

Crankshaft Position Sensor

- The timing rotor of the crankshaft consists of 34 teeth, with 2 teeth missing. The crankshaft position sensor outputs the crankshaft rotation signals every 10°, and the missing teeth are used to determine the top-dead-center.
- This engine uses an electromagnetic pickup sensor that provides a high level of detection accuracy. When the crankshaft rotates, the air gap between the protrusion on the timing rotor and the crankshaft position sensor changes. This causes the magnetic flux that passes through the coil of the crankshaft position sensor to increase and decrease, causing the coil to generate an electromotive force. This electromotive force generates voltage in opposing directions, depending on whether the protrusion of the timing rotor approaches the crankshaft position sensor or withdraws from the sensor. Thus, the voltage appears in the form of alternating current voltage.

