

Title (en)

Control device for controlling switching devices according to a time programme.

Title (de)

Steuereinrichtung zur Betätigung von Schalteinrichtungen nach einem Zeitprogramm.

Title (fr)

Dispositif de commande pour commander des appareils de commutation selon un programme de temps.

Publication

EP 0660043 B1 19950705 (DE)

Application

EP 93810909 A 19931224

Priority

EP 93810909 A 19931224

Abstract (en)

[origin: EP0660043A1] The information items (which are present on signal lines in the form of analog low-voltage signals) about the states of switching devices (2.1; 2.2) are supplied in parallel form to a circuit block (4), are digitised at specific points in time as binary values "0" or "1", and are transmitted in serial form to a microprocessor (1). One or more shift registers, in cascade, are suitable in particular as the circuit block (4). The signal lines are coupled to the circuit block only via in each case one high-value resistor (3.1; 3.2). The circuit block (4) is fed from a voltage supply circuit (5) such that, when a switching device (2.1; 2.2) is in the closed state, a current flows alternately via in each case one of the protection diodes (D1S.1, D2S.1; D1S.2, D2S.2) of the circuit block (4), and does not flow if one switching device (2.1; 2.2) is in the open state. In order to distinguish whether a voltage (U1, U2) at the input (4.1; 4.2) of the circuit block (4) is in the form of DC or AC, multiple interrogation is carried out within a time interval of one to two network half-cycles, and the successively detected values are analysed by the microprocessor (1). This control device is suitable in particular for controlling an oil or gas burner which is operating continuously. <IMAGE>

IPC 1-7

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

IPC 8 full level

H01H 43/00 (2006.01); **F23N 5/24** (2006.01); **G05B 19/02** (2006.01); **H01H 9/16** (2006.01)

CPC (source: EP US)

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

Cited by

EP0920038A1; WO9927552A1; US6486647B1

Designated contracting state (EPC)

CH DE GB IT LI

DOCDB simple family (publication)

EP 0660043 A1 19950628; **EP 0660043 B1 19950705**; DE 59300336 D1 19950907; JP 3802093 B2 20060726; JP H07282702 A 19951027; US 5629879 A 19970513

DOCDB simple family (application)

EP 93810909 A 19931224; DE 59300336 T 19931224; JP 30721194 A 19941212; US 35927794 A 19941219