

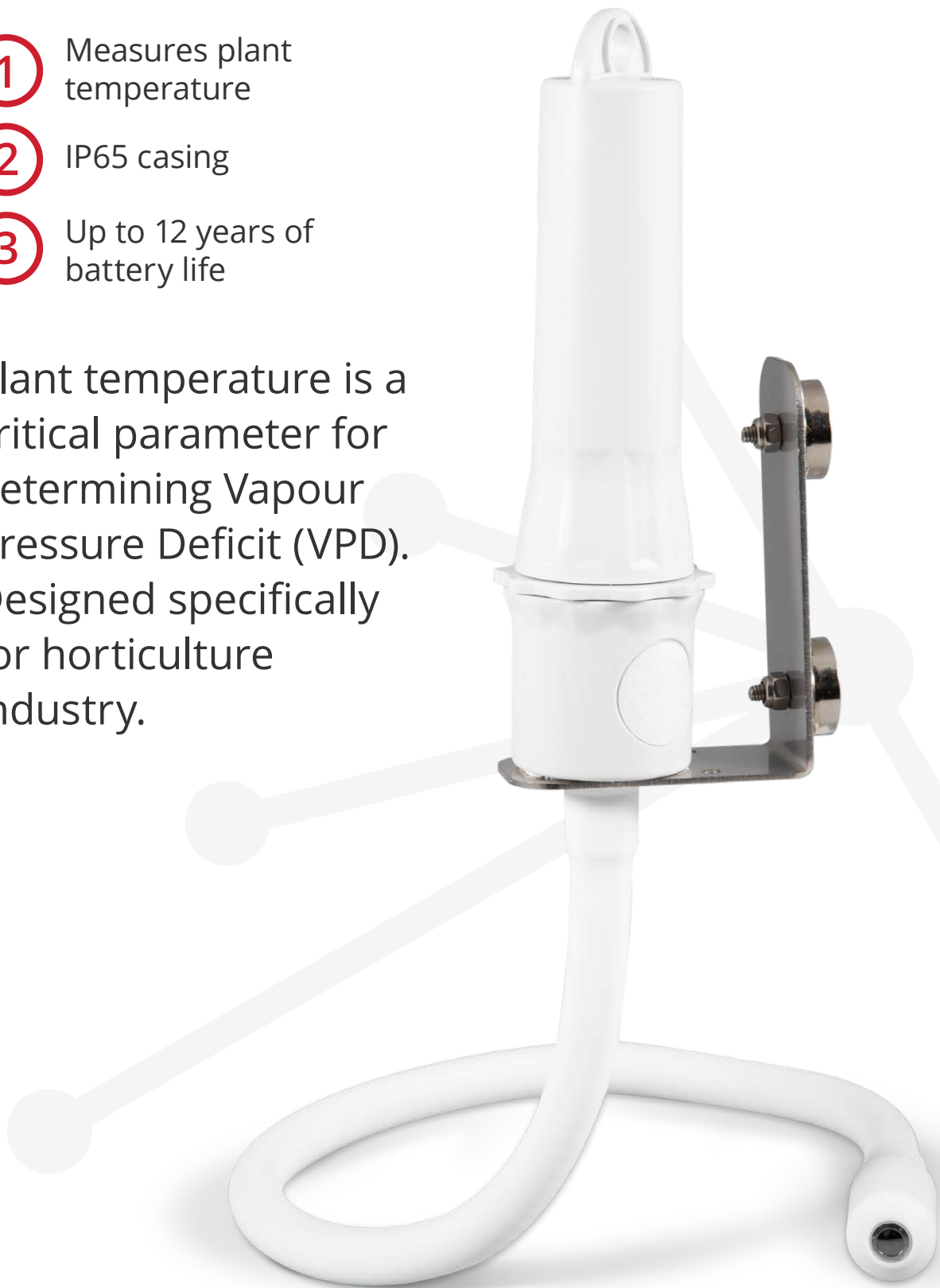
# Aranet IR plant temperature sensor



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

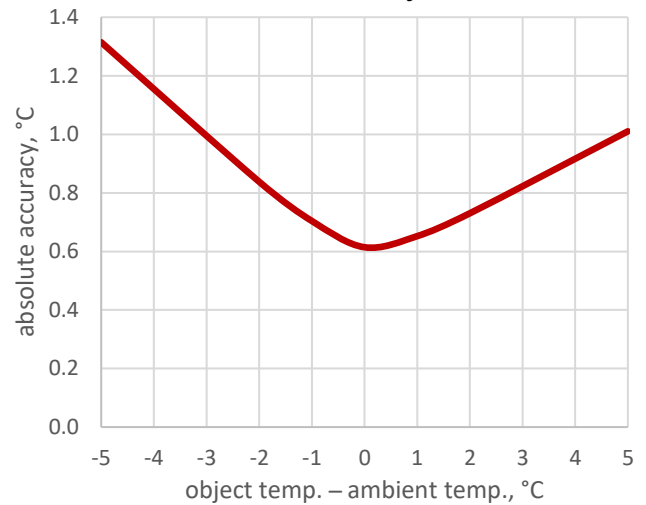
Range	-20 °C to 85 °C (-4 °F to 185 °F)
Resolution	0.1 °C (0.1 °F)
Recommended ambient temperature range	20 °C to 40 °C (-68 °F to 104 °F)
Recommended object temperature deviation	≤ +/- 3.0 °C (≤ +/- 5.4 °F)
Accuracy <sup>1</sup> in the recommended range	< ±1.0 °C (< ±1.8 °F)
Goose-neck length	50 cm (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 <sup>3</sup>	600 g (21 oz)
Enclosure material	ASA plastic, stainless steel
Included in the box	1 AA alkaline battery

Sensor accuracy<sup>2</sup>

### Power 1 AA battery

Type	Alkaline <sup>4</sup>	Lithium <sup>5</sup>
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)

<sup>1</sup> 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

<sup>2</sup> 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.

<sup>3</sup> Weight with Alkaline AA Fujitsu LR6G07 Premium battery.

<sup>4</sup> AA Fujitsu LR6G07 Premium battery used for tests and calculations.

<sup>5</sup> AA Energizer L91 Ultimate Lithium battery used for tests and calculations.