

Indigo

Track maintenance

Adding Value

Introducing Indigo, an efficient, cost-effective way to monitor rail track for the faults and features that cause rough ride.



Indigo is a powerful new tool for monitoring and maintaining track. By identifying faults when they are still minor, it enables pre-emptive maintenance to be carried out and prevents more serious events and disruption occurring.

As Indigo is fitted to in-service trains, track can be monitored more frequently than when dedicated track measurement trains are used. Internal sensors continuously measure vertical and lateral accelerations, roll, pitch and yaw. An internal ARM processor monitors the sensors and sends an alarm to the Indigo cloud server when configurable thresholds are exceeded, along with a snapshot of the raw data spanning the event. Accurate GPS directs track maintenance staff to target problems quickly.

→ TECHNICAL FEATURES

Internal sensors

Internal sensors continuously measure vertical and lateral accelerations, roll, pitch and yaw.

Accurate GPS system

The train's location is constantly and accurately tracked using GPS.

Internal processor

An internal ARM processor monitors the sensors and sends data to the Indigo cloud server, including an alarm when configurable thresholds are reached.

Cloud server

The Indigo cloud server collects and collates wide-ranging, accurate data from across all Indigo devices.

Designed for easy installation

Small and easy to install, Indigo is ideal for fitting in the equipment cabinet of passenger trains.

Correlated data

Correlation of data from across all Indigo devices results in a high level of confidence about the severity and location of developing track faults.

→ ADVANTAGES

- As Indigo is fitted to in-service trains, the track can be monitored much more frequently than when dedicated track measurement trains are used.
- Its small size means that it is easy to fit in the equipment cabinet of passenger trains, where space is often at a premium.
- Indigo has a proven record of successfully identifying, with a high degree of positional accuracy, areas of track that require maintenance. This enables track maintenance engineers to deal with issues quickly and efficiently.
- Accurate location reports and early identification of faults save customers money, reducing time spent identifying issues and preventing major events and disruption occurring.
- Reporting is real time. As soon as an anomaly is detected, data is sent to the Indigo cloud server. This data is then available on the website for downloading and analysis within minutes.
- Data is collected from across all Indigo devices, providing a complete picture of the location and severity of developing track faults.



→ COMPONENTS

1. DC Input
2. 12V port
3. Console port
4. Wi-Fi
5. Ethernet port
6. Mobile telecommunications aerial
7. GPS
8. SER port
9. I/O port

→ INDIGO DASHBOARD

List of Events

Map List Grouped

EventID	DeviceName	Date/Time	Location	Milepost	Mileage Direction	Speed (mph)	Route	TME	SMT	Reason	Duration (s)	View	Download	Group
7611	INDIGO-008	2019-08-30 20:22:23	52.421724,-1.349008	1492yd	+	124	LNW South Rugby	Rugby North	Rugby North	E	20	View	Download	Group
7603	INDIGO-011	2019-08-30 19:50:19	53.25927,-2.294023	390yd	-	115	LNW North Manchester South	Wiltshire	Wiltshire	E	20	View	Download	Group
7581	INDIGO-008	2019-08-30 14:50:19	55.823684,-4.063113	1239yd	-	89	Scotland Motherwell	Carstairs	Carstairs	E	20	View	Download	Group
7580	INDIGO-009	2019-08-30 14:44:48	55.472567,-3.658020	999yd	-	110	Scotland Motherwell	Carstairs	Carstairs	E	20	View	Download	Group
7577	INDIGO-008	2019-08-30 13:49:56	55.820962,-4.119349	271yd	-	88	Scotland Motherwell	Carstairs	Carstairs	E	20	View	Download	Group
7576	INDIGO-008	2019-08-30 13:49:03	55.823643,-4.065608	1423yd	-	91	Scotland Motherwell	Carstairs	Carstairs	E	20	View	Download	Group
7575	INDIGO-008	2019-08-30 13:24:51	55.472941,-3.658044	992yd	+	108	Scotland Motherwell	Carstairs	Carstairs	E	20	View	Download	Group
7573	INDIGO-009	2019-08-30 13:10:57	53.919539,-2.757641	1003yd	+	122	LNW North Preston	Preston	Preston	E	20	View	Download	Group
7572	INDIGO-008	2019-08-30 13:01:33	55.064478,-3.215184	70yd	-	114	Scotland Motherwell	Dumfries	Dumfries	E	20	View	Download	Group
7566	INDIGO-008	2019-08-30 12:22:45	54.515208,-2.668463	309yd	-	99	Scotland Motherwell	Dumfries	Dumfries	E	20	View	Download	Group

→ SPECIFICATIONS

Technical Specifications

Input voltage	40 – 160 VDC
Power	<20 W
Linear accelerometers	3-axis, ±2g full scale
Gyros	3-axis, ±500 dps full scale
Sampling rate	160 samples per second
Mobile telecommunications	2G / 3G
GPS	Yes
Wi-Fi	Dual band (802.11 a/b/g/n)

→ LEARN MORE

