

## 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 ( $\pm 5\%$ )	±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 <sup>1)</sup>	V
$R_{IS}$	Isolation resistance @ 500 VDC	> 1000	MΩ
$V_{OUT}$	Output voltage @ $\pm I_{PN}$ , $R_L = 10 \text{ k}\Omega$ , $T_A = 25^\circ\text{C}$	±4V ±40	mV
$R_{OUT}$	Output internal resistance	approx. 100	Ω
$R_L$	Load resistance	> 1	kΩ

### Accuracy - Dynamic performance data

$X$	Accuracy @ $I_{PN}$ , $T_A = 25^\circ\text{C}$ (without offset)	< ±1	%
$e_L$	Linearity <sup>2)</sup> ( $0 \dots \pm I_{PN}$ )	< ±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 $V_{OE}$ <b>HAS 50-P</b>	< ±2	mV/K
	<b>HAS 100..600-P</b>	< ±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) <sup>3) 4)</sup>	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 <sup>5)</sup>	EN 50082-2	

Notes : <sup>1)</sup> Pollution class 2, overvoltage category III.

<sup>2)</sup> Linearity data exclude the electrical offset.

<sup>3)</sup> Please refer to derating curves in the technical file to avoid excessive core heating at high frequency.

<sup>4)</sup> Amorphous core option for high frequency application.

<sup>5)</sup> Please consult characterisation report for more technical details and application advice.

### 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.

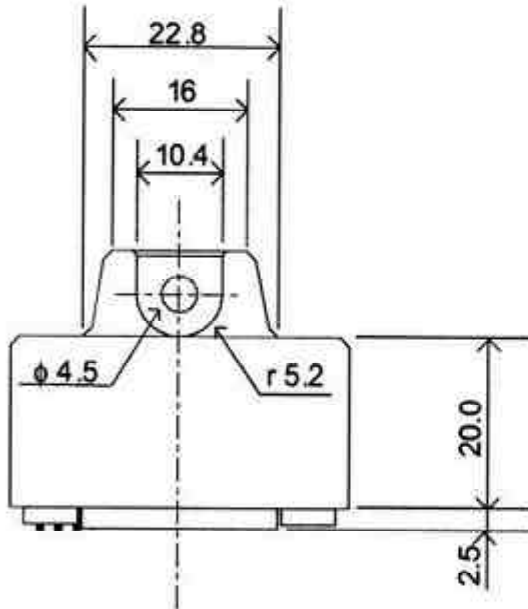
### Applications

- 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.

040406/0

# HAS 50..600-P

Dimensions (in mm)



## PINS ARRANGEMENT

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

