



Impact Factor: 0.573

Source: 2012 Journal Citation Reports®
(Thomson Reuters, 2013)**Proceedings of the Institution of Mechanical Engineers, Part F:
Journal of Rail and Rapid Transit**

pif.sagepub.com

doi: 10.1243/PIME_PROC_1995_209_252_02

Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and
Rapid Transit **January 1995** vol. 209 no. 1 **33-38****Fail-Safe on-Board Databus for Automatic
Train Protection**H Kirmann¹B Eschermann¹D Forsgran¹¹ ABB Signal AB, Stockholm, Sweden**Abstract**

The Eurocab project defines an automatic train protection (ATP) architecture which supports different signalling systems. To this purpose, ATP devices on-board a locomotive are connected by a serial databus. Due to the real-time requirements, this bus has to guarantee fast and deterministic response times. Due to safety requirements, this bus has to provide a high data integrity. Since the bus is not considered able to be trusted, safety applications have to implement a safe user layer on top of the usual bus protocols.

[automatic train protection](#) [railway signalling](#) [safe data transmission](#) [vehicle bus](#)
[train communication network](#)

Received June 22, 1994.

Accepted February 2, 1995.