Title (en)

PROCESS AND DIGITAL CONTROL UNIT FOR DETERMINING AND CONTROLLING PULSE-WIDTH MODULATED OPERATING VALUES IN AN INTERNAL COMBUSTION ENGINE

Publication

EP 0298960 B1 19900328 (DE)

Application

EP 87900053 A 19861211

Priority

DE 3610717 A 19860329

Abstract (en)

[origin: DE3610717A1] In a process and digital control unit for determining, controlling and/or adjusting pulse-width modulated operating-value signals, a timer design is proposed which, while leaving unchanged the two existing 16-bit timers (8O51-chip processor family), indicates to the first timer the output of the consumption and injection Ti-signal. During an external TD-interrupt, first the smallest signal value of the signals to be emitted is loaded into the timer register and the timer is started, and during the next timer interrupt, ignoring the timing register, the difference in relation to the previously-emitted signal is loaded into the time register for the emission of the next signal. If signal values are obtained which are larger than the maximum signal duration obtained from this timer for a predetermined quantification, then, when this value is exceeded, an overflow-flag requiring servicing by the timer-interrupt routine is established and the switching of the first signal is effected with the following timer interrupt. The second timer serves in an unsolicited manner with any preset time pattern desired of the period duration measurement for calculation of the rotation speed and for controlling any desired counting registers in order to produce further pulse-width modulated operating-value signals.

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