Programmable Transmitters

Overview
Models TT520 and TT530 are programmable transmitters designed for process control and other applications. Both transmitters use a 4-20mA current loop output and are PC programmable to accept a signal from a thermocouple, a Resistance Temperature Detector (RTD), or a millivolt signal. Model TT520 can be mounted at the field location in a standard DIN form B head or on a DIN rail inside a local box (with an AC807 Minco DIN rail adapter), whereas model TT530 can be mounted vertically or horizontally on a DIN rail.

- T/C, RTD, or mV input
- Accurate, Stable 4-20mA Output
- PC and field-programmable
- Galvanically isolated
- FM Approved Intrinsically Safe
- Single temperature measurement

Specifications

Common Specifications:
Supply voltage: 7.2 - 30 VDC
Temperature coefficient: < ± 0.01% of span/ °C
Effect of supply voltage change: < 0.005% of span/ VDC
Max. wire size: AWG14 (1.5 mm²)
Air humidity: 0 - 95% RH

Dimensions:
TT520: Ø1.73 x 0.84 in (Ø44 x 20.2mm)
TT530: 4.29 x .0.93 x 4.09 in (109 x 23.5 x 104mm)

AC205817 USB Loop Link Programmer:
TT520 and TT530 transmitters are preconfigured for ease of use. The AC205817 USB Loop Link Programmer allows the user to reconfigure the transmitter using free, Windows-based software.

Tightness (enclosure/terminal):
TT520: IP 68 / IP00
TT530: IP50 / IP20

Weight:
TT520: 50 g
TT530: 145 g

TC Input:
Minimum measurement range:
Type E, J, K, T: 50°C
Max. offset: 50% of selected max. value
Basic accuracy:
Type E, J, K, T: ≤1°C
Cold junction compensation (CJC): ≤1.0°C
Temperature coefficient:
Type E, J, K, T: < ± 0.05 °C / °Camb
Sensor error detection: yes

RTD-input:
Basic accuracy PD/PF (Pt100/1000): <±0.2°C
Temperature coefficient: <±0.01°C / °C

Current output:
Signal range: 4 - 20 mA
Load resistance: < (Vsup. - 7.2) / 0.023 [Ω]

Intrinsic Safety data: FM Approved Intrinsically Safe for Class 1, Div. 1, Groups A-D, Entity Approval (pending)

Specifications subject to change
### Specifications and order options

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<td>TT520 Temperature Transmitter</td>
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<td>TT530 DIN Rail Temperature Transmitter</td>
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#### Sensor Type:
- **PD** = 100Ω Platinum RTD (0.00385)
- **PF** = 1000Ω Platinum RTD (0.00385)
- **E** = Type E Thermocouple
- **J** = Type J Thermocouple
- **K** = Type K Thermocouple
- **T** = Type T Thermocouple

#### Temperature Range:
Specify temperature range in either °C or °F. For example, -25° to +200°C = 4 to 20 mA.

#### Temperature Units:
- **C** = Celsius
- **F** = Fahrenheit

#### Calibration:
- **1** = Nominal
- **2** = Matched to sensor ±0.75% span

For other calibration options, contact Minco.

#### Sensor Leads:
- **Y** = 2-lead RTD (or thermocouple)
- **Z** = 3-lead RTD
- **X** = 4-lead RTD

**TT520PD(-25/200)C1Y** = Sample part number

### Dimensions in inches (mm)

#### TT520PD(-25/200)C1Y

- **0.93 (23,5)**
- **4.09 (104,0)**
- **4.29 (109,0)**
- **3.54 (90,0)**

#### Wiring Diagrams

- **2-wire installation** in control room

#### RTD to 4...20 mA

#### TC to 4...20 mA

Specifications subject to change