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- (54) **Title:** ELECTRICITY METER THERMAL PERFORMANCE MONITORING

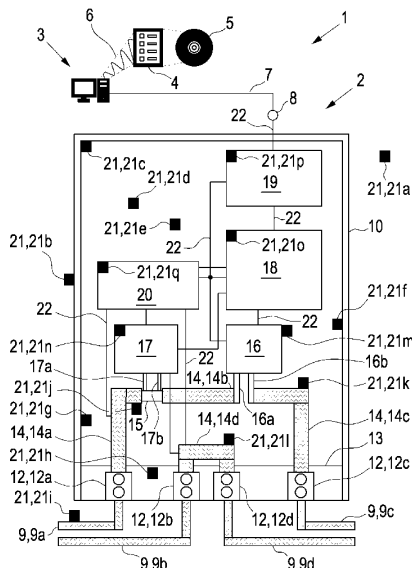


Fig. 1

(57) **Abstract:** The present invention relates to a method of monitoring a functional state of an electricity meter (2), comprising the steps of generating at least one temperature signal from which an actual temperature value (T) of the electricity meter (2) can be derived; determining whether the actual temperature value (T) and/or a gradient (Gm) thereof exceeds at least one threshold value (L) derived from at least one predefined temperature curve (T300) representing predefined temperature values (T) of the electricity meter (2) over time according to a modelled thermal behaviour of the electricity meter (2). Further, the present invention relates to a computer program (4) for monitoring a functional state of an electricity meter (2). Furthermore, the present invention relates to a computer-readable data carrier (5) having stored thereon a computer program (4) according to the present invention, and to a data carrier signal (6) carrying a computer program (4) according to the present invention. Moreover, the present invention relates to an electricity meter (2) configured to carry out the computer program (4) according to the present invention. Finally, the present invention relates to an electricity metering system (1), in particular an Advanced Metering Infrastructure (AMI), comprising at least one electricity meter (2) and/or at least one administration device (3) configured to carry out a method according to the present invention.