wave protection standard compliance

- \*1 The instrument continues to operate at a measurement accuracy of within  $\pm 20\%$  of the range during testing.  
 \*2 Overvoltage category II: Describes a number which defines a transient overvoltage condition. Implies the regulation for impulse withstand voltage.  
 "II" applies to electrical equipment which is supplied from the fixed installation like a distribution board.  
 \*3 Pollution degree 2: Describes the degree to which a solid, liquid, or gas which deteriorates dielectric strength or surface resistivity is adhering.  
 "2" applies to normal indoor atmosphere. Normally, only non-conductive pollution occurs.

However, if optional code /C0 or /FB is specified, the conformity to the safety and EMC standards is excluded.

## ■ Environment Standard

EU RoHS directive: EN IEC 63000  
 (However, when option code /C0 or /FB is specified, CE marking is not applicable because the product does not comply with the Safety and EMC standards.)

## ■ Power Supply and Isolation

Power supply rated voltage:  
 100-240 V AC/DC  $\approx$  50/60 Hz or  
 15-30 V DC  $\approx$   
 Power supply input voltage:  
 100-240 V AC/DC  $\approx$  (-15, +10%) 50/60 Hz  
 or 15-30 V DC  $\approx$  ( $\pm 20\%$ )  
 Power consumption:  
 2.2 W at 24 V DC ; 2.1 W at 110 V DC;  
 4.2 VA at 100 V AC; 6.1 VA at 200 V AC  
 Insulation resistance: 100 M $\Omega$  minimum at 500 V DC  
 between input, output-1, output-2, power  
 supply and grounding terminals mutually  
 Withstanding voltage: 2000 V AC for one minute  
 between input, (output-1 and output-2),  
 power supply and grounding terminals  
 mutually;  
 1000 V AC for one minute between  
 output-1 and output-2 terminals

## ■ Environmental Conditions

Temperature:  $-10$  to  $55^\circ\text{C}$  ( $45^\circ\text{C}$  or less for side-by-side close installation\*)

\* If the previous model (style S3.xx earlier) is installed together, the ambient temperature is 0 to  $40^\circ\text{C}$ .

Humidity: 5 to 90 % RH (no condensation)

Ambient Condition: Avoid installation in such environments as corrosive gas like sulfide hydrogen, dust, sea breeze and direct sunlight.

Magnetic field: 400 A/m or less.

Continuous vibration (at 5 to 9 Hz) Half amplitude of 3 mm or less (at 9 to 150 Hz) 4.9 m/s<sup>2</sup> or less, 1 oct/min for 90 minutes each in the 3-axis directions.

Impact: 98 m/s<sup>2</sup> or less, 11 msec, 3-axis 3 times each in 6 directions.

Altitude: 2000 m or less.

Installation location: Indoors

Warm-up time: At least 30 minutes after power on.

## ■ Transport and Storage Conditions

Ambient temperature:  $-25$  to  $70^\circ\text{C}$

Temperature change rate:  $20^\circ\text{C}$  per hour or less

Ambient humidity: 5 to 95 %RH (no condensation)

## ■ Mounting and Appearance

Construction: Compact plug-in type

Material: Modified polyphenylene oxide (casing)

Mounting method: Wall, DIN rail or dedicated VJ mounting base (VJCE) mounting

Connection method: M3 screw terminals

External dimensions:

76 (H) x 29.5 (W) x 124.5 (D) mm  
 (including a socket)

Weight: Main unit; 100 g or less

Socket; 50 g or less

## ■ Accessories

Tag number label: 1 sheet

## ■ Customized Signal Specifications

### ● Input custom specification

Special RTD with temperature table. The measuring range is between 0 and 2000  $\Omega$  in resistance value.

Note: The conformity to the safety standards, EMC standards, and environmental standards is excluded. However, the following specifications conform to safety standards, EMC standards, and environmental standards.

Input signal: A three-wire Copper Resistance Thermometer

Standard resistance (R0): 10  $\Omega$ , 25  $\Omega$ , 50  $\Omega$ , 53  $\Omega$ , 100  $\Omega$

Standard temperature (T0): 0°C, 20°C, 25°C

Temperature coefficient ( $\alpha$ ): 0.00350 to 0.00464

Measuring range:

Temperature range: -50 to 200°C

Resistance value range (reference): 0 to 190  $\Omega$

Minimum span: 50°C

Measuring current: 0.881 mA (except Cu100)

0.546 mA (Cu100)

Leadwire resistance: max. 5  $\Omega$

Effect of leadwire resistance:  $\pm 0.3\%$  of span

Accuracy rating:  $\pm 0.3\%$  of span or 0.3°C, whichever is greater

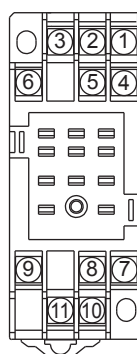
### ● Output custom specification

	Current Signal	Voltage Signal
Output range (DC)	0 to 24 mA	-10 to +10 V
Span (DC)	1 to 24 mA	10 mV to 20 V
Zero elevation	0 to 200%	-100 to +200%

Note: Customized specifications for the output-1 signal within 0 to 20 mA DC or within -10 to +10 V DC comply with safety standards, EMC standards, and environmental standards.

- The above note is limited to the standard specification of output-2.
- Other customized specifications do not conform to these standards.

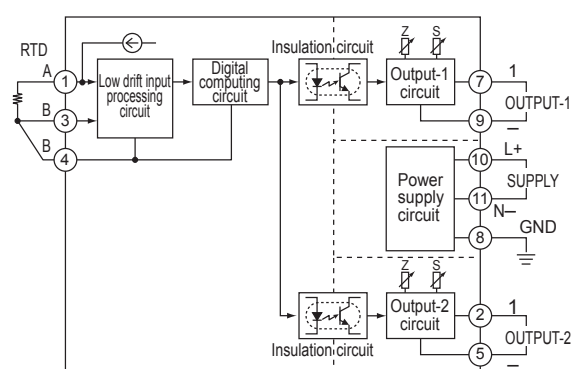
## ■ Terminal Assignments



1	Input	(A)
2	Output-2	(+)
3	Input	(B)
4	Input	(B)
5	Output-2	(-)
6	Do not use	
7	Output-1	(+)
8	GND	
9	Output-1	(-)
10	Supply	(L+)
11	Supply	(N-)

Do not use output-2 for the single-output type.

## ■ Block Diagram



## ■ External Dimensions

