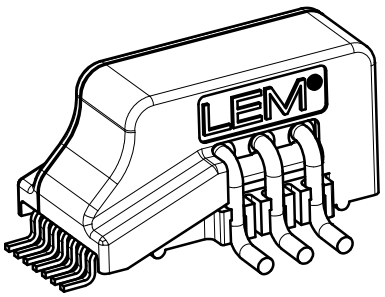
Current Transducer HO-NSM/SP33 series I_{PN} = 8, 15, 25 A

Ref: HO 8-NSM/SP33, HO 15-NSM/SP33, HO 25-NSM/SP33

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



Features

- Hall effect measuring principle
- Multirange current transducer through PCB pattern lay-out
- Galvanic separation between primary and secondary circuit
- Insulated test voltage 4300 V
- Low power consumption
- Extremely low profile 12 mm
- Fixed offset & sensitivity
- Over-current detect 2.63 × I_{PN} (peak value)
- Memory check.

Special feature

- Single power supply 3.3 V.

Advantages

- Small size and space saving
- Only one design for wide primary current range
- High immunity to external interference
- 8 mm creepage /clearance
- Fast response.

Applications

- AC variable speed drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications
- The solar inverter on DC side of the inverter (MPPT)
- Combiner box.

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 operating)	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 currents
Secondary supply voltage	U_C	V DC	3.3
Output voltage	V_{out}	V	0 to 3.3

Conditions of acceptability

When installed in the end-use equipment, consideration shall be given to the following:

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 have been evaluated for use in 105 °C maximum surrounding air temperature.

5 - The secondary (Sensing) circuit is intended to be supplied by a Isolated Secondary Circuit - Limited voltage circuit defined by UL 508 paragraph 32.5. The maximum open circuit voltage potential available to the circuit and overcurrent protection shall be evaluated in the end use application.

6 - 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.

7 - Primary terminals shall not be straightened since assembly of housing case depends upon bending of the terminals.

8 - Any surface of polymeric housing have not been evaluated as insulating barrier.

9 - Low voltage circuits are intended to be powered by a circuit derived from an isolating source (such as a transformer, optical isolator, limiting impedance or electro-mechanical relay) and having no direct connection back to the primary circuit (other than through the grounding means).

Marking

Only those products bearing the UL or 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.