

Your Data

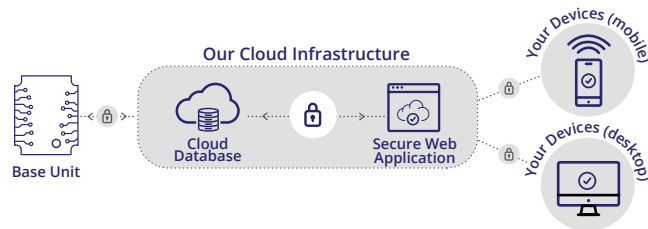
All units connect securely via encrypted link to the Cloud so your data is safe from interference. We have access to over 700 Networks in 190 countries so as long as there's a mobile signal available, we can connect.

We can provide the complete system on a SaaS model where all you need to focus on is your data or you can use our API to integrate with your systems.

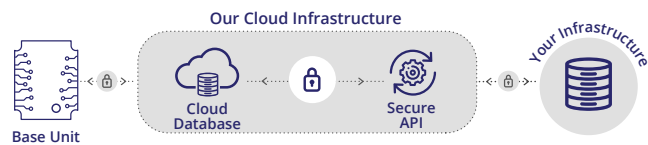
Web Application

Our secure Web Application allows you to manage your installations, visualise your data and alert your Personnel when alarms occur.

FULLY HOSTED CLOUD DATABASE & WEB APPLICATION



API



Your Real Time Environmental Data Anywhere

DESCRIPTION	RANGE/ ACCURACY	DATA FREQUENCY
Base Unit (board temperature, board pressure, board humidity, battery voltage)	—	10 minutes
GPS Position	2 metres	60 minutes
Wireless Temperature	-55°C to 125°C ± 0.5°C	30 minutes
Water Level	0 – 10m H2O ± 0.5% FSD	10 minutes
Embankment Stability Monitoring	1mm/10m	10 minutes or 15 seconds if Alarm Detected
Weather Station		
Air Temperature	± 0.5°C	10 minutes
Atmospheric Pressure	300 - 1100mBar ± 0.1mBar	10 minutes
Windspeed	0-40m/s ± 3%	10 minutes
Wind Direction	± 3°	10 minutes
Humidity	0-100% ± 5%	10 minutes

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TrenTrace Infrastructure Monitoring



Your Real Time Environmental Data Anywhere

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What is TrenTrace?

TrenTrace is a unique remote monitoring tool that allows you to measure weather and other environmental data anywhere in the world in real time.

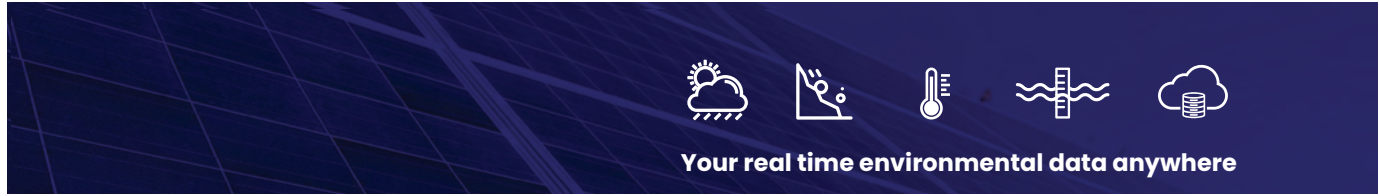
What Can it Measure?

The TrenTrace base unit has four separate measurement parameters:

- A Weather Station
- A Wireless Rail Track Temperature Sensor
- A Water Level Sensor
- An Embankment Stability Sensor

You can choose to connect any or all of the sensors.

It also carries in-built diagnostic tools such as temperature and humidity sensors as well as a GPS chip to give precise installation location.



Rail Temperature

Rail track temperature is measured using a clip-on digital temperature sensor.

The temperature sensor assembly connects wirelessly to the base unit up to 20m away. The sensor is simply clipped on to the underside of the rail, a 30 second job: it doesn't damage the surface of the rail so can be easily moved to other locations if required.



Water Level

The water level sensor can measure the water level of a lake or a water course such as a river or stream. It is very effective in providing an early warning for possible flooding occurring in an area.

The sensor uses a vented diaphragm to compensate for atmospheric pressure changes. It is supplied with a 20m lead giving ample distance for mounting the base unit safely away from the water course/ lake etc. Data from the water level sensor is sent to the cloud database every 10 minutes.



Weather Data

The Weather Station measures Windspeed & Direction, Rainfall Amount & Intensity, Air Temperature and Humidity. There are no moving parts so it is virtually maintenance free. Measurement of precipitation is carried out using a small 24GHz Doppler radar. The precipitation type (rain/snow/hail) is also determined by radar. Data is sent to the cloud database every 10 minutes.



Embankment Stability

Embankment Monitoring is carried out using either a cable or mesh pinned to the embankment surface. The cable is fixed at one end and connected to the movement sensor at the other end. Movement in the Embankment is detected via changes in tension in the cable/ mesh.

The data is sampled every 15 seconds and checked against the Alarm Settings. If the values are in Alarm, the data is immediately sent as Alarm data to the cloud database for processing and to allow alerts be sent to the appropriate personnel. While not in Alarm, the data is sent to the cloud database once every 10 minutes.

