

Title (en)
BISTABLE MAGNETIC DEVICE

Publication
EP 0081605 B1 19891004 (DE)

Application
EP 81110415 A 19811214

Priority
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Abstract (en)
[origin: EP0081605A1] 1. A bistable magnetic arrangement comprising as the first magnetic link a core (3) which is enclosed by a coil (5) and can be residually magnetized alternately by coil currents of alternating direction, and as the second magnetic link two permanent magnets (13, 14) receiving the residually magnetizable core (3) between them-selves in its axial direction, one of the magnetic links being mounted to be axially displaced in relation to the other magnetic link alternately into one or the other of two end positions by the reversal of the coil current, characterized in that a) the core (3) is made from a magnetically hard material, e.g., ALNICO - i.e., has a medium coercitive field strength and is rigidly attached to the fixed coil member (2), b) the permanent magnets (13, 14) are made of a magnetically extremely hard material, e.g., SECO (rare earth cobalt) or oxide ceramic ferrite - i.e., have a coercitive field strength which is substantially higher than that of the material of the core (3), c) associated with the two flat permanent magnets (13, 14) forming the displaceable magnetic link is a frame (6) of a nonmagnetic material which receives the magnets in opposite end faces (7, 8) and is guided on fixed parts (2b) of the bistable arrangement over the path of movement of the displaceable magnetic link (13, 14) and that d) the frame (6) has a suitably constructed actuating member (21) for a switching device.

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H01F 7/16; H01H 51/27

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CPC (source: EP)
H01F 7/1646 (2013.01); **H01F 7/1872** (2013.01); **H01H 51/27** (2013.01); **H01F 7/122** (2013.01)

Citation (examination)
• DE 1614727 A1 19701210 - STANDARD ELEKTRIK LORENZ AG
• FR 691477 A 19301022

Cited by
EP0433592A1; US5394131A; AT399416B; EP0263581A3; WO2023089242A1; WO9110242A3; WO02082485A1

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