

WAND RDC Data Sheet

WAND Remote Data Collector



The WAND Remote Data Collector (RDC) is an intrinsically safe, battery powered device designed to be used with up to 8 WAND TM Sensors.

The RDC is configured using the Inductosense Data Analysis and Reporting Toolkit (iDART) software. Using iDART, the RDC can be prompted to retrieve live thickness readings, and also programmed to schedule automatic data collection at predefined intervals.

The RDC collects and logs thickness measurements, which can then be retrieved wirelessly by Bluetooth 5.0 at a range of up to 200m, making it ideal for difficult access locations. The data can then be transferred to the iDART cloud with access to the internet.

Technical Specifications

Product Code	WAND-RDC V2
Dimensions	19cm (L) x 13cm (W) x 9cm (H) 7.5 inches (L) x 5.1 inches (W) x 3.4 inches (H)
Weight	1.15kg
Dimensions (reader coil)	7.5mm / 3 inches OD, 0.3cm / 0.12 inches thick
Reader coil cable length	2m / 6.6ft
Wireless communication	Bluetooth 5.0
Wireless range	200mm / 656ft (line of sight)
Port configuration	8 x WAND sensor ports; 1 x thermocouple; 1 USB
Device storage	1500 readings (at one time)
Battery life	5 year minimum (based on 8 readings per day at 20°C)
Operating temperature	Min: -20°C / Max: 70°C Min: -4°F / Max: 158°F
Environmental temperature	Min: -40°C / Max: 70°C Min: -40°F / Max: 158°F



IP rating	IP66
Certifications	V2: Ex ia IIC T4 Ga (Ta = -40°C to +70°C)
Data retrieval method	Via Bluetooth 5.0 USB dongle
Resolution	B5R with velocity 5915 m/s: 11.8 µm S5R with velocity 3220 m/s: 6.44 µm
Repeatability	B5R with velocity 5915 m/s: ±5.52 µm** S5R with velocity 3220 m/s: ±5.52µm/5915*3220= ±3.00µm

**The test was carried out at a fixed reading distance.

Resolution: defined as $1 / \text{sampling frequency in software} \times \text{speed of sound} / 2$

Repeatability: defined as the standard deviation of repeated thickness measurements at a location experiencing no metal loss and at constant temperature over the measurements.

Reading distance: defined as distance between the reader coil and sensor.

