

Title (en)

MATERIAL THICKNESS MEASURING DEVICE

Title (de)

VORRICHTUNG ZUR MESSUNG EINER MATERIALDICKE

Title (fr)

DISPOSITIF DE MESURE DE L'ÉPAISSEUR D'UN MATÉRIAU

Publication

EP 2791617 A4 20141210 (EN)

Application

EP 12858673 A 20121213

Priority

- SE 1151195 A 20111214
- SE 2012051384 W 20121213

Abstract (en)

[origin: WO2013089627A1] The present invention regards a material thickness measuring device(1)for measuring the thickness (t) of non-magnetic web (3) applied to a magnetic material (5). The device (1) comprises an optical sensor device (7, 9, 45) for a first interaction with an upper side (11) of the web (3) as an optical reference element (29). It also comprises a reluctance transducer sensor device (31) for a second interaction with the magnetic material (5) as a magnetic reference element on the opposite side of the web (3). A control unit (39) is adapted for each point of measuring (P, PC) to calculate the thickness (t)from said interactions. The reluctance transducer sensor device (31) comprises a hollow conical magnetic core (41) around which circumference at least two coils (33, 35) of different diameter are mounted. The coil (33) having the smallest diameter is situated nearest the web (3) to be measured. The optical sensor device (7,9, 45) is adapted for sensing light beams (19) transferred through the hollow conical core (41) in directions which are oblique relative the plane (29) of said upper side (11).

IPC 8 full level

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CPC (source: EP)

G01B 7/105 (2013.01); **G01B 11/0616** (2013.01); **G01B 2210/42** (2013.01)

Citation (search report)

- [A] US 4977853 A 19901218 - FALCOFF ALLAN F [US], et al
- [A] EP 0801288 A1 19971015 - BETA INSTR CO [GB]
- [A] US 3753096 A 19730814 - WIERS W
- [A] US 2005104585 A1 20050519 - BILIK YULI [IL], et al
- See references of WO 2013089627A1

Designated contracting state (EPC)

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