



Temperature transmitter

NTM 310.Ex

- TC or mV input
- HART protocol, FDT and DTM support
- High accuracy
- Excellent EMC performance
- 1500V AC dielectric strength
- DIN B Head mount and field mount transmitters
- Configurable input types and ranges



Technical data

Power supply:	12 V DC~28 V DC (Reverse power protection)
Input signal:	K, E, S, B, J, T, R, N, etc millivolt signal (-10mV~120mV)
Output signal:	4~20mA
Load resistance:	$RL \leq [(U-12)/0.022]\Omega$; U is loop powered voltage

Range and Conversion accuracy list (25°C±2°C, not contain cold junction compensation) :

Type	Range	Min.span/Accuracy	
K	-200°C~+1372°C	<300°C, ±0.3°C	≥300°C, ±0.1% F.S.
E	-100°C~+1000°C	<300°C, ±0.3°C	≥300°C, ±0.1% F.S.
J	-100°C~+1200°C	<300°C, ±0.3°C	≥300°C, ±0.1% F.S.
N	-200°C~+1300°C	<300°C, ±0.3°C	≥300°C, ±0.1% F.S.
S	-50°C~+1768°C	<500°C, ±0.5°C	≥500°C, ±0.1% F.S.
R	-50°C~+1768°C	<500°C, ±0.5°C	≥500°C, ±0.1% F.S.
T	-20°C~+400°C	<300°C, ±0.3°C	≥300°C, ±0.1% F.S.
B	+400°C~+1820°C	<500°C, ±0.5°C	≥500°C, ±0.1% F.S.
mv	-10mV~120mV	<10mV, 0.01mV	>10mV, ±0.1% F.S.

Compensation accuracy: 1°C (Temperature compensation range: -40°C ~ +85°C)

Temperature drift: 25ppm/°C

Response time: ≤ 1s

Electromagnetic compatibility: IEC 61326-1

compatibility:

Dielectric strength: ≥ 1500V AC (Input/Output)

Insulation resistance: ≥ 100MΩ (Input/Output)

Operation temperature: -40°C ~ +85°C

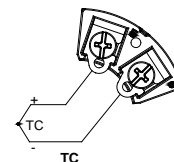
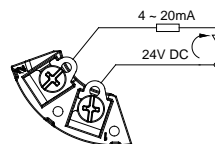
Storage temperature: -40°C ~ +85°C

Dimension: Ø 44×25.5mm

Wire size: 1.5mm²

Screw terminal torque: 0.5Nm

Wiring diagram



Explosive-proof parameters

National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI)

Explosive-proof grade: Ex ia IIC T4 ~ T6 Ga

T4: -40°C ~ +60°C

T5: -40°C ~ +55°C

T6: -40°C ~ +50°C

Certified parameters (Terminals 5, 6):

$U_o=5.4V$ $I_o=13.4mA$ $P_o=18mW$

$C_o=63\mu F$ $L_o=198mH$

Certified parameters (Terminals 1, 2):

$U_i=28V$ $I_i=93mA$ $P_i=670mW$

$C_i=0\mu F$ $L_i=0mH$