

Title (en)
LIMIT SWITCH

Publication
EP 0390084 A3 19920304 (EN)

Application
EP 90105837 A 19900327

Priority
• JP 3535889 U 19890328
• JP 26947889 A 19891017

Abstract (en)
[origin: EP0390084A2] A limit switch comprising a case (1) housing a switching unit (2), a head (3) secured to one end of the case, a rotary shaft (4) rotatably supported by the head and having a flat portion (14), a manipulation lever (7) secured at a butt end thereof to the rotary shaft which supports at a tip (7B) end thereof roller (8) means for detecting an object, a return coil spring (16) provided in the head which applies a force through a return plunger (15) to the flat portion of the rotary shaft to return the manipulation lever to a free position, a disk cam (19) secured to the rotary shaft and having a projection (30) formed on a peripheral portion thereof in a position corresponding to the free position of the manipulation lever, manipulation plunger means for the switching unit which is driven in response to rotary movement of disk cam and elastic stopper means (31) disposed in the head for contacting the projection of disk cam and for braking the manipulation lever when manipulation lever is returned to the free position, whereby the lever is prevented from being swung back beyond the free position. Therefore, the switching unit is prevented from chattering.
<IMAGE>

IPC 1-7
H01H 21/28

IPC 8 full level
H01H 21/28 (2006.01); **H01H 13/36** (2006.01)

CPC (source: EP)
H01H 21/285 (2013.01); **H01H 13/365** (2013.01)

Citation (search report)
• [X] US 3829637 A 19740813 - KILCOIN J
• [Y] DE 1920273 A1 19701112 - BERNSTEIN HANS SPEZIALFABRIK
• [A] US 3959614 A 19760525 - GRANINGER FRANK J
• [A] US 3749860 A 19730731 - CREPEAU R
• [A] GB 2095915 A 19821006 - OMRON TATEISI ELECTRONICS CO

Cited by
CN111033667A; CN103197726A; US5430264A; CN103192382A

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IT LI NL SE

DOCDB simple family (publication)
EP 0390084 A2 19901003; **EP 0390084 A3 19920304**; **EP 0390084 B1 19960710**; AT E140338 T1 19960715; DE 69027696 D1 19960814; DE 69027696 T2 19970306

DOCDB simple family (application)
EP 90105837 A 19900327; AT 90105837 T 19900327; DE 69027696 T 19900327