

Super-mini Two-wire Signal Conditioners T-UNIT

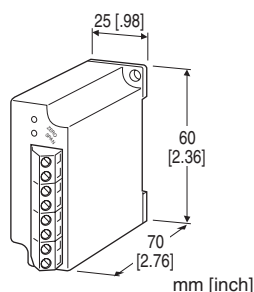
INPUT LOOP POWERED ISOLATOR

Functions & Features

- Loop-powered design eliminates output loop power supply
- 500 V DC input-to-output isolation
- Highdensity mounting

Typical Applications

- Isolation between control room and field instrumentation, between telemetering system and input device
- Eliminates ground problems in existing systems thanks to easiness of application without requiring additional power wiring



MODEL: TSN-[1]

ORDERING INFORMATION

- Code number: TSN-[1]

Specify a code from below for [1].

(e.g. TSN-H6)

[1] INPUT / OUTPUT

blank: 4 – 20 mA DC / 1 – 5 V DC

H6: 10 – 50 mA DC / 1 – 5 V DC

GENERAL SPECIFICATIONS

Construction: Stand-alone; terminal access at the front

Connection: Euro type terminal

(applicable wire size: 0.25 to 1.5 mm², stripped length 7 mm)

Housing material: Flame-resistant resin (black)

Isolation: Input to output

Zero adjustment: -5 to +5 % (front)

Span adjustment: 95 to 105 % (front)

INPUT & OUTPUT

■ Input 4 – 20 mA DC / OUTPUT 1 – 5 V DC

Equivalent input impedance: Approx. 250 Ω with 20 mA input

Operational range: 3 – 22 mA DC

(Accuracy is assured within 4 – 22 mA)

Load resistance: 50 k Ω min.

■ Input 10 – 50 mA DC / OUTPUT 1 – 5 V DC

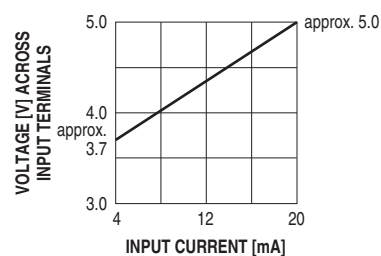
Equivalent input impedance: Approx. 100 Ω with 50 mA input

Operational range: 7 – 55 mA DC

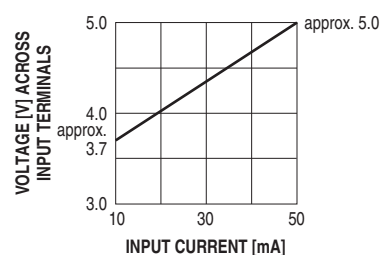
(Accuracy is assured within 8 – 55 mA)

Load resistance: 50 k Ω minimum

• INPUT 4 – 20 mA DC / OUTPUT 1 – 5 V DC



• INPUT 10 – 50 mA DC / OUTPUT 1 – 5 V DC



INSTALLATION

Operating temperature: -5 to +60°C (23 to 140°F)

Operating humidity: 30 to 90 %RH (non-condensing)

Mounting: Surface or DIN rail

Weight: 120 g (0.26 lb)

PERFORMANCE in percentage of span

Accuracy: ± 0.1 %

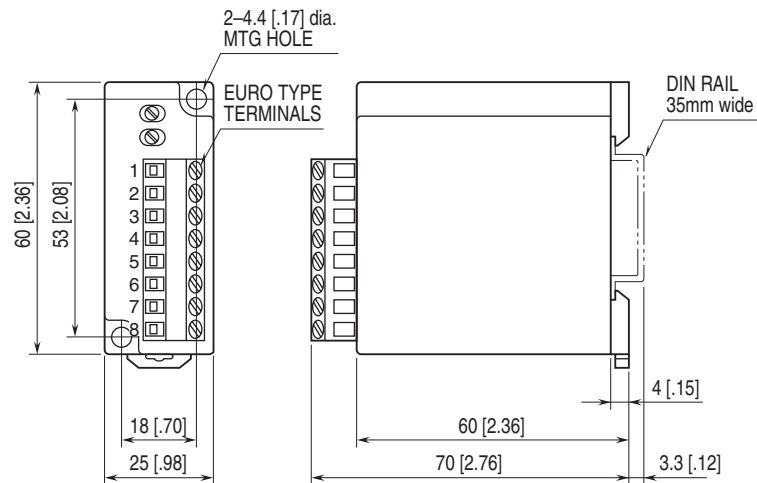
Temp. coefficient: ± 0.015 %/°C (± 0.008 %/°F)

Response time: ≤ 0.5 sec. (0 – 90 %)

Insulation resistance: ≥ 100 M Ω with 500 V DC

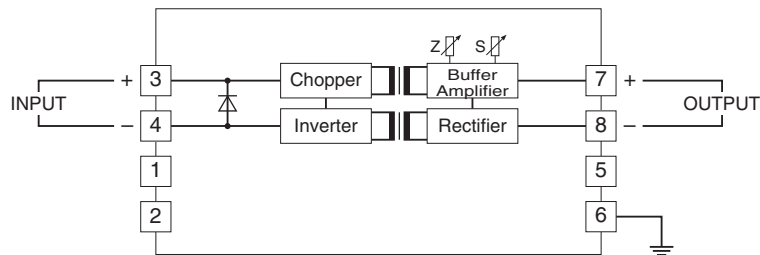
Dielectric strength: 500 V AC @ 1 minute (input to output)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



•When mounting, no extra space is needed between units.

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.