

# Current Transducer HTY 50 .. 100-P

$$I_{PN} = 50 \dots 100 \text{ A}$$

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 r.m.s. current $I_{PN}$ (A)	Primary current measuring range $I_p$ (A)	Type
50	$\pm 150$	HTY 50-P
75	$\pm 225$	HTY 75-P
100	$\pm 300$	HTY 100-P

$V_C$	Supply voltage ( $\pm 5\%$ )	$\pm 15$	V
$I_C$	Current consumption	$< \pm 20$	mA
$V_d$	R.m.s. voltage for AC isolation test, 50/60Hz, 1 mn	2.5	kV
$R_{IS}$	Isolation resistance @ 500 VDC	$> 500$	M $\Omega$
$V_{OUT}$	Output voltage @ $\pm I_{PN}$ , $R_L = 10 \text{ k}\Omega$ , $T_A = 25^\circ\text{C}$	$\pm 4$	V
$R_L$	Load resistance	$> 10$	k $\Omega$

## Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 2500 V~
- Low power consumption
- Extended measuring range ( $3 \times I_{PN}$ )

Accuracy-Dynamic performance data			
$X$	Accuracy @ $I_{PN}$ , $T_A = 25^\circ\text{C}$ (without offset)	$< \pm 1.0$	% of $I_{PN}$
$e_L$	Linearity ( $0 \dots \pm I_{PN}$ )	$< \pm 1.0$	% of $I_{PN}$
$V_{OE}$	Electrical offset voltage, $T_A = 25^\circ\text{C}$	$< \pm 30$	mV
$V_{OH}$	Hysteresis offset voltage @ $I_p = 0$ ; after an excursion of $1 \times I_{PN}$	$< \pm 15$	mV
$V_{OT}$	Thermal drift of $V_{OE}$	typ. $\pm 2.0$ max. $\pm 3.0$	mV/K
$Tce_G$	Thermal drift (% of reading)	$< \pm 0.1$	%/K
$t_r$	Response time @ 90% of $I_p$	$< 7$	$\mu\text{s}$
$f$	Frequency bandwidth (-3 dB) <sup>1)</sup>	DC .. 50	kHz

## Advantages

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

General data		
$T_A$	Ambient operating temperature	-10 .. +75 °C
$T_S$	Ambient storage temperature	-15 .. +85 °C
$m$	Mass	$< 30$ g

## Applications

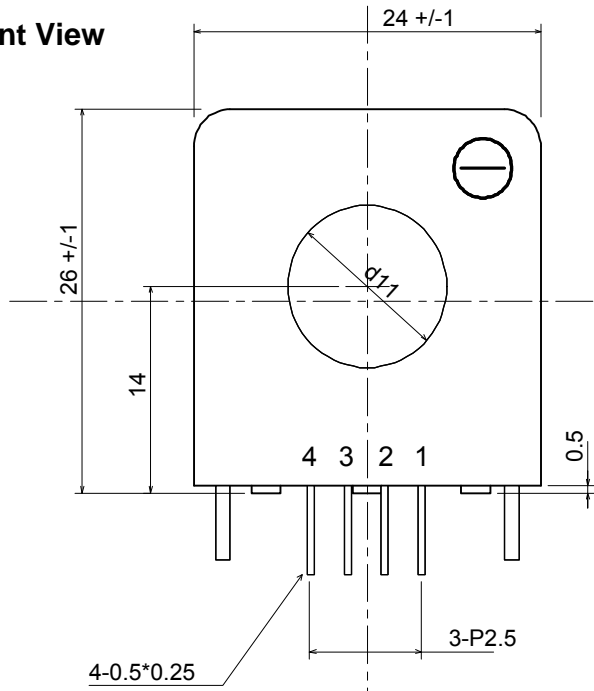
- DC motor drives
- Switched Mode Power Supplies (SMPS)
- AC variable speed drives
- Uninterruptible Power Supplies (UPS)
- Battery supplied applications
- Inverters

Notes : EN 50178 approval pending

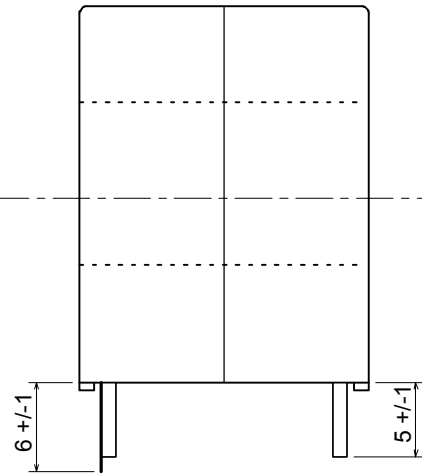
<sup>1)</sup> Derating is needed to avoid excessive core heating at high frequency.

# HTY 50 ...100-P

**Front View**

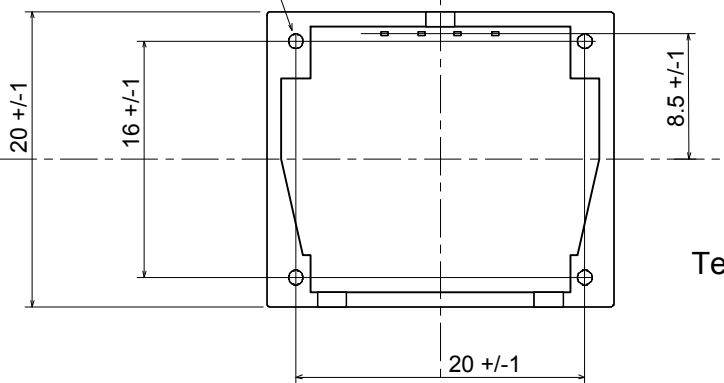


Direction of Current Flow



**Right View**

4-d1 (Mounting Post)



**Bottom View**

**Terminal Pin Identification**

- 1 -Vcc
- 2 0V
- 3 +Vcc
- 4 Output

UNIT : mm