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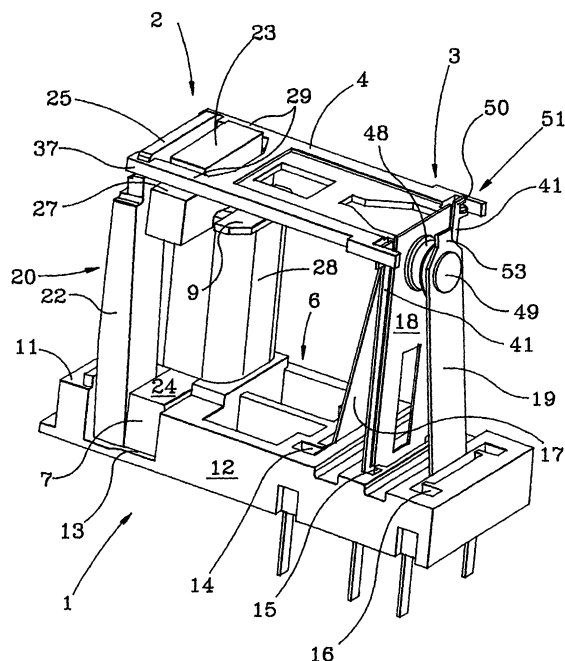
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(54) Relay

(57) The invention relates to a relay designed with integral parts to simplify assembly, reduce manufacturing costs, and increase strength. The relay has a coil base member (1). The coil base member (1) has a base member (6) and a coil member (5) integrally connected. The base member (6) has an upper side (11), side faces (12) and a bottom surface (13). The coil member (5) has inner sides (8). The coil base member (1) has a side opening (10) that extends from the inner sides (8) of the coil member (5) to the upper side (11) of the base member (6) and to the side faces (12) and bottom surface (13) of the base member (6).



Hq. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 02 01 3166

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 4 914 411 A (HIKITA HIROSHI ET AL) 3 April 1990 (1990-04-03) * figures 2-5 *	1-7	H01H50/04
X	US 5 952 904 A (DONEGHUE JEFFREY A) 14 September 1999 (1999-09-14) * figures 2,4 *	1-3	
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A	US 4 420 733 A (PALANDRI FABIO V) 13 December 1983 (1983-12-13) * figures 1,2 *	1,2	
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A	DE 197 18 985 C (SCHRACK COMPONENTS AG) 8 October 1998 (1998-10-08) * the whole document *	3-7	TECHNICAL FIELDS SEARCHED (Int.Cl.7) H01H
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		2 November 2004	Overdijk, J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☒ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

3-7

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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LACK OF UNITY OF INVENTION
SHEET B

Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claim: 1 2

A relay havin a coil base member, which comprises a base member and a coil member that are integrally connected, charaterised in that the coil base member has a side opening of the coil member to an upper side of the base member and to side faces and a bottom surface of the base member.

2. claims: 3-7

A relay comprising a magnet system, having a coil, a yoke and a tilting armature characterised in that the yoke has a yoke web, a upper yoke cross-bar and a lower yoke corss-bar; the tilting armature has an armature web, an upper armature cross-bar and a lower armature cross-bar and the yoke and the tilting armature are formed in a substantially c-shape such that the yoke and the tilting armature are mirror-inverted when in an installation position for installment in the coil base member.

3. claims: 8-10

A relay comprising a spring system having a release spring, a switching spring and an operating spring, each having an integral foot element having a locking device that fixes the foot element in insert slots provide in the base member characterised in that the locking device locks automatically together with the insert slots when the foot elements are inserted therein and fix the position of the springs.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 01 3166

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82