

Title (en)

Monitoring and control system comprising a safety switch and method for operating a safety switch

Title (de)

Überwachungs- und Steuerungssystem mit einem Sicherheitsschalter und Verfahren zum Betrieb eines Sicherheitsschalters

Title (fr)

Système de surveillance et de commande comprenant un commutateur de sécurité et procédé de fonctionnement d'un commutateur de sécurité

Publication

EP 2782112 B1 20180530 (EN)

Application

EP 13305355 A 20130322

Priority

EP 13305355 A 20130322

Abstract (en)

[origin: EP2782112A1] The present invention concerns a monitoring and control system (1) comprising: a safety switch (5) including: a first input terminal (7a) and a second input terminal (7b) adapted to be connected to a power supply, a first output terminal (9a) and a second output terminal (9b) adapted to be connected at least one load (3), and at least two groups of relays (1000, 1100), wherein each group comprises at least two relays (1010, 1080; 1110, 1180) having respectively a first set of switching contacts (1012, 1082; 1112, 1182) and a second set of switching contacts (1014, 1084; 1114, 1184), the first set of switching contacts and the second set of switching contacts of each relay are actuated simultaneously by an actuator (1018, 1088; 1118, 1188), wherein the first sets of switching contacts (1012, 1082; 1112, 1182) of the at least two relays (1010, 1080; 1110, 1180) of a group are connected electrically in parallel and the second sets of switching contacts (1014, 1084; 1114, 1184) of the at least two relays of a group (1000, 1100) are connected electrically in parallel, the first sets of switching contacts (1012, 1082) of a first group (1000) being connected electrically in series with the first sets of switching contacts (1112, 1182) of a second group (1100), the second sets of switching contacts (1014, 1084) of the first group (1000) being connected electrically in series with the second sets (1114, 1184) of switching contacts of the second group (1100), wherein the first sets of switching contacts (1012, 1082) of the first group (1000) are connected to the first input terminal (7a) and the second sets of switching contacts (1014, 1084) of the first group (1000) are connected to the second input terminal (7b), wherein the first sets of switching contacts (1112, 1182) of the second group (1100) being connected to the first output terminal (9a) and the second sets of switching contacts (1114, 1184) of the second group (1100) being connected to the second output terminal (9b); and wherein the monitoring and control system further comprises a controller (900) for controlling the relays of the at least two groups (1000, 1100).. Further, the invention concerns a method for operating a safety switch.

IPC 8 full level

H01H 47/00 (2006.01)

CPC (source: EP)

H01H 47/005 (2013.01)

Cited by

CN110325927A; JP2018511147A; US11022651B2; WO2018157931A1

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

DOCDB simple family (publication)

EP 2782112 A1 20140924; EP 2782112 B1 20180530; DK 2782112 T3 20180903

DOCDB simple family (application)

EP 13305355 A 20130322; DK 13305355 T 20130322