Intercomp
advanced weighing technology . . . by any measure

• Application Note •

Weigh-In-Motion
Bridge Protection

Bridge Protection with Strip Sensors in Kuwait

Monitoring weights and vehicle classifications are a vital component to protecting infrastructure such as roadways, bridges, and tunnels. When Kuwait developed their large bridge project, a Weigh-In-Motion (WIM) system capable of functioning in a harsh environment and extreme temperatures was necessary for protecting the bridge from overweight traffic.

All lanes of the WIM sensors passed our performance tests at commissioning, and the operation of the sensors continues to work well within the framework of our system.
– SWARCO

In addition to relieving congestion on existing roads, Kuwait's new Sheikh Jaber Al-Ahmad Al-Sabah Causeway (a three billion USD project) is improving communication and travel to developing areas of the country. Consisting of over 30 miles (48 km) of roads, the project includes the Main Link and Doha Link, and is the 4th largest causeway in the world.

Roadway access to both Links have Intercomp WIM strip sensors installed in each vehicle lane and an emergency lane, upstream of VMS signage. The WIM sites consist of two sensors per lane across four lanes of traffic, operating at mainline speeds of 62 mph (100 km/h.) At commissioning, each mainline traffic lane was tested with 2, 3, and 5 axle vehicles, with all lanes exceeding COST 323 B+ (7) accuracy performance.

The strip sensors provide a WIM platform that can withstand the elements, like a marine environment with temperatures ranging from 47-115° F (8-46° C), while leveraging benefits of strain gauge temperature compensation to deliver accurate and consistent performance over time. Installed by WIM system integrator APM PRO, the sensors are placed in narrow channels in the pavement in each lane. The weight data is integrated into systems including cameras and VMS.

The increased efficiency of commercial traffic, and the expected growth at either end of the causeway, demonstrates the importance of protecting such a large infrastructure investment from damage caused by overweight vehicles.

To learn more about SWARCO, visit https://www.swarco.com/

To learn more about APM PRO, visit https://apm.pl/en/wim-pro-2-0-in-the-persian-gulf/

Kuwait's new causeway represents a large investment in infrastructure, with the requirement for protection from overweight vehicles.

Four lanes of traffic on each approach have Intercomp WIM Strip Sensors installed.

WIM sensors are installed in the existing roadway and ground flush with the pavement surface.

Additional Data or Customer Testimonials Available Upon Request