

## 阅读申明

- 1.本站收集的数据手册和产品资料都来自互联网，版权归原作者所有。如读者和版权方有任何异议请及时告之，我们将妥善解决。
- 2.本站提供的中文数据手册是英文数据手册的中文翻译，其目的是协助用户阅读，该译文无法自动跟随原稿更新，同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
- 3.本站提供的产品资料，来自厂商的技术支持或者使用者的心得体会等，其内容可能存在描述上的差异，建议读者做出适当判断。
- 4.如需与我们联系，请发邮件到marketing@iczoom.com，主题请标有“数据手册”字样。

## Read Statement

1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.
2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.
3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.
4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets" .

# Current Transducer HAW 03 .. 20-P

$$I_{PN} = 3 \dots 20 \text{ A}$$

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).

**Preliminary**



## Electrical data

Primary nominal r.m.s. current $I_{PN}$ (A)	Primary current measuring range $I_p$ (A)	Primary Conductor Diameter (mm)	Type
3	$\pm 7.5$	0.8	HAW 03-P
5	$\pm 13$	0.9	HAW 05-P
10	$\pm 25$	1.1	HAW 10-P
15	$\pm 38$	1.4	HAW 15-P
20	$\pm 50$	1.6	HAW 20-P

$V_C$	Supply voltage ( $\pm 5\%$ )	$\pm 15$	V
$I_C$	Current consumption	$< \pm 18$	mA
$V_d$	R.m.s. voltage for AC isolation test, 50/60Hz, 1 mn	2.0	kV
$R_{IS}$	Isolation resistance @ 500 VDC	$> 500$	M $\Omega$
$V_{OUT}$	Output voltage @ $\pm I_{PN}$ , $R_L = 10 \text{ k}\Omega$ , $T_A = 25^\circ\text{C}$	$\pm 4$	V
$R_{OUT}$	Output internal resistance	100	$\Omega$
$R_L$	Load resistance	$> 10$	k $\Omega$

## Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 2000 V
- Low power consumption
- Extended measuring range ( $2.5 \times I_{PN}$ )

## Advantages

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

## Applications

- DC motor drives
- Switched Mode Power Supplies (SMPS)
- AC variable speed drives
- Uninterruptible Power Supplies (UPS)
- Battery supplied applications
- Inverters

## Accuracy-Dynamic performance data

$X$	Accuracy @ $I_{PN}$ , $T_A = 25^\circ\text{C}$ (without offset)	$< \pm 1$	% of $I_{PN}$
$e_L$	Linearity ( $0 \dots \pm I_{PN}$ )	$< \pm 1$	% of $I_{PN}$
$V_{OE}$	Electrical offset voltage, $T_A = 25^\circ\text{C}$	$< \pm 40$	mV
$V_{OH}$	Hysteresis offset voltage @ $I_p = 0$ ; after an excursion of $1 \times I_{PN}$	$< \pm 20$	mV
$V_{OT}$	Thermal drift of $V_{OE}$ max.	$\pm 1.5$	mV/K
$TCE_G$	Thermal drift of the gain (% of reading)	$\pm 0.1$	%/K
$t_r$	Response time @ 90% of $I_p$	$< 3$	$\mu\text{s}$
$f$	Frequency bandwidth (-3 dB) <sup>1)</sup>	DC .. 50	kHz

## General data

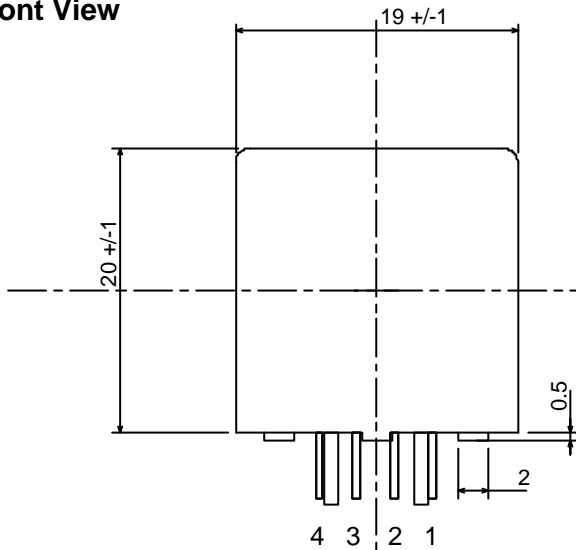
$T_A$	Ambient operating temperature	- 10 .. + 75	$^\circ\text{C}$
$T_S$	Ambient storage temperature	- 15 .. + 85	$^\circ\text{C}$
$m$	Mass	12	g

Notes : EN 50178 approval pending

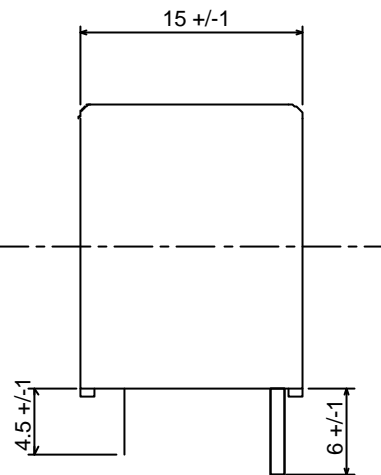
<sup>1)</sup> Derating is needed to avoid excessive core heating at high frequency.

# HAW 03 .. 20-P

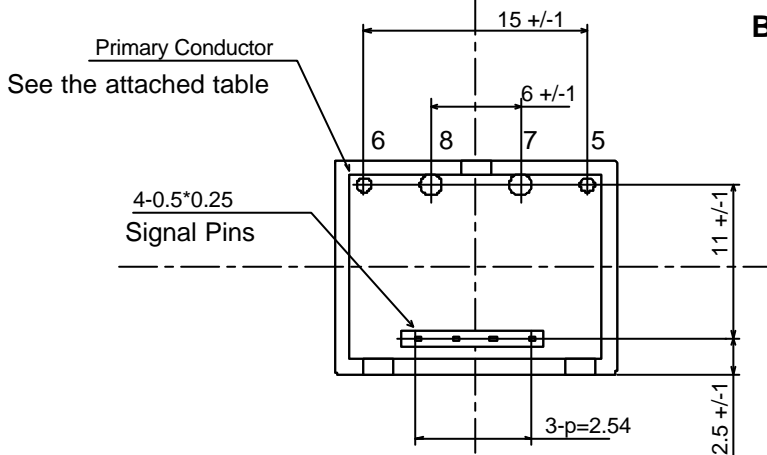
**Front View**



**Right View**



**Bottom View**



**Terminal Pin Identification**

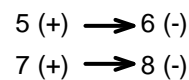
**Primary Conductor**

Part No.	Pin No.	Diameter
HAW 03-P	5-6	0.8 d
HAW 05-P	5-6	0.9 d
HAW 10-P	7-8	1.1 d
HAW 15-P	7-8	1.4 d
HAW 20-P	7-8	1.6 d

**Signal Pins**

1	-Vcc
2	0V
3	+Vcc
4	Output

**Direction of Current Flow**



UNIT : mm