

Title (en)

DEVICE FOR CONTACTLESS DETECTION OF OVERHEATED PARTS ON PASSING RAILWAY VEHICLES

Publication

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Application

EP 89119943 A 19891027

Priority

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Abstract (en)

[origin: EP0424570A1] A device for the contactless detection of overheated parts, such as, for example, axle bearings, brakes, wheel tyres, on passing rail vehicles is described. The device has a sensor (2), which is provided with an infrared optical system, and an infrared detector (12) with subsequent electronics and evaluation circuit (15) connected downstream. The device is characterised in that the sensor with the infrared optical system (3) on the one hand and the infrared detector (12) with subsequent electronics on the other are arranged spatially separated from one another and in that in order to pass on the infrared beams from the optical system to the detector at least one fibre which guides the infrared light in the wavelength range of approximately 2-12 micrometers is provided. In a preferred embodiment, a plurality of fibres (16, 17, 18) which run parallel to one another are used, the sensor-side light injection surfaces of which are directed towards different heat targets and whose detector-side light emergence surfaces have a scanner element (19, 20) opposite them which successively guides the beams which emerge from these emergence surfaces onto the detector in a constantly repeating fashion. An assignment electronic system (25) connected downstream receives an item of information relating to the current position of the scanner element (19, 20) and assigns the individual temperature-analogous electrical signals unambiguously to the respective fibres (16, 17, 18). <IMAGE>

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Cited by

CN109932062A; DE4207493A1; DE4217681C3; FR2752806A1; DE10105027C1; US2018283954A1; US10539465B2; EP0604389A1; US5478151A; AT400989B; US11073425B2; WO9711871A1; WO9809862A1

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