

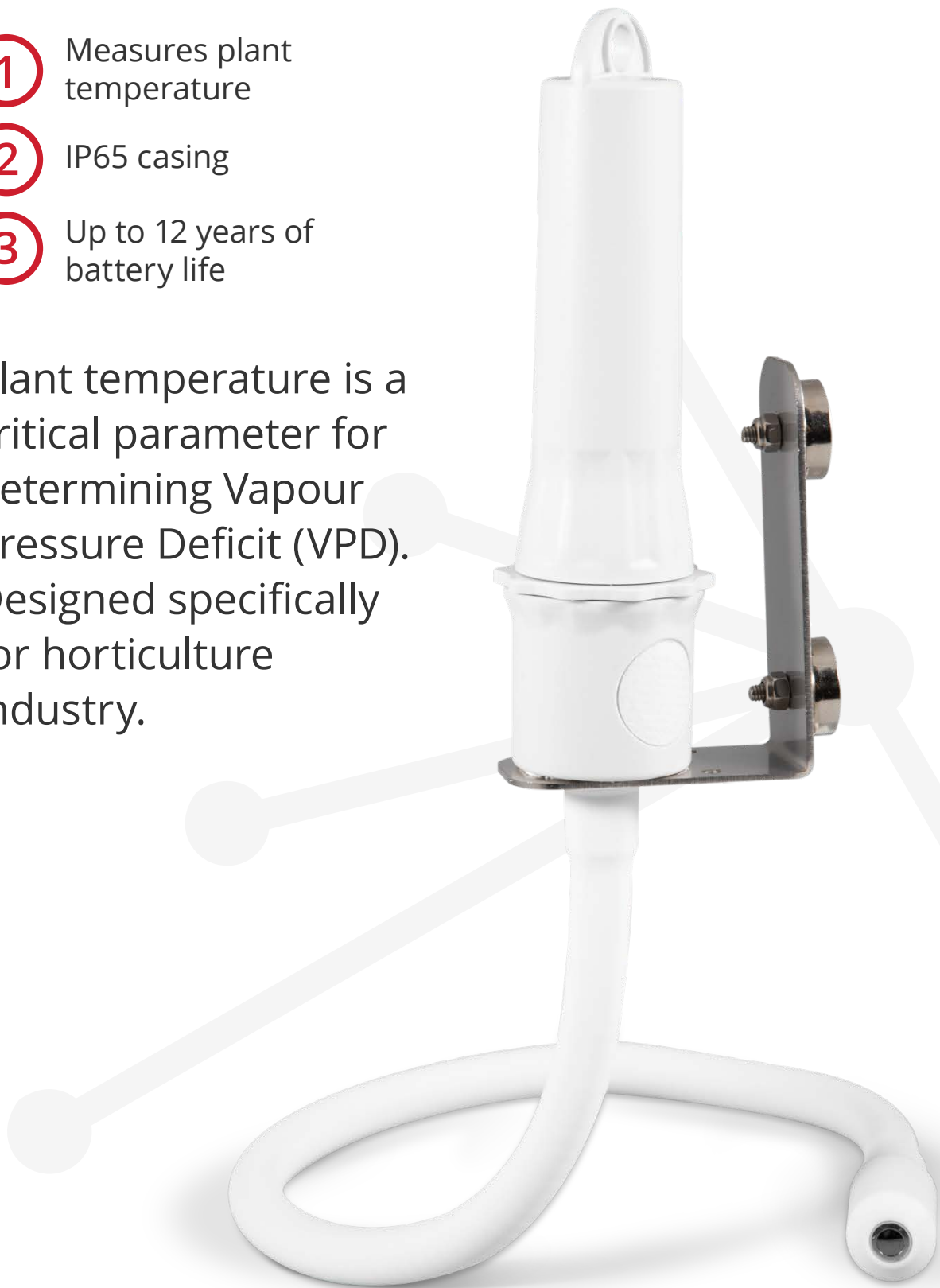
Aranet IR plant temperature sensor



aranet

- ① Measures plant temperature
- ② IP65 casing
- ③ Up to 12 years of battery life

Plant temperature is a critical parameter for determining Vapour Pressure Deficit (VPD). Designed specifically for horticulture industry.



Aranet IR plant temperature sensor

TDSIR001 (EU)

Infrared thermometer for plant temperature measurement in horticulture industry

TDSIR0U1 (NA)

TDSIR0R1 (RU)

Sensor performance

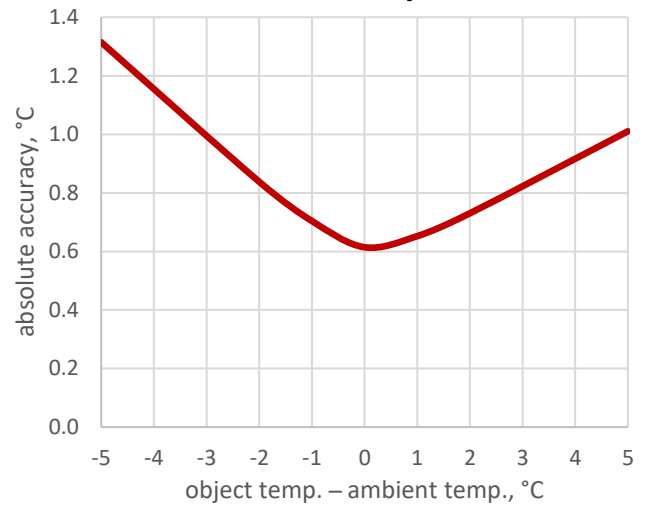
Range	-20 °C to 85 °C (-4 °F to 185 °F)
Resolution	0.1 °C (0.1 °F)
Recommended ambient temperature range	20 °C to 40 °C (-68 °F to 104 °F)
Recommended object temperature deviation	≤ +/- 3.0 °C (≤ +/- 5.4 °F)
Accuracy ¹ in the recommended range	< ±1.0 °C (< ±1.8 °F)
Goose-neck length	50 cm (20 in)
Field-of-view	5°

Radio parameters

Line of sight range	3 km (1.9 mi)
Supported ISM bands	EU868, NA915
Transmitter power	14 dBm
Data transmission interval	1, 2, 5 or 10 minutes
Data protection	XXTEA encryption
Compatible base stations	Aranet PRO

General

Ingress Protection code	IP65
Maximum operating temperature range	-20 °C to 60 °C (-4 °F to 140 °F)
Dimensions	Ø 50 x 620 mm (Ø 2.0 x 24.4 in)
Weight ³	600 g (21 oz)
Enclosure material	ASA plastic, stainless steel
Included in the box	1 AA alkaline battery

Sensor accuracy²

Power 1 AA battery

Type	Alkaline ⁴	Lithium ⁵
Operating temperature	-20 °C to 55 °C (-4 °F to 131 °F)	-40 °C to 60 °C (-40 °F to 140 °F)
TX interval	Battery life at 20 °C (68 °F)	
1 minute	1.3 years	1.7 years
2 minutes	2.3 years	3.0 years
5 minutes	4.8 years	6.8 years
10 minutes	8.2 years	12 years

Compliance

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



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¹ 95 % of the sensors measure within these typical limits in equilibrium state at time of sale. Corresponds to the emissivity of the object 0.97

² Sensor accuracy as a function of the object and ambient temperature difference is shown for the ambient temperature range 20 ... 40 °C.

Corresponds to the emissivity of the object 0.97.

³ Weight with Alkaline AA Fujitsu LR6G07 Premium battery.

⁴ AA Fujitsu LR6G07 Premium battery used for tests and calculations.

⁵ AA Energizer L91 Ultimate Lithium battery used for tests and calculations.