

Title (en)
Self-regulating heating element.

Title (de)
Selbstregelndes Heizelement.

Title (fr)
Élément chauffant auto-régulateur.

Publication
EP 0057171 A2 19820804 (DE)

Application
EP 82890011 A 19820126

Priority
AT 32181 A 19810126

Abstract (en)
1. Self-regulating heating element having at least one resistor heating member arranged in a casing and made of an electrically conducting ceramic material having a positive temperature coefficient of electrical resistivity said heating member being inserted between two small metal blocks which rest directly against its side faces, said small metal blocks being insulated electrically one from the other, the outer surface of said small metal blocks serving for outwardly directed heat transfer being greater than the contact area between the heating member and the small metal blocks, characterized in, that the one small metal block (9) comprises a groove-like recess (10), in which the heating member (1) and the second small metal block (3) are inserted, the one face of said heating member (1) rests against the one side wall of this recess (10), the second face of said heating member rests against the second small metal member (3) and the second small metal member (3) rests against the other side of this recess (10), and between the second small metal block (3) and its contact surface in the groove-like recess (10) there is inserted an electrical insulation (14), with this the pressing of said metal blocks against the heating member originates from forces received within the groove-like recess (10), or that the structure consisting of said heating member (1), said both small metal blocks and an insulation arranged around their outer surface is inserted between walls (23, 24) of a housing which can be pressed together, and which are forced together for creating a pressing between the small metal blocks and the heating member by a clamp (25) acting against the outer surface of said walls.

Abstract (de)
Selbstregelndes Heizelement mit einem Widerstands-Heizkörper aus stromleitendem Keramikmaterial mit positivem Temperaturkoeffizienten. Dieser Heizkörper ist entweder zusammen mit einem an seiner einen Seite unmittelbar anliegenden Metallklötzchen in eine Nut in einem weiteren Metallklötzchen eingefügt oder zusammen mit zwei Metallklötzchen zwischen zwei Wänden eines Gehäuses eingefügt, die von einer Klammer zusammengedrückt werden.

IPC 1-7
H05B 3/14; **H05B 3/10**

IPC 8 full level
H05B 3/10 (2006.01); **H05B 3/14** (2006.01)

CPC (source: EP)
H05B 3/10 (2013.01); **H05B 3/141** (2013.01)

Cited by
DE102019109482A1; EP0262243A1; EP0136826A3; DE19600069A1; DE19600069C2; US5451921A; EP1263001A3; US5362164A; FR2710281A1; US4700050A; WO9510115A1

Designated contracting state (EPC)
BE DE FR GB SE

DOCDB simple family (publication)
EP 0057171 A2 19820804; **EP 0057171 A3 19820825**; **EP 0057171 B1 19861001**; AT 394296 B 19920225; AT A32181 A 19910815; DE 3273500 D1 19861106

DOCDB simple family (application)
EP 82890011 A 19820126; AT 32181 A 19810126; DE 3273500 T 19820126