

- **Leakage current monitoring**
10mAac to 1Aac (50Hz, 60Hz, 400Hz in option)
improve immunity to nuisance tripping (RMS measurement)
- **Input for core balance transformers**
type Tleak
- **Leakage current display**
3 digits green LED display
- **2 configurable thresholds**
Threshold, delay
- **1 or 2 relays. Changeover contact**
10A switching capacity
- **DIN rail mounting**



The differential relay DSL36LEAK associated with a core balance current transformer, allow the measure of earth leakage current for electrical plants, as well as a differential protection.
The 3 digits LED display is used to evaluate the leakage current, setting the threshold and control.

Description:

The product is activated after a isolation failure detection, which is measured by the core balance current transformer when the vector sum of currents through the cable is not equal to zero.
This relay with sensitivity and delay programmable can operate in protection mode (manual rearm) or in signalling mode (automatic rearm) after the disappearance of default.

Implementation :

The wiring of toroid should be made with a 1mm² twisted pair cable.
The length of this cable should not exceed 30 meters
The cable must be away from power devices to limit disturbance of electromagnetic fields.
In the case where the line to protected has a metallic shield, it should be connected to earth after the toroid.

Input:

Core balance current transformer. Type: **Tleak**, 500mVac output

[Tleak \(datasheet\)](#)

Transformer for earth leakage current detection. low level (output: 500mV)
Hole diameter:
32, 50, 70 et 120 mm
may be remote up to 30m.



Front face:

- 7 segments 3 digits (1000 pts) green LED display, digits high : 10 mm.
- 2 green LED for relays status
- 2 push buttons : "reset" direct access and "test" under the hinged front panel. This buttons are used for setting threshold and relay configuration
- Serial link for the firmware upgrade via a USB-RS232 cable (USB cable provide separately)

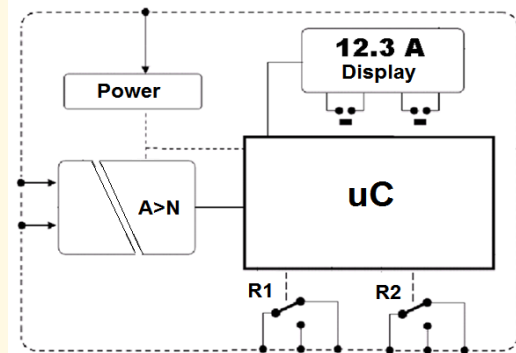
Relay:

- free potential changeover contact
- Threshold, hysteresis, delay and alarm memorization adjustable with push buttons.

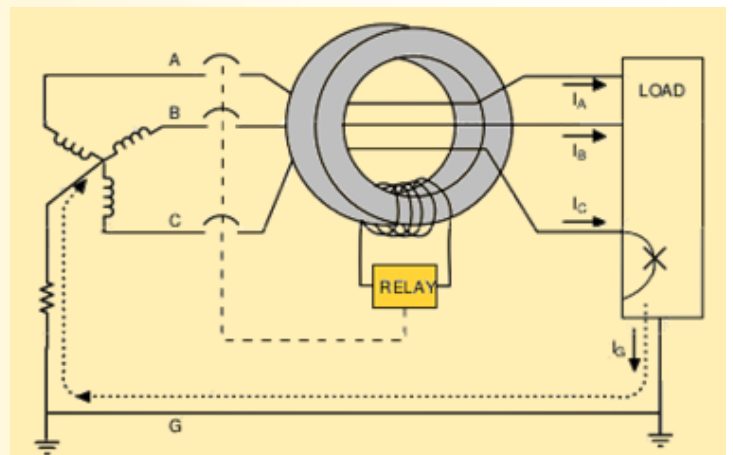
Feature:

- symmetrical DIN rail mounting according to EN50022
- Connection by screw terminal blocks max: 2.5mm² (spring terminal blocks max: 1 mm² for toroid input)
- 3 ways isolation: power supply / input / relays
- Protection rating: IP20 + conformal coating for electronics.

Synoptic



Application (three phase example. can be use in single phase mode)



Version and order code:

[Request a quote](#)

DSL36LEAK/R1: - 1 threshold version, 1 relay output

DSL36LEAK/R2: - 2 thresholds version, 2 relays output (400Hz version available on request)
input: 500mVac for external TLEAK

INPUT

| | | |
|-------------------------|---------------------------------|------------------|
| TYPE | RANGE | PRECISION |
| Input for external tore | 500mVac | +/- 0.5% |
| Input impedance | >100KOhms | |
| Power consumption | negligible | |
| Overload | 20 rated current / 10seconds | |
| Measure rate | continuous, programmable filter | |
| Frequency | 45 to 65Hz or 400Hz | |

RELAYS

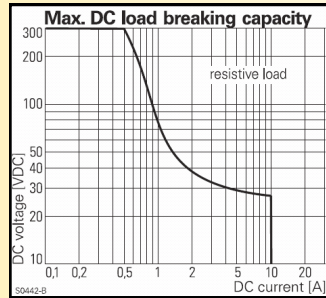
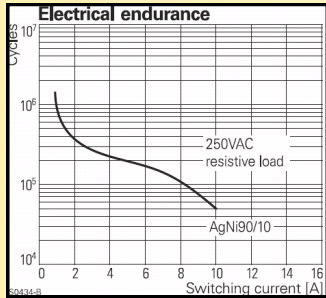
| | |
|--------------------------------|---------------------|
| Changeover contact. isolation: | 2500 Vac |
| Switching capacity: | 10 A / 250 V |
| Typical response time : | 200ms to 60 seconds |
| Repeatability : | ± 0.2% |

POWER SUPPLY

20 to 265 Vac-dc standard or 11 to 30 Vac-dc
power consumption < 1.5 VA

ENVIRONMENT

| | |
|--|------------------------|
| Operating temperature: | -25 to 65 °C |
| Storage temperature: | -40 to +85 °C |
| Drift (% of full scale) | < 0.02 % / °C |
| Humidity: | 85 % not condensed |
| protection rating: (according : EN 60 529) | IP 20 |
| weight: | 150 g |
| MTBF (MIL HDBK 217F) | > 3 000 000 Hrs @ 25°C |
| life time | > 200 000 Hrs @ 30°C |



Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

| Immunity standard for industrial environments EN 61000-6-2 | | Emission standard for industrial environments EN 61000-6-4 |
|---|-------------------------|---|
| EN 61000-4-2 ESD | EN 61000-4-8 AC MF | EN 55011 group 1 class A |
| EN 61000-4-3 RF | EN 61000-4-9 pulse MF | |
| EN 61000-4-4 EFT | EN 61000-4-11 AC dips | |
| EN 61000-4-5 CWG | EN 61000-4-12 ring wave | |
| EN 61000-4-6 RF | EN 61000-4-29 DC dips | |



WIRING AND OUTLINE DIMENSIONS:

