

Title (en)
MICROSWITCH AND TEST SYSTEM

Title (de)
MIKROSCHALTER UND PRÜFSYSTEM

Title (fr)
MICRO-COMMUTATEUR ET SYSTÈME D'ESSAI

Publication
EP 3419034 B1 20240117 (DE)

Application
EP 18178178 A 20180618

Priority
DE 102017113416 A 20170619

Abstract (en)
[origin: CN109148193A] The present invention relates to a microswitch that includes a cylindrical sleeve in which a piston is axially movably disposed. A contact pin is axially movably disposed within the piston. The contact pin interacts with two mating contacts that are fixed in the bottom of the sleeve spaced apart from one another. The movement of the contact pins is supported by two springs. A return spring is disposed between the bottom of the sleeve and the piston and moves the piston to an initial position when the microswitch is not actuated. A buffer spring is disposed between the contact pin and a pistonactuating cap and is responsible for gently placing the contact pin onto the mating contacts. In order to buffer the movement of the contact pin only shortly before being placed on the mating contacts, the buffer spring has a larger spring force than the return spring. The microswitch can be constructed with a stable metal sleeve and works despite the lack of insulation between the piston and the sleeve. The two mating contacts also result in a larger contact area and improved guiding of the contact pins.

IPC 8 full level
H01H 1/50 (2006.01); **H01H 1/20** (2006.01); **H01H 13/18** (2006.01); **H01H 3/16** (2006.01); **H01H 13/20** (2006.01); **H01H 13/52** (2006.01)

CPC (source: CN EP)
H01H 1/502 (2013.01 - EP); **H01H 13/18** (2013.01 - CN EP); **H01H 13/28** (2013.01 - CN); **H01H 13/52** (2013.01 - CN); **H01H 1/20** (2013.01 - EP); **H01H 3/16** (2013.01 - EP); **H01H 13/20** (2013.01 - EP); **H01H 13/52** (2013.01 - EP)

Citation (examination)
• DE 202006010569 U1 20060831 - FEINMETALL GMBH [DE]
• DE 1963170 A1 19710624 - SCHANZENBACH & CO GMBH G

Cited by
EP4063070A1; EP4327977A3

Designated contracting state (EPC)
AL AT BE BG CH CY CZ 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)
DE 102017113416 B3 20180607; CN 109148193 A 20190104; EP 3419034 A1 20181226; EP 3419034 B1 20240117; EP 4307332 A2 20240117; EP 4307332 A3 20240403

DOCDB simple family (application)
DE 102017113416 A 20170619; CN 201810625279 A 20180618; EP 18178178 A 20180618; EP 23204817 A 20180618