

Title (en)

Magnetic sensor for detecting the breakage of the thread on ring spinning machines.

Title (de)

Magnetischer Fühler zur Feststellung eines Fadenbruchs an Ringspinnmaschinen.

Title (fr)

Dispositif magnétique pour détecter la rupture d'un fil dans un métier à filer à anneaux.

Publication

EP 0329618 A1 19890823 (EN)

Application

EP 89830038 A 19890203

Priority

IT 1942888 A 19880216

Abstract (en)

The magnetic sensor comprises a Hall effect device for sensing the variation of the magnetic field therethrough caused by the rotation of the slider ring member of the spinning machine and generating a corresponding variation of the analogic output signal. This output signal is amplified in a first stage of an IC circuit so as to be easily processed in a subsequent stage which squares and adjusts this signal so as to provide a square wave having a low level pulse of constant duration and a frequency equal to the revolution number of the slider ring member. A further cascade stage of the IC generates in turn an analogic signal the voltage amplitude of which is proportional to the frequency at the input thereof. The last stage of the IC sets the minimum speed threshold (usually 2,500 rpm's for minute) of the slider ring so as to provide a moving ring or not moving ring information.

IPC 1-7

D01H 13/16

IPC 8 full level

D01H 13/16 (2006.01)

CPC (source: EP)

D01H 13/1633 (2013.01)

Citation (search report)

- [X] CH 556923 A 19741213 - ZELLWEGE USTER AG
- [X] US 3102378 A 19630903 - WALKER JR EDGAR F
- [X] US 2930179 A 19600329 - BAILEY FELTON B
- [X] FR 2260643 A1 19750905 - MONTEFIBRE SPA [IT]
- [X] FR 1518050 A 19680322 - BELGE D APP DE RADIO COBAR CON

Cited by

EP0442327A1; EP0786026B2

Designated contracting state (EPC)

AT BE CH DE ES FR GB GR LI LU NL SE

DOCDB simple family (publication)

EP 0329618 A1 19890823; IT 1215888 B 19900222; IT 8819428 A0 19880216

DOCDB simple family (application)

EP 89830038 A 19890203; IT 1942888 A 19880216