

## 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).

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

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



### Electrical data

Primary continuous direct current (nominal)	Primary current measuring range	Type
$I_{PNDC}$ (A)	$I_{PM}$ (A)	
1000	± 1100	<b>HTC 1000-S</b>
2000	± 2200	<b>HTC 2000-S</b>
3000	± 3300	<b>HTC 3000-S</b>

$V_C$	Supply voltage (± 3 %)	± 15	V
$I_C$	Current consumption	< ± 20	mA
$R_{IS}$	Insulation resistance @ 500 VDC	> 500	MΩ
$V_{out}$	Output voltage (Analog) @ ± $I_{PNDC}$ , $R_L=2k\Omega$ , $T_A=25^\circ\text{C}$	± 10	V
$R_{OUT}$	Output internal resistance	< 100	Ω
$V_d$	Rms voltage for AC isolation test, 50 Hz, 1min	2.5	kV
$R_L$	Load resistance	≥ 2	kΩ

### Accuracy-Dynamic performance data

$X$	Accuracy @ $I_{PNDC}$ , $T_A = 25^\circ\text{C}$	< ± 1	% of $I_{PNDC}$
$e_L$	Linearity error (0 .. ± $I_{PNDC}$ )	< ± 1	% of $I_{PNDC}$
$V_{OE}$	Electrical offset voltage @ $T_A = 25^\circ\text{C}$	< ± 30	mV
$V_{OH}$	Hysteresis offset voltage @ $I_p = 0$ , after an excursion of $1 \times I_{PNDC}$	< ± 50	mV
$TCV_{OE}$	Temperature coefficient of $V_{OE}$	< ± 1.0	mV/K
$TCV_{OUT}$	Temperature coefficient of $V_{OUT}$	≤ ± 0.1	%/K
$t_r$	Response time to 90% of $I_{PNDC}$ step @ $di/dt = 100\text{A}/\mu\text{s}$	≤ 10	μs
<b>BW</b>	Frequency bandwidth (- 3dB)	DC .. 10	kHz

### General data

$T_A$	Ambient operating temperature	- 40 .. + 85	°C
$T_S$	Ambient storage temperature	- 40 .. + 85	°C
$m$	Mass	450	g
	Standards <sup>1)</sup>	EN 50155	

#### Note :

<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).

### Features

- Hall effect measuring principle
- Galvanic insulation between primary and secondary circuit
- Insulated plastic case recognized according to UL 94-V0

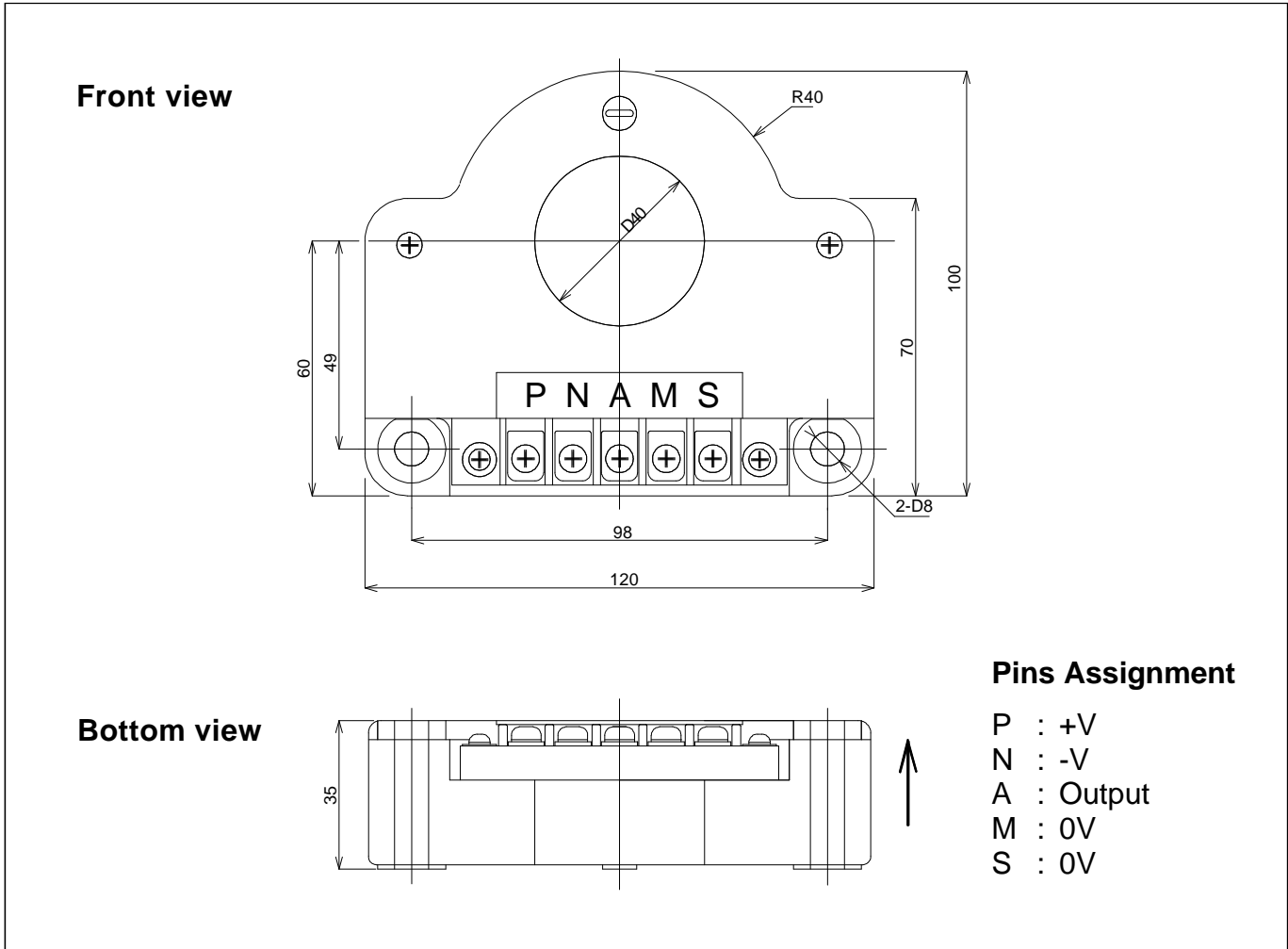
### Advantages

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

### Application

- Traction

**Dimensions HTC 1000..3000-S** (in mm. 1 mm = 0.0394 inch)



**Safety**



This transducer must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the following manufacturer's operating instructions.



Caution, risk of electrical shock

When operating the transducer, certain parts of the module can carry hazardous voltage (eg. primary busbar, power supply). Ignoring this warning can lead to injury and/or cause serious damage.

This transducer is a built-in device, whose conducting parts must be inaccessible after installation.

A protective housing or additional shield could be used.

Main supply must be able to be disconnected.