

Title (en)  
Programmable railway level crossing safeguarding equipment with communication coupling to external intelligent peripherals and the method for controlling this equipment's activity

Title (de)  
Programmierbare Sicherungseinrichtung für niveaugleichen Bahnübergang mit Kommunikationsverbindung zu intelligenten externen Peripheriegeräten und Verfahren zur Steuerung der Aktivität dieser Einrichtung

Title (fr)  
Sécurisation de franchissement de niveau ferroviaire programmable avec couplage de communication aux équipements périphériques intelligents externes et procédé de régulation de l'activité de cet équipement

Publication  
**EP 2857277 A1 20150408 (EN)**

Application  
**EP 14003294 A 20140923**

Priority  
CZ 2013735 A 20130924

Abstract (en)  
The backed-up programmable control block (CB) of the level crossing safeguarding equipment (LCSE) is connected through the backed-up data transfer (DT) to remote intelligent peripherals (IP), which are located near the railway lines (RL) in the site designated for the safeguarding of the level crossings (LC), and which are partially or fully backed up, while the backed-up programmable control block (CB), backed up data transfer (DT) and remote intelligent peripherals (IP) are powered from a backed-up power source (PS) through backed-up power lines (PL).

IPC 8 full level  
**B61L 29/22** (2006.01); **B61L 29/28** (2006.01)

CPC (source: EP)  
**B61L 29/22** (2013.01); **B61L 29/28** (2013.01)

Citation (applicant)  

- EP 1187750 B1 20030917 - SIEMENS AG [DE]
- DE 19928317 A1 20010104 - SIEMENS AG [DE]
- GB 2419624 B 20090225 - WESTINGHOUSE BRAKE & SIGNAL [GB]
- GB 2457276 A 20090812 - WESTINGHOUSE BRAKE & SIGNAL [GB]
- EP 2425414 B1 20130130 - SIEMENS AG [DE]
- CZ 282966 B6 19971112 - AZD PRAHA SRO [CZ]
- CZ 297617 B6 20070214 - AZD PRAHA SRO [CZ]
- CZ 2008369 A 20080616

Citation (search report)  

- [AD] EP 1187750 B1 20030917 - SIEMENS AG [DE]
- [A] US 2007040070 A1 20070222 - STEVENSON BOB [US], et al

Cited by  
CN110667646A; CZ306485B6; WO2017021932A1; US11943852B2; US11510298B1; US11895752B2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 2857277 A1 20150408; EP 2857277 B1 20160615**; CZ 2013735 A3 20150708; CZ 305263 B6 20150708; DE 202014011127 U1 20180111; HR P20161051 T1 20161104; PL 2857277 T3 20170228

DOCDB simple family (application)  
**EP 14003294 A 20140923**; CZ 2013735 A 20130924; DE 202014011127 U 20140923; HR P20161051 T 20160819; PL 14003294 T 20140923