

Title (en)  
Tubular heating element.

Title (de)  
Rohrheizkörper.

Title (fr)  
Élément chauffant tubulaire.

Publication  
**EP 0318895 A2 19890607 (DE)**

Application  
**EP 88119802 A 19881128**

Priority  
DE 8715851 U 19871130

Abstract (en)  
[origin: US5020128A] A tubular electric resistance heater includes a tubular sheath enclosing an electric heater coil. As protective overheat safety device is provided at an end of the sheath and includes an electrically conductive tube disposed in a cavity in the end of the sheath and having a closed end electrically connected to the heater coil. A rod-shaped member made of a thermally deformable material extends through the tube from the closed end and projects out of the other end of the tube into activating engagement with a normally closed switch located externally of the tubular sheath and electrically connected in series with the tube and thereby the heater coil. Excessive heater coil temperatures cause the rod-shaped member to deform and actuate the switch to its open position to deenergize the heater coil. The rod-shaped member may be made to a memory-alloy or a plastic which changes its structure, e.g., shrinks, or melts at a certain temperature.

Abstract (de)  
Ein Rohrheizkörper besitzt an mindestens einem Ende einen Hohlraum, in den ein stabförmiges Element eingesetzt ist, daß bei Überhitzung auf eine Schalteinrichtung einwirkt, die die Stromzufuhr zu dem Rohrheizkörper unterbricht. Das stabförmige Element kann aus einer sogenannten "Memory-Legierung" bestehen. Es kann auch nach dem Prinzip eines Feuchtigkeitsausdehnungsreglers arbeiten oder eine Salzfüllung enthalten oder aus einem bei einer bestimmten Temperatur schrumpfenden Kunststoff bestehen.

IPC 1-7  
**H05B 1/02**; **H05B 3/48**

IPC 8 full level  
**H01H 37/76** (2006.01); **H05B 1/02** (2006.01); **H05B 3/48** (2006.01); **H01H 37/32** (2006.01); **H01H 37/36** (2006.01); **H01H 37/54** (2006.01)

CPC (source: EP US)  
**H01H 37/48** (2013.01 - EP US); **H01H 37/761** (2013.01 - EP US); **H05B 1/0205** (2013.01 - EP US); **H05B 3/48** (2013.01 - EP US); **H01H 37/323** (2013.01 - EP US); **H01H 37/36** (2013.01 - EP US); **H01H 37/54** (2013.01 - EP US); **H01H 2037/762** (2013.01 - EP US)

Citation (applicant)  
• EP 0613325 A2 19940831 - ELPAG AG CHUR [CH]  
• EP 0086465 B1 19861015  
• "Memory-Legierungen", TECHN.MITT.KRUPP FORSCHUNGSBERICHTE, vol. 34, 1976

Cited by  
CN109429385A; EP2768277A4; FR2681496A1; DE29707829U1; EP0456216A3

Designated contracting state (EPC)  
AT CH DE FR GB IT LI SE

DOCDB simple family (publication)  
**US 5020128 A 19910528**; AT E127309 T1 19950915; DE 3854378 D1 19951005; DE 8715851 U1 19880218; EP 0318895 A2 19890607; EP 0318895 A3 19900808; EP 0318895 B1 19950830; EP 0613325 A2 19940831; EP 0613325 A3 19941123

DOCDB simple family (application)  
**US 27811488 A 19881130**; AT 88119802 T 19881128; DE 3854378 T 19881128; DE 8715851 U 19871130; EP 88119802 A 19881128; EP 94108393 A 19881128