

Passenger Boarding Bridges (Jetways)



Air travel, whether for business or pleasure, is something the majority of us will do numerous times in our lives. While most

of us will remember details of the actual flight, few will remember boarding the aircraft. As you descend down the ramp to board, you are on what is known in the industry as a 'passenger boarding bridge', or 'jetway' as they are commonly referred to.

In recent years, the airline industry has become extremely competitive, forcing airlines to utilize every asset to their fullest. To make full utilization of an individual terminal, these jetways must be able to service different types and sizes of aircraft, which in turn gives the airlines maximum scheduling flexibility. In order to do this, the jetway must be able to adjust to different aircraft heights, while keeping the mating floor area level for safety purposes.



Flight 'turn around time' is also another area of concern. To deplane and board passengers as quickly as possible, 'dual boarding bridges', also known as 'over the wing' bridges, are becoming more commonplace.



These allow passengers to board from the front and rear simultaneously. Although much quicker for boarding purposes, they present a two-fold challenge in terms of keeping the mating floor areas level.

The sensor of choice for this application is the *Spectron TADII – Threshold Angle Detector*. When installed into a jetway system, it detects whether the floor is level within a predetermined limit (normally +/-1 degree). If in excess, the output triggers the system to automatically adjust the level of the floor in the proper direction, via hydraulic or electro-mechanical actuators. The open collector outputs of the TADII are easily interfaced into most PLC based systems, or can be used to directly drive solenoids and/or relays.