

Current Transducer HAW 07-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).

$$I_{PN} = 7 \text{ A}$$

Preliminary



Electrical data

Primary nominal r.m.s. current I_{PN} (A)	Primary current measuring range I_p (A)	Primary Conductor Diameter (mm)	Type	
7.5	± 19	1.1	HAW 07-P	
V_C	Supply voltage ($\pm 5\%$)		± 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 Ω
V_{OUT}	Output voltage @ $\pm I_{PN}$, $R_L = 10 \text{ k}\Omega$, $T_A = 25^\circ\text{C}$		± 4	V
R_{OUT}	Output internal resistance		100	Ω
R_L	Load resistance		> 10	k Ω

Features

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

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. ± 1.5	mV/K
TCE_G	Thermal drift of the gain (% of reading)	± 0.1	%/K
t_r	Response time @ 90% of I_p	< 3	μs
f	Frequency bandwidth (-3 dB) ¹⁾	DC .. 50	kHz

Advantages

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

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

Applications

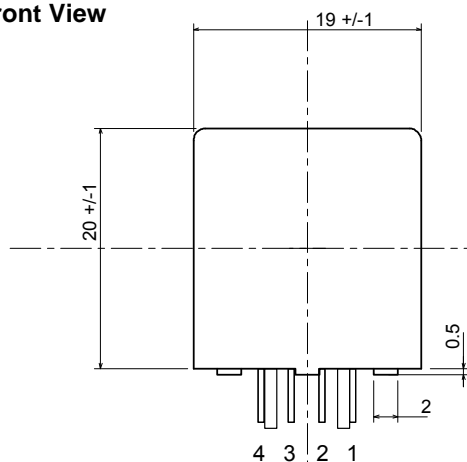
- DC motor drives
- Switched Mode Power Supplies (SMPS)
- AC variable speed drives
- Uninterruptible Power Supplies (UPS)
- Battery supplied applications
- Inverters

Notes : EN 50178 approval pending

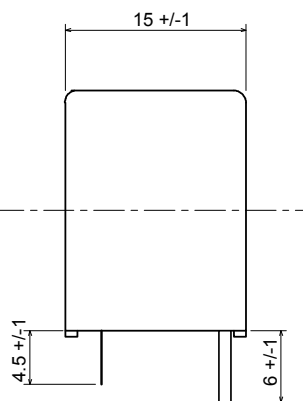
¹⁾ Derating is needed to avoid excessive core heating at high frequency.

HAW 07-P

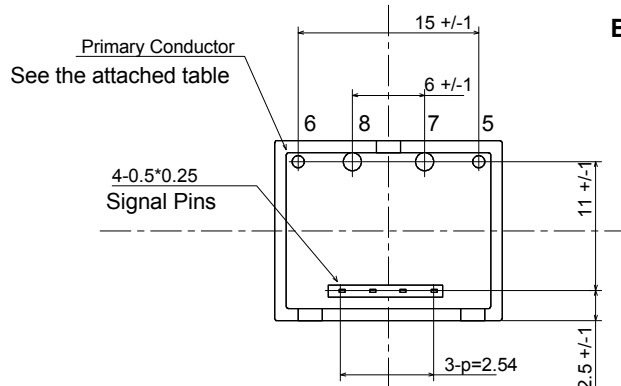
Front View



Right View



Bottom View



Terminal Pin Identification

Primary Conductor			Signal Pins	
Part No.	Pin No.	Diameter	1	2
HAW 07-P	5-6	1.1 d	-Vcc	0V
			+Vcc	Output

Direction of Current Flow

5 (+) → 6 (-)

UNIT : mm
SCALE : 2/1