

## Current Transducer HLSR-P/SP33 series

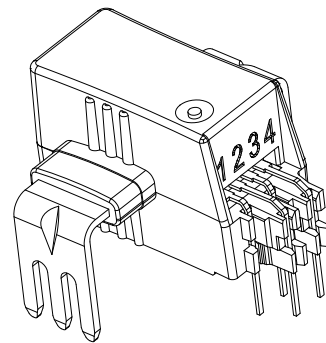
$I_{PN} = 10 \dots 50 \text{ A}$

Ref: HLSR 10-P/SP33, HLSR 20-P/SP33, HLSR 32-P/SP33, HLSR 40-P/SP33, HLSR 50-P/SP33

For the electronic measurement of current: DC, AC, pulsed..., with galvanic separation between the primary and the secondary circuit.



RoHS



### Features

- Open loop multi-range current transducer
- Voltage output
- Galvanic separation between primary and secondary
- Low power consumption
- Compact design for through-hole PCB mounting
- Factory calibrated
- High bandwidth, very low loss magnetic core.

### Special feature

- Single supply +3.3 V.

### Advantages

- Extremely low profile:  $h = 12 \text{ mm}$
- Low foot-print
- Low offset drift
- Over-drivable  $V_{ref}$ .

### Applications

- AC variable speed and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications
- Combiner box
- MPPT.

### Standards

- EN 50178: 1997
- IEC 61010-1: 2010
- IEC 61326-1: 2012
- UL 508: 2010.

### Application Domain

- Industrial.

## Absolute maximum ratings

| Parameter  | Symbol    | Unit | Value |
|--|-----------|------|-------|
| Supply voltage (not destructive)                 | $U_C$     | V    | 8     |
| Supply voltage (not entering non standard modes) | $U_C$     | V    | 6.5   |
| Primary conductor temperature                    | $T_B$     | °C   | 120   |
| ESD rating, Human Body Model (HBM)               | $U_{ESD}$ | kV   | 2     |

Stresses above these ratings may cause permanent damage. Exposure to absolute maximum ratings for extended periods may degrade reliability.

## UL 508: Ratings and assumptions of certification

File # E189713 Volume: 2 Section: 5

### Standards

- CSA C22.2 NO. 14-10 INDUSTRIAL CONTROL EQUIPMENT - Edition 11 - Revision Date 2011/08/01
- UL 508 STANDARD FOR INDUSTRIAL CONTROL EQUIPMENT - Edition 17 - Revision Date 2010/04/15

### Ratings

| Parameter                       | Symbol    | Unit    | Value                               |
|---------------------------------|-----------|---------|-------------------------------------|
| Primary involved potential      |           | V AC/DC | 600                                 |
| Max surrounding air temperature | $T_A$     | °C      | 105                                 |
| Primary current                 | $I_P$     | A       | According to series primary current |
| Secondary supply voltage        | $U_C$     | V DC    | 5                                   |
| Output voltage                  | $V_{out}$ | V       | 0 to 5                              |

### Conditions of acceptability

- 1 - These devices have been evaluated for overvoltage category III and for use in pollution degree 2 environment.
- 2 - A suitable enclosure shall be provided in the end-use application.
- 3 - The terminals have not been evaluated for field wiring.
- 4 - These devices are intended to be mounted on a printed wiring board of end use equipment. The suitability of the connections (including spacings) shall be determined in the end-use application.
- 5 - Primary terminals shall not be straightened since assembly of housing case depends upon bending of the terminals.
- 6 - Any surface of polymeric housing have not been evaluated as insulating barrier.
- 7 - Low voltage control circuit shall be supplied by an isolating source (such as a transformer, optical isolator, limiting impedance or electro-mechanical relay).

### Marking

Only those products bearing the UR Mark should be considered to be Listed or Recognized and covered under UL's Follow-Up Service. Always look for the Mark on the product.