

Title (en)

TRANSMISSION SYSTEM FOR A NUCLEAR POWER PLANT AND ASSOCIATED METHOD

Title (de)

ÜBERTRAGUNGSSYSTEM FÜR EIN KERNKRAFTWERK UND ZUGEHÖRIGES VERFAHREN

Title (fr)

SYSTÈME DE TRANSMISSION DE SIGNAUX POUR CENTRALE NUCLÉAIRE ET PROCÉDÉ ASSOCIÉ

Publication

EP 3081000 A1 20161019 (DE)

Application

EP 14821085 A 20141209

Priority

- DE 102013113828 A 20131211
- EP 2014077007 W 20141209

Abstract (en)

[origin: WO2015086577A1] Signal transmission system for a technical installation having a region exposed to radiation, in particular for a nuclear power plant (2) having a containment (6), wherein • a modulator (26) for converting an analogue measured value (K), which is provided by an associated sensor (8), into a PWM signal (D) is arranged inside the region exposed to radiation, • a demodulator (38) for reconstructing the measured value (K) from the PWM signal (D) is arranged outside the region exposed to radiation, • the modulator (26) is implemented using radiation-hardened circuit technology, preferably analogue circuit technology, and comprises an adaptable measured value normalization means (18), a sawtooth generator (14) and a comparator (16), and • the demodulator (38) is connected to the modulator (26) via a signal transmission line (34) DC-isolated from the output of the comparator (16).

IPC 8 full level

H04Q 9/00 (2006.01); **G01D 21/02** (2006.01); **G08C 15/00** (2006.01); **G08C 15/06** (2006.01)

CPC (source: EP KR US)

G08C 15/06 (2013.01 - EP KR US); **G21C 17/002** (2013.01 - US); **G21D 3/00** (2013.01 - KR); **H04B 1/0007** (2013.01 - US); **H04B 10/25891** (2020.05 - US); **H04B 10/503** (2013.01 - US); **H04J 14/08** (2013.01 - US); **H04Q 9/00** (2013.01 - EP KR US); **H04Q 2209/30** (2013.01 - EP KR US); **Y02E 30/00** (2013.01 - EP); **Y02E 30/30** (2013.01 - EP)

Citation (search report)

See references of WO 2015086577A1

Citation (examination)

- US 2013272469 A1 20131017 - LOEWEN ERIC P [US], et al
- US 4567466 A 19860128 - BOZARTH THEODORE B [US], et al

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)

WO 2015086577 A1 20150618; CN 105814906 A 20160727; EP 3081000 A1 20161019; JP 2017502273 A 20170119; KR 20160098282 A 20160818; US 2016315705 A1 20161027

DOCDB simple family (application)

EP 2014077007 W 20141209; CN 201480067857 A 20141209; EP 14821085 A 20141209; JP 2016538522 A 20141209; KR 20167016683 A 20141209; US 201615180278 A 20160613