

Title (en)

Circuit for coupling live electrical lines with a microprocessor.

Title (de)

Schaltungsanordnung zur Kopplung von spannungsführenden Leitungen mit einem Mikroprozessor.

Title (fr)

Circuit de couplage de lignes sous tension avec un micro-processeur.

Publication

**EP 0660042 B1 19950802 (DE)**

Application

**EP 93810908 A 19931224**

Priority

EP 93810908 A 19931224

Abstract (en)

[origin: EP0660042A1] In the case of this method, only one load element for contact loading is required for a large number of signal lines and signal contacts, so that costs are saved and the power loss is reduced. In this case, second switching devices (2), which are connected in series with the first switching devices, are provided in the signal lines (ML) and are successively switched on in time in order to interrogate the switching states of the first switching devices. When a positive half-cycle of a supplied AC voltage takes place and the first and the second switching device (2) are closed, a current flows via a line (fv), which is common to all signal lines (ML), a load element (Ld) and a zener diode (HVZ) to an earth connection (M). A voltage (Vs) on the common line and a voltage (Vd) (which is dependent on this voltage) of a power supply circuit (3) are each compared with a reference voltage (Ve). A pulse is in this case produced which characterises the ON state of the signal line (ML) currently being interrogated, and is supplied to the microprocessor (4). <IMAGE>

IPC 1-7

**F23N 5/24**; G05B 9/02; H01H 9/16

IPC 8 full level

**F23N 5/24** (2006.01); **H01H 9/16** (2006.01)

CPC (source: EP)

**F23N 5/242** (2013.01); **H01H 9/167** (2013.01); **F23N 2223/08** (2020.01); **F23N 2223/20** (2020.01); **F23N 2227/16** (2020.01)

Cited by

EP0784329A1; FR2743664A1

Designated contracting state (EPC)

CH DE LI

DOCDB simple family (publication)

**EP 0660042 A1 19950628**; **EP 0660042 B1 19950802**; DE 59300430 D1 19950907

DOCDB simple family (application)

**EP 93810908 A 19931224**; DE 59300430 T 19931224