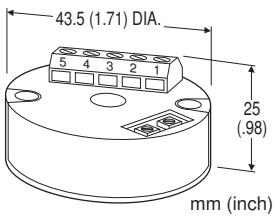
Head-mounted Two-wire Signal Conditioners
26-UNIT

THERMOCOUPLE TRANSMITTER
(isolated)

Functions & Features
- Accepts direct input from a thermocouple and provides a standard 4 – 20 mA DC signal
- Linearization and burnout
- High-accuracy cold junction compensation
- Wide operating temperature range suitable for harsh environments

Typical Applications
- Mounting in a sensor connection head minimizes noise effect and signal degradation



CE

MODEL: 26TS1–[1][2]

ORDERING INFORMATION
- Code number: 26TS1-[1][2]

Specify a code from below for each of [1] and [2].
(e.g. 26TS1-2/K/BL)
- Temperature range (e.g. 0 – 800°C)

[1] INPUT THERMOCOUPLE
1: (PR) (Usable Range 0 to 1760°C, 32 to 3200°F)
2: K (CA) (Usable range -270 to +1370°C, -454 to +2498°F)
3: E (CRC) (Usable range -270 to +1000°C, -454 to +1832°F)
4: J (IC) (Usable range -210 to +1200°C, -346 to +2192°F)
5: T (CC) (Usable range -270 to +400°C, -454 to +752°F)
6: B (RH) (Usable range 0 to 1820°C, 32 to 3308°F)
7: R (Usable range -50 to +1760°C, -58 to +3200°F)
8: S (Usable range -50 to +1760°C, -58 to +3200°F)
N: N (Usable range -270 to +1300°C, -454 to +2372°F)
0: Specify

[2] OPTIONS (multiple selections)
Response Time (0 – 90 %)
blank: Standard (≤ 0.5 sec.)
/K: Fast Response (Approx. 25 msec.)

Burnout
blank: Upscale burnout
/BL: Downscale burnout
/BN: No burnout

GENERAL SPECIFICATIONS
Construction: Sensor head-mounting
Connection: Euro type terminal
Applicable wire size: 0.14 – 1.5 mm^2, stripped length 6 mm
Housing material: Flame-resistant resin (black)
Isolation: Input to output
Zero adjustment: -0.5 to +0.5 % (front)
Span adjustments: 99.5 to 100.5 % (front)
Linearization: Standard
Cold junction compensation: CJC sensor attached to the input terminals

INPUT SPECIFICATIONS
Minimum span: 3 mV
Input resistance: 20 kΩ min.
Burnout sensing: 0.1 µA

Lower temperature range & span (in °C)
(PR): Lower range 0 to 880°C; min. span 370°C
K (CA): Lower range -270 to +1200°C; min. span 75°C
E (CRC): Lower range -270 to +750°C; min. span 50°C
J (IC): Lower range -210 to +800°C; min. span 60°C
T (CC): Lower range -270 to +325°C; min. span 75°C
B (RH): Lower range 0 to 1040°C; min. span 780°C
R: Lower range -50 to +550°C; min. span 360°C
S: Lower range -50 to +550°C; min. span 380°C
N: Lower range -270 to +1100°C; min. span 110°C

Lower temperature range & span (in °F)
(PR): Lower range 32 to 1616°F; min. span 670°F
K (CA): Lower range -454 to +2192°F; min. span 140°F
E (CRC): Lower range -454 to +1382°F; min. span 90°F
J (IC): Lower range -346 to +1472°F; min. span 110°F
T (CC): Lower range -454 to +617°F; min. span 140°F
B (RH): Lower range 32 to 1904°F; min. span 1450°F
R: Lower range -58 to +1022°F; min. span 680°F
S: Lower range -58 to +1022°F; min. span 700°F
N: Lower range -454 to +2012°F; min. span 200°F

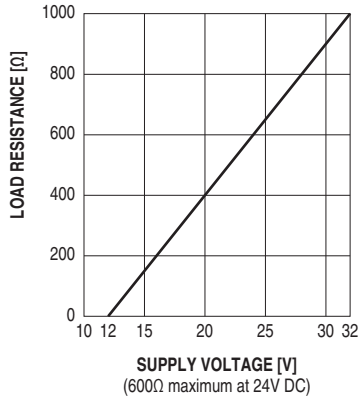
Note: The described accuracy may be partially not satisfied when the temperature ranges below 0°C. Consult M-System.

OUTPUT SPECIFICATIONS

Output: 4 – 20 mA DC

Load resistance vs. supply voltage:

Load Resistance (Ω) = (Supply Voltage (V) – 12 (V)) ÷ 0.02 (A) (including leadwire resistance)



INSTALLATION

Supply voltage: 12 – 32 V DC
Operating temperature: -40 to +85°C (-40 to +185°F)
Operating humidity: 0 to 90 %RH (non-condensing)
Mounting: Head-mounting (DIN type B head)
Weight: 40 g (1.4 oz)

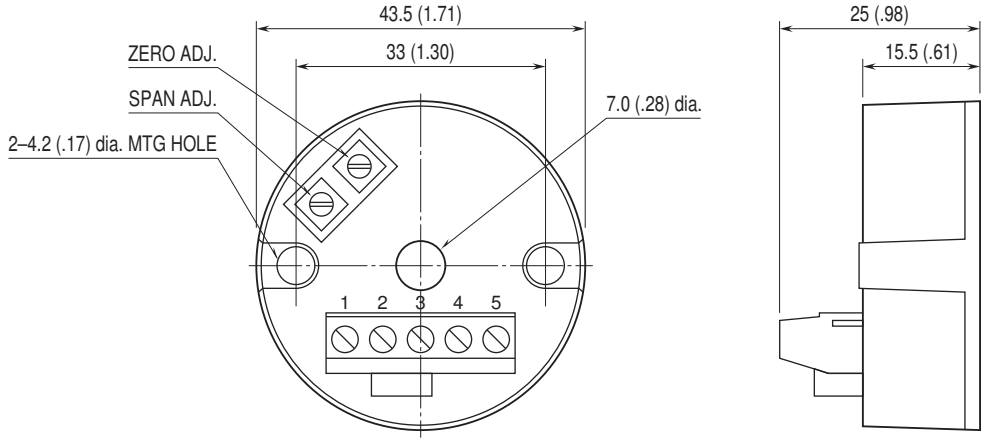
PERFORMANCE in percentage of span

Accuracy (whichever is greater)
K, E, J: ±0.1 % of FS or ±0.2°C (±0.36°F)
T, N: ±0.2 % of FS or ±0.2°C (±0.36°F)
PR, B, R, S: ±0.3 % of FS
(at over 400°C for R, S and PR; over 770°C for B)
Cold junction compensation error
K: ±1°C max. at 0 – 85°C
0.2°C @25°C+0.035°C/°C at -40 – 0°C
J: ±2°C max. at 0 – 85°C
0.2°C @25°C+0.06°C/°C at -40 – 0°C
E, T, N: ±3°C max. at 0 – 85°C
0.2°C @25°C+0.14°C/°C at -40 – 0°C
PR, R, S: ±4°C max. at 0 – 85°C
0.2°C @25°C+0.25°C/°C at -40 – 0°C
Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)
Burnout response: ≤ 10 sec.
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 1500 V AC @1 minute
(input to output to ground)

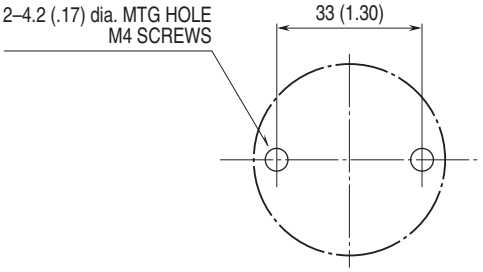
STANDARDS & APPROVALS

EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive

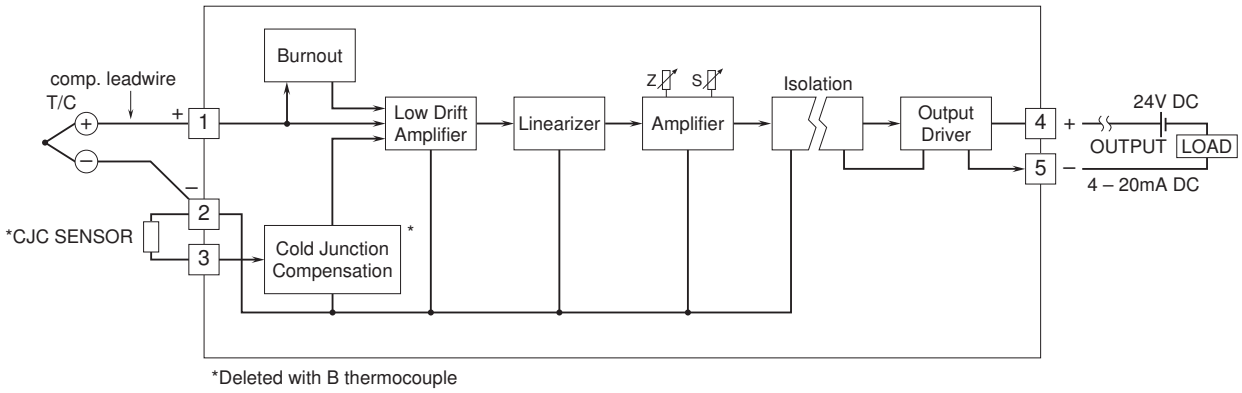
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



MOUNTING REQUIREMENTS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Deleted with B thermocouple

⚠ Specifications are subject to change without notice.