

Title (en)
Electronic position sensor assembly and control system.

Title (de)
Elektronischer Winkelgeber mit Steuerungssystem.

Title (fr)
Capteur électronique de position associé à un système de commande.

Publication
EP 0342376 A2 19891123 (EN)

Application
EP 89107080 A 19890420

Priority
US 19423788 A 19880516

Abstract (en)
An electronic position sensor assembly and engine control system (10) in which two sensing elements (13, 14) in a dual sensor (12) provide separate, independent position signals (A, B) related to multi-cylinder engine cycle position by sensing the angular position of a engine-rotated slotted wheel (11). The sensing elements provide identical sensing signals shifted from each other by a predetermined angular amount (d). In response to the simultaneous providing of a pulse by both sensing elements, a first reference signal (at 22) identifying a reference cylinder is provided for controlling electronic distribution of spark timing and/or fuel injection signals to engine cylinders (17-20). In response to a selected one of the sensing elements producing a pulse which has a predetermined longer duration than a preceding produced pulse, a second reference signal (after 50) is produced indicative of top-dead center engine cylinder cycle position for one of the cylinders. In response to detecting a fault in the position signal produced by the one selected sensing element, a switch (27) selects the other of the sensing elements for utilization in producing the second reference signal, and a substitute reference signal circuit (40) provides a substitute first reference signal. A less expensive and more reliable engine position sensor assembly and engine control system is provided since proper system operation is maintained despite a fault in one of the position signals.

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F02P 7/077; F02P 11/06; F02P 15/00

IPC 8 full level
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CPC (source: EP)
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