

# Current Transducer HNC- 200 .. 300P

$$I_{PN} = 200 \dots 300 \text{ A}$$

For the electronic measurement of currents: DC, AC, pulsed, mixed, with a galvanic isolation between the primary circuit (high power) and the secondary circuit (electronic circuit).



| Electrical data            |                                 |            |
|----------------------------|---------------------------------|------------|
| Primary nominal DC current | Primary current measuring range | Type       |
| $I_{PN}$ (A)               | $I_p$ (A)                       |            |
| 200                        | 0 .. ± 400                      | HNC - 200P |
| 300                        | 0 .. ± 650                      | HNC - 300P |

|          |   | HNC - 200P | HNC - 300P    |          |
|----------|---|------------|---------------|----------|
| $R_M$    | Measuring resistance                                | 20 .. 60   | 20 .. 35      | $\Omega$ |
| $I_{SN}$ | Second nominal current                              | 100        | 100           | mA       |
| $K_N$    | Turns ratio   | 1 : 2000   | 1 : 3000      |          |
| $V_C$    | Supply voltage (± 5 %)                              |            | ± 15          | V        |
| $I_C$    | Current consumption                                 |            | 15 + $I_{SN}$ | mA       |
| $V_d$    | R.m.s. voltage for AC isolation test, 50/60Hz, 1 mn | 2.5        |               | kV       |

## Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 2500 V
- Low power consumption

## Accuracy-Dynamic performance data

|            |  |                      |
|------------|--|----------------------|
| $X$        | Accuracy @ $T_A = 25^\circ\text{C}$                                    | < ± 1 % of $I_{PN}$  |
| $e_L$      | Linearity (0 .. ± $I_{PN}$ )   | < 0.25 % of $I_{PN}$ |
| $I_O$      | Electrical offset current @ $I_p = 0$ , @ $T_A = 25^\circ\text{C}$     | ± 0.5 mA             |
| $I_{HC}$   | Hysteresis offset current @ $I_p = 0$ , after an excursion of $I_{PN}$ | ± 0.3 mA             |
| $I_{OT}$   | Thermal drift of $I_O$ 0°C .. +70°C                                    | ± 0.005mA/K°C        |
| $t_r$      | Response time @ 90% of $I_p$   | < 1 $\mu\text{s}$    |
| $t_{ce_G}$ | Thermal drift of the gain (% of reading)                               | ± 0.04 %/°C          |

## Advantages

- Easy mounting
- Small size and space saving
- Only one design for wide current ratings range
- High immunity to external interference

## Applications

- DC motor drives
- Switched Mode Power Supplies (SMPS)
- AC variable speed drives
- Uninterruptible Power Supplies (UPS)
- Battery supplied applications
- Inverters

## General data

|       |  |                         |
|-------|--|-------------------------|
| $T_A$ | Ambient operating temperature                        | - 10 .. + 80 °C         |
| $T_S$ | Ambient storage temperature                          | - 15 .. + 85 °C         |
| $R_S$ | Secondary coil Resistance @ $T_A = 25^\circ\text{C}$ | HNC - 200P   HNC - 300P |
|       |  | 10   20 $\Omega$        |
| $m$   | Mass   | 160 g                   |

HNC- 200 .. 300P

