

DIESEL ENGINE TACHOMETER

GE-1200

For easy r/min measurements on 4-cycle diesel engines by clamping the detector to the fuel injection pipe.



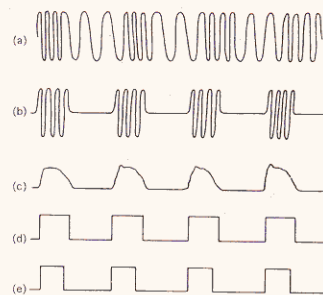
CP-044 Diesel Engine Rotation Detector (Optional)

Handheld type diesel engine tachometer. Both analog and pulse outputs are provided.

Diesel Engine Rotation Detector : CP-044 Measuring Principle

CP-044 is piezo-electric type vibration detector which detects vibrations generated. With separating high frequency component, which is appeared only when the injection pump is performed, the number of times of fuel injection, i.e., r/min of the engine can be detected.

Example of process of waveform-shaping and separating high frequency vibration components



Pulse output

1 pulse every two rotations of the engine
TTL Level

Analog output

0 to 1V/0 to 10,000 r/min
Voltage output

Specifications: GE-1200

●Display section

Display	: Liquid crystal, 7-segment, 5-digit indication
Measurement and display time	: 1-s automatic repetition
Measurement accuracy	: ± 1 r/min
Low battery warning function	: When the battery voltage drop below approx. 3.5V, a "B" mark appears in the upper right of the liquid crystal display.
Signal indicator	: The LED flashed when signals are input

●Analog output section

Output voltage	: 0 to 1V / 0 to 10,000 r/min (F/V conversion method)
Linearity	: ± 0.5 % / full-scale or better
Response	: 0.5 s / 10 to 90 % or better
Ripple	: 5 mVp-p / 400 r/min max.
Connectable load resistance	: 2 k Ω min.
Offset voltage at zero point	: ± 0.5 % / full-scale max.
Offset drift	: ± 0.05 % / full-scale / $^{\circ}$ C max.
Span drift	: ± 0.05 % / full-scale / $^{\circ}$ C max.

●Pulse output section

Logic	: Positive logic
Pulse width	: Rectangular pulses with 3.9 ± 0.1 ms
The number of output pulse	: 1 pulse every two rotations of the engine
Output level	: Lo 0.5V max. Hi 4.5V min.
Connectable load resistance	: 1 k Ω min.

●General specifications

Applicable detector	: CP-044
Measuring range	: 400 to 10,000 r/min
Operating temperature range	: 0 to 40 $^{\circ}$ C
Storage temperature range	: -10 to 55 $^{\circ}$ C
Weight	: Approx. 400g (including batteries)
Power source	: Three type AA (UM-3) batteries
Continuous measuring time	: Approx. 10 hours (using manganese dry batteries, at 20 $^{\circ}$ C)

●Standard accessories

AX-501 Output cable	...1
Type AA (UM-3) dry batteries	...3
Carrying case	...1

●Option

CP-044 Diesel Engine Rotation Detector	
PB-703 AC Adaptor	

Specifications: CP-044 (Optional)

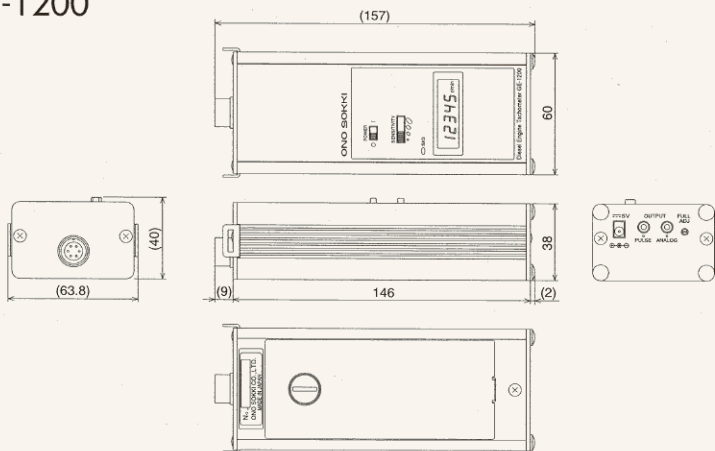
Applicable Engine	: 4-cycle Diesel Engine
Method	: Detecting vibration of fuel injection by piezo-electric element
Applicable injection pipe diameter	: $\phi 4$ to 8 mm
Withstand compressive force	: 1,960 bar max.

Measuring range	: 400 to 6,000 r/min
Operating temperature	: 0 to +80 $^{\circ}$ C
Weight	: Approx. 120 g
Cable length	: Approx. 4.9 m

Outer Dimensions

Unit: mm

GE-1200



CP-044 (Optional)

