

Title (en)
Submersible effluent pump

Title (de)
Abwassertauchpumpe

Title (fr)
Groupe électropompe submersible permettant un relevage d'effluent

Publication
EP 0903497 A1 19990324 (FR)

Application
EP 98402134 A 19980828

Priority
FR 9711567 A 19970917

Abstract (en)
The level detectors provides signals indicating level change, with timing circuit determining duration of pump action necessary. The submersible pump includes a pump (1) driven by an electric motor (2) controlled by a control circuit (3). The whole assembly is intended to be submerged in a container (C) holding effluent. The control circuit includes a first detector (6) sensing the level of effluent in the container providing a change of state signal when the level reaches a first level (NH). A second detector (8) determines when the level falls below a second level (NM) which is lower than the first level. The circuit includes provision to determine the time elapsing between the change of state of the first detector and the change of state of the second detector, in order to control the operating time necessary for the operation of the pump. The two detectors may be mounted on the pump itself.

Abstract (fr)
Ce groupe électropompe submersible destiné au relevage d'effluent contenu dans un réceptacle (C) comprend une pompe (1) entraînée par moteur (2) électrique commandé par un circuit (3) de commande et comporte des capteurs (6, 8) de niveau qui permettent de faire en sorte que l'on arrête la pompe (1) juste avant que ne soit atteint le niveau où elle pourrait être désamorcée. <IMAGE>

IPC 1-7
F04B 49/025

IPC 8 full level
F04B 49/025 (2006.01); **F04D 15/02** (2006.01)

CPC (source: EP)
F04B 49/025 (2013.01); **F04D 15/0218** (2013.01)

Citation (search report)

- [Y] US 4311438 A 19820119 - COMSTEDT ANDERS
- [Y] PATENT ABSTRACTS OF JAPAN vol. 016, no. 498 (M - 1325) 15 October 1992 (1992-10-15)
- [A] PATENT ABSTRACTS OF JAPAN vol. 007, no. 085 (M - 206) 8 April 1983 (1983-04-08)
- [A] PATENT ABSTRACTS OF JAPAN vol. 096, no. 003 29 March 1996 (1996-03-29)

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FR2817923A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB IE IT LI NL PT SE

DOCDB simple family (publication)
EP 0903497 A1 19990324; **EP 0903497 B1 20030326**; AT E235656 T1 20030415; DE 69812515 D1 20030430; DE 69812515 T2 20031106; DK 0903497 T3 20030714; ES 2190573 T3 20030801; FR 2768468 A1 19990319; PT 903497 E 20030731

DOCDB simple family (application)
EP 98402134 A 19980828; AT 98402134 T 19980828; DE 69812515 T 19980828; DK 98402134 T 19980828; ES 98402134 T 19980828; FR 9711567 A 19970917; PT 98402134 T 19980828