

Title (en)  
ELECTROMAGNETIC DEVICE FOR DRIVING A PRINT ELEMENT

Publication  
**EP 0021335 B1 19831109 (DE)**

Application  
**EP 80103387 A 19800618**

Priority  
• DE 2926276 A 19790629  
• DE 3018407 A 19800514

Abstract (en)  
[origin: EP0021335A1] 1. A movable actuator mechanism with at least two operating gaps lying between magnet poles and in which armature elements are moved in an axial direction by the reciprocal influence of the magnetic field in the operating gap and the armature element, the entire mechanism consisting of at least one pair of facing, substantially symmetrically designed yoke halves (24, 27) forming the operating gaps between themselves and whose facing pole ends, each constituting one pole pair, form aligned operating gaps spaced from each other viewed in the operating direction of the armature elements (20, 21), wherein a ram (18) is provided which moves between the operating gaps in the direction of the line of alignment of the operating gaps and which is connected to the armature elements, characterized in that the respective yoke halves (24, 27), forming an electromagnet, consist of a magnetizable material and at least one of which is surrounded by an electrically excited coil (23, 26), that the ram (18) has a cross-section corresponding to the operating gap cross-section extending perpendicularly to its operating direction, that each pole pair of two facing yoke halves (24 and 27) is provided with one armature element (20 and 21) of magnetizable material and one spacer element (19) of predominantly non-magnetizable material arranged between said armature elements, so that each operating gap is associated with one armature element which is geometrically shaped such that its volume is of the order of the operating gap volume, and that each armature element (20, 21) in the original position of the ram (18) in the non excited state of the electromagnet, viewed in an axial direction, is positioned external to its associated operating gap, and that upon excitation of the pole pair of said operating gap, the armature element is pulled inside said operating gap.

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IPC 8 full level  
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CPC (source: EP)  
**B41J 9/127** (2013.01); **B41J 9/38** (2013.01); **H01F 7/13** (2013.01)

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• DE 1237816 B 19670330 - IBM DEUTSCHLAND  
• DE 7432801 U

Cited by  
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