

Abstract

Low hysteresis sensor

A sensor (1; 1') comprises a magnetic field source (3), at least one flux conducting soft magnetic element (2) with at least one air gap (4) and at least one magnetic field sensor (5) located in the air gap (4) and measuring a change of the magnetic field of the magnetic field source (3). The flux conducting soft magnetic element (2) consists of 35 % by weight $\leq$ Ni $\leq$ 50 % by weight, 0 % by weight $\leq$ Co $\leq$ 2 % by weight, 0 % by weight $\leq$ Mn $\leq$ 1.0 % by weight, 0 % by weight $\leq$ Si $\leq$ 0.5 % by weight and 0.5 % by weight $\leq$ Cr $\leq$ 8 % by weight and/or 0.5 % by weight $\leq$ Mo $\leq$ 8 % by weight, wherein (Mo+Cr) $\leq$ 8, rest iron and unavoidable impurities.

[Fig. 1]