

## Earth Leakage Detector(Relay)

Certificates Korea Fire Institute approved 



### Model No.

**KG** - **1111**

① ② ③ ④

| ① Type         | ② Number of circuits | ③ Communication                                                                      | ④ USE   |
|----------------|----------------------|--------------------------------------------------------------------------------------|---------|
| D Digital Type | 08 08 circuit        | C RS-485                                                                             | R Relay |
|                | 10 10 circuit        | NA None                                                                              | NA None |
|                | 12 12 circuit        | If relay option(R) chosen, separated relay (KGR) to be supplied compatible with KGD. |         |
|                | 16 16 circuit        |                                                                                      |         |

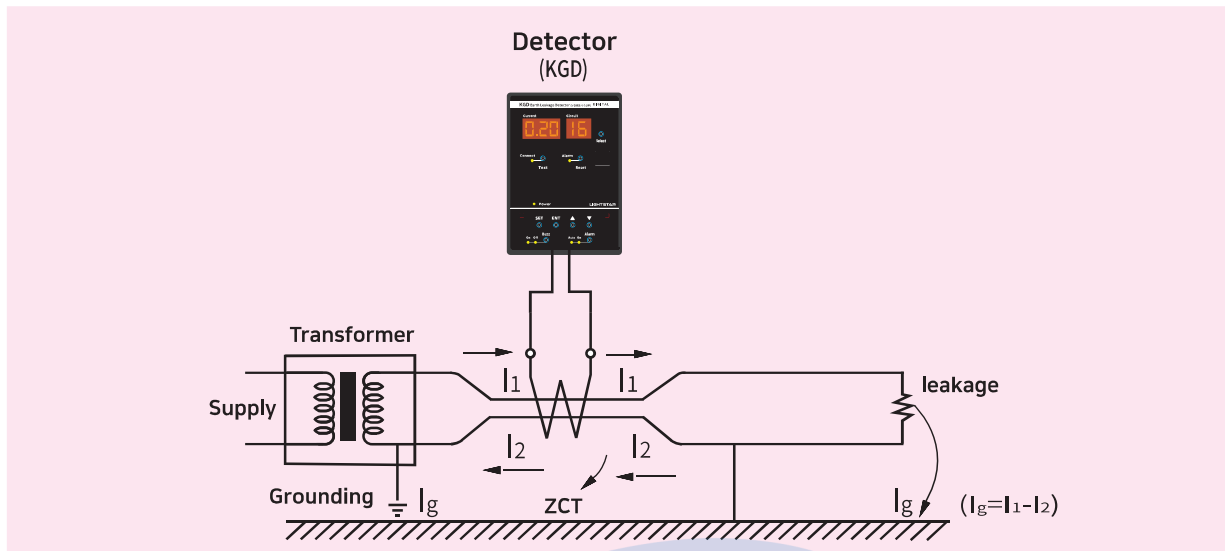
### Overview

This device can be used for detecting earth leakage for low voltage(<AC600V). Alarm and buzzer to be activated if measured current from ZCT is exceed setting value.

### Specification

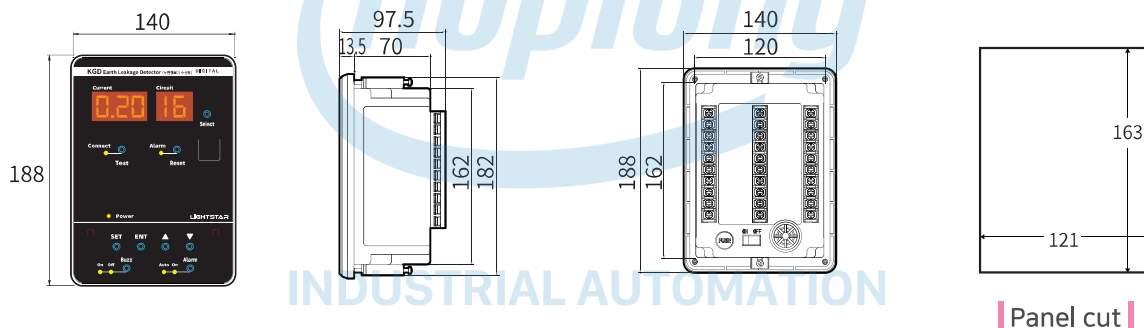
| Item                   | KGD                                                                                                                                                              |           |                                       |                                          |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------|------------------------------------------|
| Number of circuits     | 8circuit                                                                                                                                                         | 10circuit | 12circuit                             | 16circuit                                |
| Terminal connection    | Bolt Type                                                                                                                                                        |           |                                       |                                          |
| Input                  | ZCT output (KGB, KGC)                                                                                                                                            |           |                                       |                                          |
| Display                | • Leakage : 7-segment LED 3Digit<br>• Status LED: Green(Normal), Yellow(Test), Red(Alarm)<br>• Circuit: 7-segment LED 2Digit                                     |           |                                       |                                          |
| Aux. power             | AC110 ~ 220V 50/60 Hz, DC 110V                                                                                                                                   |           | Insulation resistance                 | More than 5MΩ                            |
| Contact capacity       | AC 250V / 1A 0.3sec, DC24V / 2A                                                                                                                                  |           | Withstand voltage                     | AC 2.2kV(60Hz) / 1 minute                |
| Sensitivity setting    | 0.2A~1.0A(0.1A Unit Setting)                                                                                                                                     |           | Surge impulse                         | 1.2μs x 50μs, 6kV                        |
| Operating              | Within 1 second when 75% or more of setting value                                                                                                                |           | Burst                                 | Level 4 (IEC 61000-4-4)                  |
| Inoperative            | Inoperative when less than 52% of setting current continues 30 sec and more.                                                                                     |           | Electrostatic discharge               | ±8kV(Air), ±4kV(Contact) (IEC 61000-4-2) |
| Power                  | Operating 10VA, Inoperative less than 6VA                                                                                                                        |           | Radio frequency Conduction resistance | 0.15~80MHz 10V (IEC 61000-4-6)           |
| Buzzer volume          | More than 70dB                                                                                                                                                   |           | Radio frequency Radiation resistance  | 80~1000MHz 10V/m (IEC 61000-4-3)         |
| Communication (option) | RS-485 2Wire, Modbus RTU communication                                                                                                                           |           | Impact Test                           | 50gf, 5times                             |
| Operating temperature  | -10°C~50°C                                                                                                                                                       |           | Internal Impedance                    | 2kΩ                                      |
| Operating Humidity     | 45~85% RH(Over dew point)                                                                                                                                        |           |                                       |                                          |
| Vibration              | Frequency: 10 to 150 Hz Number of axes: 3<br>Acceleration amplitude: 0.981 m / s <sup>2</sup> ,<br>Sweep speed: 1 octave / min,<br>Sweep cycles: 1 time per axis |           |                                       |                                          |

## Operating principle

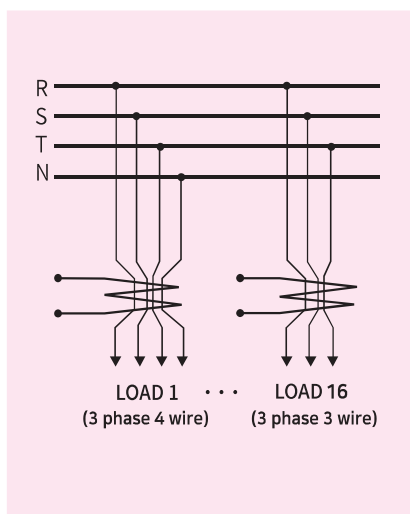


## Drawing

Unit : mm



## Connection diagram



## Terminal configuration

- S1, S2 : Aux. power  
(AC 110V/220V 50/60Hz  
DC 110V)
- ⊕ : Earth (Grounding terminal)
- Ta, Tc : Non-voltage contact
- A+, B-, SG : RS-485 Communication (option)
- COM : ZCT Common
- CH1~CH16 : ZCT input for each circuit

