

# PT100 Transmitter

Resistance-to-digital converter for platinum resistance temperature detector. This device, belonging to the PRO sensor series, includes Aranet Sub-GHz ISM band radio which wirelessly transmits sensor measurements to the Aranet PRO base station.

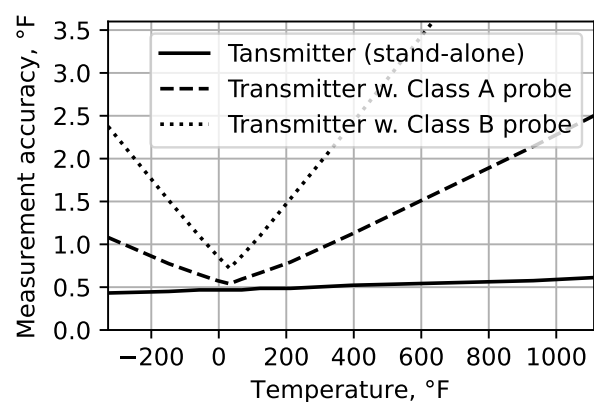
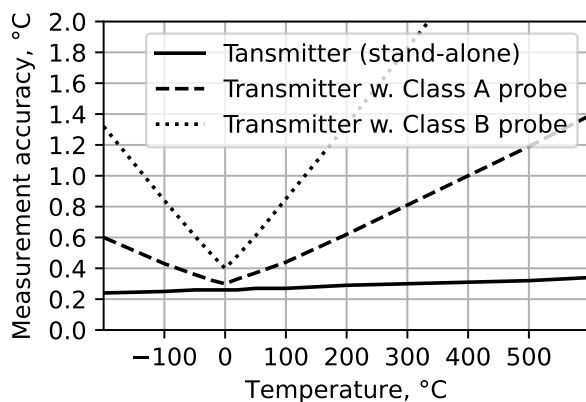


## Product numbers

European Union	TDSPTA06.010
United States	TDSPTAU6.010
Asia	TDSPTAU6.010

## Temperature measurement performance

Probe compatibility	PT100 (any class)	
Range	-200–600 °C	-328–1112 °F
Resolution	0.1 °C	0.1 °F
Accuracy at ±0 °C (32 °F)	±0.26 °C	±0.47 °F



- This transmitter uses 4-wire probe configuration. However, it is compatible also with 2-wire PT100 resistor. 3-wire version available on request.
- The table displays the three-sigma (99.7 %) confidence error attributed solely to the transmitter when operating at

25 °C (77 °F). The overall measurement uncertainty depends on the accuracy of the PT100 probe used. Refer to the figures provided above for the calculated total accuracy values of the transmitter when used in combination with standard Class A and Class B platinum sensors.

## Probe cable specifications

Operating temperature	-40–200 °C	-40–392 °F
Length	1 m	3.3 ft

## General specifications

Ingress protection rating	IP68	
Operating temperature	-40–60 °C	-40–140 °F
Dimensions	∅35×120 mm	∅1.4×4.7 in
Weight (incl. battery)	100 g	3.5 oz
Enclosure material	ASA plastic	
Packaging includes	1 pc AA alkaline battery, polyester string for hanging the device	

## Aranet radio parameters

Line of sight range	3 km	1.9 mi
Transmitter power	14 dBm	25 mW
Data transmission interval	1, 2, 5 or 10 min	
Data protection	XXTEA encryption	

## Battery lifetime

Measurement interval	Alkaline battery lifetime	Lithium battery lifetime
1 min	1.3 years	1.7 years
2 min	2.4 years	3.2 years
5 min	5.2 years	7.3 years
10 min	8.4 years	12 years

- Battery lifetime data has been obtained by mathematical extrapolation and is provided for descriptive purposes only and is not intended to make or imply any guarantee or warranty.
- Battery lifetime tests and calculations performed assuming device is at 20 °C (68 °F) and using *Fujitsu Premium LR6G07* (alkaline) and *Energizer Ultimate Lithium L91* (lithium) AA batteries as reference.
- The operating temperature range may vary based on the battery type used. Generally, the range for alkaline batteries is between -20–50 °C (-4–122 °F), whereas for lithium batteries, it is -20–60 °C (-40–140 °F).

**Compliance information**

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- CE** Conformité Européenne
  - FC** Federal Communications Commission (USA)
  - IC** Innovation, Science and Economic Development Canada
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