# C Series Single Channel Temperature Transmitter

## ➔ Introductions

This temperature transmitter converts the thermocouple/ thermal resistance signals to current or voltage signals. DIN rail power supply function can be selected in ordering.

The input, output, and power supply are galvanically isolated from each other. Calibrate the apparatus or modify parameters by using a handheld programmer.

## ➔ Parameters

**Power supply:**

Connection type: Terminals or DIN rail connector

Rated voltage: 18V DC ~ 60V DC (Recommended: 24V DC)

**Input (1, 2, 3):** TC, 2/3-wire RTD

The input signal needs to be determined when ordering and can also be programmed. Other signal types is required special customization, please see the product label for details.

**Line resistance:** ≤ 20 Ω per line

**Output:**

Sink mode: 4 ~ 20 mA; 20 ~ 4 mA

Output current: 0(4) ~ 20 mA; 0 ~ 10 mA; 20 ~ 4 mA

Output voltage: 0(1) ~ 5 V; 0 ~ 10 V

Note: 4~20mA Outputs can be configured NAMUR NE 43.

**Output ripple:** ≤ 5 $mV_{rms}$ (Load resistance: 250 Ω)

**Load resistance:**

Sink mode: $R_L$ ≤ [(U-3)/0.02] Ω; U: Loop power supply

0(4) ~ 20 mA, 20 ~ 4 mA: ≤ 550 Ω; 0 ~ 10 mA: ≤ 1.1 kΩ

0(1) ~ 5 V: ≥ 1 MΩ; 0 ~ 10 V: ≥ 2 MΩ

Other load resistance is required special customization, please see the productlabel for details.

**Transmission characteristics (25 ℃ ± 2 ℃):**

**Response time:** ≤ 0.5 s

**Temperature drift:** 30 ppm/℃

**Cold junction compensation accuracy:** ± 1 ℃

**Cold junction compensation range:** -20 ℃ ~ +60 ℃

**Electromagnetic compatibility:** Accordance to IEC 61326-3-1

**Dielectric strength (1 mA leakage current, 1 minute):**

≥ 1500 V AC (Input /Output / Power supply)

**Insulation resistance:** ≥ 100 MΩ (Input /Output /Power supply)

**Ambient conditions:**

Operation temperature: −20 ℃ ~ +60 ℃

Relative humidity: 10 %RH ~ 90 %RH (40 ℃)

Atmosphere pressure: 80 kPa ~ 106 kPa

Storage temperature: −40 ℃ ~ +80 ℃

**Power dissipation:**

0.8 W (24 V DC, single output)

1.2 W (24 V DC, double output)

## ➔ Model rules

**NOTE**: Output