READ/WRITE MAGNETORESISTIVE (MR) HEAD WITH SUNKEN COMPONENTS

ABSTRACT

A combined sunken magnetoresistive (MR) read/write head (30B - 30J) is provided wherein first (S1) and second shield layers (S2) are eliminated or thinned down in an insulation stack region just behind a pole tip region (PT). This provides a depression (51) behind the pole tip region (PT) where head components, such as the write coil (C), insulation stack (I1-I3) and pole pieces (PT) of a write head (30), are located. Leads (L1, L2) for an MR sensor of the head (30) extend parallel to an air bearing surface (ABS) where they connect to first and second conductors beyond the limits of the shield layers (S1,S2). The conductors extend back into the head (30) normal to the air bearing surface (ABS) without any danger of shorting to the shield layers (S1, S2).

Fig. 5.