

## Title (en)

Monitoring device for overheating of a hot water heater with a pierced diaphragm

## Title (de)

Überhitzungs-Überwachungsvorrichtung eines Heisswassererzeugers mit einer durchbohrte Membran

## Title (fr)

Dispositif de contrôle de la surchauffe d'un générateur d'eau chaude à membrane déplaçable percée

## Publication

**EP 0990849 A1 20000405 (FR)**

## Application

**EP 99402391 A 19990930**

## Priority

FR 9812371 A 19981002

## Abstract (en)

The water heater (1) has a cold water input pipe (2) connected to a cold water circuit (3) and a hot water output pipe (4) connected to a hot water circuit (5). The overheating controller (30) has an enclosure (31) divided by a deformable membrane (34) in a cold chamber (32) and in a hot chamber (33). The membrane (34) has a first face (37) and a second face (38) respectively turned towards the hot (33) and the cold (32) chambers. The cold chamber (32) is at a pressure of that in the cold water circuit (3) and the hot chamber (33) is at the pressure of the hot water circuit (5), so that the membrane (34) is displaced due to the pressure difference between the chambers (32,33). The controller (30) has means (45), for limiting the temperature rise of the water contained in the cold chamber (32), which is supported on the membrane (34). The temperature limiter (45) includes a passage (46) through the membrane (34) so that the cold water in the chamber (32) can flow towards the hot chamber (33). The passage (46) has two orifices ending in the faces (37,38) of the membrane (34) the transversal section of each orifice (47,48) is greater than the transversal section of the passage (46).

## Abstract (fr)

Il s'agit d'un dispositif de contrôle de la surchauffe d'un générateur d'eau chaude qui comprend une conduite d'entrée d'eau froide et une conduite de sortie d'eau chaude. Le dispositif comporte une enceinte divisée par une membrane déformable (34) en deux chambres dans lesquelles règnent les pressions existant dans le circuit eau froide et le circuit eau chaude. La membrane déformable est déplaçable sous la différence de pression. Le dispositif de contrôle comporte des moyens de limitation 45 de la montée en température de l'eau contenue dans la chambre froide qui consistent en un passage (46) traversant la membrane. <IMAGE>

## IPC 1-7

**F23N 1/08; F24H 9/20**

## IPC 8 full level

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## Citation (search report)

- [A] FR 2609162 A1 19880701 - COMMISSARIAT ENERGIE ATOMIQUE [FR], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 004, no. 088 (M - 017) 24 June 1980 (1980-06-24)

## Cited by

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