

Title (en)

POTENTIAL FREE POSITION MONITORING FOR HIGH VOLTAGE SWITCH

Title (de)

POTENZIALFREIE POSITIONSÜBERWACHUNG FÜR HOCHSPANNUNGSSCHALTER

Title (fr)

SURVEILLANCE DE LA POSITION LIBRE DE POTENTIEL POUR COMMUTATEUR À HAUTE TENSION

Publication

EP 3573084 A1 20191127 (EN)

Application

EP 18173883 A 20180523

Priority

EP 18173883 A 20180523

Abstract (en)

A high voltage switch (10) comprises a movable electric contact (12) movable with respect to a further electric contact (14) between a closed position, in which the electric contacts (12, 14) are connected and an opened position, in which the electric contacts (12, 14) are disconnected, and a position sensor (24) for determining a position (64) of the movable electric contact (12). The position sensor (24) comprises a sensor bar (30) with a light emitting side (46) and a light receiving side (48); a code strip (28) comprising a transparent pattern (60), wherein the code strip (28) is arranged between the light emitting side (46) and the light receiving side (48); an electric sensor part (27) comprising a light source (40) and at least one light receiver (42) for converting a light signal into an electric signal; and fibre optics lines (32, 34) for connecting the light source (40) with the light emitting side (46) and for connecting the light receiving side (48) with the at least one light receiver (42). The code strip (28) and the sensor bar (30) are attached to the high voltage switch (10) such that a movement of the movable electrical contact (12) is conveyed in a relative movement of the code strip (28) and the sensor bar (30).

IPC 8 full level

H01H 1/00 (2006.01); **H01H 11/00** (2006.01)

CPC (source: EP)

H01H 1/0015 (2013.01); **H01H 11/0062** (2013.01); **H01H 2001/0021** (2013.01)

Citation (applicant)

- CN 103618387 A 20140305 - STATE GRID CORP CHINA, et al
- EP 0027774 A1 19810429 - UNITED TECHNOLOGIES CORP [US]

Citation (search report)

- [Y] WO 2012116824 A1 20120907 - PHOENIX CONTACT GMBH & CO [DE], et al
- [YD] EP 0027774 A1 19810429 - UNITED TECHNOLOGIES CORP [US]
- [A] DE 102004048985 A1 20060406 - SIEMENS AG [DE]
- [A] WO 9949484 A1 19990930 - SIEMENS AG [DE], et al
- [A] GB 2432905 A 20070606 - AGILENT TECHNOLOGIES INC [US]

Cited by

US11860230B2; US11804338B2; WO2023122404A1

Designated contracting state (EPC)

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Designated extension state (EPC)

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