

# Threshold relay, protection relay for AC current current control relay

DSL35LCA

LOREME

## • AC current control

Up to 500Aac 50Hz/ 60Hz /400Hz  
RMS measure for all input type,  
PWM, phase angle variation,  
wave train, signal with high harmonics content

## • DSL35LCA - peak : peak detection

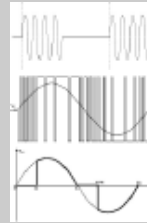
## • Measure input by split-core current transformer

## • 1000 pts LED display for measurement

## • 2 thresholds adjustable by the front face threshold, delays, hysteresis

## • 2 relays output 10A changeover contact

## • DIN rail mounting



The DSL35LCA is a threshold relay with current measurement. Compact it is designed to resolve economically problems of monitoring or protection.

The LED display allows a fine setting of threshold and fast control of measure.

### Applications:

- Protection, control, monitoring of electric load.

### Input:

- Current up to 500Aac, frequency range of 40 to 500Hz.  
Measure with split core current transformer (500mVac output)  
This transformers are available in range 5A, 16A, 32A, 63A, 120A, 250A and 500A. Another range on request  
- Current transformer ratio configurable  
- Integration time configurable

**DSL35LCA-peak** : signal acquisition time of 500us,  
Threshold on the instantaneous absolute value,  
reaction time < 1ms, relay response time < 20ms

### Front face:

- Measure display : 7 segments, 3 digits (1100pts), green LED, 10 mm height  
- Over-range detection (display "Hi")  
- 2 green LEDs for alarms status indication  
- 2 push buttons (under the cover) for setting and configuration  
- One serial link allowing the firmware update via an USB link (USB / jack 3.5 cable provide separately)

### Relays:

- Free potential changeover contact,  
- Threshold, sense of alarm, hysteresis, delays are setting with the front face buttons.

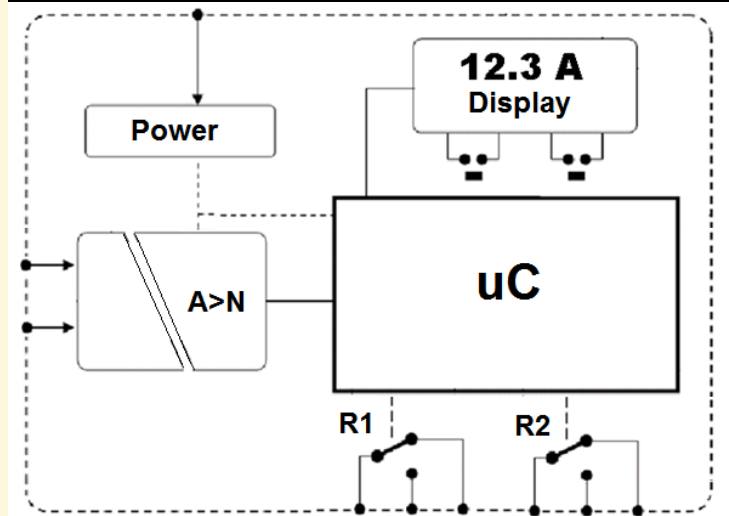
### Features:

- long term stability 0.1% / year  
- Operating temperature up to 65°C  
- Great EMC performance.

### Implementation:

- Symmetrical DIN rail mounting according to EN50022  
- Wiring by spring terminals block. max : 1 mm<sup>2</sup>  
or by screw terminals block. max: 2.5 mm<sup>2</sup>  
- Isolation : power supply / input / relays  
- Protection rating IP20 + Conformal coating

### Synoptic:



### Current transformer mV output

[http://www.loreme.fr/.../Tio\\_eng.pdf](http://www.loreme.fr/.../Tio_eng.pdf)

[http://www.loreme.fr/.../TioL\\_eng.pdf](http://www.loreme.fr/.../TioL_eng.pdf)

Remote split core current transformer  
Very low profile, non intrusive  
remote distance up to 30 meters  
Measure up to 500 Aac



Version and order code:

[Request a quote](#)

**DSL35LCA/R1:** - version with 1 threshold, 1 relay output  
**DSL35LCA/R2:** - version with 2 threshold, 2 relay output  
**DSL35LCA-Peak:** - Peak detection version

input : 333mVac or 500mVac for external split core transformer (TiO)

**INPUT**

TYPE	RANGE	ACCURACY
input for external CT	500mVac	+/-0.5%
input Impedance	> 10KOhms	
power consumption	negligible	
overload	20 rated current / 10s	
measure rating	continuous, programmable filter	
frequency	40 to 500Hz	

**RELAY**

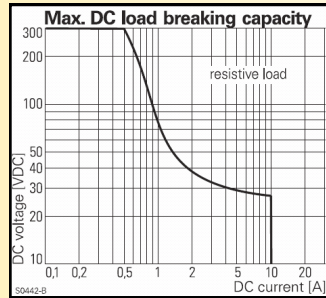
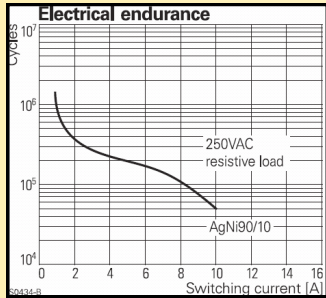
changeover contact	: 1500 Vac
switching power	: 10 A / 250V
response time	: 20ms (peak) , 200ms to 60seconds
tripping repeatability	: +/- 0.2%
minimum detection threshold	: 2% of full range

**POWER SUPPLY**

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

**ENVIRONMENT**

operating Temperature	-20 to 65 °C
storage Temperature	-40 to 85 °C
influence (% of full scale)	0.02 % / °C
humidity	85 % (not condensed)
protection rating (according to EN 60529)	IP20
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:**

