

Title (en)
Polarised electromagnetic relay.

Title (de)
Polarisiertes elektromagnetisches Relais.

Title (fr)
Relais électromagnétique polarisé.

Publication
EP 0072976 A1 19830302 (DE)

Application
EP 82107303 A 19820811

Priority
DE 3132244 A 19810814

Abstract (en)
[origin: US4509025A] An electromagnetic relay has a hollow coil body and coil having a longitudinal axis with a bar-shaped armature pivotably mounted for movement in and extending through the coil body, a permanent magnet arrangement having polarization directions perpendicular to the coil axis, two yokes disposed in a single plain parallel to the permanent magnet arrangement, two pole plates connected to the yokes and also extending perpendicular to the coil axis, and a flux plate overlapping and spaced from the yokes and having a flat segment with the magnet arrangement being disposed in the volume defined between the overlapping area of the flux plate and the yokes, the magnet arrangement extending substantially longitudinally parallel to the coil axis. The structural arrangement of the flux plate and yokes so as to define a volume which can accommodate the magnet system permits the magnet system to be encompassed within the relay without adding to the overall length thereof, thereby adapting the relay to miniaturization. Additionally, the surfaces of the yokes and permanent magnet can exhibit a relatively large area, again without causing any increase in the length of the relay.

Abstract (de)
Das Relais besitzt einen im Spulenkörper (17) angeordneten stabförmigen Anker (21) dessen freies Ende (21a) zwischen zwei Polblechen (22, 23) bewegbar ist. Das Relais besitzt außerdem eine flache Dauermagnetanordnung (31), die neben der Spulenwicklung mit zur Spulenachse senkrechter Vorzugsrichtung angeordnet ist. Dadurch ergeben sich große Ankoppelflächen der Dauermagnetanordnung und eine gute Zugänglichkeit zum Abgleich verschiedener Relaischarakteristiken.

IPC 1-7
H01H 51/22

IPC 8 full level
H01H 50/42 (2006.01); **H01H 51/22** (2006.01); **H01H 51/24** (2006.01)

CPC (source: EP US)
H01H 51/2245 (2013.01 - EP US)

Citation (search report)
• [A] US 3673529 A 19720627 - GARRATT JOSEPH A, et al
• [A] FR 2392486 A1 19781222 - SIEMENS AG [DE]
• [A] DE 1220521 B 19660707 - ARTHUR KLEMT
• [A] EP 0022953 A1 19810128 - SAUER HANS [DE], et al
• [P] EP 0034811 A1 19810902 - SIEMENS AG [DE]

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EP0167942A1

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

DOCDB simple family (publication)
EP 0072976 A1 19830302; EP 0072976 B1 19850724; AT E14491 T1 19850815; DE 3132244 A1 19830303; DE 3132244 C2 19830519; DE 3264911 D1 19850829; JP S5838433 A 19830305; JP S6355176 B2 19881101; US 4509025 A 19850402

DOCDB simple family (application)
EP 82107303 A 19820811; AT 82107303 T 19820811; DE 3132244 A 19810814; DE 3264911 T 19820811; JP 13996982 A 19820813; US 40123582 A 19820723