

Gasoline Engine Tachometer

SE-1620

Application for both on-vehicle
and built-in at bench type

Simply attach an ignition pulse detector or one of our other compatible detectors to the engine to enable measurement of the number of revolutions of a gasoline engine. The inputs, outputs and input power supply are all isolated to ensure the output of analog and pulse signals with superior noise resistance and stability characteristics.



SE-1620

— Compatible Detectors —



IP-292
Ignition pulse detector



IP-296
Ignition pulse detector



LG-916
Optic-fiber sensor/photoelectric reflection-type
fiber detector (photoelectric system)



IP-3000
Ignition pulse detector



OM-200
Ignition pulse detector



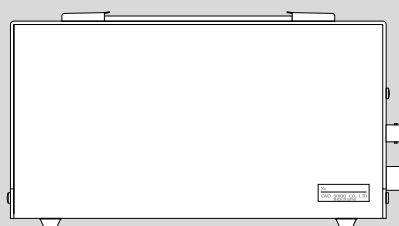
VP-202
VP-1220 (High sensitivity type)
Gasoline/diesel engine detector

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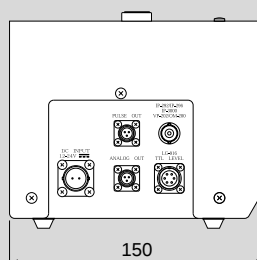
SE-1620 Gasoline Engine Tachometer

External drawings

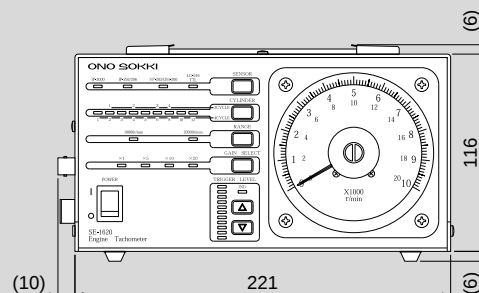
(Unit: mm)



Rear view



Side view



Front view

Description

The SE-1620 is an engine tachometer that performs measurement of the number of revolutions of a gasoline engine by connecting an engine revolution sensor such as an ignition pulse detector. A 100-mm wide-angle meter is used for the display, and both analog output and pulse output functions are provided as standard.

Measurement Ranges

2-cycle: 1, 2 cylinders ; 500 to 20,000 r/min
 3 cylinders ; 500 to 16,000 r/min
 4 cylinders ; 500 to 12,000 r/min
 4-cycle: 1 to 5 cylinders; 500 to 20,000 r/min
 6 cylinders ; 500 to 16,000 r/min
 8 cylinders ; 500 to 12,000 r/min
 10 cylinders ; 500 to 10,000 r/min
 12 cylinders ; 500 to 8,000 r/min

Display

Displaying meter : 100-mm wide-angle meter, Class 1.5
 Meter scale Double scale: 0 to 10,000 r/min or 0 to 20,000 r/min
 Scale printed in monochrome

Input Section

Compatible detectors (Optional):
 IP-292 ; Ignition pulse detector (For primary side cable of ignition coil)
 IP-296 ; Ignition pulse detector (For secondary side cable of ignition coil)
 IP-3000 ; Ignition pulse detector (Low sensitivity type)
 OM-200 ; Ignition pulse detector (Electro-magnetic type)
 VP-202 ; Gasoline/diesel engine detector (Low sensitivity type)
 VP-1220 ; Gasoline/diesel engine detector (High sensitivity type)
 LG-916 (TTL signal input) ; Photoelectric reflection type detector

Applicable engines: Gasoline engines
 2-cycle (1 to 4 cylinders)
 4-cycle (1 to 6, 8, 10, 12 cylinders)

Input connectors : Sensor input: BNC connector
 TTL input: 6-pin connector (R03RB6F, externally-supplied power supply; 12 V 100 mA)

Input gain selector : x1, x5, x10, x20, selectable

Output Section

Analog Output

Output voltage : 0 to 10 V (In proportion to 0 to 10,000 r/min or 0 to 20,000 r/min)
 Output voltage setting accuracy : Zero; $\pm 0.2\%$ /FS
 Span; $\pm 0.3\%$ /FS
 Linearity : $\pm 0.2\%$ /FS at most
 Ripple : 250 mVp-p or less (at 500 r/min)
 Temperature coefficient : Zero; $\pm 0.01\%$ /FS/°C
 Span; $\pm 0.015\%$ /FS/°C
 Response : Approx. 20 ms
 Load resistance : At least 10 k Ω
 Output connector : R03-RB3F

Pulse Output

Output waveform : Rectangular waveform
 Pulse width; Approx. 2 ms
 Output as 1 pulse/2 revolutions (1 pulse /revolution available as an option)
 Output voltage : Hi level; At least 4.5 V
 Lo level; Up to 0.5 V
 Load resistance : At least 10 k Ω
 Output connector : R03-RB3F

General Specifications

Power supply : 12 V to 24 VDC
 Connector : RM12BRB-2P
 Current consumption : Approx. 470 mA (at 12 VDC)
 Operating temperature range : 0 to 40°C
 Storage temperature range : -10 to 60°C
 Operating humidity range : 80% RH max. (non-condensing)
 Storage humidity range : 80% RH max. (non-condensing)
 External dimensions : 221 (W) x 116 (H) x 150 (D) mm
 Weight : Approx. 1.3 kg

Accessories

Analog output cable : 1.9 meter x 1 pc.
 Pulse output cable : 1.9 meter x 1 pc.
 Power cable : 3.4 meter x 1 pc.
 User's manual : 1 copy

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