

## Current Sensor HCME 2500A-0-00-CPA-0

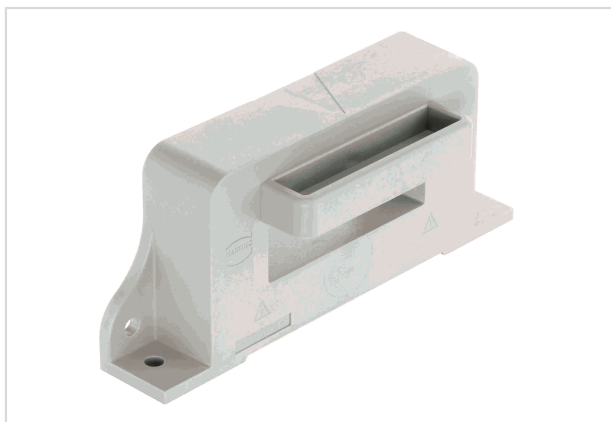


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Part number	20 32 250 0201
Specification	Current Sensor HCME 2500A-0-00-CPA-0
HARTING eCatalogue	<a href="https://b2b.harting.com/20322500201">https://b2b.harting.com/20322500201</a>

### Identification

Category	Current measurement
Series	HCME
Element	Current sensor
Sensor technology	Hall-Effekt Open loop
Features	Hall effect compensated current sensor Measurable currents: AC, DC, pulsed, mixed ... Galvanic insulation between primary and secondary current Switchboard mounting Housing material and potting mass have a flammability rating UL 94 V-0 Applications: frequency converters, electrical drives, auxiliary converters

### Version

Termination	Molex 5045-04A
Field of application	Industrial version

### Technical characteristics

$I_{PN}$ Nominal primary current	2,500 A
$I_{PM}$ Primary current, measuring range	0 ... $\pm 5,500$ A
$U_C$ Power supply	$\pm 15$ V $\pm 5$ %
$U_{OUT}$ Output voltage @ $I_{PN}$	4 V
$R_L$ Load resistance	$>1$ k $\Omega$
$I_C$ Current consumption @ $U_{C \min}$	17 mA



Pushing Performance

## Technical characteristics

R <sub>IN</sub> Insulation resistance	>500,000 kΩ
X Overall accuracy @ I <sub>PN</sub> , T <sub>A</sub> = 25 °C	±1 %
E <sub>L</sub> Linearity	<0.7 %
U <sub>O</sub> Offset voltage @ I <sub>P</sub> = 0 A, T <sub>A</sub> = 25 °C	±20 mV
U <sub>OOL</sub> Offset after I <sub>Pmax</sub>	±30 mV
U <sub>OT</sub> maximum temperature drift of U <sub>O</sub>	±1 mV/K
U <sub>outT</sub> thermal gain drift	± 0,1 %/K
t <sub>r</sub> Response time @ I <sub>PN</sub>	<3 μs
di/dt with optimal coupling	>50 A/μs
f Frequency	0 ... 50 kHz
T <sub>A</sub> Ambient temperature	-40 ... +85 °C
T <sub>S</sub> Storage temperature	-45 ... +90 °C
U <sub>D</sub> Test voltage, effective (50 Hz, 1 min)	5 kV Primary - secondary
U <sub>B</sub> Rated voltage	690 V
L <sub>S</sub> Clearance distance	11.5 mm
K <sub>S</sub> Creepage distance	16.6 mm
Tightening torque	3.2 Nm (2x steel screw M4 - Vertical) 3.2 Nm (2x steel screw M4 - Horizontal)

## Material properties

Material (hood/housing)	Polycarbonate (PC)
Material flammability class acc. to UL 94	V-0
RoHS	compliant
ELV status	compliant
China RoHS	e
REACH Annex XVII substances	No
REACH ANNEX XIV substances	No
REACH SVHC substances	No

## Specifications and approvals

Specifications	EN 50178 IEC 61373
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## Commercial data

Packaging size	1
Net weight	451.9 g
Country of origin	Germany
European customs tariff number	90303370
eCl@ss	27210902 Current transformer

## Remark

- If  $I_P$  flows in the direction of the arrow  $I_S$  is positive.
- Over currents ( $\gg I_{PN}$ ) or the missing of the supply voltage can cause an additional permanent magnetic offset.
- The temperature of the primary conductor may not exceed 100 °C.

## Safety note



These transformers may only be used in electrical or power electronic applications which fulfill the relevant regulations (standards, EMC requirements,...).

This transformer must be used in limited-energy secondary circuits according to IEC 61010-1.

## Caution, risk of electric shock



- Pay attention to protect non-insulated high-power current carrying parts against direct contact (e.g. with a protective enclosure).
- When installing this sensor please make sure that the safe separation (between primary circuit and secondary circuit) is maintained over the whole circuits and their connections.
- The sensor may only be connected to a power supply respecting the SELV/PELV protective regulations according to EN 50 178. The installation of the power supply must be short-circuit-proof.
- Disconnecting the main power must be possible.
- The current sensors support a safe separation. The creepage and clearance distances are taken as a basis for the rated voltage. They are the shortest distance between the secondary connection and the sensor's window. The actual clearance and creepage distances depend on the position of the primary conductor respectively on the actual shortest distance between the primary conductor and the secondary connection.