

Current Transducers HAZ 4000..20000-SB

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).

$$I_{PN} = 4000..20000 \text{ A}$$

$$V_{OUT} = \pm 10 \text{ V}$$



Preliminary



Electrical data

Primary nominal current I_{PN} (A)	Primary current measuring range I_P (A)	Type
4000	± 4000	HAZ 4000-SB
6000	± 6000	HAZ 6000-SB
10000	± 10000	HAZ 10000-SB
12000	± 12000	HAZ 12000-SB
14000	± 14000	HAZ 14000-SB
20000	± 20000	HAZ 20000-SB

V_C	Supply voltage ($\pm 5\%$)	± 15	V
I_C	Current consumption	± 30	mA
I_{OC}	Overload capacity	30,000	At
V_d	R.m.s. voltage for AC isolation test, 60 Hz, 1 mn	12	kV
V_b	R.m.s. rated voltage, safe separation	2000 ¹⁾	V
R_{IS}	Isolation resistance @ 500 VDC	> 1000	M Ω
V_{OUT}	Output voltage @ $\pm I_{PN}$, $R_L = 10 \text{ k}\Omega$, $T_A = 25^\circ\text{C}$	± 10	V
R_{OUT}	Output internal resistance	approx. 100	Ω
R_L	Load resistance	> 10	k Ω

Accuracy - Dynamic performance data

X	Accuracy @ I_{PN} , $T_A = 25^\circ\text{C}$ (without offset)	$< \pm 1$	%
e_L	Linearity ²⁾ ($0 \dots \pm I_{PN}$)	$< \pm 1$	% of I_{PN}
V_{OE}	Electrical offset voltage, $T_A = 25^\circ\text{C}$	$< \pm 50$	mV
V_{OH}	Hysteresis offset voltage @ $I_P = 0$; after an excursion of $1 \times I_{PN}$	$< \pm 50$	mV
V_{OT}	Thermal drift of V_{OE}	$< \pm 1$	mV/K
TCE_G	Thermal drift of the gain (% of reading)	$< \pm 0.05$	%/K
t_r	Response time @ 90% of I_P	< 10	μs
di/dt	di/dt accurately followed	> 50	A/ μs
f	Frequency bandwidth ³⁾ (-3 dB)	DC .. 3	kHz

General data

T_A	Ambient operating temperature	-25 .. +80	$^\circ\text{C}$
T_S	Ambient storage temperature	-25 .. +80	$^\circ\text{C}$
m	Mass	approx. 6	kg
	Standards ⁴⁾	EN 50178	
	Minimum creepage & clearance	45	mm
	Housing PBT 30% glassfiber	CTI IIIa, UL94-V0	

Notes : ¹⁾ Pollution class 2, overvoltage category III, reinforced insulation

²⁾ Linearity data exclude the electrical offset.

³⁾ Please refer to derating curves in the technical file to avoid excessive core heating at high frequency

⁴⁾ Please consult characterisation report for more technical details and application advice.

Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Instantaneous voltage output
- Isolation voltage 12kV~
- Low power consumption
- Package in PBT meets UL 94-V0

Advantages

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

Applications

- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Power supplies for welding and telecommunication applications.

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HAZ 4000 .. 20000-SB (in mm)

Preliminary

