

Current Transducers HAS 50..600-P

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).

$$I_{PN} = 50..600 \text{ A}$$

$$V_{OUT} = \pm 4 \text{ V}$$



Electrical data

Primary nominal r.m.s. current I_{PN} (A)	Primary current measuring range I_p (A)	Type
50	±150	HAS 50-P
100	±300	HAS 100-P
200	±600	HAS 200-P
300	±900	HAS 300-P
400	±900	HAS 400-P
500	±900	HAS 500-P
600	±900	HAS 600-P

V_C	Supply voltage (± 5 %)	±15	V
I_C	Current consumption	±15	mA
I_{OC}	Overload capacity	30,000	At
V_d	R.m.s. voltage for AC isolation test, 60 Hz, 1 mn	3	kV
V_b	R.m.s. rated voltage, safe separation	500 ¹⁾	V
R_{IS}	Isolation resistance @ 500 VDC	> 1000	MΩ
V_{OUT}	Output voltage @ ± I_{PN} , $R_L = 10 \text{ k}\Omega$, $T_A = 25^\circ\text{C}$	±4V ±40	mV
R_{OUT}	Output internal resistance	approx. 100	Ω
R_L	Load resistance	> 1	kΩ

Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 3000 V~
- Low power consumption
- Extended measuring range ($3 \times I_{PN}$)
- Insulated plastic case made of polycarbonate PBT recognized according to UL 94-V0
- Right angle pins for direct PCB mounting

Advantages

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

Applications

- AC variable speed drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications.

Accuracy - Dynamic performance data

X	Accuracy @ I_{PN} , $T_A = 25^\circ\text{C}$ (without offset)	< ±1	%
e_L	Linearity ²⁾ ($0 \dots \pm I_{PN}$)	< ±1	% of I_{PN}
V_{OE}	Electrical offset voltage, $T_A = 25^\circ\text{C}$	< ±40	mV
V_{OH}	Hysteresis offset voltage @ $I_{PN} \rightarrow 0$	< ±20	mV
V_{OT}	Thermal drift of V_{OE} HAS 50-P	< ±2	mV/K
	HAS 100..600-P	< ±1	mV/K
TCE_G	Thermal drift of the gain (% of reading)	< ±0.1	%/K
t_r	Response time @ 90% of I_p	< 3	μs
di/dt	di/dt accurately followed	> 50	A/μs
f	Frequency bandwidth (small signal, -1dB) ^{3) 4)}	DC .. 25	kHz

General data

T_A	Ambient operating temperature	- 25 .. + 85	°C
T_S	Ambient storage temperature	- 25 .. + 85	°C
m	Mass	approx. 80	g
	Standards ⁵⁾	EN 50082-2	

Notes : ¹⁾ Pollution class 2, overvoltage category III.

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.

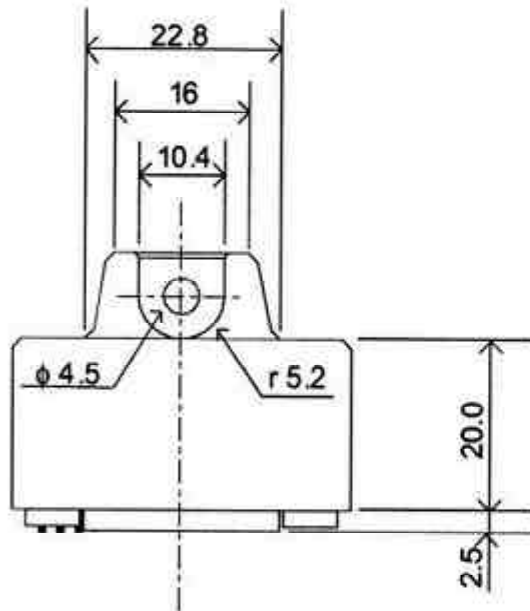
⁴⁾ Amorphous core option for high frequency application.

⁵⁾ Please consult characterisation report for more technical details and application advice.

040406/0

HAS 50..600-P

Dimensions (in mm)



PINS ARRANGEMENT

1. +15V
2. -15V
3. OUTPUT
4. 0V

