

# Earth Leakage Relay RG-80

features



True RMS Measurement with SPARC<sup>1</sup> and DCOI<sup>2</sup> Algorithm

Fundamental Signal Detection<sup>3</sup>

Real Time Display of  $I_{\Delta n}$  in mA/A

Fault / lo-set & hi-set Trip LED Indication

Fault Start Event Recording & LED Indication + Output<sup>4</sup>

Pre-Alarm LED Indication + Output<sup>4</sup>

Trip Event Memory (non-volatile 7 previous records)

Fault Start Event Memory (non-volatile 4 previous records)

Programmable Relay Output contact for K2

Last Trip Elapsed Time (up to 99days)

Software Lock to Prevent Unauthorized Setting

Complies with IEC-60255-26 Standards

External Plug-in Module for :-  
A-01s (RS-485 MODBUS RTU) isolated type

## technical data

Current Input ( $I_{\Delta n}$ )	: ZCT (multiple sizes from ID of 25~200mm)
Measurement Range	: 0.005 ~ 30.0 A
Output Relay Rating	: SPDT 5A, 250V AC/DC
Display	: 7-Segment LED (3 + 1 digit)
Indication (LEDs)	: mA, pre-alarm, fault, fault start event, lo / hi trip
Operating Temp.	: 0°C ~ +55°C
Humidity	: 56 days at 93%RH, 40°C non-condensing
IP Rating	: IP54 (front panel)
Weight	: 230 g

## parameter setting

$I_{\Delta n} >$ : lo-set	30mA ~ 30.0A 0.03 ~ 1.00A (step of 0.01A) 1.00 ~ 5.00A (step of 0.05A)
t>: lo-set trip delay time	0.03s ~ 20.0s 0.03s ~ 0.10s (step of 0.01s) 0.10s ~ 1.00s (step of 0.02s) 1.0s ~ 20.0s (step of 0.1s)
$I_{\Delta n} >>$ : hi-set	OFF or 0.1A ~ 30.0A (step of 0.1A)
t>>: hi-set trip delay time	fixed @ 30ms

## aux power

DP-10-220a	: 65 ~ 275 Vac (45~65Hz), 90 ~ 300 Vdc
DP-10-024d	: 16 ~ 36 Vdc
Consumption	: < 3VA

## fundamental frequency

50 or 60Hz Selectable

## K1 output contact options

Latching (Lc) or non-latching (nLc) trip

## K2 output contact options

CbF (circuit breaker Failure - nLc only)  
A50 (pre-fault 50% of  $I_{\Delta n} >$  - Lc or nLc)  
A90 (pre-fault 90% of  $I_{\Delta n} >$  - Lc or nLc)  
trP (tripping output - Lc or nLc)  
LFS (lo fault start signal - Lc or nLc)  
HFS (hi fault start signal - Lc or nLc)  
AFS (all fault start signal - Lc or nLc)  
dUF (device failure - Lc only)

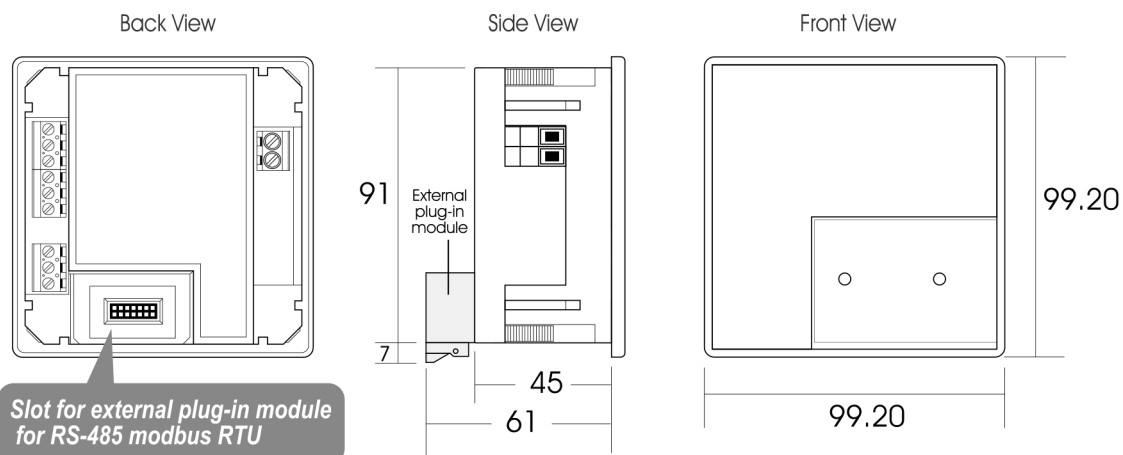
<sup>1</sup>SPARC - sampling progressive algorithm for RMS Computation;  
Computation of multiple rms values/cycle (Superior response in short circuit situation)

<sup>2</sup>DCOI - dc offset independent algorithm;  
Cancels out dc signal caused by EMI and aging circuitry (Better Immunity against EMI)

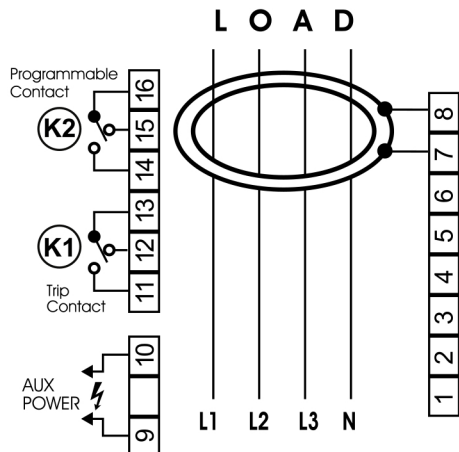
<sup>3</sup>Fundamental Signal Detection:  
To discriminate between signal and noise and eliminate nuisance tripping

<sup>4</sup>Output on k2 dependent on the programmed options

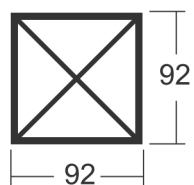
## casing dimension



## wiring diagram



## panel cut-out



Panel Cut-out : 92 x 92

Note: All measurement in mm.

Dealer