

Title (en)  
Electromagnetic relay.

Title (de)  
Elektromagnetisches Relais.

Title (fr)  
Relais électromagnétique.

Publication  
**EP 0203496 A2 19861203 (DE)**

Application  
**EP 86106834 A 19860520**

Priority  
DE 3518424 A 19850522

Abstract (en)  
[origin: US4689587A] An electromagnetic relay has a hollow coil having a magnet system forming a flux guidance loop in a circuit with a portion extending outside of and parallel to the coil, and another portion, formed by the armature, extending through the interior of the hollow coil. The loop is interrupted by a working air gap, which is slanted relative to the longitudinal axis of the coil, and which is completely encompassed within the interior of the coil. The air gap is formed by a wedge-shaped portion of the armature in registry with a wedge-shape pole piece. The slanted surfaces are longer in length than surfaces parallel to the coil axis, thereby providing a larger area for flux transfer through the air gap. Additionally, by slanting the flux transfer faces within the hollow coil, the overall size of the relay is not increased. The free end of the armature at which the flux transfer surface thereof is disposed as a continuation which engages a contact spring disposed at one end face of the coil body, for moving the contact spring with respect to one or more stationary contact elements for electrical connection and disconnection therewith.

Abstract (de)  
Das Relais besitzt ein Magnetsystem mit einem Spulenkörper (1), einem in einer Durchgangsöffnung (8) des Spulenkörpers angeordneten Anker (9) sowie einem mehrschenkeligen Joch, welches mit einem ersten Schenkel (10a) in die Durchgangsöffnung des Spulenkörpers hineinreicht. Zwischen diesem Jochschenkel (10a) und dem Anker (9) ist ein Arbeitsluftspalt schräg zur Spulenachse ausgebildet, wodurch sich eine große Polfläche und ein guter Flußübergang des Erregerflusses erzielen lassen. Das freie Ende des Ankers besitzt einen Fortsatz (13), welcher eine stirnseitig vor dem Spulenkörper angerdnete Kontaktfeder (14) betätigt.

IPC 1-7  
**H01H 50/18**

IPC 8 full level  
**H01H 50/44** (2006.01); **H01H 50/04** (2006.01); **H01H 50/18** (2006.01); **H01H 50/54** (2006.01); **H01H 50/56** (2006.01)

CPC (source: EP US)  
**H01H 50/18** (2013.01 - EP US); **H01H 50/548** (2013.01 - EP US)

Cited by  
DE10261473B4; DE10300036B4; EP0480908A3; EP0308819A3; EP0425780A3; US6608542B2

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

DOCDB simple family (publication)  
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**EP 86106834 A 19860520**; AT 86106834 T 19860520; DE 3680950 T 19860520; JP 11630786 A 19860522; JP 11630886 A 19860522; US 85881486 A 19860502