

Title (en)  
Electrical winding.

Title (de)  
Elektrische Wicklung.

Title (fr)  
Enroulements électriques.

Publication  
**EP 0122133 A1 19841017 (EN)**

Application  
**EP 84302366 A 19840406**

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Abstract (en)  
A solenoid, more especially for use in nuclear magnetic resonance spectroscopy where the coil windings need to be very accurately located, has a multiplicity of elongate elements spaced around and accurately positioned on the outside of a cylindrical former, the elements having locating means, conveniently in the form of slots, which together define a helix and these serve to locate a respective coil winding. The elongate elements support a further layer of elements, also having locating means which serve to locate a further winding, and these elements support further elements and so on to provide required number of winding layers. Means are also described for maintaining the solenoid at a substantially uniform temperature.

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IPC 8 full level  
**A61B 10/00** (2006.01); **A61B 5/055** (2006.01); **G01R 33/381** (2006.01); **H01F 5/02** (2006.01); **H01F 7/20** (2006.01); **H01F 27/02** (2006.01); **H01F 27/08** (2006.01)

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Citation (search report)  
• [A] DE 1206500 B 19651209 - TELEFUNKEN PATENT  
• [A] GB 274160 A 19270719 - BENJAMIN HESKETH  
• [A] GB 326190 A 19300306 - H W SULLIVAN LTD, et al  
• [A] US 2795765 A 19570611 - STROBLE JOE A  
• [A] US 1647615 A 19271101 - GARGAN JOHN O  
• [A] FR 931802 A 19480304 - RADIOELECTRIQUES LAB  
• [A] US 1876670 A 19320913 - HEINTZ RALPH M  
• [A] US 1608673 A 19261130 - SCHRODER EDWARD J  
• [A] US 1929187 A 19331003 - JOHNSON FRED R  
• [A] FR 2509904 A1 19830121 - LEGRAND SA [FR]

Cited by  
CN106024261A; DE112006003946B4; EP1744330A1; EP0242734A3; FR2616005A1; EP0167128A3; EP2196605A1; FR2939827A1; DE4017260A1; US5409558A; FR2618016A1; US4884409A; CH675791A5; US11096605B2; EP0167129A3; GB2493467A; CN102906587A; GB2493467B; DE19640981A1; US5852395A; US2021368591A1; US11985752B2; EP3818955A1; WO8900766A1; WO2011117714A3; US9536659B2; WO2011148163A1; WO2014176072A1; US9480415B2; US10806521B2; US11950853B2

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