

DC Series Wireless Corrosion Sensors

The DC series wireless corrosion sensors are industrial-grade sensors designed for corrosion monitoring in industrial pipes and tanks. The sensors feature resistance to interference, high accuracy, ultra-low power consumption, and durability, making them ideal for long-term operation in harsh industrial environments.

Each sensor uses ultrasonic technology to accurately measure the time of the reflective ultrasonic waves. Additionally, the sensor is equipped with a temperature probe to measure the surface temperature of the pipe. By applying a temperature compensation algorithm, the sensor can accurately and reliably measure the pipe wall thickness at different temperatures.

The DC110 model is compact and lightweight, designed for direct installation on the pipe's outer wall using epoxy. It is suitable for pipes with a maximum temperature of 75°C. The DC110-H and DC210 models feature dual-waveguide-rod design, allowing installation on the outer pipe wall using clamp fixtures or welding methods. These models are ideal for high or low-temperature applications.

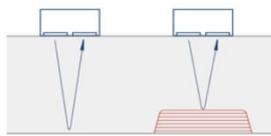
The sensor data is transmitted wirelessly to a remote monitoring system, allowing users to remotely monitor the corrosion status of the pipe and receive timely alerts. This continuous monitoring ensures safe operation, prevents unplanned downtime, and reduces maintenance time and costs.



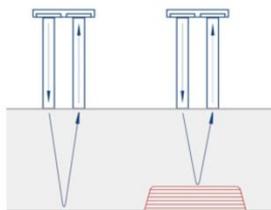
Features and Advantages

- Non-intrusive → No impact on the structure or strength of the pipe.
- Accurate → Interference resistant and highly accurate with automatic temperature compensation.
- Easy-to-install → Cable-free installation with adhesive, clamps, or welding.
- Wireless → Reliable data transmission via Bluetooth, LoRa/LoRaWAN, or 4G Cat. 1.
- Low-powered → Built-in battery with 10 years of life for normal usage.
- Ruggedized → Waterproof, dustproof, shockproof, corrosion-resistant and intrinsically safe; suitable for harsh industrial environment.
- Accessible → Remotely accessible anytime, with automatic alerts and maintenance-free operation.
- Convenient → Bluetooth compatible and can be connected via mobile app.

Normal Temperature



High or Low Temperature

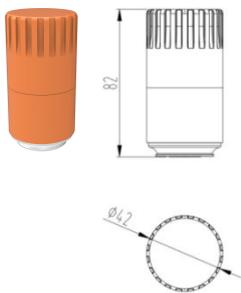


By using non-intrusive ultrasonic sensors and advanced signal processing technology, the corrosion status of the pipe wall can be rapidly and accurately assessed by measuring the pipe wall thickness. An automatic temperature compensation algorithm ensures precise measurements, even in environments with substantial temperature variations.

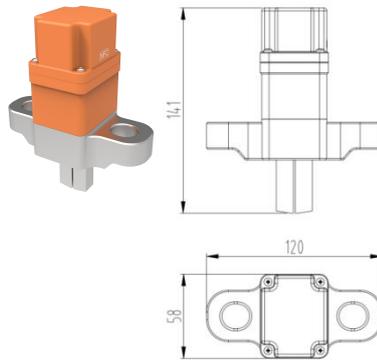
The DC110-H and DC210 models feature a dual-waveguide-rod design that isolates high and low-temperature zones. The DC110-H is suitable for monitoring pipes with temperatures ranging from -40°C to 85°C, while the DC210 is designed for pipes with temperatures spanning -200°C to 600°C.

Specifications

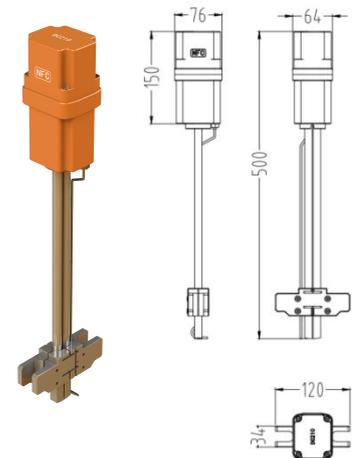
Product Model	DC110/DC110-L/DC110-C	DC110-H/DC110-HL/DC110-HC	DC210/DC210-L/DC210-C
Measured Pipe Temperature Range	-20~75°C Installation temperature range: 10~65°C	-60~125°C	-200~600°C
Thickness Range	3-50mm	Type A: 3-25mm; Type B: 15-50mm	Type A: 5-25mm; Type B: 20-50mm
Thickness Precision	±0.01mm	±0.05mm	±0.1mm
Temperature Range	-40~85°C	-60~125°C	-200~600°C
Temperature Precision	±1°C	±1°C (on top of the waveguide-rod)	0.8%
Data Acquisition Period	2/5/10/15/20/30/60/120/240/360/480/720/1440 minutes		
Communication	DC110/DC110-H/DC210: Bluetooth 5.0, line-of-sight range 300m DC110-L/DC110-HL/DC210-L: LoRa/LoRaWAN, line-of-sight range 3000m DC110-C/DC110-HC/DC210-C: 4G Cat.1		
Battery	6500mAh Li/SOCL2 ER26500M; replaceable		14500mAh Li/SOCL2 ER34615M; replaceable
Dimensions	42mm x 82mm (D x H)	120mm x 58mm x 141mm (L x W x H)	76mm x 500mm (D x H)
Weight	150g	1050g	2080g
Operating Temperature	-40~85°C		
Operating Humidity	10%~90% RH		
Enclosure	Metal and polyamide with fiberglass		
Explosion Protection	EX ia IIC T4 Ga		
Ingress Protection	IP67		
Mounting	Industrial-grade epoxy, with auxiliary magnet	Clamp or welding	



DC110



DC110-H



DC210

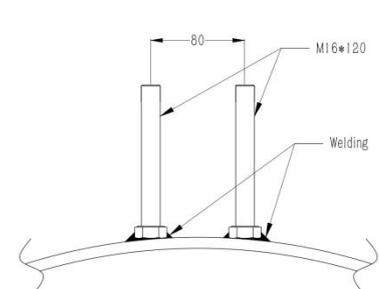
Mounting



DC110 Epoxy



DC110-H/DC210 Clamp



DC110-H/DC210 Welding