

Device for contactless measurement of a hydrogenerator rotor temperature comprises a lens, behind which n mirrors are fixed on an optical bar in such a way that their planes form an angle of 45 degrees with a main optical axis, and n lenses are mounted on the same optical axis with the mirrors, a first frequency divider, a buffer register, a first counter, a video monitoring unit, two controlled amplifiers, a step-variable voltage generator, a memory unit, an analog-to-digital converter, a commutator, an array of n separate infrared sensors, an interface unit, a position setting unit, three digital comparators, two registers, a position sensor, two triggers, an indicator, three AND elements, a speed setting unit, a digital adder, a clock distributor and two pulse generators. An output of the first frequency divider is connected to inputs of the buffer register, the first counter and to a first input of the video monitoring unit, second and third inputs of which are connected to outputs of the first and second controlled amplifiers, first inputs of which are connected to an output of the step-variable voltage generator. Second inputs are connected, respectively, to first and second outputs of the memory unit, an input digital bus of which is connected to an output digital bus of the first counter. A fourth input of the video monitoring unit along with a first input of the analog-to-digital converter are connected to an output of the commutator, an input digital bus of which is connected to an output digital bus of the buffer register, an input digital bus of which is connected to outputs of the array of n separate infrared sensors. An output digital bus of the analog-to-digital converter is connected through the interface unit into computer circuits. An output digital bus of the position setting unit is connected to a first input digital bus of the first digital comparator, a second input digital bus of which along with input digital buses of the first and second registers are connected to an output digital bus of the position sensor. An output of the first digital comparator is connected to a first input of the first AND element, a second input of which is connected to a first output of the second trigger, and an output is connected to a first input of the first trigger, a second input of which is connected to a second output of the second trigger. An output of the second AND element is connected to a second input of the analog-to-digital converter, a second input digital bus of the second digital comparator is connected to an output digital bus of the speed setting unit. A first input digital bus is connected to an output digital bus of the digital adder, first and second input digital buses of which are connected, respectively, to output digital buses of the first and second registers, inputs of which are connected, respectively, to first and second outputs of the clock distributor, a third output of which is connected to a second input of the second trigger. An output of the second pulse generator is connected to an input of the clock distributor, an output of the first trigger is connected to a first input of the second AND element, a second input of which is connected to an output of the first pulse generator, and an output is connected to inputs of the first frequency divider, the step-variable voltage generator, and the commutator. Output digital buses of the first and second registers are connected, respectively, to first and second input digital buses of the third digital comparator, an output of which is connected to a first input of the third AND element, a second input of which is connected to an output of the second digital comparator, and an output is connected to a first input of the second trigger. Wherein a fourth digital comparator, a third register, a second frequency divider, a second counter and a decoder are introduced, moreover the output digital bus of the position sensor is connected to a first input digital bus of the fourth digital comparator and to an input digital bus of the third register, an output digital bus of which is connected to a second input digital bus of the fourth digital comparator, an output of which is connected to a second input of the third register and to an input of the second frequency divider, an output of which is connected to a second input of the second counter, a first input of which along with a first input of the third register are connected to the output of the first digital comparator. An output digital bus of the second counter is connected to an input digital bus of the decoder, an output digital bus of which is connected to an input digital bus of the indicator.