(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 487 002 A3

# (12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
**12.01.2005 Bulletin 2005/02**

(43) Date of publication A2:
**15.12.2004 Bulletin 2004/51**

(21) Application number: **04002046.3**

(22) Date of filing: **30.01.2004**

(51) Int Cl.[7]: **H01H 71/70**, H01H 5/16

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR**
Designated Extension States:
**AL LT LV MK**

(30) Priority: **20.05.2003 IT MI20030991**

(71) Applicant: **Gewiss S.P.A.**
**24069 Cenate Sotto (Bergamo) (IT)**

(72) Inventors:
- **Bosatelli, Domenico**
  **24069 Cenate Sotto (IT)**
- **Pianezzola, Sergio**
  **21100 Calcinate del Pesce(Varese) (IT)**
- **Contardi, Augusto**
  **21100 Varese (IT)**

(74) Representative: **Forattini, Amelia et al**
**c/o Internazionale Brevetti**
**Ingg. ZINI, MARANESI & C. S.r.l.**
**Piazza Castello 1**
**20121 Milano (IT)**

## (54) Electrical remote actuation device

(57) An electrical remote actuation device that includes an electric motor (30) that, through a control mechanism, actuates the rotation of an actuation shaft (102) that is associated with a kinematic system for the actuation of an electrical circuit breaker. The control mechanism includes a preloaded spring (28) that provides the actuation shaft with the impulse to open or close the circuit breaker with sufficient speed.

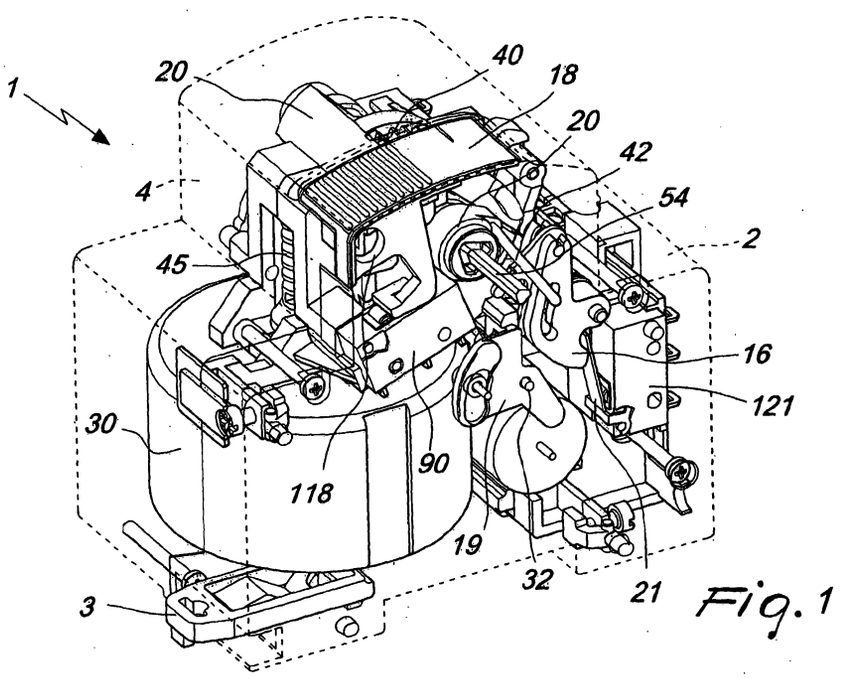



Fig. 1

EP 1 487 002 A3

European Patent Office

# EUROPEAN SEARCH REPORT

Application Number
EP 04 00 2046

## DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.Cl.7) |
|---|---|---|---|
| X | EP 0 797 229 A (SCHNEIDER ELECTRIC SA) 24 September 1997 (1997-09-24) * abstract; claim 1; figure 5 * | 1,2 | H01H71/70 H01H5/16 |
| X | US 2002/100674 A1 (CASTONGUAY ROGER NEIL ET AL) 1 August 2002 (2002-08-01) * claim 1; figure 4 * | 1,2 | |
| A | EP 1 137 037 A (AEG NIEDERSPANNUNGSTECH GMBH) 26 September 2001 (2001-09-26) * the whole document * | 1,2 | |

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 |
|---|---|---|
| Munich | 1 September 2004 | Simonini, S |

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

EPO FORM 1503 03.82 (P04C01)

European Patent Office

Application Number
EP 04 00 2046

## 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:

☒ 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:

1, 2

European Patent Office

## LACK OF UNITY OF INVENTION
## SHEET B

Application Number
EP 04 00 2046

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. claims: 1,2

   Construction of the actuation mechanism.

   ---

2. claims: 3,12

   Construction of the force release mechanism.

   ---

3. claims: 4,13,15

   Actuation mechanism for a "self-powering" (??) lever and microswitch.

   ---

4. claims: 5,6,14

   Activation of a tripping microswitch.

   ---

5. claims: 7,8

   Direction changing system for the rotation of the motor.

   ---

6. claims: 9-11

   Provision of a "locking" (??) microswitch and lever.

   ---

## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 04 00 2046

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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

01-09-2004

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---|---|---|
| EP 0797229 A | 24-09-1997 | FR 2746209 A1 | 19-09-1997 |
| | | BR 9701325 A | 24-11-1998 |
| | | CN 1170213 A ,B | 14-01-1998 |
| | | EP 0797229 A1 | 24-09-1997 |
| | | ID 16773 A | 06-11-1997 |
| US 2002100674 A1 | 01-08-2002 | EP 1358663 A1 | 05-11-2003 |
| | | WO 02061784 A1 | 08-08-2002 |
| EP 1137037 A | 26-09-2001 | DE 10013105 A1 | 04-10-2001 |
| | | EP 1137037 A2 | 26-09-2001 |

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82