

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	± 150	HTY 50-P
75	± 225	HTY 75-P
100	± 300	HTY 100-P

V_C	Supply voltage ($\pm 5\%$)	± 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 Ω
V_{OUT}	Output voltage @ $\pm I_{PN}$, $R_L = 10 \text{ k}\Omega$, $T_A = 25^\circ\text{C}$	± 4	V
R_L	Load resistance	> 10	k Ω

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. ± 2.0 max. ± 3.0	mV/K
TCE_G	Thermal drift (% of reading)	$< \pm 0.1$	%/K
t_r	Response time @ 90% of I_p	< 7	μs
f	Frequency bandwidth (-3 dB) ¹⁾	DC .. 50	kHz

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

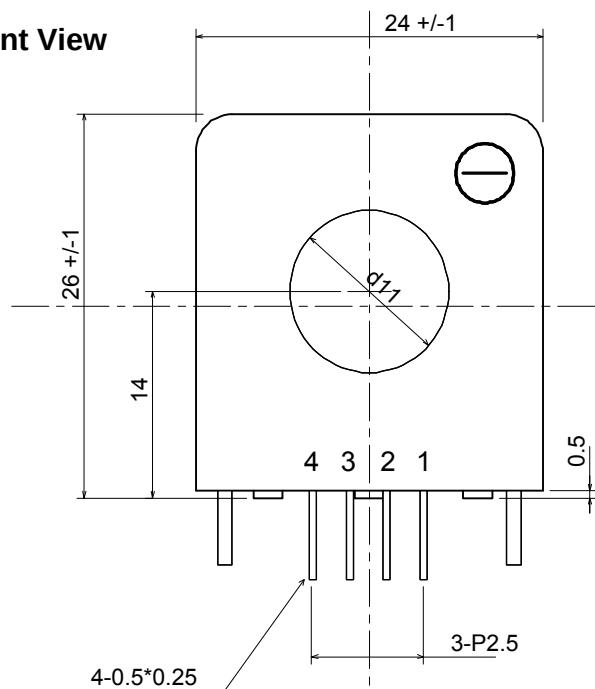
T_A	Ambient operating temperature	$-10 \dots +75$	$^\circ\text{C}$
T_S	Ambient storage temperature	$-15 \dots +85$	$^\circ\text{C}$
m	Mass	< 30	g

Notes : EN 50178 approval pending

¹⁾ Derating is needed to avoid excessive core heating at high frequency.

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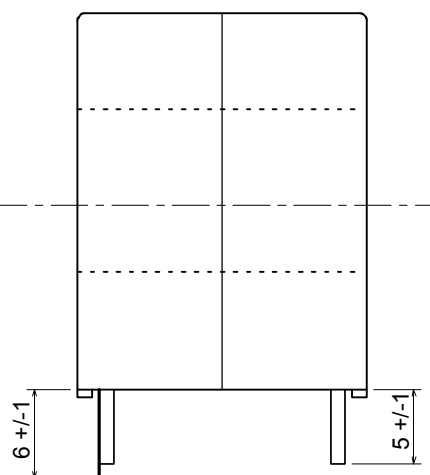
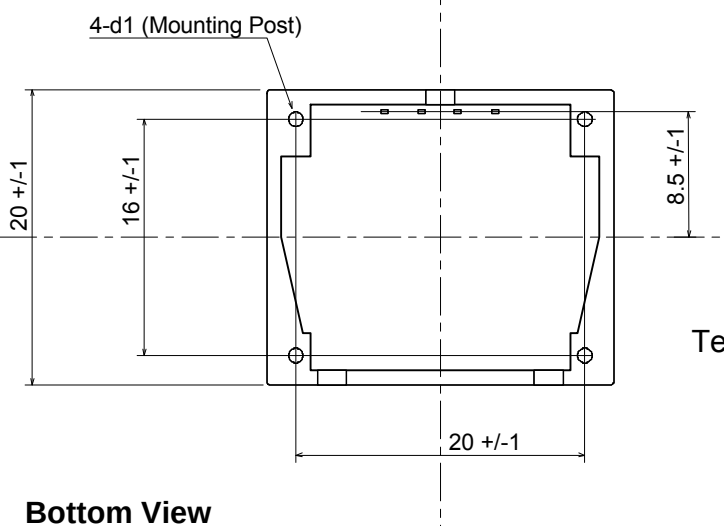
Front View



Direction of Current Flow



Right View



Bottom View

Terminal Pin Identification

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

UNIT : mm