(54) Title: DEVICES, SYSTEMS, AND METHODS FOR WARMING FLUIDS IN MULTIPLE INTRAVENOUS FLUID CONTAINERS

(57) Abstract: Devices, systems and methods for controlling fluid temperatures from more than one fluid containers prior to their infusion into a human body are disclosed. The device includes a power supply source for providing power; an input/output interface for receiving fluid temperature data from thermal sensors and for transmitting duty-cycle signals to each of the fluid warming unit; a processing unit for comparing fluid temperature data with a permissible fluid temperature range, for calculating a fluid temperature differential, and for apportioning the available work cycle of the power supply source; and a controller for adjusting the duty-cycle of each fluid warming unit based on the fluid temperature differentials, so that during each work cycle all available power provided by the power supply source is delivered to only one of the fluid warming units at a time.

Declarations under Rule 4.17:
— as to applicant’s entitlement to apply for and be granted a patent (Rule 4.17(ii))
— as to the applicant’s entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:
— with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 22 November 2007

For two-letter codes and other abbreviations, refer to the “Guidance Notes on Codes and Abbreviations” appearing at the beginning of each regular issue of the PCT Gazette.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IP (B): A61F 7/12 (2007.01)
USPC: 604/113
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
USPC: 604/113
IPC (B): A61F 7/12 (2007.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
IPC (B): H05B 1/00 (2007.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WEST: (warm or heat) and (intravenous$3) and cycle and differential and temperatur$4

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
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Date of the actual completion of the international search
10 July 2007 (10.07.2007)

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