

## Fuel Level Gauges (for Gasoline/Light oil á Kerosine/ Alcohol mixed gasoline)

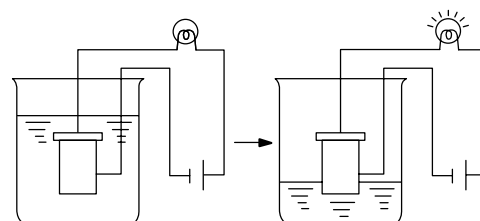
Type: **ERTL**



As a level gauge for inflammable liquid used as fuel for automobiles and other industrial equipment, this detects the liquid level electrically by contactless method with application of thermistor features, and indication by lamp.

### ■ Operating Principle

While thermistor is immersed in a liquid, it has difficulties to be self-exothermic due to heat discharge to the liquid. Accordingly, the lamp is not turned on because of high resistance value and small current flow. When the thermistor is exposed to air due to decrease of the liquid, it is abruptly heated, thus decreasing the resistance value. At this time, large current flows turning the lamp on.



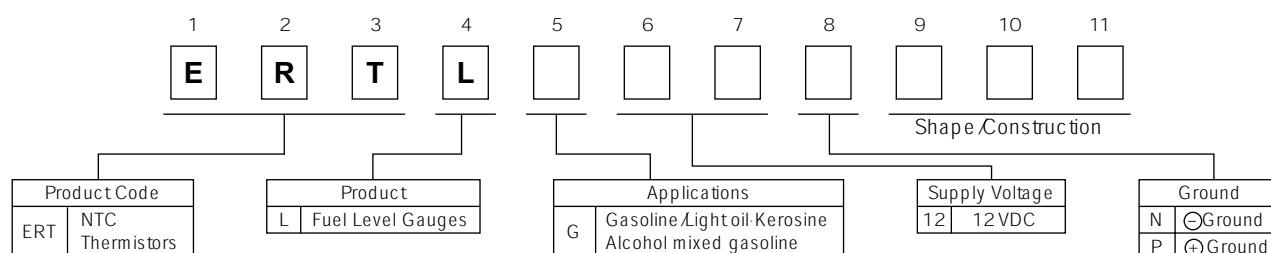
### ■ Features

- Small and simple construction
- Secure operation against vibration
- Contactless construction securing long service life with

### ■ Recommended Applications

- Level detection of gasoline for automobiles (12VDC)
- Level detection of fuel for diesel engine or industrial equipment using light oil
- Level detection of fuel for hot-water heaters, stoves, etc.

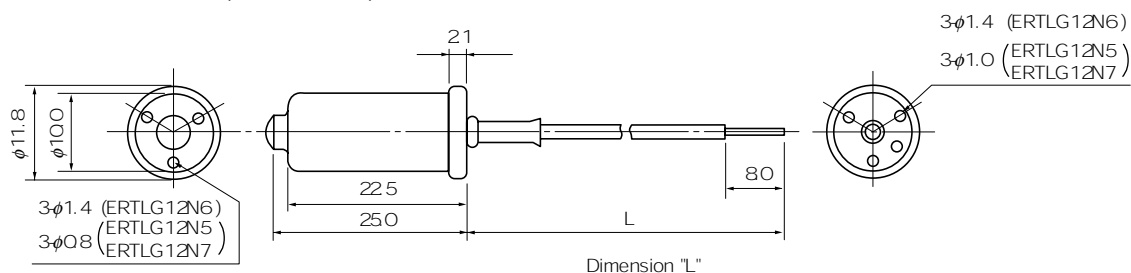
### ■ Explanation of Part Numbers



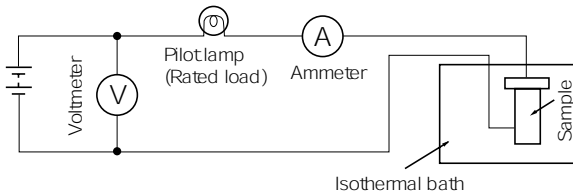
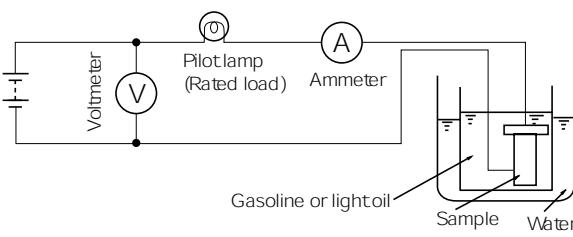
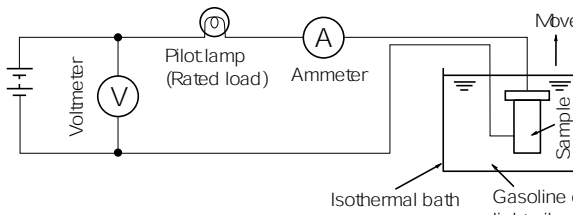
## ■ Ratings and Characteristics

Characteristics	Specifications		
	ERTLG12N5□□	ERTLG12N6□□	ERTLG12N7□□
Rated Voltage	12 VDC	12 VDC	12 VDC
Operating Voltage Range	11 to 15 VDC	11 to 15 VDC	11 to 15 VDC
Operating Temperature Range	-10 to +60 °C	-10 to +60 °C	-10 to +60 °C
Rated Load	12 V, 3.4 W lamp	12 V, 3.4 W lamp	12 V, 3.4 W lamp
Lamp "ON" Current	135 mA min.	135 mA min.	135 mA min.
Lamp "OFF" Current	60 mA max.	80 mA max.	60 mA max.
Detection Time	180 seconds max.	400 seconds max.	300 seconds max.
Applicable Liquid	Gasoline	Light oil /Kerosine	Alcohol mixed gasoline

## ■ Dimensions in mm (not to scale)

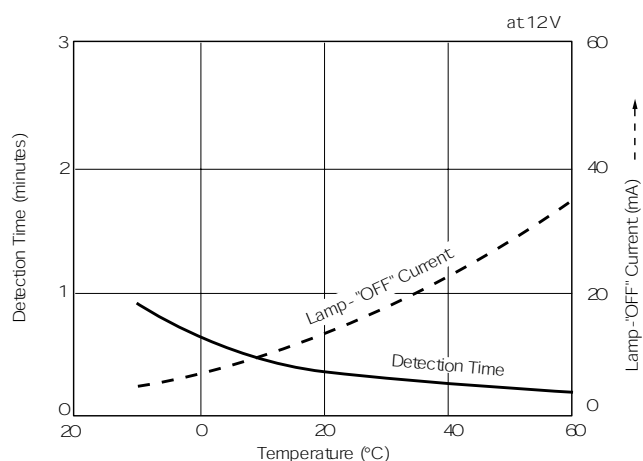


## ■ Performance Characteristics (Fuel Level Gauges)

Item	Test Method	Specifications
"ON" Characteristic	<p>Measure the time required for the circuit current to reach the specified lamp-"ON" current, when the minimum operating voltage (tolerance <math>\pm 0.2</math> V) is applied to the test circuit below with the sample kept in the still air of the minimum operating temperature (tolerance <math>\pm 0.5</math> °C).</p> 	To meet the specified detection time and lamp-"ON" current
"OFF" Characteristic	<p>Measure the saturation current in the test circuit below when the maximum operating voltage (tolerance <math>\pm 0.2</math> V) is applied to the circuit with the sample immersed in the still light oil or gasoline of the maximum operating temperature (tolerance <math>\pm 0.5</math> °C).</p> 	To meet the specified lamp-"OFF" current
Accuracy of Detection	<p>Apply the standard voltage to the test circuit below and move the sample from the liquid to the air of 25 °C at the speed of 1mm/min, and measure the position of the sample when the lamp turns on.</p> 	The specified position: $\pm 2$ mm

## ■ Typical Characteristics

Temperature Characteristics



Voltage Characteristics

