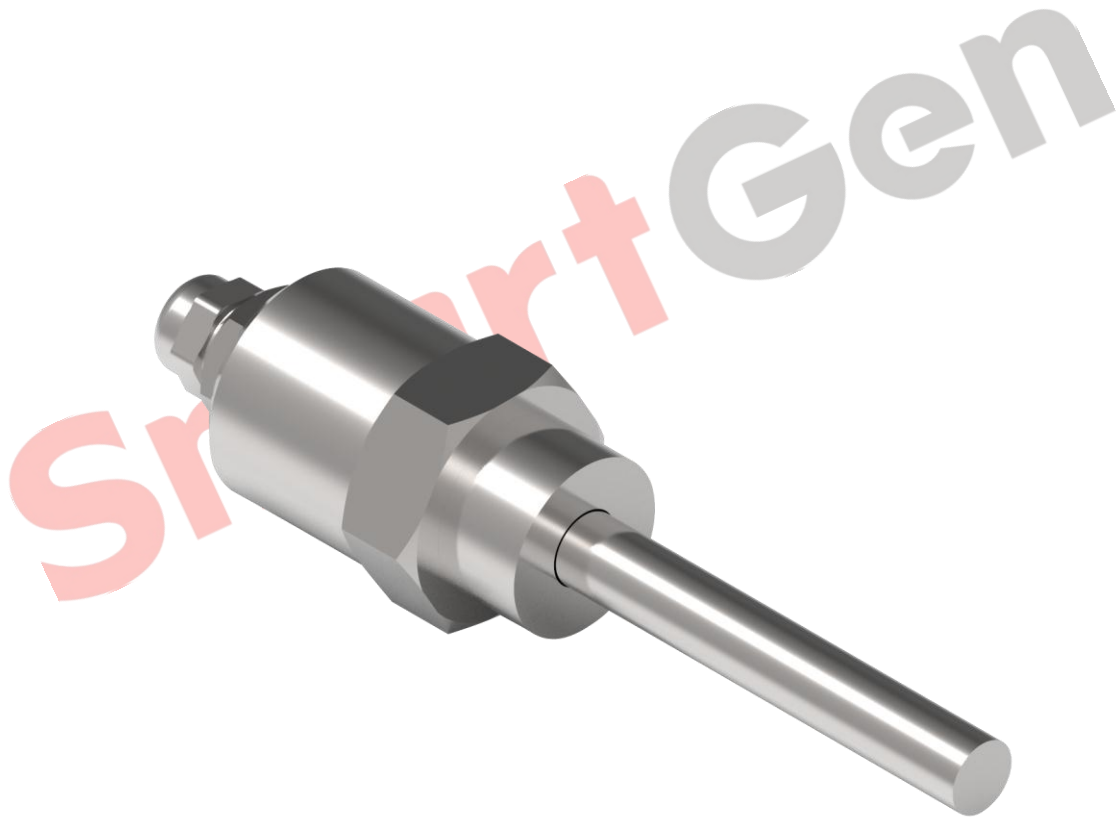




**SmartGen**  
ideas for power

**HTL SERIES**  
**(HTL02A/HTL04A)**  
**ENGINE OIL HEATER**  
**USER MANUAL**



**SMARTGEN (ZHENGZHOU) TECHNOLOGY CO., LTD.**



Chinese trademark

**SmartGen** English trademark

SmartGen – make your generator *smart*

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Table 1 Software Version

Date	Version	Content
2021-01-27	1.0	Original release.



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## 1 OVERVIEW

During cranking, if the outside temperature is lower than 4°C, engine lubricant may lose its lubricating properties, which can damage the engine. Engine oil heater should be installed to ensure normal starting and running of the engine when the outside temperature is lower than 4 °C.

HTL series engine oil heater adopt cast stainless steel inner pipes and end closure with high corrosion resistance.

This product is suitable for various engines with (2~110)L engine oil volume.

## 2 PERFORMANCE AND CHARACTERISTICS

- a) Stainless steel inner pipes and end closure with high corrosion resistance and solid features;
- b) The inner pipes have long service life with the benefit of the low power of the unit areas.
- c) All-in-one design, compact structure and small volume.

## 3 SPECIFICATION

Table 2 Standard Model Parameters

Model	HTL02A	HTL04A
Rated Power	238W	400W
Rated Voltage	AC 240V	
Rated Current	1A	1.67A
Engine Oil Volume	2~50L	50~110L
Default Thermostat	Off: 50°C On: 35°C	
Insulating Resistance	≥50MΩ	
Electrical Strength	AC 1.5kV 1min	Leakage Current≤3mA
Installation Dimensions	Thread outer diameter range: Φ22-Φ33.5mm	
Max. Pressure	0.5MPa	
Protection Level	IP65	
Vibration Resistance	5 ~ 8 Hz: 17mm 8 ~100 Hz: a=4g 100-500 Hz: a=2g IEC 60068-2-6	
Shock Resistance	50 g, 11 ms, Half-sine Wave, complete shock tests from three directions, with a total of 18 shocks per test. IEC 60068-2-27	
Collision	25 g, 16 ms, Half-sine Wave IEC 60255-21-2	
Case Dimensions	195mm×43mm×43mm	255mm×43mm×43mm
Weight	550g	590g

## 4 CONNECTIONS

--- After open the back cover, please connect the wire according to the label **E N L** on the terminal, E: earth line, N: null line, L: live line.

--- Heat resisting power line is strongly recommended.

--- Earth line must be soundly connected to earth.

## 5 CASE AND INSTALLATION DIMENSIONS

Unit: mm

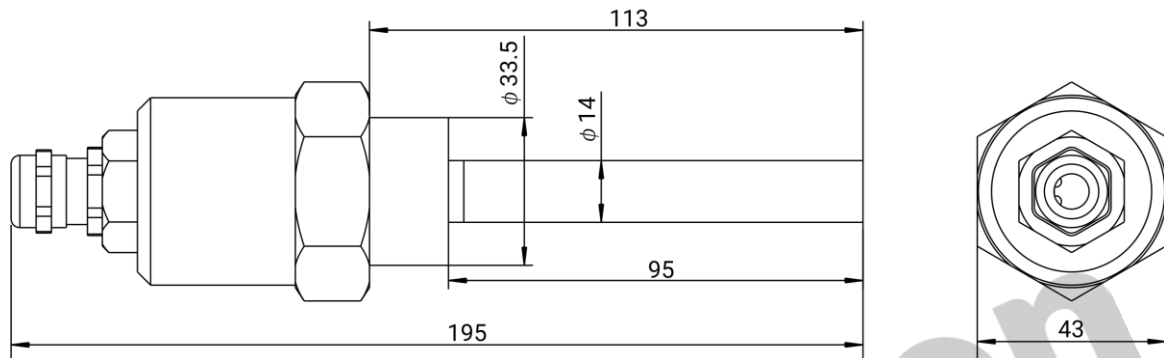


Fig.1 – HTL02A Case and Installation Dimensions

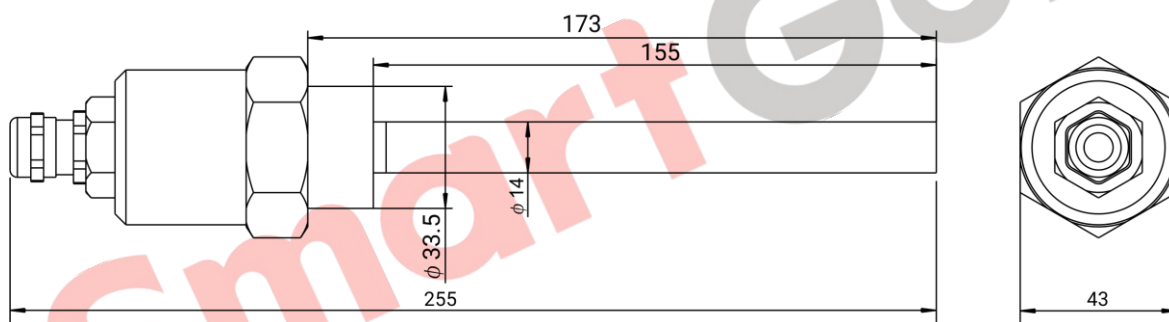


Fig.2 – HTL04A Case and Installation Dimensions