Title (en)

FIELD WIRE DETECTION DEVICE AND METHOD FOR FIRE ALARM SYSTEM

Title (de)

FELDKABELDETEKTIONSVORRICHTUNG UND VERFAHREN FÜR EIN FEUERMELDESYSTEM

Title (fr)

DISPOSITIF DE DÉTECTION DE FIL DE CHAMP ET PROCÉDÉ POUR SYSTÈME D'ALARME INCENDIE

Publication

EP 2916303 A1 20150909 (EN)

Application

EP 15157420 A 20150303

Priority

CN 201410076722 A 20140304

Abstract (en)

The present invention proposes a control device and control method for a fire alarm system, the control device and control method being capable of monitoring an on-line impedance or inter-wire impedance of field wires. The device is connected to a line, with a capacitive element being terminally connected at a far end of the line. The method comprises: sampling at least three output voltages (V 1 , V 2 , V 3) of the monitoring power supply at at least three different time points (t 1 , t 2 , t 3), respectively, wherein the at least three time points are all before the capacitive element reaches saturation, and the time points include at least three time points which satisfy: t 2 = nt 1 , t 3 = (2n-1)t 1 , where n is an integer greater than 1; and based on the at least three output voltages (V 1 , V 2 , V 3), calculating an on-line impedance (Rc) or inter-wire impedance (Rs) of the line.

IPC 8 full level

G08B 25/04 (2006.01); **G08B 29/12** (2006.01); G08B 29/06 (2006.01)

CPC (source: EP)

G08B 29/123 (2013.01); G08B 25/04 (2013.01); G08B 29/06 (2013.01)

Citation (search report)

- [I] US 2013147495 A1 20130613 - GALERA ANDRES CORDOBA [ES], et al
- [IP] EP 2804163 A1 20141119 - MINIMAX GMBH & CO KG [DE]
- [A] US 4529970 A 19850716 - WYNNE JOHN M [US]
- [A] EP 1777671 A1 20070425 - HONEYWELL INT INC [US]
- [A] EP 0405247 A1 19910102 - NOHMI BOSAI LTD [JP]

Cited by

US11210930B2; WO2019224264A1; CN110533873A; DE102018112299A1; DE102018112299B4; US10977929B2; US11287462B2; US10762770B1

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 2916303 A1 20150909; CN 104897967 A 20150909; CN 104897967 B 20190201

DOCDB simple family (application)

EP 15157420 A 20150303; CN 201410076722 A 20140304