

OPERATION MANUAL

IP-3100

ENGINE ROTATION DETECTOR

WARNING



- Before attaching or removing the IP-3100 rotation detector, make sure that the engine is stopped. Attaching or removing it while the engine is rotating is very dangerous because doing so may cause your hands or cloth to be caught in the rotating section.

WARNING



- The temperature of the engine is extremely high immediately after it stops. When attaching or removing the IP-3100 rotation detector, do not touch the high temperature section because doing so may cause burn.

1. OVERVIEW

The IP-3100 engine rotation detector is a rotation detector for gasoline engines. The use of amorphous metal fiber elements not only makes the IP-3100 thin and light weight but also realizes high sensitivity that allows constant output at low- to high-speed rotations.

Accommodating the structure and mechanism of latest gasoline engines, the IP-3100 can also be attached to the ignition cable (the primary cord of the ignition coil and the current cable of the electronic distributor).

2. CAUTION IN OPERATION

- (1) Before attaching or removing the IP-3100, make sure that the engine stops.
- (2) Although the IP-3100 is designed as a heat-resistant detector, install it under the specified operating temperature condition and avoid installing it on high temperature sections. When installing the IP-3100, be careful not to allow it to come into contact with high temperature sections.
- (3) To reduce effects of external noise, install the cable on places with less electrical noise.
- (4) Install the IP-3100 on locations which is not subject to vibration. Applying excessive vibration to the IP-3100 may affect the sensor output.
- (5) Be careful not to get dust, oil, or water on the IP-3100. If you get dust, oil, or water, wipe it with a soft and dry cloth.

3. OPERATION

- (1) Check the wiring of the ignition signal, then clamp the primary cord of the ignition coil or the current cable of the electronic distributor at the IP-3100.
- (2) Connect the output connector of the sensor to the input connector of the equipment used.
- (3) Since the ignition signal depends on the engine type or sensor attaching position, set the number of pulses of the equipment according to the ignition signal. (In some cases, the ignition signal of other cylinders may be detected at the same time.)

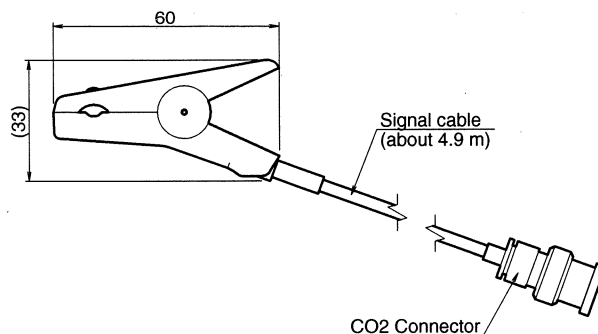
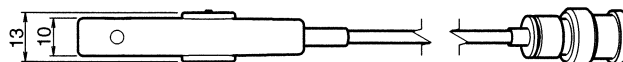
In actual calculation, adjustment of the input signal level may be required. For details, refer to the operating manual of the equipment used.

4. SPECIFICATIONS

Sensing system	: Sensing by amorphous metal fiber elements
Engines applied	: 2-cycle and 4-cycle gasoline engines
Point of installation	: Primary cord of ignition coil Current cable of electronic distributor
Diameter of usable cable	: ϕ 10 mm max.
Output signal	: Pulse signal
Signal cable	: Heat-resistant (120°C) signal cable 4.9m (directly connected cable) with an output connector (BNC plug)
Operating temperature	: -40°C to +120°C
Storage temperature	: -50°C to +120°C
Power supply	: Not necessary
Dimensions	: Refer to OUTSIDE DIMENSIONS below.
Mass	: 130g (including signal cable)

5. OUTSIDE DIMENSIONS

(mm)



■ Omission of Test Qualification Issuance

Since this product has been tested through a series of strict inspections and a complete program of quality control, issuance of the test qualification has been omitted.

Warranty

1. This product is covered by a warranty for a period of one year from the date of purchase.
 2. This warranty covers free-of-charge repair for defects judged to be the responsibility of the manufacturer, i.e., defects occurred while the product is used under normal operating conditions according to descriptions in this manual and notices on the unit label.
 3. For free-of-charge repair, contact either your sales representative or our sales office nearby.
 4. The following failures will be handled on a fee basis even during the warranty period.
 - (a) Failures occurring through misuse, mis-operation, or modification
 - (b) Failures occurring through mishandling (dropping) or transportation
 - (c) Failures occurring through natural calamities (fires, earthquakes, flooding, and lightning), environmental disruption, or abnormal voltage.
- * For repairs after the warranty period expired, contact your sales representative or our sales office nearby.