Title (en)

Block system and method with intrinsic safety for low railroad traffic density lines

Title (de)

Blocksystem und -Verfahren zum sicheren Fahrbetrieb von Bahnstrecken mit niedrigerer Verkehrsdichte

Title (fr)

Système et procédé de cantonnement de haute sécurité pour lignes ferroviaires à faible trafic

Publication

**EP 1705095 B1 20071128 (EN)**

Application

**EP 05380052 A 20050321**

Priority

EP 05380052 A 20050321

Abstract (en)

[origin: EP1705095A1] In a nominal situation, the complete operation of the block system of the invention is as follows: The position of the train (1) is estimated onboard by means of a GNSS system-based locator (11) and other sensors (12). This position of the train will be determined through safety-qualified equipment by means of a data fusion, monitoring and algorithm process. The system preferably incorporates certain redundancy in the hardware to ensure its reliability in an intrinsic safety application. It is necessary to have a digital map of the layout of the track (31) available onboard which can be generated from field data and must be compared with topographical references of the layout. Once the position is qualified as safe, it is transmitted via radio to the centralized traffic control CTC center (100) by means of a safe and preferably encrypted communications protocol specifically designed for this system. The onboard radio equipment (15, 150) sends the information autonomously with a time cadence that can be configured by the user. The system is two-way, allowing train to CTC and CTC to train transmission over the radio channel.

IPC 8 full level

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CPC (source: EP)

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Designated contracting state (EPC)

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DOCDB simple family (publication)

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