

## Current Transducers HTC 1000..3000-S

For the electronic measurement of currents: AC,DC, pulsed, mixed, with a galvanic isolation between the primary circuit (high power) and the secondary circuit (electronic circuit).

$$I_{PN} = \pm 1000..3000 \text{ A}$$

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



Preliminary



### Electrical data

Primary nominal current $I_{PN}$ (A)	Primary current measuring range $I_p$ (A)	Type
1000	$\pm 1100$	HTC 1000-S
2000	$\pm 2200$	HTC 2000-S
3000	$\pm 3300$	HTC 3000-S

$V_C$	Supply voltage ( $\pm 3\%$ )	$\pm 15$	V
$I_C$	Current consumption	$< \pm 20$	mA
$R_{IS}$	Insulation resistance @ 500 VDC	$> 500$	M $\Omega$
$V_{out}$	Output voltage @ $\pm I_{PN}$ , $R_L=2k\Omega$ , $T_A=25^\circ\text{C}$ ,	$\pm 10$	V
$R_{OUT}$	Output internal resistance	$< 100$	$\Omega$
$V_d$	R.m.s. voltage for AC insulation test, 50/60Hz, 1mn	2.5	kV
$R_L$	Load resistance	$\geq 2$	k $\Omega$

### Features

- Hall effect measuring principle
- Galvanic insulation between primary and secondary circuit
- UL 94-V0 rated

### Advantages

- Easy mounting
- Compact
- High immunity to external interference
- Low power consumption

### Accuracy-Dynamic performance data

$X$	Accuracy @ $I_{PN}$ , $T_A = 25^\circ\text{C}$	$< \pm 1$	% of $I_{PN}$
$e_L$	Linearity ( $0 \dots \pm I_{PN}$ )	$< \pm 1$	% of $I_{PN}$
$TCE_G$	Thermal drift of the gain	$\leq \pm 0.1$	%/K
$V_{OE}$	Electrical offset voltage $T_A = 25^\circ\text{C}$	$< \pm 30$	mV
$V_{OH}$	Hysteresis offset voltage @ $I_p = 0$ ; after an excursion of $1 \times I_{PN}$	$< \pm 50$	mV
$V_{OT}$	Thermal drift of offset	$< \pm 1.0$	mV/K
$t_r$	Response time @ 90% of $I_p$ @ $di/dt = 100\text{A}/\mu\text{s}$	$\leq 10$	$\mu\text{s}$
$f$	Frequency bandwidth (-3dB)	DC .. 10	kHz

### Applications

- Traction

### General data

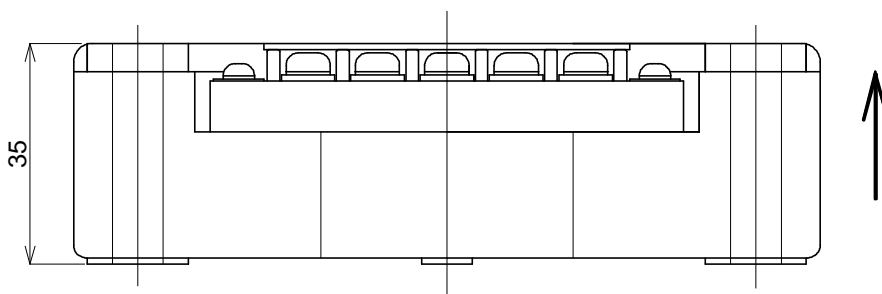
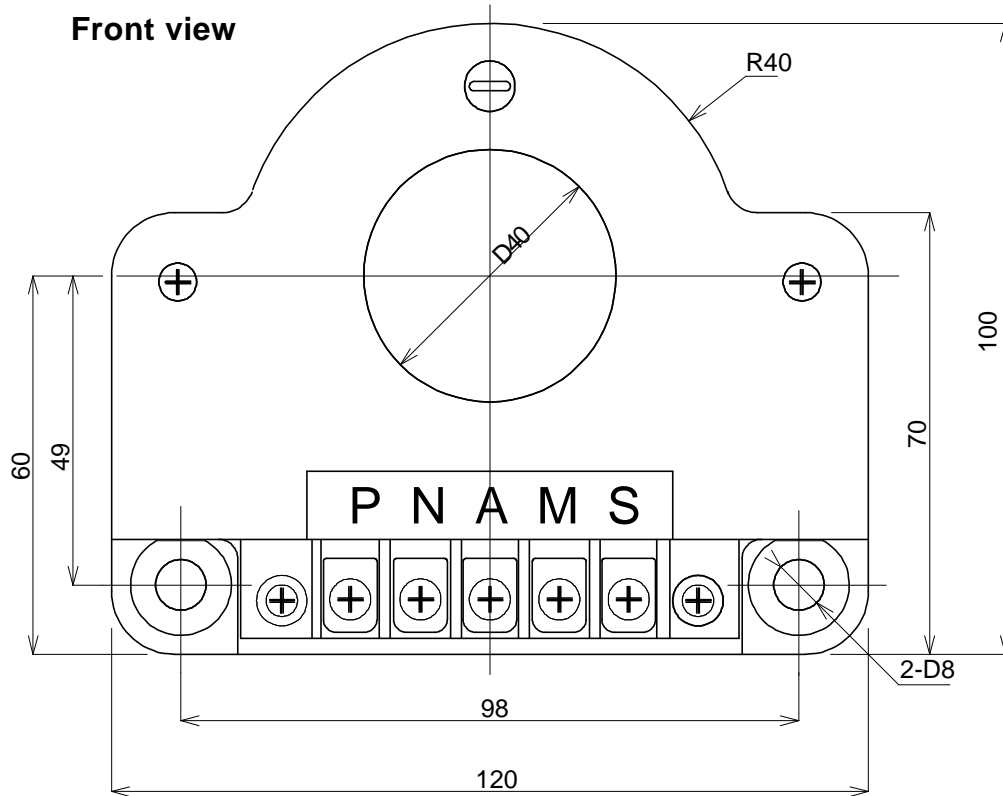
$T_A$	Ambient operating temperature	-40 .. +85	$^\circ\text{C}$
$T_S$	Ambient storage temperature	-40 .. +85	$^\circ\text{C}$
$m$	Mass	450	g
	Standards <sup>1)</sup>	EN 50155	

#### Notes :

<sup>1)</sup> Specification according to IEC 61000-4-3 are not guaranteed between 260 and 290 MHz (value higher by 5% than the specification).

# HTC 1000..3000-S

## Dimensions (in mm)



**Bottom view**

### Pins Assignment

- P : +V
- N : -V
- A : Output
- M : 0V
- S : 0V